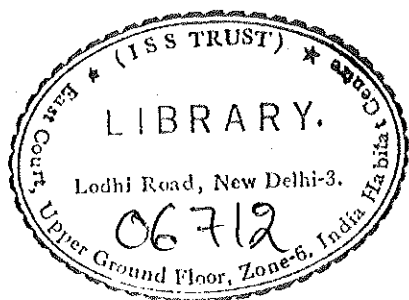


GENDER BUDGET ANALYSIS IN THE STATES OF DELHI AND HIMACHAL PRADESH



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November, 2002

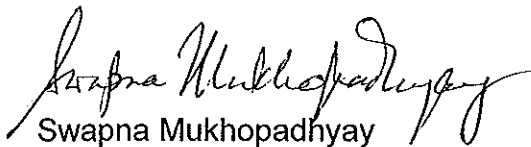


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UNIFEM
New Delhi

Acknowledgement

This report is based on the work done by the Institute of Social Studies Trust during the first year of the project titled "Gender Budget Analysis in the States of Delhi and Himachal Pradesh", which is part of the Gender Budget programme initiated by UNIFEM in India. We are grateful to UNIFEM South Asia Regional office, and to Ms. Chandni Joshi, Regional Director of UNIFEM in South Asia in particular for the offer to ISST to get involved in the project.

The ISST team which has been instrumental in producing this report consisted of Swapna Mukhopadhyay, Shambhu Ghatak, Ranjan Swarankar, Rajib Nandi, Shobna Sonpar, Amita Joshi, Manjushree Mishra, Vishal Goyal, Talha Malik and Mohan Singh. ISST wants to express its appreciation to the team of surveyors in Delhi who had carried out the survey for Food Security in the trans-Jamuna region of Delhi.


Swapna Mukhopadhyay

8th November 2002

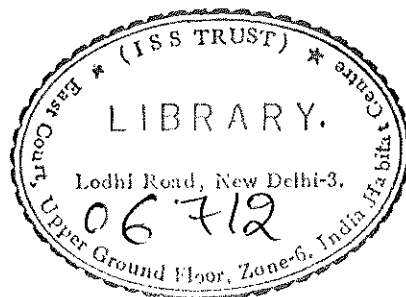


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GENDER BUDGET ANALYSIS IN THE STATES OF DELHI AND HIMACHAL PRADESH

EXECUTIVE SUMMARY

INTRODUCTION

If gender as an analytical category had no economic correlates, there would have been no rationale for analyzing government budget documents from a gender perspective. The perceived need for such analysis arises from the fact that it may indeed not be so. The reason for this could be any or all of the following :

- Public revenue collection processes and expenditure patterns may be different across the gender divide.
- These may have significant gender differentiated impact on the ground, both within the monetized economy, as well as within the non-monetized production economy or within the reproductive sector or the 'care economy' ;
- Analysis of budget allocations would be needed to see to what extent official commitments on alleviation of gender bias in society are matched by commitments in terms of budgetary allocations, and
- The degree to which the potential of gender-sensitive budgeting as an instrument of social transformation is helped or hindered by the nature of implementation processes, may be significantly different from one context to another, and from one country to another.

Any one or a combination of these factors will make a difference to the effect of government budgets on men and women, thereby making budget analysis through the gender lens, a worthwhile exercise to pursue.

In India, budget analysis from a gender perspective is of a fairly recent origin. Very little work has been done on the gender-wise breakdown of budgetary allocations either at the central or at the state level. Very little information on gender disaggregated budget allocations is available ; even less information is available on gender-wise breakdown of actual levels of public expenditure under various budget heads. Similarly, very little research has been done on the gender differentiated impact of public expenditure on the ground --- on different categories of households and within the family. Thus in so far as new researchable topics are concerned, this is an almost uncharted area.

This interim report prepared by the **Institute of Social Studies Trust** on the work done during the first year of the above-mentioned project comprises of an **Executive Summary** and **Annexures I-V**, each detailing the work done under various modules of the project as specified in the project document. These are :

- Analysis of budgetary allocations and actual expenditures in the states of Delhi and Himachal Pradesh from a gender perspective. (**Annexures I and II**)
- Analysis of the health status of the population and the quality of the health service delivery system from a gender perspective in the state of Himachal Pradesh (**Annexure III**)
- Analysis of the issue of Food Security in the country in general and in Delhi state in particular in the light of recent changes in official policy in the Public Distribution System (**Annexure IV**), and
- Preliminary results from a pilot study, including results from a household survey, carried out in two hundred households in four slum clusters in the trans-Jamuna region of Delhi to investigate gender differences in food security issues in the context of recent changes introduced in the functioning of the Public Distribution System. (**Annexure V**).

This summary report pulls together some of the highlights of the findings in five subsections. Details of the work carried out under the project are contained in **Annexures I -V** appended to this **Executive Summary**.

(a) State Budgets in the context of state economies : Delhi and Himachal Pradesh

Before one can assess whether or not state budgets have the potential to change the gender balance in a significant manner, one needs to know how big the budget is in relation to the state economy in terms of size, and how critical it is in shaping the contours of the gender balance in the rest of the system. In the two states that were examined by ISST, the question of relative size and composition of the state budgets was looked into. The basic data on some of these variables in the States of Delhi and Himachal Pradesh along with similar data from a few of the neighbouring states for the purpose of comparison, are presented in the following table.

Table 1 : Some Salient Features of Relevant State Budgets for the year 1999-2000

(1) State	(2) Net State Domestic Product (In Crores of Rupees) ²	(3) State Budget as a% of NSDP ¹	(4) Non-Plan Exp. As a% of State Budget ¹	(5) Revenue Exp. As a% of State Budget ¹	(6) Per Capita Net State SDP (Rupees) ²	(7) % of Population Below the Poverty Line ³
Delhi	49,040	12.05	37.74	59.59	35,705	14.69
Himachal	9,971	47.28	64.26	81.07	15,012	28.44
Punjab	54,960	21.80	88.00	85.11	23,040	11.77
Haryana	41,627	20.08	76.75	83.17	21,114	25.05
UP	164,630	21.03	79.40	83.05	9,765	40.85

Notes : (1) Finance Accounts of different states.

(2) Economic Survey 2000-2001.

(3) As per the Modified Expert Group estimates 1993-94, accepted by the Planning Commission.

It may be noted that among the states represented in the table above, Delhi State, at 12.05%, has the lowest figure for the state budget as a percentage of the size of the state economy, while at 47.28%, Himachal Pradesh, has by far the highest. Considering that in the neighbouring states of Punjab, Haryana and UP, this percentage varies within the range of 20 to 22, it is clear that in Himachal Pradesh, the relative size of the state sector is way above that in all the neighbouring states in the region. This suggests that what happens in the Himachal Pradesh State Budget has a significant implication for what happens in the whole of the state economy, not merely in terms of the position of the state sector as a '*principal agent*' driving the rest of the system, but also in terms of the direct influence it has on the overall patterns of allocation by dint of the sheer weight of the state sector within the economy of the state.

The second thing to note about the data presented in the table is the high percentage of Non-Plan and Revenue expenditures in relation to total expenditure in the states. The best position in this respect is enjoyed by Delhi State, where these percentages are 37.74 and 59.59 respectively. In all the other states, these figures range from roughly 65 to 88 for the share of Non-Plan expenditures, and 81 to 86 for the share of Revenue expenditure respectively. Thus in terms of these variables, it is Delhi which is more of an outlier than Himachal Pradesh.

High shares of Non-Plan and Revenue expenditures to total expenditure in state budgets suggest that much of the allocation goes towards paying salaries and other benefits to state employees, and towards meeting cost overruns in unfinished state projects. Correspondingly much lower amounts are being spent on planned capital expenditures. It is true these are not fully congruent categories and that some of the employee benefits are also included in Plan allocations, but since exact figures on total salary and wage bills are not available from either the Budget documents or the State Finance Accounts, one has to depend on whatever information is available from official sources.

These high percentages noted in most state budgets also indicate the poor fiscal health of state governments. In Himachal Pradesh, this is corroborated by a range of other variables, such as the PD/NSDP (Primary Deficit to Net State Domestic Product) ratio and the ratio of aggregate expenditure that is financed by the own resources of the state. In terms of both these indicators, Himachal Pradesh is about the worst-placed among all major states of India. The PD/NSDP ratio in Himachal had been the highest among all states in 1990-95, and at 8.5%, continues to be the highest among all major states in India in the period 1995-2000. Corresponding figures in Punjab, Haryana and UP are 0.9%, 1.8% and 2.3% respectively. Also, own resources as a percentage of aggregate expenditure in Himachal stands at the lowest among all major states, at a low of only 23%. (Cf. State Finances : A Study of Budgets of 2001-2002. Reserve Bank of India, January 2002)

Thus the high percentage share of the state budget in the state economy in Himachal Pradesh is bought at a rather high price : i.e., in terms of huge fiscal deficits, high dependence on central government largesse and huge salary bills of state government employees, thereby reducing any leverage the state government may have in managing the state budget. Considering that the state budget in HP also accounts for almost half the state economy, the implications for this lack of leverage in all respects, including its implication for the gender dimension of the budget, is clear. The situation at least in this respect in Delhi is far less difficult.

For details of the budget allocations and expenditures in the states of Himachal Pradesh and Delhi, refer to Annexures I and II.

(b) Reading state budgets from a gender perspective : Himachal and Delhi

Reading gender balance in government allocations and expenditures from state budgets is not an easy job. For one thing, most of the budget allocations go in for revisions, so that there are discrepancies between budget estimates and revised estimates, and then there may be differences between the revised estimates and actuals, since the actual expenditures on various budgetary heads can vary significantly from the revised estimates. State Finance Accounts have this information. It is better therefore to consult the Finance Accounts if one is interested in what the actuals are. But the major problem in getting a gendered view of the budgets is not so much in these variations between allocations and expenditures. The major problem is in reading how much of either can be inferred to be going to men and how much to women, given the incompleteness of such information provided in official documents.

According to an established convention in Gender Budget Analysis, budgetary allocations can be divided into three categories. These are (a) women-specific schemes that are specifically targeted to women; (b) pro-women schemes and programmes, of which at least thirty percent of allocated expenses are likely to go to women; and (c) general budgetary allocations which cannot be separated by gender. There is no specific gender information provided in the official documents on items (b) and (c) above, and estimates of total allocated and actual expenditure disaggregated by gender have to be inferred from the incomplete information provided in the Budget documents and the Finance Accounts. The only category on which full information is available in this respect is category (a), i.e., the targeted schemes which are designed fully for women. However even for these, there are at least two kinds of problems. Firstly, Finance Accounts, which provide information on actual expenditure, do not separate them out for targeted schemes. Secondly, and more importantly, both at the Centre and in the states, allocations and expenditures under category (a) are rarely over 1% of the total budget. Thus in estimating the gender breakdown of budgetary allocations, the extent of error is likely to be very high. However given that the

NIPFP report has followed the procedure of adding on 30% of 'pro-women' allocations in category (b) to 100% of the allocation in category (a) to arrive at an estimate of the percentage share of the total budget to women, the same procedure has been followed for both Delhi and for Himachal Pradesh.

In Himachal Pradesh the allocation on 'women-specific schemes and programmes' stood at 0.68% of total budget allocations in the year 1999-2000 and was slightly higher at 0.73% in the year 1997-1998. Out of these, an overwhelmingly high percentage (92.39%) in the year 1999-2000 was in the nature of protective and welfare oriented schemes. In Delhi, 'women-specific schemes and programmes' constituted 0.57% in the year 1999-2000, down from 0.72% in the year 1997-98. Like in Himachal, protective and welfare services was high at 87.40% in the year 1999-2000.

A lot of other departmental allocations such as allocations on education, water supply, housing and urban development, welfare of STs and OBCs etc., although not specifically targeted to women, will generally have a high percentage of women beneficiaries. In line with the convention adopted in recent gender budget analysis, and one that has been followed in the study prepared by NIPFP for the central budget, it has been assumed that 30% of these allocations directly benefit women. After making this assumption and clubbing it with the allocation of specifically targeted schemes, it was found that in Himachal Pradesh, this come to roughly 2.77% of total government expenditure in the state in 1997-1998 and 2.47% in 1999-2000. In Delhi the corresponding figures are 1.58% and 1.33% respectively.

However, it must be noted that this analysis is faulty at best. *One*, the assumption of 30% across the board in category (b) is clearly invalid, and has been used in the absence of information of gender-wise breakdown of actual expenditures. *Two*, even under category (b), the pro-women component has been taken only for specified schemes or programmes under departmental allocations in line with the practice adopted in the NIPFP report. It must be remembered that this severely underestimates the benefits accruing to women on other general allocations which fall outside departmental schemes and programmes. *Three*, the absence of gender-wise disaggregated information on a range of variables, including information on direct beneficiaries of government expenditure such as personnel employed by the government in different departments, makes it impossible to calculate the true impact of government budgets on women. Considering that the Himachal budget accounts for nearly half the net state domestic product and considering that like all state governments, Himachal Pradesh state government will also be more of an equal opportunity employer than the private sector, the percentage of government employees who are women would be relatively high. The same would be true for Delhi. There is no information in budget or finance accounts on salaries and wages paid to government employees or employees under different schemes or programmes, leave alone their gender break down.

(c) Health sector budget in Himachal

The health sector has been more prominent in the state budget of Himachal as compared to other neighbouring states. Expenditure on health and family welfare has hovered around roughly 6% of total expenditure of the state budget, give and take a few decimal points, for the last decade for which figures were consulted. (Cf. Annexure II). It has indeed been much higher than corresponding figures in most Indian states as well as in the Centre. Our analysis of the finance accounts of the state between the years 1992-93 and 2000-2001 shows that this figure has been more or less constant in the ten year period. Within this, however, emphasis has shifted over time from *family welfare* to *public health*. Expenditure on family welfare has shown a relative decline in relation to public health, as has expenditure on public health as percentage of total health sector budget. The component which has shown an increasing trend over the years is expenditure on rural health services. However, it must be remembered that even as late as in 2000-2001, rural health services stood at only 2.21% of total expenditure, compared to 1.51% on urban health services. Considering that close to 90% of population is concentrated in rural areas in Himachal Pradesh, there continues to be a serious bias per capita against health expenditure in rural areas.

Although it is difficult to read with any degree of certainty the influence of such budgetary trends specifically on women, some inferences can be made on the basis of changes in the trends in budgetary allocations. On the one hand one could say that the declining share of family welfare in the state budget from 1.71% in 1992-93 to 0.91% in 1995-96 and down to 0.66% in 2000-2001 suggests declining importance of women's welfare and lowering of emphasis of MCH programmes in relative terms. At the same time rising share of rural health services indicates relatively better allocations for catering to women's health needs since the sex ratio in rural areas in Himachal Pradesh is higher than it is in urban areas. However, as mentioned earlier, the rural/urban discrepancy in provisioning of health services in Himachal Pradesh continues to be very acute. Difficult terrains, inadequate infrastructural facilities, a bloated state bureaucracy and poor fiscal health in conjunction with low presence of the private sector in the state are all factors that have implications for the quality of health service delivery for women.

Details on the health status of women and men in Himachal Pradesh are contained in Annexure III.

(d) Issues of food security in Delhi

The issue of food security in India in general and Public Distribution System (PDS) in particular has come in for much discussion in recent times. It has been argued that the emergence of the country from a food-deficit status to a status of self sufficiency in food at the macro level does not necessarily mean that

problems of food scarcity and malnutrition have been solved across the board. This debate assumes increasing relevance in the face of questions on food subsidies, the modus operandi of the Food Corporation of India (FCI) and recent changes in the PDS from universal (albeit incomplete) coverage to a two-tier system through identification of 'below poverty line' (BPL) households. In the present context, an additional issue of relevance is the likely gendered implications of all these factors. A literature survey in this respect suggests that while in general the evidence on gender discrimination in intra-household distribution in food is not very clear, the evidence from South Asia seems to suggest that there indeed is a fair amount of discrimination against women and young girls within households in the matter of distribution of food.

A review of the experience of running the Public Distribution System in India in the context of the issue of food security and its implications for gender is contained in *Annexure IV*.

(e) Preliminary results from a pilot study on food security in Delhi slums

A pilot study was carried out in four slum clusters in the trans-Jamuna region of Delhi state to find out if there has been any gender-differentiated impact of recent changes in the food policy of the government with special reference to changes in the Public Distribution System. ISST had conducted Focus Group Discussions, Key Informant Interviews and had carried out a Household Survey on a pilot basis with a view to elicit information in this regard.

The ISST Survey team had been working in the field in 2000-2001, at the same time when the official survey was on for locating Below Poverty Level (BPL) households in the area as a precursor to putting the altered version of the PDS on the ground. Focus Group Discussions with residents and direct observation by our team members revealed a whole range of anti-poor and anti women problems in the implementation process. Discussions with residents and some key informants revealed that even before this round of the reformulated PDS, in fact even during the period in the late '90's when the Targeted PDS was supposed to have been implemented in this area, similar problems had persisted. A household survey in 200 resident households corroborate the findings from FGD's that very few households from the patently 'poor sites where the ISST study had been located, had actually benefited from the reformulated official version of the PDS, thereby negating the utility of the whole process in ensuring the provisioning of nutritious food in adequate quantities to members of poor households in the study locations. Women suffer more than men as they are burdened with the additional task of home management and usually end up with the worst deal in terms of the quantity and quality of the food they eat after providing for men and children in the households.

The ISST research team found that the process of identification of BPL households adopted by the official survey teams to be fraught with problems. A pilot survey conducted in 200 households in the locality showed pervasive malnutrition in the study locations suggesting the need for universal access to nutritious food in adequate quantities to the entire population of the area.

The evidence on BMI scores collected from sample households suggest significant gender differences in the pattern of malnutrition. While large percentages of both men and women from these households suffer from chronic energy deficiency (CED), the patterns are different between men and women. More women than men suffer from the severest form of malnutrition – i.e. CED level indicating third degree malnutrition. Also the data suggest strong links between women's malnutrition incidence and household incomes; a feature that is not borne out by male CED figures. These findings suggest interesting implications for gender differences in food security and nutritional levels in the study sites which need further probing.

Details of the study are contained in Annexure V appended to this report.

8 November 2002
New Delhi

Annexure - I

**Budget Analysis of Delhi State with Special
Focus on Gender and Food Security**

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EXECUTIVE SUMMARY

The objective of doing the budget analysis of Delhi, with a special focus on gender, is to understand the priorities of the state government and to find whether the government spends for providing basic amenities to its citizens. By studying the gender component in the budget, we have tried to locate the government's interest in the empowerment of women—socially, economically and politically. Moreover, expenditure made by the government on special nutrition programmes has also been looked into in this Report.

This Report on Delhi Budget analyses the expenditure and revenue patterns of the government of Delhi for the period 1995-96 to 2000-01, with a view to understand the gender differentiated implication of government policy in the state schemes with special reference to food policy in general and Public Distribution System (PDS) in particular.

Since as in all budgets, state and central, the gender differentiated impact is not easy to read, our attempt here has been to analyse the budget figures in different sectors/areas over time and extricate the possible impact on gender from these general trends. This Report should be read in conjunction with the Report prepared under the project on PDS for an understanding of the structure of the state budget from the point of view of food security for men and women of the state of Delhi.

To understand the nature of Delhi state budget, it is essential to use Finance Accounts as the source of data, which gives the actual expenditure, instead of revised or budget estimates. But the Finance Accounts does not provide enough information regarding various schemes for which the government spend money. It is imperative to study the Finance Accounts to know the allocation of Budget for different services (sectors). By looking into the expenditure made by the government on various services—economic and social services, we can get a trend for the period 1995-96 to 2000-01. By looking into the Section-Social Services, we get that in the case of general education, Delhi government has given more stress on secondary education compared to primary education. The share of general education in total social services expenditure is higher than that of technical education. Medical and public health expenditure as a percentage of total expenditure is around 10%, which rose to more than 11% for the period 1998-99 to 2000-01. Expenditure on public health has shown a decline from 0.55% in 1996-97 to 0.31% in 2000-01, which is disappointing. Expenditure on the welfare of SCs is too meagre. The share of social services expenditure on social welfare has been more than 2.5% in almost all the years which we have studied.

In the Section-Social Services and Analysis of its Broad Categories, we have looked into 4 major categories—education, sports, arts and culture; health and family welfare; water supply, sanitation, housing and urban development; and

welfare of SCs, STs and OBCs. The share of total expenditure on education, sports, arts and culture has been more than 25%, on health and family welfare has been around 10%, on water supply, sanitation, housing and urban development has been around 10% and the on the welfare of SCs, STs and OBCs has been around 1%.

In the Section-Economic Services, we have looked into the subcategories under the major headings i.e. agriculture and allied activities and transport. Total expenditure on subcategories like crop husbandry, animal husbandry, dairy development, fisheries, forestry and wildlife and co-operation is very little. Expenditure on roads and bridges has been around 6% and on road transport has shown fluctuations.

In the Section-Economic Services and Analysis of its Broad Categories, we have into the 4 broad categories—agriculture and allied activities; rural development; irrigation and flood control; industry and minerals; and transport. Total expenditure on agriculture and allied activities has shown fluctuations around 1%, on rural development has shown a decline from 2.41% in 1996-97 to 0.50% in 2000-01, on irrigation and flood control has been more than 5%, on industry and minerals has shown fluctuations and on transport has been more than 8%.

In the Section-Social Welfare and Nutrition, we have looked into the social services expenditure (in the revenue account) and total revenue expenditure on nutrition for the period 1995-96 to 2000-01. The share of social services expenditure (in the revenue account) on nutrition has shown a fall from 2.28% in 1997-98 to 0.80% in 1999-2000. The share of revenue expenditure on nutrition has shown a decline from 1.49% in 1997-98 to 0.47% in 1999-2000.

In the Section-Comparison between Social and Economic Services Expenditure, we have found that total expenditure social services is greater than that on economic services for the period 1995-96 to 2000-01. This shows that the focus of the Delhi government is on providing social services to its citizens.

In the Section-Structure of Social Services and Economic Services Expenditure, we have found that that education, sports, arts and culture gets the maximum priority under social services and transport gets the maximum priority under economic services.

For understanding the expenditure made by the government for the empowerment of women, it is necessary to look at various schemes/programmes for which the government spends money. In order to understand the gender part of expenditure, we have consulted the Budget Documents for the years 1999-2000 and 2001-02. In the Section-Women Specific and Pro-Women Programmes/Schemes, by adding the pro-women component of the budget with the women-specific allocation (the women component was assumed to be 30% in case of expenditure on programmes/schemes, which has a pro-women

allocation, due to lack of information regarding the women component in the budget document) we have got the total expenditure on women, which as a percentage of total government spending comes around 1.33% in 1999-2000 and 1.58% in 1997-98. Some of the programmes adopted, which have pro-women allocation, are Financial Assistance to Non-displaced Destitute Men, Women and Children for raising Health Hygiene, Nutritional Status through Distribution of Mini-kits for SC/ST etc.

For the year 1999-2000, the share of Protective and Welfare Services in the Specifically Targeted Programme is 87.40%, while that of Social Services is 1.55%, Economic Services is 9.41% and Regulatory Services and Awareness Generation is merely 1.64% in the Specifically Targeted Programme. For the year 1997-98, the share of Protective and Welfare Services in the Specifically Targeted Programme is 99.65%, while that of Economic Services is 0.35%. The share of both Social Services Expenditure and Regulatory Services and Awareness Generation in the Specifically Targeted Programme is 0%. Some of the women-specific programmes undertaken in Delhi are Day Care Centre, Stipend to Girl Students, Assistance to Women Entrepreneurs (Women Welfare Scheme for Self-Employment) etc.

INTRODUCTION

Delhi Finance Accounts (from 1995-96 to 2000-01) provide expenditure of the state government on various social and economic services like nutrition (i.e. Special Nutrition Programmes, mid-day meal programmes), water supply and sanitation etc., which helps us to know the government's priority area for socio-economic development. (*The Total Expenditure which is mentioned in our analysis means Revenue Expenditure and Capital Expenditure*).

For looking into the gender component of the budget, we have consulted the Budget Documents of 1999-2000 and 2001-2002. We have found the women specific and pro-women expenditure of the government for the years 1997-98 and 1999-2000.

SOCIAL SERVICES*

(A) Education, Sports, Arts and Culture

Education-sector has mainly 2 components—General (2202, 4202-01) and Technical (2203, 4202-02). General Education has mainly 2 components—Elementary Education (01,201) and Secondary Education (02,202). The component University and Higher Education has not been looked in our analysis since the Capital Account expenditure made on this service is not provided in the Finance Accounts.

The other components of General Education are Adult Education (2202-04), Language Development (2202-05) and General (2202-80), which we have not analyzed since the Capital Account expenditures on these services is not provided in the Finance Accounts.

General Education—Elementary Education and Secondary Education

In the case of General Education, Delhi Government has given more stress on Secondary Education compared to Primary Education. This can be seen from Table-1. The total expenditure on Secondary Education as a percentage of total Social Service Expenditure has been higher compared to that of Elementary Education for the period 1995-96 to 2000-01. The share of Elementary Education in the total Social Service Expenditure has declined from 10.51% in 1995-96 to 7.74% in 2000-01, except 9.53 % in the year 1999-2000. The share of Elementary Education in the Total Expenditure has shown a fall from about 5.5% in 1995-96 and 1996-97 to around 5% in the later years.

The share of Secondary Education Expenditure in the Social Service Expenditure has shown a rise from 30.66% in 1995-96 to 38.45% in 1998-99, followed by a fall to 34.36% in 1999-00 and 29.79% in 2000-01. The share of Secondary

* See Table 1.

Education in the Total Expenditure has shown a rise from 16.02 % in 1995-96 to 22.73% in 1998-99, followed by a fall to 18.18% in 1999-00 and 16.47% in 2000-01.

General Education & Technical Education

The share of General Education Expenditure in total Social Services Expenditure is higher than that of Technical Education. The share of General Education Expenditure in the total Social Services Expenditure is more than 40% in the time-period 1995-96 to 2000-01, which shows that General Education has been given more emphasis compared Technical Education.

The share of total General Education Expenditure in total Expenditure is higher than that of Technical Education. The share of total General Education Expenditure in the total Expenditure is more than 22% in the time-period 1995-96 to 2000-01.

(B) Health and Family Welfare

Health is an important area and government expenditure on this sector needs to be looked into. From the Finance Accounts, we can't get the separate expenditure on health for women and men. However it is important to know how much amount of the Social Service Expenditure and Total Expenditure is made on health.

Medical and Public Health

Before going further, it is important to look at the expenditure on Medical and Public Health (2210, 4210). Medical and Public Health Expenditure as a percentage of Total Social Service Expenditure is around 18% from 1995-96 to 1998-99, which rose to more than 20% for the years 1999-00 and 2000-01. Medical and Public Health Expenditure as a percentage of Total Expenditure is around 10%, which rose to more than 11% for the period 1998-99 to 2000-01.

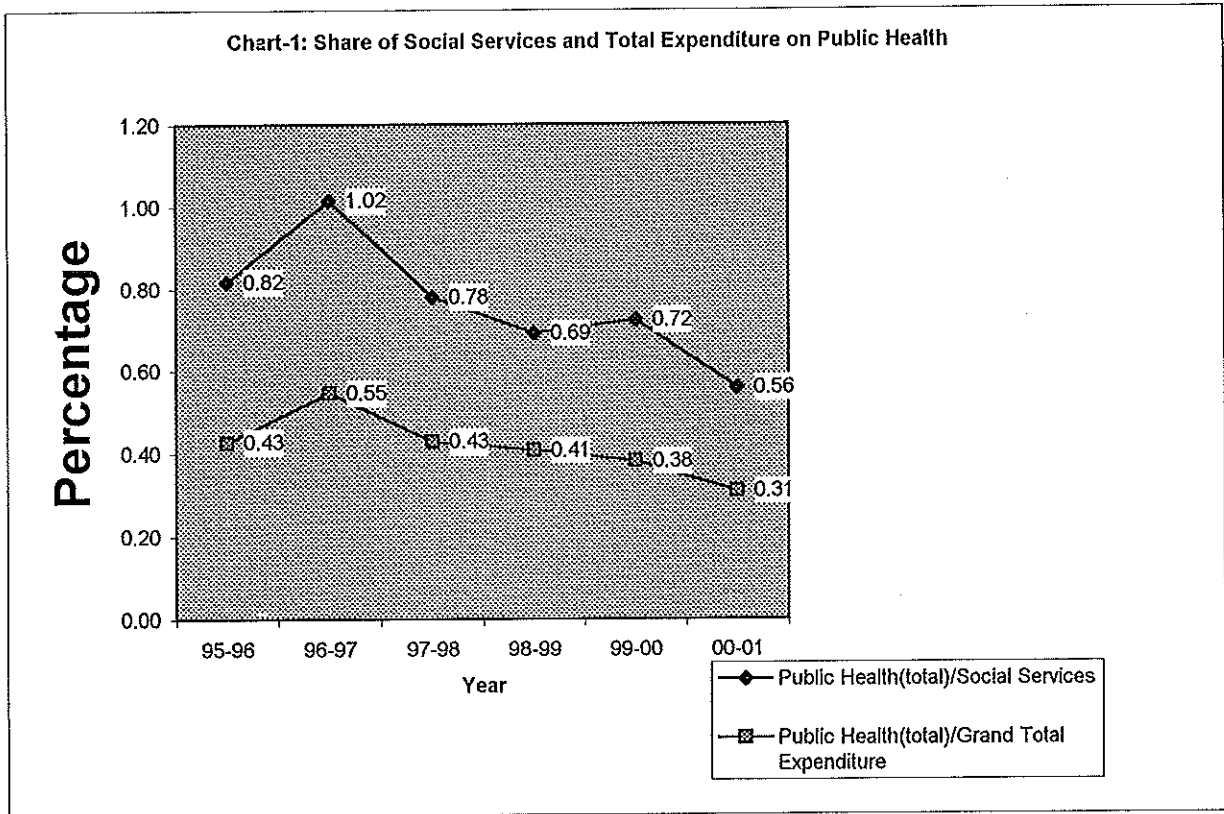
Urban Health Services

The share of total Social Service Expenditure on Urban Health Services (2210-01, 4210-01) is around 16% from 1995-96 to 1998-99; which rose to its peak at 18.56% in 1999-00 and then dropped to 15.17% in 2000-01. The share of Total Expenditure on Urban Health Services has been more than 8 %.

Public Health

The share of Social Services Expenditure on Public Health (2210-01, 4210-04) is marginal and has shown fluctuations. The share of Total Expenditure on Public

Health has shown a decline from 0.55% in 1996-97 to 0.31% in 2000-01, which is disappointing, as can be seen from the Chart-1.



(C) Water Supply, Sanitation, Housing and Urban Development

The expenditure categories like water supply and sanitation could not be probed since the Finance Accounts does not provide the Capital Account expenditure on such services.

Government Residential Buildings

The share of Social Services Expenditure on Government Residential Buildings has shown a steady decline from 2.12% in 1995-96 to 1.10% in 2000-01, except a small rise to 1.53% in 1999-2000. The share of Total Expenditure on Government Residential Buildings has shown a steady decline from 1.11% in 1995-96 to 0.61% in 2000-01.

(D) Welfare of SCs, STs and OBCs

The main category under Welfare of SCs, STs and OBCs is Welfare of SCs (2225-01, 4225-01). The Social Services and Total Expenditures on Welfare of STs & OBCs could not be found because data is not available for the Capital Accounts part.

Welfare of SCs

The share of Social Services Expenditure on the Welfare of SCs has declined from 1.14% in 1996-97 to 0.22% in 1998-99. The share of Total Expenditure on the Welfare of SCs has shown a decline from 0.61% in 1996-97 to 0.13% in 1998-99. This is a cause for concern.

(E) Social Welfare and Nutrition

Under Social Welfare we need to look at the Government expenditure on Welfare of Handicapped (02-101), Welfare of Children (02-102), Welfare of Women (02-103) and Welfare of Aged, Infirm and Destitute (02-104).

Welfare of Handicapped

The share of Social Services Expenditure on Welfare of Handicapped has shown a rise from 0.30% in 1995-96 to 0.34% in 1997-98, followed by a fall to 0.26% in 2000-01. The share of Total Expenditure on Welfare of Handicapped has shown a rise from 0.16% in 1995-96 to 0.20% in 1998-99, followed by a fall to 0.14% in 2000-01.

Welfare of Children

The share of Social Services Expenditure on Child Welfare has shown a decline from 0.90% in 1995-96 to 0.53% in 2000-01, except a marginal rise to 0.81% in 1998-99. The share of Total Expenditure on Child Welfare too has shown a decline from 0.47% in 1995-96 to 0.29% in 2000-01, except a marginal rise to 0.48% in 1998-99.

Welfare of Women

The share of Social Services Expenditure on Women's Welfare has shown a rise from 0.13% in 1995-96 to 0.24% in 2000-01, though it is quite small compared to the share of Social Services Expenditure on Welfare of Children, Handicapped etc.

The share of Total Expenditure on Women's Welfare too has shown a rise from 0.07% in 1995-96 to 0.13% in 2000-01, except a fall to 0.11% in 1999-2000.

Welfare of Aged, Infirm and Destitute

The share of Social Services Expenditure on the Welfare of Aged, Infirm and Destitute has shown fluctuations, but remained at more than 1% for all the years in the period 1995-96 to 2000-01.

The share of Total Expenditure on the Welfare of Aged, Infirm and Destitute has shown fluctuations, but remained at more than 0.5%.

Social Welfare

The share of Social Services Expenditure on Social Welfare (2235-02, 4235-02) has shown a rise from 2.90% in 1995-96 to 3.18% in 1998-99, but dropped to 2.96% in 1999-2000 and 2.61% in 2000-01.

The share of Total Expenditure on Social Welfare has shown a rise from 1.51% in 1995-96 to 1.88% in 1998-99, followed by a fall to 1.57% in 1999-00 and 1.44% in 2000-01.

Social Security and Welfare

The share of Social Services Expenditure on Social Security and Welfare (2235, 4235) has shown fluctuations with a high of 8.55% in 1996-97 and a low of 0.49% in 1999-00.

The share of Total Expenditure on Social Security and Welfare has too shown fluctuation with a high of 4.59% in 1996-97 and a low of 0.26% in 1999-2000.

Expenditure on Labour and Employment—

It is pertinent for us to understand the state government's expenditure on labour (2230-01, 4250-201) and employment (2230-02, 4250-203) since the standard of living condition of the people can be improved if people have jobs in their hands. The share of Social Services expenditure on Labour has remained more or less constant at 0.22% but dipped to 0.17% in 2000-01. The share of Total Expenditure on Labour has shown a decline from 0.14% in 1997-98 to 0.09% in 2000-01.

The share of Social Services Expenditure on Employment has shown a fall from 0.41% in 1995-96 to 0.18% in 2000-01, except 0.30% in 1997-98. The share of Total Expenditure on Employment has also shown a decline from 0.21% in 1995-96 to 0.10% in 2000-01, except 0.17% in 1997-98.

The figures given in the table-1 shows that the state government's emphasis on labour and employment is very less compared to the other social services like education, health etc.

SOCIAL SERVICES AND ANALYSIS OF ITS BROAD CATEGORIES*

Now we will analyze the allocation of Social Services and Total Expenditure on the 5 major categories—

(A) Education, Sports, Arts and Culture—

The share of Social Services Expenditure on the Education, Sports, Arts and Culture has shown a rise from 47.99% in 1995-96 to 56.83% in 1998-99, followed by a fall to 51.01% in 1999-00 and 44.19% in 2000-01.

The share of Total Expenditure on Education, Sports, Arts and Culture has shown a rise from 25.08% in 1995-96 to 33.59% in 1998-99, followed by a fall to 26.99% in 1999-2000 and 24.42% in 2000-01.

(B) Health and Family Welfare

The share of Social Services Expenditure on Health and Family Welfare has shown a rise from 18.78% in 1996-97 to 21.36% in 1999-00, but dropped to 20.90% in 2000-01.

The share of Total Expenditure on Health and Family Welfare has been close to 10% for all the years for the period 1995-96 and 1997-98 but rose to around 11% every year thereafter.

(C) Water Supply, Sanitation, Housing and Urban Development

The share of Social Services Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a fall from 22.83% in 1995-96 to 16.88% in 1998-99, followed by rise to 20.57% in 1999-2000 and 28.87% in 2000-01.

The share of Total Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a fall from 11.93% in 1995-96 to 9.98% in 1998-99, followed by a rise to 10.88% in 1999-2000 and 15.96% in 2000-01.

(D) Welfare of SCs, STs and OBCs—

The share of Social Services Expenditure on Welfare of SCs, STs and OBCs has shown fluctuation with a high of 1.18% in 1996-97 and a low of 0.09% in 2000-01.

The share of Total Expenditure on Welfare of SCs, STs and OBCs has too shown fluctuation with a high of 0.64% in 1996-97 and a low of 0.05% in 2000-01.

* See Table 1.

ECONOMIC SERVICES*

(A) Agriculture and Allied Activities

Under Agriculture and Allied activities, the main categories are Crop Husbandry (2401, 4401), Soil and Water Conservation (2402, 4402), Animal Husbandry (2403,4403); Dairy Development (2404, 4404), Fisheries (2405, 4405), Forestry and Wildlife (2406, 4406) and Co-operation (2425, 4425).

The share of Economic Services Expenditure on Crop Husbandry has shown fluctuation with a high of 1.27% in 1998-99 and a low of 0.84% in 1996-97. The share of Total Expenditure on Crop Husbandry has too shown fluctuation with a high of 0.20% in 1998-99 and a low of 0.16% in 2000-01.

The shares of Economic Services Expenditure and Total expenditure on Soil and Water Conservation have been marginal and shown fluctuations.

The share of Economic Services Expenditure on Animal Husbandry has shown a fall from 1.72% in 1995-96 to 0.94% in 1997-98, followed by a rise to 1.33% in 1998-99, which dipped to 1.25% in 1999-2000 and 1.24% in 2000-01. The share of Total Expenditure on Animal Husbandry has shown a fall from 0.31% in 1996-97 to 0.19% in 2000-01, except a rise to 0.21% in 1998-99.

The share of Economic Services Expenditure on Dairy Development has shown fluctuation with a high of 0.65% in 1997-98 and a low of (-) 0.08% in 1999-2000 (the negative percentage share is arising out of negative revenue expenditure of Rs. 47,96,000). The share of Total Expenditure on Dairy Development has been marginal.

The share of Economic Services Expenditure on Fisheries has shown fluctuation with a high of 0.12% in years 1995-96 and 1998-99, and a low of 0.08% in the years 1996-97 and 1997-98. The share of Total Expenditure on Fisheries has remained constant at 0.02% for all the years in the time-period 1995-96 to 1999-2000.

The share of Economic Services Expenditure on Forestry and Wildlife has shown fluctuation with a high of 3.32% in 1996-97 and a low of 1.62% in 1999-2000. The share of Total Expenditure on Forestry and Wildlife has too shown fluctuation with a high of 0.68% in 1996-97 and a low of 0.24% in 1999-2000.

The share of Economic Services Expenditure on Co-operation has shown fluctuation with a high of 0.61% in 1995-96 and in 1998-99, and a low of 0.38% in 1996-97. The share of Total Expenditure on Co-operation has shown fluctuation with a high of 0.10% in 1997-98 and a low of 0.06% in 2000-01.

* See Table 2.

(B) Rural Development

This will be discussed later when we will be discussing the broad categories.

(C) Irrigation and Flood Control

This will be discussed later when we will be discussing the broad categories.

(D) Industry and Minerals

This will be discussed later when we will be discussing the broad categories.

(E) Transport

There are mainly 2 sub-categories under Transport – Roads and Bridges (3054, 5054) and Road Transport (3055, 5055).

Roads and Bridges

The share of Economic Services Expenditure on Roads and Bridges fell from 53.40% in 1995-96 to 27.51% in 1997-98 and again rose to 42.71% in 1998-99 and 49.26% in 1999-2000; and dipped to 48.67% in 2000-01. The share of Total Expenditure on Roads and Bridges fell from 7.56% in 1995-96 to 5.88% in 1997-98, rose to 6.73% in 1998-99 and 7.42% in 1999-2000, and fell again to 7.39% in 2000-01.

Road Transport

The share of Economic Services Expenditure on Road Transport has shown fluctuation with a low of 1.46% in 1995-96 and a high of 46.29% in 1997-98. The share of Total Expenditure on Road Transport has also shown fluctuation with a low of 0.21% in 1995-96 and a high of 9.90% in 1997-98.

ECONOMIC SERVICES AND ANALYSIS OF ITS BROAD CATEGORIES

Now we will analyze the allocation of Economic Services and Total Expenditures on the 5 major categories.

(A) Agriculture and Allied Activities

The share of Economic Services Expenditure on Agriculture and Allied Activities has shown fluctuation with a high of 6.73% in 1996-97 and a low of 4.43% in 1997-98. The share of Total Expenditure on Agriculture and Allied Activities has too shown fluctuation with a high of 1.39% in 1999-2000, and a low of 0.74% in 1999-2000.

(B) Rural Development

The share of Economic Services Expenditure on Rural Development has shown a decline from 13.86% in 1995-96 to 3.29% in 2000-01. The share of Total Expenditure on Rural Development has shown a decline from 2.41% in 1996-97 to 0.50% in 2000-01. It seems that with growing urbanization, the expenditure made on Rural Development is declining.

(C) Irrigation and Flood Control

Irrigation is important for the success of agriculture. The share of Economic Services Expenditure on Irrigation and Flood Control has shown a fall from 11.17% in 1995-96 to 5.91% in 1997-98 and rose to 8.85% in 1998-99, and again fell to 8.36% in 1999-2000 and 8.16% in 2000-01.

(D) Industry and Minerals

It is pertinent to know the level of government expenditure on Industry and Minerals so that we can get to know how much importance the government gives to this sector compared to Agriculture and Allied Activities.

The share of Economic Services Expenditure on Industry and Minerals has shown fluctuation with a high of 6.61% in 2000-01 and a low of 2.17% in 1997-98. The share of Total Expenditure on Industry and Minerals has fluctuated with a high of 1.30% in 1996-97 and a low of 0.32% in 1995-96.

(E) Transport

The share of Economic Services Expenditure on Transport has shown a rise from 58.13% in 1995-96 to 74.31% in 1997-98; and thereafter in the following years has shown fluctuation. The share of Total Expenditure on Transport rose from 8.23% in 1995-96 to 15.89% in 1997-98; and thereafter in the following years has shown fluctuation.

SOCIAL WELFARE AND NUTRITION*

Let us look into the Social Services Expenditure (in the Revenue Account) and Total Revenue Expenditure on Nutrition (2236) (since the Capital Account counterpart is not given in the Finance Accounts), for the period 1995-96 to 2000-01.

* See Table 3.

Expenditure on Special Nutrition Programmes has shown a decline from 1.48% in 1997-98 to 0.43% in 1999-2000 and then a fall to 0.54% in 1995-96 as shown in the Chart-2.

Mid-Day Meals

The share of Social Services Expenditure (in the Revenue Account) on Mid-Day Meals (02-102) has remained constant at 0.01% from 1995-96 to 1998-99, and then rose to 0.06% in 1999-2000 and 0.61% in 2000-01. The share of Revenue Expenditure on Mid-Day Meals has remained constant at 0.01% between 1995-96 and 1998-99, followed by a rise to 0.03% in 1999-2000 and 0.35% in 2000-01 as shown in the Chart-2.

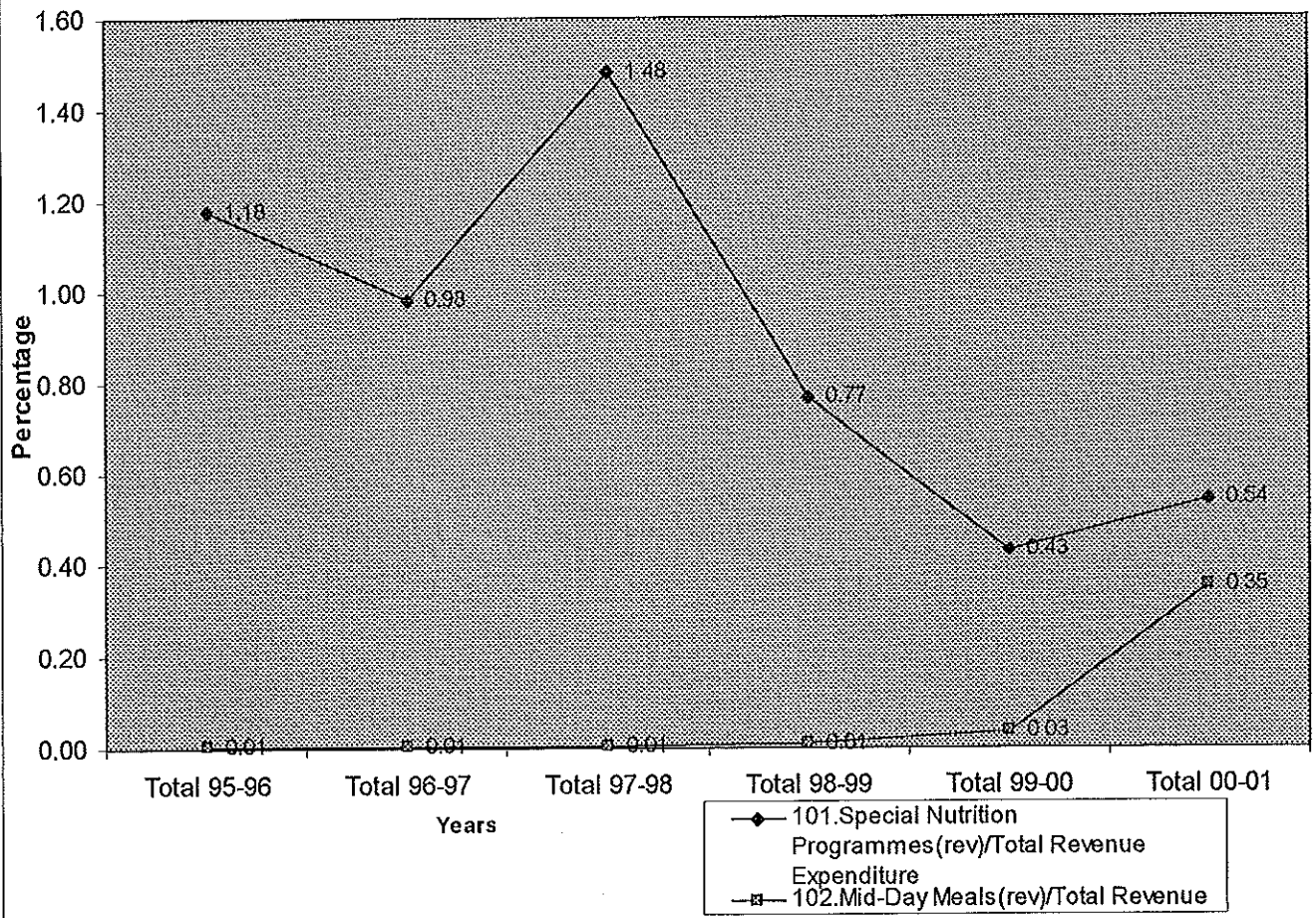
Distribution of Nutritious Food and Beverages

The share of Social Services Expenditure (in the Revenue Account) on Distribution of Nutritious Food and Beverages (02) has shown a fall from 2.28% in 1997-98 to 0.80% in 1999-2000. The share of Revenue Expenditure on Distribution of Nutritious Food and Beverages has shown a decline from 1.49% in 1997-98 to 0.47% in 1999-2000.

Nutrition

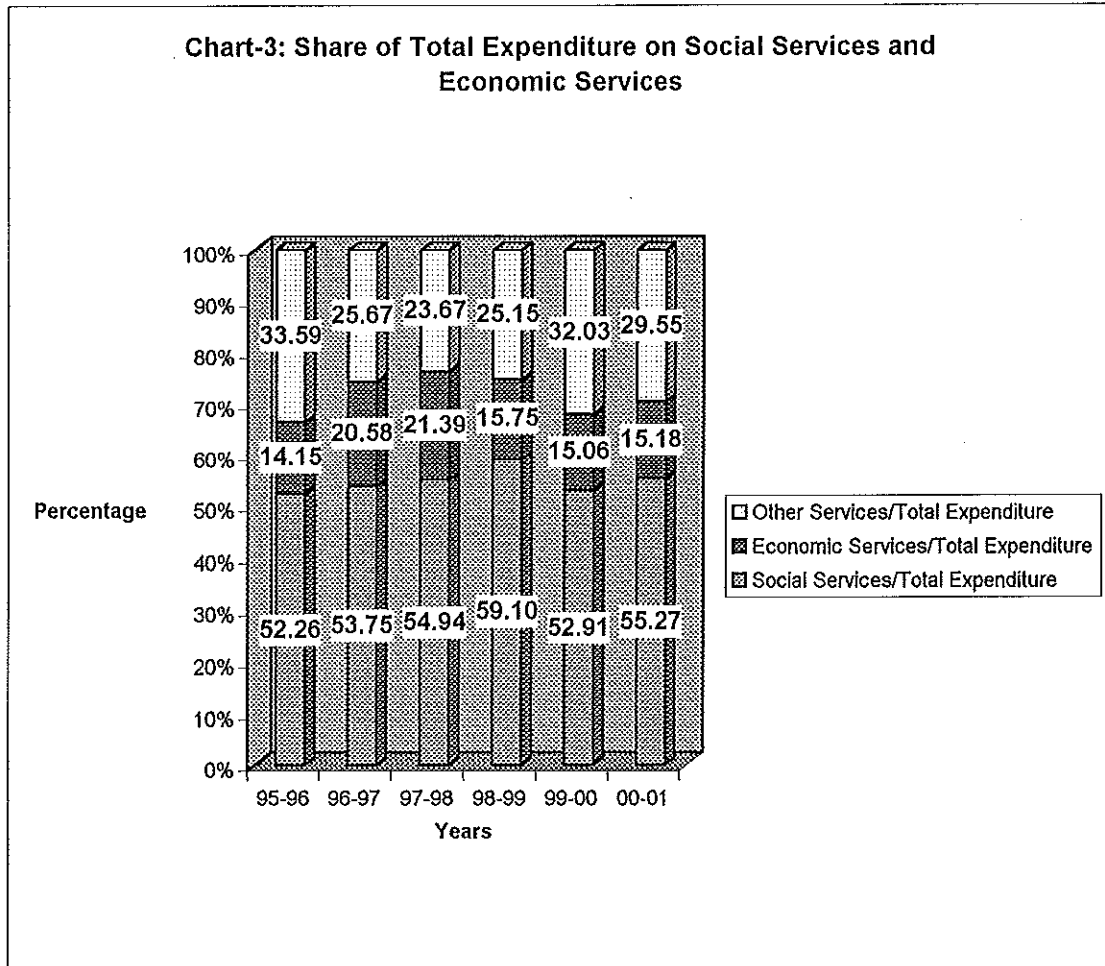
The share of Social Services Expenditure (in the Revenue Account) on Nutrition (2236) has shown a fall from 2.28% in 1997-98 to 0.80% in 1999-2000. The share of Revenue Expenditure on Nutrition has shown a decline from 1.49% in 1997-98 to 0.47% in 1999-2000.

Chart-2: Share of Revenue Expenditure on Special Nutrition Programmes and Mid-Day Meals Programmes



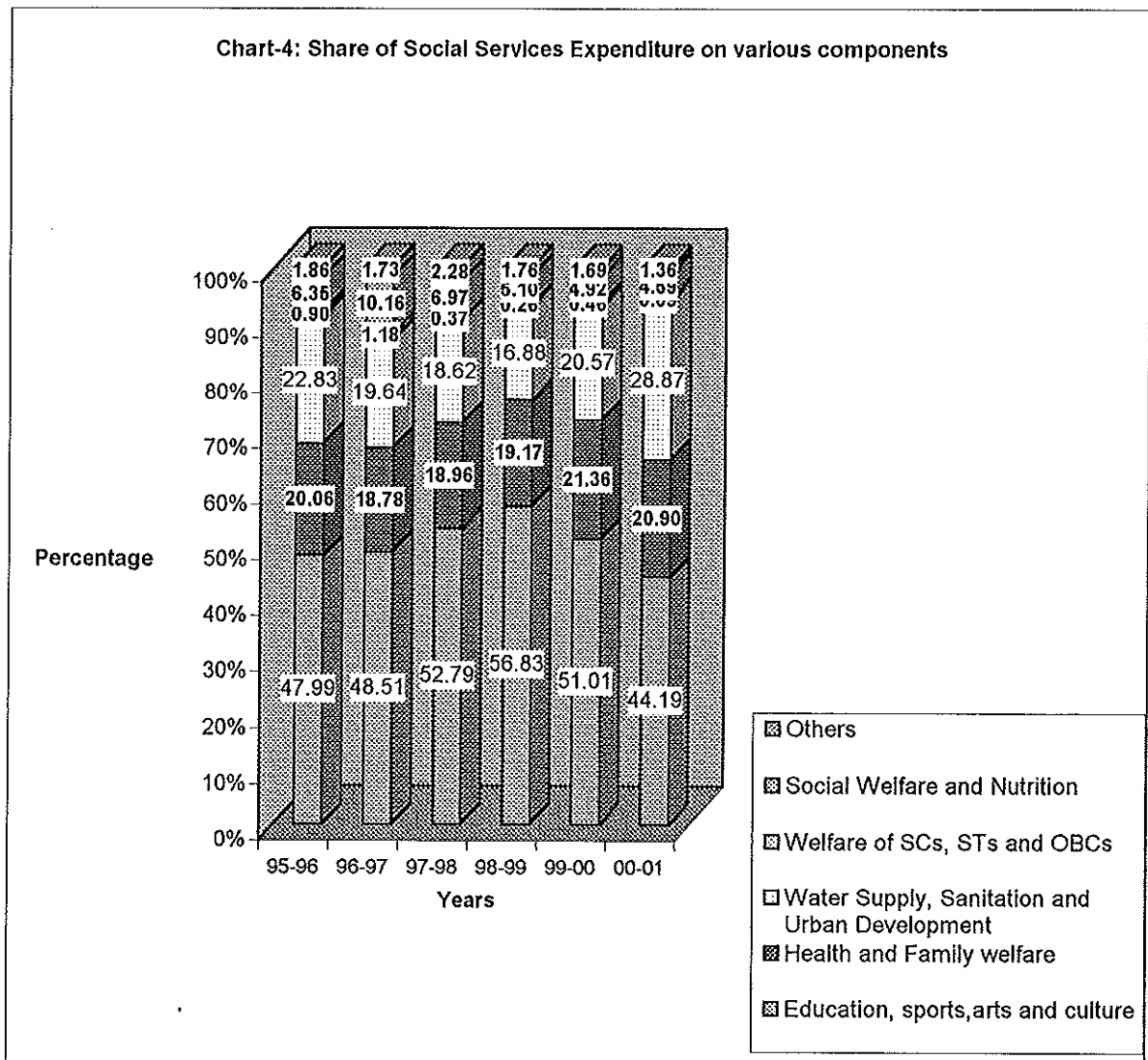
COMPARISON BETWEEN SOCIAL AND ECONOMIC SERVICES EXPENDITURE

Share of Total Expenditure on Social Service is greater than that on Economic Services for the period 1995-96 to 2000-01. We can understand this by the help of the Chart-3, shown below.

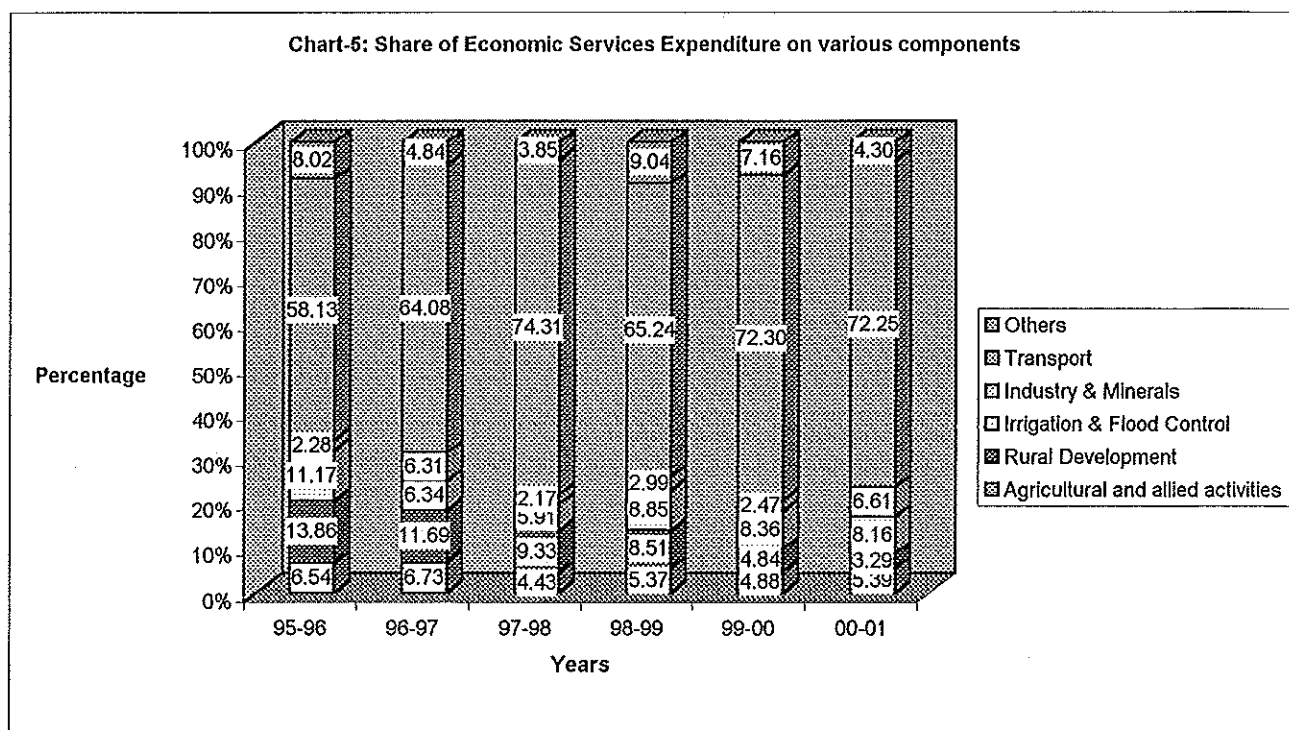


STRUCTURE OF SOCIAL SERVICES AND ECONOMIC SERVICES

We will now see how the total Social Services Expenditure is made on different categories and see its trend over the years. We find that Education, Sports, Arts and Culture receive the maximum priority by the Delhi State government, when it comes to Social Services, as revealed from the Chart-4.



We will now see how the total Economic Services Expenditure is made on different categories and see its trend over the years. We find that Transport receive the maximum priority by the Delhi State government, when it comes to Economic Services.



WOMEN SPECIFIC AND PRO-WOMEN PROGRAMMES /SCHEMES

It is essential for us to know the importance of Gender Budgeting. From the Human Development Report-2002, we get that Gender-responsive budgets are an innovative new tool that empower women's organizations and civil society to hold public spending accountable to international and national commitments for promoting gender equality. In recent years such initiatives have spread to more than 40 countries. They are globally networked with the support of agencies such as Commonwealth Secretariat, United Nations Development Fund for Women and Organization for Economic Co-operation and Development. Gender-responsive budgets are not separate budgets for women and girls. Rather, they are analysis of spending through the lens of gender. They are a way of ensuring consistency between social commitments to achieve gender equality goals—such as in education or work—and the resources being allocated. The key question is what impact does fiscal policy have on gender equality? Does it reduce gender equality, increase it or leave it unchanged? Gender responsive budgets were started by Australian activists who pushed the government to assess the impact on gender equity of all elements of the national budget between the mid-1980s and mid-1990s. Many other countries later adopted the

concept to expand participation and accountability in budgeting, especially in light of international commitments to promote gender equality. Some countries that have taken steps towards building up a gender responsive budgets are—**South Africa, Tanzania, Mexico, Philippines, Uganda, UK & Brazil.**

For looking into the Specifically Targeted Programme, we have consulted the Budget Documents of 2 years i.e. 1999-2000 and 1997-98. For finding the expenditure on Specifically Targeted Programmes and Schemes in Delhi, we have consulted the 'Gender Budgeting in India' Report¹. Total budgetary expenditure could be classified into 2 broad categories, viz., gender neutral and gender sensitive. The objective of the gender budget analysis of Himachal Pradesh is to identify the gender sensitive components of budgetary expenditure. Gender budgeting identifies two specific categories which directly or indirectly benefits women—(1) gender specific programmes which is specifically targeted for women (these are those schemes where 100% of the expenditure allocation is required to be spent on women); (2) public expenditure programmes with pro-women allocation (in identifying the pro-women schemes it is assumed that at least 30% of the total allocation/benefits of the total expenditure flows to women).

Public expenditure specifically targeted to women can be categorized into 4 clusters. *First*, there are protective and welfare services that are important to prevent the atrocities against women such as domestic violence, rape, kidnapping, dowry deaths including rehabilitation programmes.

Second, there are social services such as education, water supply and sanitation, housing, health and nutrition schemes, which can empower women to play their rightful role in the economy.

Third, there are economic services such as self-employment and training programmes, economic empowerment programmes and fuel supply management programmes, which can provide economic empowerment for women.

Fourth, there are regulatory services and awareness generation programmes for women like maternity benefit schemes and institutional mechanism like National Commission for Women etc.

For the year 1999-2000, the share of Protective and Welfare Services in the Specifically Targeted Programme is 87.40%, while that of Social Services is 1.55%, Economic Services is 9.41% and Regulatory Services and Awareness Generation is merely 1.64% in the Specifically Targeted Programme. See Table 4.

¹ Gender Budgeting in India (2002). National Institute of Public Finance and Policy, July.

For the year 1997-98, the share of Protective and Welfare Services in the Specifically Targeted Programme is 99.65%, while that of Economic Services is 0.35%. The share of both Social Services expenditure and Regulatory Services and Awareness Generation in the Specifically Targeted Programme is 0%. (See Table 5.)

By adding the pro-women component of the budget with the women-specific allocation (the women component was assumed to be 30% in case of expenditure on programmes/schemes, which has a pro-women allocation, due to lack of information regarding the women component in the budget document) we get the total expenditure on women, which as a percentage of total government spending comes around 1.33% in 1999-2000 (Table 6) and 1.58% in 1997-98 (Table 7).

CONCLUSION

By looking into the various services of the Delhi budget, we can draw certain conclusion. They are as follows:

- Delhi government has given more stress on secondary education compared to primary education. The share of general education in total social services expenditure is higher than that of technical education.
- Medical and public health expenditure as a percentage of total expenditure is around 10%, which rose to more than 11% for the period 1998-99 to 2000-01. Expenditure on public health has shown a decline from 0.55% in 1996-97 to 0.31% in 2000-01, which is disappointing.
- Expenditure on the welfare of SCs is too meagre. The share of social services expenditure on social welfare has been than 2.5% in almost all the years which we have studied.
- The share of total expenditure on education, sports, arts and culture has been more than 25%, on health and family welfare has been around 10%, on water supply, sanitation, housing and urban development has been around 10% and the on the welfare of SCs, STs and OBCs has been around 1%.
- Total expenditure on subcategories like crop husbandry, animal husbandry, dairy development, fisheries, forestry and wildlife and co-operation is very little. Expenditure on roads and bridges has been around 6% and on road transport has shown fluctuations. Total expenditure on agriculture and allied activities has shown fluctuations around 1%, on rural development has shown a decline from 2.41% in 1996-97 to 0.50% in 2000-01, on irrigation and flood control has been more than 5%, on industry and minerals has shown fluctuations and transport has been more than 8%.
- The share of social services expenditure (in the revenue account) on nutrition has shown a fall from 2.28% in 1997-98 to 0.80% in 1999-2000. The share of revenue expenditure on nutrition has shown a decline from 1.49% in 1997-98 to 0.47% in 1999-2000.
- Total expenditure social services is greater than that on economic services for the period 1995-96 to 2000-01. This shows that the focus of the Delhi government is on providing social services to its citizens.
- We have found that that education, sports, arts and culture gets the maximum priority under social services and transport gets the maximum priority under economic services.
- The total expenditure on women, which as a percentage of total government spending comes around 1.33% in 1999-2000 and 1.58% in 1997-98.

Table 1 : Social Services (in Rs. '000)						
	total 95-96	total 96-97	total 97-98	total 98-99	total 99-00	total 00-01
Total 01.Elementary Education(rev)	1056796	1248677	1330974	1489610	1919554	1838677
201.Elementary Education(cap)	122060	109453	151839	113756	114925	115702
Elementary education(total)	1178856	1358130	1482813	1603366	2034479	1954379
Elementary education(total)/Social Services	10.51	10.32	9.04	8.53	9.53	7.74
Elementary education(total)/Grand	5.49	5.55	4.96	5.04	5.04	4.28
Total expenditure						
Total 02.Secondary Education(rev)	3296851	3725852	5437288	6805190	6943887	7113856
Total 202.Secondary Education(cap)	141336	255768	434517	423700	389731	404210
Secondary education(total)	3438187	3981620	5871805	7228890	7333618	7518066
Secondary education(total)/Social Services	30.66	30.25	35.78	38.45	34.36	29.79
Secondary education(total)/Grand	16.02	16.26	19.66	22.73	18.18	16.47
Total Expenditure						
Total 2202.General Education(rev)	4557799	5236686	7191915	8803918	9555833	9654728
Total 01.General Education(cap)	263396	365221	586356	961158	354861	595349
General Education(total)	4821195	5601907	7778271	9765076	9910694	10250077
General Education(total)/Social Services	42.99	42.56	47.40	51.94	46.44	40.62
General Education(total)/Grand	22.47	22.88	26.04	30.70	24.57	22.45
Total Expenditure						
Total 2203.Technical Education(rev)	222782	260205	402965	453760	518460	507382
Total 02.Technical Education(cap)	180975	267585	228886	214235	166438	108992
Technical Education(total)	403757	527790	631851	667995	684898	616374
Technical Education(total)/Social Services	3.60	4.01	3.85	3.55	3.21	2.44
Technical Education(total)/Grand	1.88	2.16	2.12	2.10	1.70	1.35
Total Service						

Total (a)Education, Sports, Arts and Culture(rev)	4923366	5689166	7834506	9519054	10325290	10429412
Total(a) Education, Sports, Art and Culture(cap)	458778	695040	829535	1164842	560975	720813
Education, sports,arts and culture(total)	5382144	6384206	8664041	10683896	10886265	11150225
Education, sports,arts and culture(total)/ Social Services	47.99	48.51	52.79	56.83	51.01	44.19
Education, sports,arts and culture(total)/ Grand Total Expenditure	25.08	26.07	29.00	33.59	26.99	24.42
Total 02.Urban Health Services(rev) Non-Allopathy	28592	35144	63675	73483	101707	106854
Total 02.Urban Health Services(rev)Allopathy	1544004	1800020	2159109	2640284	3238688	3664975
Total 02.Urban Health Services(rev) Non-Allopathy& Allopathy	1572596	1835164	2222784	2713767	3340395	3771829
Total 01.Urban Health Services(cap)	306561	298336	430716	445803	621188	56777
Urban Health Services(total)	1879157	2133500	2653500	3159570	3961583	3828606
Urban Health Services(total)/Social Services	16.76	16.21	16.17	16.81	18.56	15.17
Urban Health Services(total)/Grand Total Expenditure	8.76	8.71	8.88	9.93	9.82	8.39
Total 06.Public Health(rev)	91342	133141	127923	129824	154321	140945
Total 04.Public Health(cap)	200	650	5	0	0	0
Public Health(total)	91542	133791	127928	129824	154321	140945
Public Health(total)/Social Services	0.82	1.02	0.78	0.69	0.72	0.56
Public Health(total)/Grand Total Expenditure	0.43	0.55	0.43	0.41	0.38	0.31
Total 2210.Medical and Public Health(rev)	1788474	2123954	2558533	3102406	3795832	4227607
Total 4210.Capital Outlay On Medical and Public Health(cap)	311206	306798	439973	456574	644631	882282
Medical & Public Health (total)	2099680	2430752	2998506	3558980	4440463	5109889
Medical & Public Health (total)/ Social Services	18.72	18.47	18.27	18.93	20.81	20.25

Medical & Public Health (total)/Grand	9.78	9.93	10.04	11.19	11.01	11.19
Total Expenditure						
Total (b)Health and Family Welfare(rev)	1938500	2165573	2671984	3147765	3913553	4392411
Total (b)Health and Family Welfare(cap)	311206	306798	439973	456574	644631	882282
Health and Family welfare(total)	2249706	2472371	3111957	3604339	4558184	5274693
Health and Family welfare(total)/	20.06	18.78	18.96	19.17	21.36	20.90
Social Services						
Health and Family welfare(total)/Grand	10.48	10.10	10.42	11.33	11.30	11.55
Total Expenditure						
Total 01. Government Residential	107328	139668	173467	176076	184200	184022
Buildings(rev)						
Total 01. Government Residential	130630	110326	96722	81987	142132	92426
Buildings(cap)						
Government Residential Buildings(total)	237958	249994	270189	258063	326332	276448
Government Residential Buildings(total)/	2.12	1.90	1.65	1.37	1.53	1.10
Social Services						
Government Residential Buildings(total)/	1.11	1.02	0.90	0.81	0.81	0.61
Grand Total Expenditure						
Total (c)Water Supply, Sanitation, Housing	2301082	2859217	3135059	4378217	4749473	4840933
and Urban Development(rev)						
Total (c)Water Supply, Sanitation, Housing	259558	-274376	-78490	-1204162	-359230	2444610
and Urban Development(cap)						
Water Supply, Sanitation and	2560640	2584841	3056569	3174055	4390243	7285543
Urban Development(total)						
Water Supply, Sanitation and Urban	22.83	19.64	18.62	16.88	20.57	28.87
Development(total)/Social Services						
Water Supply, Sanitation and Urban	11.93	10.56	10.23	9.98	10.88	15.96
Development(total)/Grand Total Expenditure						

Total 01.Welfare of SCs(rev)	46288	57382	31762	40329	47234	64182
Total 01.Welfare of SCs(cap)	48736	92985	24590	203	43157	-51779
Welfare of SCs(total)	95024	150367	56352	40532	90391	12403
Welfare of SCs(total)/Social Services	0.85	1.14	0.34	0.22	0.42	0.05
Welfare of SCs(total)/Grand	0.44	0.61	0.19	0.13	0.22	0.03
Total Expenditure						
Total (e)Welfare of SCs, STs and OBCs(rev)	52559	62979	36911	47884	55185	74091
Total (e)Welfare of SCs, STs and OBCs(cap)	48736	92985	24590	203	43157	-51779
Welfare of SCs, STs and OBCs(total)	101295	155964	61501	48087	98342	22312
Welfare of SCs, STs and OBCs(total)/ Social Services	0.90	1.18	0.37	0.26	0.46	0.09
Welfare of SCs, STs and OBCs(total)/ Grand Total Expenditure	0.47	0.64	0.21	0.15	0.24	0.05
Total 01.Labor(rev)	24308	29067	35279	40838	41530	43281
201.Labour(cap)	0	1026	5598	1000	7757	0
Labour(total)	24308	30093	40877	41838	49287	43281
Labour(total)/Social Services	0.22	0.23	0.25	0.22	0.23	0.17
Labour(total)/Grand Total Expenditure	0.11	0.12	0.14	0.13	0.12	0.09
Total 02.Employment(rev)	18069	22950	27808	31829	35234	34271
203.Employment(cap)	27958	10274	22093	11822	9643	10907
Employment(total)	46027	33224	49901	43651	44877	45178
Employment(total)/Social Services	0.41	0.25	0.30	0.23	0.21	0.18
Employment(total)/Grand Total Expenditure	0.21	0.14	0.17	0.14	0.11	0.10

101.Welfare of Handicapped(rev)	31273	35959	49992	53682	54504	60643
101.Welfare of Handicapped(cap)	2630	6104	5044	8541	6560	5203
Welfare of Handicapped(total)	33903	42063	55036	62223	61064	65846
Welfare of Handicapped(total)/	0.30	0.32	0.34	0.33	0.29	0.26
Social Services						
Welfare of Handicapped(total)/	0.16	0.17	0.18	0.20	0.15	0.14
Total Expenditure						
102.Child Welfare(rev)	101097	106025	115706	151756	125052	134111
102.Child Welfare(cap)	19	226	0	0	0	0
Child Welfare(total)	101116	106251	115706	151756	125052	134111
Child Welfare(total)/Social Services	0.90	0.81	0.71	0.81	0.59	0.53
Child Welfare(total)/Total Expenditure	0.47	0.43	0.39	0.48	0.31	0.29
103.Women's Welfare(rev)	14424	19217	32882	36156	42249	53748
103.Women's Welfare(cap)	301	1527	2363	4838	4099	6576
Women's Welfare(total)	14725	20744	35245	40994	46348	60324
Women's Welfare(total)/Social Services	0.13	0.16	0.21	0.22	0.22	0.24
Women's Welfare(total)/Total Expenditure	0.07	0.08	0.12	0.13	0.11	0.13
104.Welfare of aged, infirm and destitute(rev)	115538	144687	181464	237246	275816	287164
104.Welfare of aged, infirm and destitute(cap)	393	6881	1506	1250	1927	1090
Welfare of aged, infirm and destitute(total)	115931	151568	182970	238496	277743	288254
Welfare of aged, infirm and destitute(total)/	1.03	1.15	1.11	1.27	1.30	1.14
Social Services						
Welfare of aged, infirm and destitute(total)/	0.54	0.62	0.61	0.75	0.69	0.63
Total Expenditure						
02.Social Welfare(rev)	317130	364865	465544	568380	610884	637836
02.Social Welfare(cap)	7691	26778	29568	28960	21527	21675
Social Welfare(Total)	324821	391643	495112	597340	632411	659511
Social Welfare(Total)/Social Services	2.90	2.98	3.02	3.18	2.96	2.61
Social Welfare(Total)/Total Expenditure	1.51	1.60	1.66	1.88	1.57	1.44

2235.Social Security and Welfare(rev)	470346	1097928	760668	692816	83027	789188
4235.Social Security and Welfare(cap)	7691	26778	29568	28960	21527	21675
Social Security and Welfare(total)	478037	1124706	790236	721776	104554	810863
Social Security and Welfare(total)/	4.26	8.55	4.82	3.84	0.49	3.21
Social Services						
Social Security and Welfare(total)/	2.23	4.59	2.65	2.27	0.26	1.78
Total Expenditure						
(g). Social Welfare and Nutrition(rev)	704465	1310560	1113495	930367	1027583	1136535
Social Welfare and Nutrition (cap)	7691	26778	29568	28960	21527	21675
Social Welfare and Nutrition (total)	712156	1337338	1143063	959327	1049110	1158210
Social Welfare and Nutrition (total)/	6.35	10.16	6.97	5.10	4.92	4.59
Social Services						
Social Welfare and Nutrition (total)/	3.32	5.46	3.83	3.02	2.60	2.54
Total Expenditure						
TOTAL B.SOCIAL SERVICES(rev)	10101054	12303347	15138339	18340531	20414119	21205942
TOTAL B CAPITAL ACCOUNT OF	1113927	858525	1272867	459239	928460	4028508
SOCIAL SERVICES(cap)						
SOCIAL SERVICES (TOTAL)	11214981	13161872	16411206	18799770	21342579	25234450
SOCIAL SERVICES (TOTAL)/Grand	52.26	53.75	54.94	59.10	52.91	55.27
Total Expenditure						
GRAND TOTAL EXPENDITURE(REV.A/C)(rev)	18771582	20318091	23220043	28401241	35230025	36964964
TOTAL EXPENDITURE HEADS	2687375	4169767	6651211	3408460	5104795	8694135
(CAPITAL ACCOUNT)(cap)						
Grand Total Expenditure	21458957	24487858	29871254	31809701	40334820	45659099

Table 2 : Economic Services (in Rs. '000)

	total 95-96	total 96-97	total 97-98	total 98-99	total 99-00	total 00-01
<i>(a)Agr. & Allied. act.---</i>						
tot. 2401.Crp. Husb&ry(rev)	38290	42425	56762	63505	73771	70357
tot. 4401.Cap. Exp. on Crp. Husb&ry	-40	-163	284	271	1614	1493
Crp. Husb&ry tot.	38250	42262	57046	63776	75385	71850
Crp. Husb&ry tot./Eco. Serv. tot.	1.26	0.84	0.89	1.27	1.24	1.04
Crp. Husb&ry tot./ tot. Exp.	0.18	0.17	0.19	0.20	0.19	0.16
tot. 2402.Soil & Wtr. consrv.(rev)	1604	1913	3807	1906	3913	1933
tot. 4402.Cap. Exp. On Soil & Wtr. consrv.	0	0	0	0	0	0
Soil & Wtr. consrv. tot.	1604	1913	3807	1906	3913	1933
Soil & Wtr. consrv. tot./Eco. Serv. tot.	0.05	0.04	0.06	0.04	0.06	0.03
Soil & Wtr. consrv. tot./ tot. Exp.	0.01	0.01	0.01	0.01	0.01	0.00
tot. 2403.Anl. Husb&ry(rev)	42871	68989	53727	60920	60782	63520
tot. 4403.Cap. Exp. On Anl. Husb&ry	9456	6561	6374	5611	15391	22233
Anl. Husb&ry tot.	52327	75550	60101	66531	76173	85753
Anl. Husb&ry tot./Eco. Serv. tot.	1.72	1.50	0.94	1.33	1.25	1.24
Anl. Husb&ry tot./ tot. Exp.	0.24	0.31	0.20	0.21	0.19	0.19
tot. 2404.Dairy dev.(rev)	11600	13227	41828	10725	-4796	36874
tot. 4404.Cap. Exp. On Dairy dev..	265	497	0	0	0	0
Dairy dev. tot.	11865	13724	41828	10725	-4796	36874
Dairy dev. tot./Eco. Serv. tot.	0.39	0.27	0.65	0.21	-0.08	0.53
Dairy dev. tot./ tot. Exp.	0.06	0.06	0.14	0.03	-0.01	0.08

tot. 2405.Fisheries(rev)	3041	3388	5036	5588	5961	5954
tot. 4405. Cap. Exp. On Fisheries	608	534	0	425	591	871
Fisheries tot.	3649	3922	5036	6013	6552	6825
Fisheries tot./Eco. Serv. tot.	0.12	0.08	0.08	0.12	0.11	0.10
Fisheries tot./ tot. Exp.	0.02	0.02	0.02	0.02	0.02	0.01
tot. 2406.Forest. & Wildlf.(rev)	29947	37804	63148	70054	73155	80121
tot. 4406.Cap. Exp. On Forest. & Wildlf.	29999	129552	18247	12911	25142	48571
Forest. & Wildlf. tot.	59946	167356	81395	82965	98297	128692
Forest. & Wildlf. tot./Eco. Serv. tot.	1.97	3.32	1.27	1.66	1.62	1.86
Forest. & Wildlf. tot./ tot. Exp.	0.28	0.68	0.27	0.26	0.24	0.28
tot. 2425. Co-oprn.	18647	19335	27894	30431	30716	29459
tot. 4425.Cap. Exp. On Co-oprn..	-37	-42	-29	-41	-70	-150
Co-oprn. tot.	18610	19293	27865	30390	30646	29309
Co-oprn. tot./Eco. Serv. tot.	0.61	0.38	0.44	0.61	0.50	0.42
Co-oprn. tot./ tot. Exp.	0.09	0.08	0.09	0.10	0.08	0.06
tot. (a) Agr. & Alld. act.(rev)	158469	202283	257909	250093	253835	300484
tot. (a) Cap. Account Of Agr. & Alld. act.	40251	136939	24876	19177	42668	73018
Agr. & Alld. act. tot.	198720	339222	282785	269270	296503	373502
Agr. & Alld. act. tot./Eco. Serv. tot.	6.54	6.73	4.43	5.37	4.88	5.39
Agr. & Alld. act. tot./ tot. Exp.	0.93	1.39	0.95	0.85	0.74	0.82
tot. (b)Rural dev.(rev)	24900	24911	35706	40305	39218	45337
tot. (b) Cap. Account Of Rural dev.	395895	564196	560590	386137	254514	182654
Rural dev. tot.	420795	589107	596296	426442	293732	227991
Rural dev. tot./Eco. Service tot.	13.86	11.69	9.33	8.51	4.84	3.29
Rural dev. tot./ tot. Exp.	1.96	2.41	2.00	1.34	0.73	0.50

<i>tot. (d)Irrigation & Flood Control(rev)</i>	184804	175158	246887	289357	311391	369223
<i>tot. (d) Cap. Exp. of Irrigation & Flood Control</i>	154522	144321	130379	154043	196211	196412
Irrigation & Flood Control tot.	339326	319479	377266	443400	507602	565635
Irrigation & Flood Control tot./Eco. Serv. tot.	11.17	6.34	5.91	8.85	8.36	8.16
Irrigation & Flood Control tot./ tot. Exp.	1.58	1.30	1.26	1.39	1.26	1.24
<i>tot. (f) Industry & Minerals(rev)</i>	54631	306341	121629	121014	123069	391642
<i>tot. (f)Cap. Account Of Industry & Minerals</i>	14623	11848	17073	28786	26943	66783
Industry & Minerals tot.	69254	318189	138702	149800	150012	458425
Industry & Minerals tot./Eco. Serv.	2.28	6.31	2.17	2.99	2.47	6.61
Industry & Minerals tot./ tot. Exp.	0.32	1.30	0.46	0.47	0.37	1.00
(g) Trans.---						
Tot. 3054.Rd.s & Bridges(rev)	1097791	1051025	1036655	1265079	1536070	1506055
Tot. 5054.Cap. A/C on Rd.s & Bridges(cap)	524012	641732	721014	875229	1456188	1867329
Rd.s & Bridges(Tot.)	1621803	1692757	1757669	2140308	2992258	3373384
Rd.s & Bridges(Tot.)/Eco. Serv.	53.40	33.59	27.51	42.71	49.26	48.67
Rd.s & Bridges(Tot.)/ Tot. Exp.	7.56	6.91	5.88	6.73	7.42	7.39
Tot. 3055.Rd. Trans.(rev)	0	500	270	10	0	0
Tot. 5055.Cap. Exp. on Rd. Trans.(cap)	44377	1405145	2957357	1093067	1373811	1618623
Rd. Trans. (Tot.)	44377	1405645	2957627	1093077	1373811	1618623
Rd. Trans. (Tot.)/Eco. Service	1.46	27.89	46.29	21.81	22.62	23.35
Rd. Trans. (Tot.)/ Tot. Exp.	0.21	5.74	9.90	3.44	3.41	3.55
Tot. (g) Trans.(rev)	1159397	1077671	1043126	1271093	1544596	1506649
Tot. (g)Cap. A/C of Trans.(cap)	605902	2151506	3704493	1997916	2846756	3500534
Trans.(Tot.)	1765299	3229177	4747619	3269009	4391352	5007183
Trans.(Tot.)/Eco. Serv.	58.13	64.08	74.31	65.24	72.30	72.25
Trans.(Tot.)/ Tot. Exp.	8.23	13.19	15.89	10.28	10.89	10.97

Eco. Serv. Rev.	1752835	1983536	1914097	2380242	2642376	2892951
Eco. Serv. Cap.	1284102	3055569	4474720	2630813	3431826	4037827
Eco.Ser.Tot.	3036937	5039105	6388817	5011055	6074202	6930778
Eco.Ser.Tot./Total Exp.	14.15	20.58	21.39	15.75	15.06	15.18
GRAND TOTAL EXPENDITURE(REV.A/C)(rev)	18771582	20318091	23220043	28401241	35230025	36964964
TOTAL EXPENDITURE HEADS (CAPITAL ACCOUNT)(cap)	2687375	4169767	6651211	3408460	5104795	8694135
Grand Total Expenditure	21458957	24487858	29871254	31809701	40334820	45659099

Table 3

	95-96	96-97	97-98	98-99	99-00	00-01
(g) Social Welfare and Nutrition--						
2236. Nutrition--						
02. Distribution of Nutritious Food and Beverages--						
101.Special Nutrition Programmes	221098	198975	344098	217706	151874	201081
101.Special Nutrition Programmes(rev)/ Social Services Expenditure(rev)	2.19	1.62	2.27	1.19	0.74	0.95
101.Special Nutrition Programmes(rev)/ Total Revenue Expenditure	1.18	0.98	1.48	0.77	0.43	0.54
102.Mid-Day Meals	.990	1048	1170	2474	12146	130074
102.Mid-Day Meals(rev)/Social Services Expenditure(rev)	0.01	0.01	0.01	0.01	0.06	0.61
102.Mid-Day Meals(rev)/Total Revenue Expenditure	0.01	0.01	0.01	0.01	0.03	0.35
Total--02. Distribution of Nutritious Food and Beverages	222088	200023	345268	220180	164020	331155
Total--02. Distribution of Nutritious Food and Beverages(rev)/Social Services Expenditure(rev)	2.20	1.63	2.28	1.20	0.80	1.56
Total--02. Distribution of Nutritious Food and Beverages(rev)/Total Revenue Expenditure	1.18	0.98	1.49	0.78	0.47	0.90
Total. Nutrition	222088	200023	345268	220180	164020	331155
Total. Nutrition/Social Services Expenditure(rev)	2.20	1.63	2.28	1.20	0.80	1.56
Total. Nutrition/Total Revenue Expenditure	1.18	0.98	1.49	0.78	0.47	0.90
TOTAL B.SOCIAL SERVICES(rev)	10101054	12303347	15138339	18340531	20414119	21205942
GRAND TOTAL EXPENDITURE(REV.A/C)(rev)	18771582	20318091	23220043	28401241	35230025	36964964

Table 4 : WOMEN SPECIFIC PROGRAMME IN DELHI IN 1999-2000 (IN Rs.'000)

NAME OF THE PROGRAMMES	NAME OF THE DEPARTMENTS	TOTAL (1999-2000)
<i>Protective and Welfare Services</i>		
Action Plan for Child Health	Medical and Public Health	327
Children Home/Observation Home for Girls	Social Welfare	6560
After Care Home for Women	Social Welfare	1930
Integrated Child Development Services (CSS)	Social Welfare	76850
Financial Assistance to Orphan Girls for Their Marriage	Social Welfare	50
Expansion of Cottage Home for Children	Social Welfare	634
Financial Assistance to Widows in the Age Group of 50-60 Years	Social Welfare	16990
Financial Assistance to Widows of SC/ST/Backward Classes (Economically) for Marriage of Their Daughters	Social Welfare	2990
Financial Assistance to Lactating and Nourishing Mothers Belonging to SC/ST's	Social Welfare	1479
Home for Healthy Children of Leprosy Patients	Social Welfare	4604
Improving the Status of Girl Child	Medical and Public Health	584
Grant to NDMC for Construction of Working Womens' Hostel	Social Welfare	1313
Kasturba Niketan (Lajpat Nagar)	Social Welfare	2526
Mahila Ashrams	Social Welfare	507
Nari Niketan	Social Welfare	3975
Opening of Creches	Social Welfare	835
National Maternity Benefit Scheme (CSS)	Social Welfare	46
Other Schemes	Social Welfare	1107
Pulse-Polio Immunization	Medical and Public Health	1358
Scheme for Adolescent Girls(Special Nutrition Programme)	Social Welfare	455
Setting Up of Creches	Social Welfare	575
Short Stay Home for Women in Distress	Social Welfare	1201
Special Immunization Programmes	Medical and Public Health	9534

Stipend to Girl Students	Department of Education	48922
total counselling cum guidance bureau	Social Welfare	1084
Total Day Care Centre	Social Welfare	2225
Total Expansion of Day Care Centre	Social Welfare	921
Total Foster Care Home Services	Social Welfare	511
Total Free Transport Facilities to Girl Students of Rural Areas	Social Welfare	3146
Women Welfare (Buildings)	Urban Development Public Works	4099
Expenditure on Post-partum at District Hospitals (CSS)	Medical and Public Health	4284
Total of Protective and Welfare Services		201622
Share of Protective and Welfare Services in Specifically targeted Programme (in%)		87.40
Social Services		
MCD (slum) for Sishu Vatika/common space in JJ Clusters	Urban Development Public Works	2500
Balika Samridhi Yojna (CSS)	Social Welfare	1082
Total of Social Services		3582
Share of Social Services in Specifically Targeted Programme (in%)		1.55
<i>Economic Services</i>		
Assistance to Women Entrepreneurs/(Women Welfare Scheme for Self-employment),(Grant & Subsidy)	Industries	747
Strengthening of Staff in Children and Women Institutions	Social Welfare	517
Total Assistance to Women Entrepreneurs		1963
Women Co-operative Industrial Society	Development	0

Work Centre for Women	Social Welfare	8998
Opening of Technical Training Institute for Women by NDMC	Urban Development Public Works	500
Setting up of Engineering College for Women—Mahila Institute of Technology	Department of Education	8977
Total of Economic services		21702
Share of Economic Services in Specifically Targeted Programme (in%)		9.41
Regulatory Services and Awareness Generation		
State Commission of Women	Social Welfare	3794
Total Of Regulatory Services and Awareness Generation		3794
Share of Regulatory Services and Awareness Generation		1.64
Total of Women Specific Expenditure (in'000)		230700
Total Govt. Expenditure (in'000)		40334820
Women Specific Expenditure as a Percentage of Total Govt. Expenditure		0.57

Table 5 : Women Specific Programme in Delhi in 1997-98 (IN Rs.'000)

NAME OF THE PROGRAMMES	NAME OF THE DEPARTMENTS	TOTAL
<i>Protective and Welfare Services</i>		
Bal Sadan	Social Welfare	1138
Child Welfare	Social Welfare	115706
Children Home/ Observation Home for Girls	Social Welfare	5627
Day Care Centre	Social Welfare	2015
Expansion of Cottage Home for Children	Social Welfare	671
Expansion of Day Care Centre	Social Welfare	915
Financial Assistance to Lactating and Nourishing Mothers Belonging to SC/ST	Social Welfare	655
Financial Assistance to Widows of SC/ST/OBC for Marriage of their Daughters	Social Welfare	2000
Foster Care Nome Services	Social Welfare	453
Free Suply of Textbooks to the Children of 6-11 years	Education	90
Free Transport Facilities to Girl Students of Rural Areas	Education	2549
Home for Healthy Children of Leprosy Patients	Social Welfare	4324
Hostel for Sc Girls	Social Welfare	550
National Maternity Benefit Scheme	Social Welfare	927
Safety Bima Policy for School Children	Education	119
Scheme for Adolescent Girls	Social Welfare	1017
School/Home for Mentally Retarded Children	Social Welfare	7485
Short Term Condensed Courses for Vacational Training to Equip Children and Women in the Instijution for Self-Employment	Social Welfare	90
Stipend to Girl Students	Education	13126
State ICDS	Social Welfare	5679
Total Maternity and Child Health	Medical and Public Health	7815
Women Welfare	Social Welfare	32882
Women Welfare	Urban Development and Public Wd	2363
Mid-Day Meal for Children	Education	1170
National Family Benefit Scheme	Social Welfare	5310

Total of Protective and Welfare Services		214676
Share of Protective and Welfare Services in Specifically Targeted Programme (in %)		99.65
<u>Economic Services</u>		
Assistance to Women Entrepreneurs (Women Welfare Scheme For Self-Employment)	Social Welfare	750
Total of Economic Services		750
Share of Economic Services in Specifically Targeted Programme (in %)		0.35
Regulatory Services and Awareness Generation		
No Programme	**	**
<i>Social Services</i>		
No Programme	**	**
Total of Women Specific Expenditure (in '000)		215426
Total Govt. Expenditure in 1997-98 (in'000)		29871254
Women Specific Expenditure as a Percentage of Total Govt. Expenditure		0.72

Table 6 : Delhi Pro-Women Programme in 1999-2000 (in Rs '000)

NAME OF THE PROGRAMMES	NAME OF THE DEPARTMENTS	TOTAL (1999-2000)
Adult Education	Department of Education	215483
Coaching and Remedial Facilities to the Students of Educationally Backward Classes from Grassroot Level	Department of Education	0
Coaching Complex-cum-hostel at Dilshad Garden for SC Boys and Girls	Social Welfare	1916
Coaching Facilities to Students Belonging to SC/ST/Educationally Backward Minorities & Weaker Sections (SCP)	Department of Education	392
Coaching Facilities to Students in Rural Schools	Department of Education	0
Constuction of Co-educational Polytechnique Building	Department of Education	0
Delhi Children Welfare Project	Department of Education	0
Ecology and Environment	Development	37218
Emergent Provision of Primary Health Care in JJ Clusters	Medical and Public Health	0
Establishment of Family Courts	Administration of Justice	0
Family Pension	Pension	0
Family Pension in Handloom Sector in Co-operative Sector & Handicraft Artisans	Industries	0
Financial Assistance to Non-displaced destitute Men, Women and Children	Social Welfare	455
Grant-in-aid to MCD for strenthening of dairy colonies	Urban Development Public Works	3563
Grant-in-aid to NGO 'PRAYAS' for Construction of Shelter Home for Juvenile	Social Welfare	0
Home For Male and Female Beggars	Social Welfare	29920
Imparting Health Education by School Teachers to School Going Children	Medical and Public Health	0
MCD for Strengthening Expansion of Food & Hygienic Work	Urban Development Public Works	0
National Family Benefit Scheme (CSS)	Social Welfare	1498
Non-conventional sources of energy	Development	21475

Nursery Primary Education for the Deaf	Social Welfare	5648
Operation Black Board	Department of Education	0
Positive Health Education	Department of Education	703
Provision of Additional Schooling Facilities in the Age Group 14-17 Years (SCP)	Department of Education	404
Raising Health Hygiene, Nutritional Status through Distribution of Mini-kits for SC/ST	Development	0
Rural Functional Literacy Project in Delhi (CSS)	Department of Education	0
Safety Bima Policy for School Children	Department of Education	0
Sanskar Ashrams for Denotified Tribes & SC Girls & Boys	Social Welfare	3760
Scholarships to Educationally Backward Minorities	Department of Education	1000
School Health Scheme	Medical and Public Health	49323
School/Home for Mentally Retarded Children	Social Welfare	10095
Scoutts & Guide Programmes in Government Schools	Department of Education	99
Setting up of 75 Mobile Van Dispensaries for JJ Clusters (SCP)	Medical and Public Health	30136
Short Term and Condensed Courses for Vocational Training to Equip Children and Women in the Institution for Self-employment	Social Welfare	84
Socially Useful Productive Work (SUPW)	Department of Education	2629
Special Health Check Up of School Children	Medical and Public Health	0
Special Incentive for School Going Children for Denotified Tribes (Khanabadosh)	Social Welfare	0
Study Camps/Study Centre for Students Residing in Rural Areas/JJ Colonies (SCP)	Department of Education	0
Swasthya Saptah	Medical and Public Health	0
Total Integrated Rural Energy Planning-Programme	Development	17635
Total Education for All	Department of Education	0
Total Free Supply of Text Books to Children	Department of Education	6456
Total Free Supply of Uniforms	Department of Education	13807
Total Integrated Development in Rural Villages in Delhi	Development	0
Total Non-formal Education	Department of Education	36

Total Nutrition	Social Welfare	151419
Total Nutrition Programme	Urban Development Public Works	0
Total Population Education Cell	Department of Education	2022
Total Rural Food Processing and Nutrition Extension Programme	Development	0
Total: Mini-master Plan for the Development of Rural Villages	Development	254514
Total: Special Nutrition Programmes	Department of Education	12146
Upgradation of Medicare & Health Facilities for Inmates of Home of Social Welfare Department	Social Welfare	0
Total		873836
30% of the Total which goes to Women		262150.8
Total of Women Specific		275319
Total Expenditure on Women		537469.8
Total Govt. Expenditure(in '000)		40334820
Total Expenditure on Women as a Percentage of Total Govt. Expenditure		1.33

Table 7 : Delhi Pro-Women Programme in 1997-98 (in Rs '000)

NAME OF THE PROGRAMMES	NAME OF THE DEPARTMENTS	Total
Coaching Complex cum Hostel at Dilshad Gardens for SC boys and girls	Social Welfare	1617
Coaching cum Guidance for SC/STs	Education	289
Coaching Facilities to Students belonging to SC/ST Educationally Backward Minorities and Weaker Section	Education	5
Construction of Buildings for SC boys and girls	Urban Development and Public Works	1390
Delhi Energy Development Agency for Integrated Rural Energy Programme	Development	7500
Extension of Mid-Day Meals under Basic Minimum Need Programme	Social Welfare	22000
Free Supply of Textbooks	Education	410
Grant to MCD for Mid-Day Meals Programmes	Social Welfare	28000
Grant to NDMC for Health Purposes	Urban Development and Public Works	2500
Grants in Aid to M. Gandhi for IREP and Development at Bakoli	Development	17500
Grants to Delhi Cantt. Board for Mid-Day Meals Programme	Social Welfare	500
Grants to MCD for health purposes	Urban Development and Public Works	110000
Grants to NDMC for Mid-Day Meals Programme	Social Welfare	375
Home for Male and Female Beggars	Social Welfare	24560
Interest Free Loan to Provide Technical Education to SC/ST and Other Economically Weaker Sections	Social Welfare	190
IRDP	Development	308
Library Facilities for the Weaker Section in all Assembly Constituencies	Education	4186
Merit Scholarship to SC/ST students	Education	874
Meritorious Scholarships, Education for Backward Classes	Social Welfare	126
NDMC for Construction of Kiosks, Theras for SC Sections and Weaker	Social Welfare	400
NDMC for Improvement of Dhobi Ghats for SC	Social Welfare	500
Open Merit Scholarship to SC/ST Students	Education	91

Post-matric Scholarship to SC/ST	Education	7627
Public Health	Urban Development and Public Works	73532
Public Health Education	Urban Development and Public Works	300
Rural Family Welfare Services	Medical and Public Health	60000
Rural Health Services-Allopathy	Medical and Public Health	1757
Scheme to be Implemented by the Directorate through the National Association of Blind	Education	609
Scholarship to Educationally backward Minorities	Education	57
Strengthening of Facility of Polytechnic students of SC/ST category	Education	323
Study Camps/centres for students residing in rural areas/JJ colony	Education	36
Total Urban Family Welfare Services	Medical and Public Health	24602
Total Urban Health Services-Allopathy	Medical and Public Health	456827
Training to SC Labourers thro Short-Term Courses of Self-Employment	Education	384
Vocational Technical Scholarship, Meritorious Scholarship and Dr. Ambedkar Scholarship to SC	Social Welfare	469
Youth Welfare Programme	Education	3104
Total		852948
30% fo the Total which Goes to Women		255884.40
Total of Women Specific		215426
Total Expenditure on Women		471310.40
Total Govt. Expenditure (in '000) in 1997-98		29871254
Total Expenditure on Women as a percentage of Total Govt. Expenditure		1.58

Annexure – II

**Budget Analysis of Himachal Pradesh
with a Special Focus on Gender and Health**

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EXECUTIVE SUMMARY

The objective of doing budget analysis of Himachal Pradesh (from 1992-93 to 2000-01), with a special focus on gender, is to understand the priorities of the state government and to find out whether the government is paying attention in providing basic amenities to its citizens in an equitable fashion. By studying the gender component in the budget, we have tried to locate the government's interest in the empowerment of women—socially, economically and politically. A gender sensitive budget aims at examining the budgetary resource allocation through gender lens. The United Nations Fourth World Conference on Women (also called Beijing Conference of 1995), and the subsequent Beijing Platform for Action contributed to the emergence of an international consensus in integrating a gender perspective in all policies and their budgetary dimensions. Australia was the first country to develop a gender-sensitive budget. It was strongly emphasized that a comprehensive gender analysis of mainstream public expenditure were relevant and not just those expenditures directly allotted to women. Similar efforts were made in other countries such as Canada, South Africa, Sri Lanka, Fiji, UK, Mozambique, Namibia, Tanzania, Uganda etc. The series of UN conferences on women's rights in Cairo, Copenhagen and Beijing have established the relationship between gender, power, decision making and the allocation of resources. Governments agreed a target of 30% of decision making positions to be held by women by 1995, and furthermore, by the year 2015 signatories to these agreements have committed to:

- provide universal primary education
- achieve equivalent levels of education for boys and girls
- make reproductive health care accessible to all
- achieve infant mortality below 35/1000 live births
- reduce maternal mortality by at least half – to below 75 per million births
- achieve life expectancy of greater than 70

However, governments are good at signing agreements, but we need to track what they are doing to meet the goals of these agreements. The ultimate aim of gender analysis of national budgets is to incorporate gender variables into the models on which planning and budgeting is based. This requires gender disaggregated data and analysis of unpaid and unrecorded work of women. There have been several methodological approaches to do this through the budget:

- Looking at policies and programs funded through public money from a gender perspective, asking how they may reduce or increase gender inequalities;

- Asking beneficiaries of government spending, men and women, actual or potential, how far the spending meets their needs as they perceive them, through opinion polls, surveys or interviews, can raise quieter voices in the debate;
- Expenditure incidence analysis of public expenditure by comparing distribution of benefits among women, men, girls and boys. These can help analyse the gender disaggregated impact of public spending and also suggest the gender impact of cuts;
- Revenue incidence analysis can be used to calculate how taxes or user charges affect different categories of households and individuals, men and women;
- Analysis on the impact of government spending on time use of women and men. This can inform policy debates on cuts and spending;

This Report on the analysis of budget in the state of Himachal Pradesh seeks to probe into the gender dimension of public revenue and expenditure in whatever manner that has been possible from the available data. The Report consists of a number of sections dealing with Social Services Expenditure, Economic Services Expenditure, Revenue and Capital Expenditure etc. The bulk of the Report consists of analysis of expenditure in the state budget with no explicit reference to the gender breakdown. The section on expenditure on women pulls together state budget in terms of specially targeted schemes/programmes for women and estimated size of pro-women component of government expenditure. The last section provides the conclusion.

For analyzing the government expenditure on various social and economic services we have looked into the Finance Accounts document of Himachal Pradesh from 1992-93 to 2000-01. In the Section-Social Services, we have looked into the expenditure made on various sub-categories of the major headings like (A) Education, Sports, Arts and Culture, (B) Health and Family Welfare, (C) Water Supply, Sanitation, Housing and Urban Development, (D) Information and Broadcasting and (E) Welfare of SCs (scheduled castes), STs (scheduled tribes) and OBCs (other backward classes). Some of the major observations are: (a) HP state government has given more priority to primary education compared to that of secondary and higher education; (b) General education has received more attention compared to that of technical education; (c) Expenses of the government on rural health services is greater than that of urban health services; (d) The share of expenses on public health has shown a decline; (e) Total expenditure on non-Allopathy is 1/5 times of that of Allopathy; (f) The share of total expenditure on water supply and sanitation has been more than 6%, which is remarkable achievement for HP; (g) Expenditure on rural water supply programmes is more compared to that of urban water supply programmes; (h) Expenditure on the welfare of SCs and STs is meager.

In the Section-Social Services and Analysis of its Broad Categories, we have looked into the expenditure made on the major headings like (A) Education, Sports, Arts and Culture, (B) Health and Family Welfare, (C) Water Supply, Sanitation, Housing and Urban Development, (D) Information and Broadcasting and (E) Welfare of SCs (scheduled castes), STs (scheduled tribes) and OBCs. Some of the major observations are: (a) The government gives high priority to education, sports, arts and culture. The share of total expenditure on education, sports, arts and culture is more than 14%; (b) The share of total expenditure on health and family welfare has been close to 6% for the period 1992-93 to 2000-01; (c) Expenditure on water supply, sanitation, housing and urban development is significantly high and is more than 6% of total expenditure.

In the Section-Economic Services, we have looked into the expenditure made on various sub-categories of the major headings like (A) Agriculture and Allied Activities, (B) Rural Development, (C) Irrigation and Flood Control, (D) Industry and Minerals and (E) Transport. Some of the major observations are: (a) The share of total expenditure on crop husbandry has been more than 2%; (b) The share of total expenditure on district and other roads has shown a rise from 2.73% in 1992-93 to 4.70% in 1996-97; (c) The share of total expenditure on roads and bridges was more than 8% for the period 1992-93 to 2000-01.

In the Section-Economic Services and Analysis of its Broad Categories, we have looked into the expenditure made on the major headings like (A) Agriculture and Allied Activities, (B) Rural Development, (C) Irrigation and Flood Control, (D) Industry and Minerals and (E) Transport. Some of the major observations are as follows: (a) The share of total expenditure on agriculture and allied activities has been near to 10% for almost all the years which is higher than that on industry and minerals (around 1%); (b) Share of total expenditure on rural development has been around 2%; (c) Expenditure on irrigation and flood control is quite low compared to that on agriculture and allied activities; (d) The share of Total Expenditure on transport has shown a rise from 9.66% in 1996-97 to 10.45% in 1999-2000, which is quite impressive.

In the Section-Share of Different Revenue Expenditure Categories in the Total Revenue Receipt, we have discussed how the revenue receipt of the government is spent on different sectors in the revenue account. We found that education, sports, arts and culture and agriculture and allied activities receive the highest priority, when the government goes for revenue expenditure for these services.

In the Section-Expenditure on Different Sectors as a Percentage of Total Expenditure, we have given a graphical exposition of how the total expenditure of the government is spent on various services.

In the Section-Real Allocation of Budget to Different Sectors for the Period 1992-93 to 2000-01, we have found the expenditure on various services at 1993-94 prices. Then we have found the annual growth rates of expenditure on various services (can also be called real growth rates as the expenditures are at 1993-94

prices). Some major observations are as follows: (a) For education, sports, arts and culture, the growth rate has been positive for all the years; (b) For industry and minerals, the growth rates have been negative in 1994-95, 1995-96 and 1998-99 (over the previous years), which is matter of grave concern.

In the Section-Comparison Between Social and Economic Services Expenditure, we have found that for the years 1992-93, 1993-94, 1995-96, 1996-97, 1998-99, 1999-2000 and 2000-01, the share of total expenditure on social services is greater than that on economic services.

In the Section-Programmes/ Schemes for Women, we have tried to find how much the government spends for empowerment of women by looking into the Budget Documents of HP. We get that the total expenditure for women's empowerment as a percentage of total government spending comes around 2.47% in 1999-2000 and 2.77% in 1997-98. We have looked into the women-specific as well as the pro-women component in the various programmes/schemes of the government (some of which are funded by the state government, some by the centre and some funded by both). Some of the programmes adopted in HP, which has pro-women allocation are Bal Vidya Sankalpa Yojana, Youth Hostels etc.

For the year 1999-2000, the share of Protective and Welfare Services Expenditure for Women in the Specifically Targeted Programme is 92.39%, while that of Social Services Expenditure for Women is 3.77%, Economic Services Expenditure for Women is 3.30% and Regulatory Services Expenditure and Awareness Generation Expenditure for Women is merely 0.54% in the Specifically Targeted Programme. This shows that the emphasis of the government of HP is on Protective and Welfare Services rather than on economic empowerment of women, when it comes to Specifically Targeted Programmes for Women. Share of Specifically Targeted Programmes in the Total Expenditure made by the government of HP, is a negligible 0.68% in the year 1999-2000. For the year 1997-98, the share of Protective and Welfare Services Expenditure for Women in the Specifically Targeted Programme is 93.86%, while that of Social Services Expenditure for Women is 2.36%, Economic Services Expenditure for Women is 3.49% and Regulatory Services Expenditure and Awareness Generation Expenditure for Women is merely 0.29% in the Specifically Targeted Programme. Share of Specifically Targeted Programmes in the Total Expenditure made by the government of HP, is a negligible 0.73% in the year 1997-98. Some of the women-specific programmes undertaken in HP are Indira Mahila Yojana, Widow Pension under Social Security Scheme, Training of ANMs, DAIs/LHVs etc.

INTRODUCTION

The total population of Himachal Pradesh, according to Census-2001, was 6,077,248 with a population density of 109 persons per square kilometer. The number of females per 1000 males in the state was 976 in 1991, which reduced to 970 in 2001¹. Himachal Pradesh is primarily a rural state. According to 1991 Census, 4729681 persons (91.31%) of the total population live in the rural areas. However, the percentage of the population living in the urban areas has been steadily going up from 7% in 1971 to 8.69% in 1991.

Much of the industrial activity in Himachal Pradesh is related to agro-processing and located in rural areas. The contribution of the secondary sector to state domestic product increased from 16.73% in 1970-71 to 25.03% in 1990-91². Thus compared to the national average, both urbanization and industrialization indices are lower in Himachal Pradesh, although in terms of per capita income, the state is very close to national average³.

State intervention in health sector is much prominent in Himachal Pradesh. Between 1987-88 and 1997-98, the health expenditure-GSDP ratio of Himachal Pradesh was more than 2% in most of the years, which is quite higher than that in the neighboring states of Punjab (0.6%) and Haryana (0.5%). It is to be noted that, during this period, in spite of the acute fiscal crisis of the states reflected in their revenue and fiscal deficits, the relative share of government expenditure in Medical and Public Health remained constant at 6% in Himachal Pradesh. However, in Punjab the ratio declined from 5.64% in 1987-88 to 4.42% in 1997-98 and in Haryana, it declined from 4.01% in 1987-88 to 2.84% in 1997-98⁴. It may be noted in this context that the state budget of HP as a percentage of NSDP (Net State Domestic Product) is very high compared to the neighboring states. While the percentage is 47.3% in Himachal Pradesh, the corresponding figures in Punjab, Haryana and Uttar Pradesh are 21.8%, 20.1% and 21% respectively.

Public Expenditure on Health can further be desegregated for studying changes in the pattern of allocation of health expenditure under different categories. Although 'hospitals and dispensaries' has continued to contribute the highest percentage share in health expenditure over the years, a declining trend in this share is visible over the last several years. The share of National Disease Control Programmes has also shown a sharp decline over this period, while there is a significant rise in the share of expenditure on family welfare programmes. The proportion of health expenditure on revenue account on maternal and child

¹ Census (2001). Govt. of India.

² Ninth Five Year Plan for Himachal Pradesh, pp.12, Government of India.

³ Herbal Medicinal Plants in Himachal Pradesh—An Analysis of Income and Employment Potential, ISST, June, 1999.

⁴ Health in Himachal Pradesh- A Component of Human Development, ISST, 2000.

health has shown a marginal rise as against a marginal decline in the share of expenditure on medical education and training, as can be seen from the table below.

Structure of Public Expenditure on Health in Himachal Pradesh (%)

Expenditure items	80-81	85-86	91-92	92-93	93-94	94-95	95-96	96-97
Health administration	4.02	2.66	4.26	3.39	3.77	3.36	*	*
National Disease Control Programme	13.54	11.68	10.05	11.51	11.53	11.17	11.30	10.73
Hospitals and Dispensaries	41.75	63.79	23.81	21.97	21.79	22.06	21.06	21.22
Medical Education, Training and Research	6.56	6.29	8.59	7.49	8.00	10.94	8.70	9.30
Family Welfare	10.30	18.06	16.50	15.59	18.51	15.44	18.82	17.45
Maternal and Child Health	1.03	1.18	1.14	1.59	2.17	2.42	1.59	2.17
Other Expenditure	11.78	14.13	27.63	26.75	28.11	27.34	32.88	32.56
Total Revenue Expenditure	88.98	90.79	91.97	88.28	93.88	92.73	94.35	93.44
Capital Expenditure	11.02	9.21	8.03	11.72	6.12	7.27	5.65	6.56
Total Expenditure on Health	100	100	100	100	100	100	100	100

Note: (*) denotes Expenditure on Health Administration is included in 'other expenditure' for the years 1995-96 and 1996-97.

Source: Data compiled from the Comptroller and Auditor General, Government of India, "Combined Finance and Revenue Accounts" [for 1980-81 and 1985-86] and "State Budgets" [for 1985-86 onwards] by CEHAT.

Data and Scope

To understand the nature of Himachal Pradesh state budget, it is essential to use Finance Accounts as the source of data, which gives the actual expenditure, instead of revised estimates or budget estimates. But the Finance Accounts does not provide enough information regarding various schemes for which the government spend money. It is imperative to study the Finance Accounts to know

the allocation of budget for different services (or sectors). We have consulted the Finance Accounts of Himachal Pradesh from 1992-93 to 2000-01, for the budget analysis.

For understanding the expenditure made by the government for the empowerment of women, it is necessary to look at various schemes/programmes for which the government spends money. In order to understand the gender part of expenditure, we have looked into the Budget Documents of two years i.e. 1999-2000 and 1997-98.

SOCIAL SERVICES

(A) Education, Sports, Arts and Culture

Education-sector has mainly 2 components—General (2202, 4202-01) and Technical (2203, 4202-02). General Education has mainly 3 components—Elementary Education (01,201), Secondary Education (02,202) and University and Higher Education (03,203). The other components of General Education are Adult Education (2202-03), Language Development (2202-05) and General (2202-80). Under General Education we will deal with only Elementary Education, Secondary Education and University and Higher Education since the Capital Account part of Adult Education & Language Development has not been given in any of the Finance Accounts.

General Education- Elementary Education, Secondary Education and University and Higher Education

In the case of General Education, Himachal Government has given more stress on Elementary Education compared to Secondary and University & Higher Education. This can be seen from Table-4 (Appendix-1, Page No. A-19 to A-23). The total expenditure on Elementary Education as a percentage of total Social Service Expenditure has been high compared to that of Secondary and University & Higher Education for the period 1992-93 to 2000-01. The share of total Elementary Education in the total Social Service Expenditure has declined from 28.69% in 1992-93 to 26.7% in 1994-95. But the share of total Elementary Education in the total Social Service Expenditure has increased from 26.85% in 1995-96 to 36.25% in 1999-2000. The share of Elementary Education in the Total Expenditure has shown fluctuations.

The share of both total Secondary and University & Higher Education Expenditure in the Social Service Expenditure has shown fluctuations. Similarly the share of both Secondary and University & Higher Education in the Total Expenditure has shown fluctuations (Table-4).

The share of Non-Plan Expenditure on Elementary Education in the Non-Plan Social Service Expenditure is higher compared to Secondary and University and Higher Education (see table-1, Appendix-1, Page no. A-1 to A-7). The share of Plan Expenditure on Elementary Education in the Plan Social Service Expenditure is higher compared to Secondary and University and Higher Education (see table-2, Appendix-1, Page No. A-8 to A-13). The share of Centrally-sponsored Schemes on Elementary Education in the Centrally Sponsored Social Service Expenditure is higher compared to the Secondary and University and Higher Education (see table-3, Appendix-1, Page No. A-14 to A-18). The Centrally-sponsored Schemes on University and Higher Education in the Centrally-sponsored Social Service Expenditure and Centrally-sponsored total Expenditure is zero for the year 1992-93 and from 1996-97 to 2000-01 (see table-3).

General Education & Technical Education

The share of total General Education Expenditure in total Social Services Expenditure is higher than that of Technical Education (see table-4, Appendix-1). The share of total General Education Expenditure in the total Social Services Expenditure is more than 43% in the given time-period, which shows that General Education has been given more emphasis than Technical Education (see table-4). The Non-Plan Expenditure on General Education as a percentage of Non-Plan Social Services Expenditure is over 50% for all the years whereas for Technical Education the figure comes to around 0.30% for all the years (see table-1). The share of Plan Social Service Expenditure on General Education is more than 30% for all the years but for Technical Education the figure comes to almost 3% (see table-2, Appendix-1). The share of Centrally-sponsored Social Services Expenditure on General Education has increased from 12.51% in 1992-93 to 30.23% in 2000-01 whereas for Technical Education is almost 0 from 1996-97 to 2000-01(see table-3, Appendix-1).

The share of total General Education Expenditure in total Expenditure is higher than that of Technical Education (see table-4, Appendix-1). The share of total General Education Expenditure in the total Expenditure is more than 15% in the given time-period which shows that General Education has been given more emphasis than Technical Education (see table-4, Appendix-1). The Non-Plan Expenditure on General Education as a percentage of Non-Plan Total Expenditure is over 16% for all the years whereas for Technical Education the figure comes to around 0.10% for all the years (see table-1). The share of Plan total Expenditure on General Education is more than 11% for all the years (which has increased to around 22% for 1999-2000 and 2000-01) but for Technical Education the figure comes to almost 1% (see table-2, Appendix-1). The share of Centrally-sponsored total Expenditure on General Education was 8.19% in 1992-93 which became 14.89% in 2000-01 whereas for Technical Education is was zero from 1996-97 to 2000-01 (see table-3, Appendix-1).

(B) Health and Family Welfare

Health is an important area that has to be analyzed from two different perspectives. One from the perspective of budget allocation for Rural Health Services (2210-03, 4210-02) and Urban Health Services (2210-02, 4210-01), and also from the perspective of the type of medication i.e. allopathy and non-allopathy. Due to the Finance Accounts showing gender-neutral figures, we can't get the separate expenditure on health for women and men. However it is important to know how much amount of the Social Service Expenditure and total expenditure is spent on health. It is important to know the expenditure on health from the perspective rural-urban divide since rural female population as % of total female population is 91.18% and rural female population as a % of total population is 44.89% (Census-2001). So it is pertinent to know the share of government expenditure that goes for health sector in rural and urban areas. Again it is important to know whether the government has given more emphasis on allopathy or non-allopathy medication.

Medical and Public Health and Family Welfare

Before going further, it is important to look at the Expenditure on Medical and Public Health (2210, 4210) and Expenditure on Family Welfare (2211, 4211). Medical and Public Health Expenditure as a % of Total Social Service Expenditure is stagnant at around 15% whereas that of Family Welfare is declining from 4.44% in 1992-93 to 1.79% in 2000-01. Medical and Public Health Expenditure as a % of Total Expenditure is around 5%. Family Welfare Expenditure as a % of Total Expenditure is declining from 1.71% in 1992-93 to 0.66% in 2000-01 (see table-4, Appendix-1).

The share of Non-Plan Social Service Expenditure on Medical and Public Health is around 17% with the exception of 2000-01 where the figure comes to 14.50%. The share of Non-Plan Social Service Expenditure on Family Welfare is stagnant i.e. 0.26% in 1994-95 to 0.23% in 1999-2000. The share of Non-Plan Total Expenditure on Medical and Public Health more than 5% but has been quite low at 4.87% in 1999-2000 and 3.99% in 2000-01. The share of Non-Plan Total Expenditure on Family Welfare was stagnant at 0.08% in 1994-95 to 1996-97 (see table-1, Appendix-1).

The share of Plan Social Service on Medical and Public Health is more than 14%. From 1997-98 onwards the share of Plan Social Service Expenditure on Medical and Public Health has shown an increase from 14.54% in 1997-98 to 18.09% in 2000-01. The share of Plan Social Service Expenditure on Family Welfare has been declining sharply from 0.46% in 1996-97 to 0.11% in 2000-01. The share of Plan Total Expenditure on Medical and Public Health is more than 5% for all the years, with a sharp rise from 5.4% in 1997-98 to 9.48% in 2000-01.

The share of Plan Total Expenditure on Family Welfare has been declining sharply from 0.18% in 1996-97 to 0.06% in 2000-01 (see table-2, Appendix-1).

The share of Centrally sponsored Social Services Expenditure on Medical and Public Health has been declining from 6.81% in 1996-97 to 1.09% in 1999-2000. The share of Centrally sponsored Social Services Expenditure on Family Welfare has shown fluctuations. The share of Centrally sponsored Total Expenditure on Medical and Public Health has declined from 3.73% in 1996-97 to 0.64% in 1999-2000. The share of Total Centrally sponsored Expenditure on Family Welfare has shown fluctuation and from 1998-99 onwards has shown a decline from 17.74% in 1998-99 to 8.69% in 2000-01 (see table-3, Appendix-1).

Urban Health Services and Rural Health Services

The share of Total Social Service Expenditure on Urban Health Services is nearly half of that of Rural Health Services. The share of Total Social Services Expenditure on Urban Health Services has shown a decline from 3.89% in 1993-94 to 3.79% in 1996-97. The share of Total Social Services Expenditure on Rural Health Services has shown a rise from 6.62% in 1992-93 to 6.98% in 1994-95. The share of Total Expenditure on Urban Health Services has shown a decline from 1.48% in 1992-93 to 1.22% in 1994-95. The share of Total Expenditure on Rural Health Services has shown a fall from 2.55% in 1992-93 to 2.19% in 1994-95 (see table-4, Appendix-1).

The share of Non-Plan Social Services Expenditure on Urban Health Services is less than that of Rural Health Services for almost all the years except that of 2000-01. The share of Non-Plan Social Services Expenditure on Urban Health Services is greater than 5% for all the years. The share of Non-Plan Social Services Expenditure on Rural Health Services is greater than 7% (except 4.73% in 2000-01). The share of Non-Plan Total Expenditure on Urban Health Services is a greater than 1.5%. The share of Non-Plan Total Expenditure on Rural Health Services has been greater than 2% for all the years, except 1.3% in 2000-01 (see table-1, Appendix-1).

The share of Plan Social Services Expenditure on Urban Health Services has shown a fall from 2.22% in 1993-94 to 1.8% in 1995-96. The share of Plan Social Services Expenditure on Rural Health Services has shown an increase from 5.73% in 1995-96 to 8.58% in 2000-01. The share of Plan Total Expenditure on Urban Health Services is greater than 0.5% but has become greater than 1% from 1998-99 onwards. The share of Plan Total Expenditure on Rural Health Services has shown an increase from 2.39% in 1997-98 to 4.49% in 2000-01 (see table-2, Appendix-1).

The share of Centrally sponsored Social Services Expenditure and Centrally sponsored Total Expenditure on Urban Health Services is 0 except for the year

2000-01. The share of Centrally sponsored Social Services Expenditure and Centrally Sponsored Total Expenditure on Rural Health Services is meager (see table-3, Appendix-1).

Public Health

The share of Social Services Expenditure on Public Health has shown a decline from 2.33% in 1996-97 to 1.31% in 2000-2001 and the share of Total Expenditure on Public Health has shown a decline from 0.84% in 1996-97 to 0.48% in 2000-01 (see table-4, Appendix-1). This is a grim situation for the vast population of HP, which depend on Public Health Expenditure of the government. The share of Non-Plan Social Services Expenditure on Public Health has shown a decline from 2.30% in 1996-97 to 0.70% in 2000-01. The share of Non-Plan total Expenditure on Public Health has shown a decline from 0.75% in 1995-96 to 0.19% in 2000-01 (see table-1). The share of Plan Total Expenditure on Public Health has shown a rise from 0.64% in 1997-98 to 0.99% in 2000-01 (table-2). The share of Centrally sponsored Social Services Expenditure on Public Health has shown a decline from 5.28% in 1994-95 to 0.55% in 1999-2000. The share of Centrally sponsored Total Expenditure on Public Health has shown a decline from 3.03% in 1994-95 to 0.32% in 2000-01 (see table-3, Appendix-1).

Allopathy and non-Allopathy

The share of Social Services Expenditure on Allopathy has been more than 10% for all the years. The share of Social Services Expenditure on Allopathy has declined from 11.30% in 1998-99 to 10.48% in 2000-01. For non-Allopathy, it is one-fifth of that of the share of Social Services Expenditure on Allopathy. The share of Total Expenditure on Allopathy has been around 4% but has shown a declining trend from 4.29% in 1998-99 to 3.78% in 2000-01. The share of Total Expenditure on non-Allopathy has been close to 1% (see table-5 for all, Appendix-1, Page No. A-24 to A-25).

The share of Non-Plan Social Services Expenditure on Allopathy has been near to 12%. The share of Non-Plan Social Services Expenditure on non-Allopathy has declined from 2.59% in 1998-99 to 2.48% in 2000-01. The share of Non-Plan Total Expenditure on Allopathy has been around 4% but shown a decline from 4.04% in 1998-99 to 3.11% in 2000-01. The share of Non-Plan Expenditure on non-Allopathy has shown a decline from 0.84% in 1998-99 to 0.68% in 2000-01 (see table-5 for all Appendix-1, Page No. A-24 to A-25).

The share of Plan Social Services Expenditure on Allopathy has shown fluctuations. The share of Total Plan Expenditure on Allopathy has shown a rise from 4.95% in 1997-98 to 6.79% in 2000-01. The share of Plan Social Services Expenditure on non-Allopathy has shown a rise from 2.48% in 1994-95 to 3.85%

in 2000-01 (with the exception of 2.54% in 1997-98). The share of Plan Total Expenditure on non-Allopathy has shown a rise from 1.02% in 1994-95 to 2.32% in 2000-01 (with the exception of 1.19% in 1997-98)(see table-5 for all Appendix-1, Page No. A-24 to A-25).

The share of Centrally sponsored Social Services Expenditure on Allopathy has shown a fall from 3.44% in 1996-97 to 0.79% in 1999-2000. The share of Centrally sponsored Total Expenditure on Allopathy has shown a decline from 1.71% in 1996-97 to 0.36% in 2000-01. The Centrally sponsored Social Services and total Expenditure on non-Allopathy is near to 0 (see table-5 for all Appendix-1, Page No. A-24 to A-25).

(C) Water Supply, Sanitation, Housing and Urban Development

There are 2 main categories under Water Supply, Sanitation, Housing and Urban Development ---Water Supply and Sanitation (2215, 4215) and Housing (2216, 4216). We are not taking the case of Urban Development and Information and broadcasting. Water Supply and Sanitation has 2 sub-categories—Water Supply (01, 01) and Sewerage and Sanitation (02, 02). Water Supply has 2 categories—Urban Water Supply Programs (101,101) and Rural Water Supply Programs (102,102). Housing has 3 categories—Government Residential Buildings (01, 01), Urban Housing (02, 02) and Rural Housing (03,03).

Water Supply and Sanitation and Housing

Let us first discuss the case of Water Supply and Sanitation and Housing. The share of Social Services Expenditure on Water Supply and Sanitation has been more than 17% (except in 1996-97). The share of Total Expenditure on Water Supply and Sanitation has been more than 6% (except in 1996-97). The share of Social Services Expenditure on Housing has shown an increase from 1.33% in 1993-94 to 4.92% in 1995-96 and has shown a decline from 4.84% in 1998-99 to 2.67% in 2000-01. The share of Total Expenditure on Housing has shown an increase from 0.47% in 1993-94 to 1.77% in 1995-96 and shown a decline from 1.78% in 1998-99 to 0.98% in 2000-01 (see table-4, Appendix-1).

The share of Non-Plan Social Services Expenditure on Water Supply and Sanitation has been more than 10% for all the years except in 1993-94. The share of Non-Plan Total Expenditure on Water Supply and Sanitation is more than 3% for all the years. The share of Non-Plan Social Services Expenditure on Housing is close to 0.40%, except that of 2.31% in 1994-95. The share of Total Non-Plan Expenditure on Housing has shown a decline from 0.76% in 1994-95 to 0.10% in 2000-01 (see table-1 for all, Appendix-1).

The share of Plan Social Services Expenditure on Water Supply and Sanitation has been more than 20%. The share of Plan Total Expenditure on Water Supply and Sanitation has been more than 8%. The share of Plan Social Services Expenditure on Housing has shown a rise from 3.28% in 1993-94 to 11.28% in 1995-96, and has shown a decline from 11.29% in 1998-99 to 5.66% in 2000-01. The share of Total Plan Expenditure on Housing has shown a rise from 1.16% in 1993-94 to 4.23% in 1996-97 and then shown a decline from 4.66% in 1998-99 to 2.97% in 2000-01 (see table-2, Appendix-1).

The share of Centrally sponsored Social Services Expenditure on Water Supply and Sanitation has shown a rising trend from 20.99% in 1997-98 to 34.66% in 2000-01. The share of Total Centrally sponsored Expenditure on Water Supply and Sanitation decline from 16.69% in 1995-96 to 13.30% in 1997-98. The share of Centrally sponsored Social Services expenditure on Housing has been very little except that of 5.33% in 1995-96. The share of Centrally sponsored Expenditure on Housing has been close to 0 except that of 3.14% in 1995-96 (see table-3, Appendix-1).

Water Supply and Sewerage and Sanitation

Now we will look into the Water Supply and Sewerage and Sanitation components of the Water Supply and Sanitation (2215,4215). The share of Social Services Expenditure on Water Supply has been more than 15% except that of 8.89% in 1996-97. The share of Total Expenditure on Water Supply has been more than 5% except that of 3.22% in 1996-97. The share of Social Services Expenditure on Sewerage and Sanitation has shown a decline from 1.60% in 1993-94 to 0.76% in 1996-97, followed by a rise to 2.10% in 1998-99 and then followed by a decline from 2.10% in 1998-99 to 0.89% in 2000-01 (see table-4, Appendix-1).

The share of Non-Plan Social Services Expenditure on Water Supply has shown a rise from 11.57% in 1995-96 to 14.38% in 1998-99. The share of Non-Plan Total Expenditure on Water Supply has shown a rise from 3.91% in 1995-96 to 4.69% in 1998-99. The share of Non-Plan Social Services Expenditure on Sewerage and Sanitation has declined from 0.50% in 1994-95 to 0% in 1999-2000. The share of Non-Plan Total Expenditure has shown a decline from 0.17% in 1994-95 to 0% in 1999-2000 (table-1, Appendix-1).

The share of Plan Social Services Expenditure on Water Supply has shown decline from 29.97% in 1992-93 to 16.70% in 1999-2000 (except in 1995-96). The share of Plan Total Expenditure on Water Supply has shown a fall from 10.52% in 1992-93 to 6.82% in 1994-95, followed by a rise to 9.86% in 1996-97, and again followed by a fall to 7.47% in 1997-98. From 1997-98 onwards we find that share of Plan Total Expenditure on Water Supply has shown a rise from 7.47% in 1997-98 to 9.70% in 2000-01. The share of Plan Social Services

Expenditure on Sewerage and Sanitation has shown fluctuations over the years. The share of Plan Total Expenditure on Sewerage and Sanitation has been the highest (2.04%) in 1998-99 (table-2, Appendix-1).

The share of Centrally sponsored Social Services Expenditure on Water Supply had been fluctuating. The share of Centrally sponsored Total Expenditure on Water Supply had been the lowest (8.61%) in 1993-94. The Centrally sponsored Social Services Expenditure and Centrally sponsored Total Expenditure on Sewerage and Sanitation has been both zero (table-3, Appendix-1).

Urban and Rural Water Supply Programmes

Let us see the expenditure on Water Supply Programmes in rural and urban areas. The share of Social Services Expenditure on Urban Water Supply Programmes has shown a rise from 2.36% in 1992-93 to 3.97% in 1996-97. The share of Total Expenditure on Urban Water Supply Programmes has shown a rise from 0.91% in 1992-93 to 1.44% in 1996-97. The share of Social Services Expenditure on Rural Water Supply Programmes has been more than 11% for all the years. The share of Total Expenditure on Rural Water Supply Programmes has been more than 4% for all the years. From the above trend we can get the idea that the government had been spending more on Water Supply Programmes in the rural areas compared to the urban areas (see table-4, Appendix-1).

The share of Non-Plan Social Services Expenditure on Urban Water Supply Programmes has shown a rise from 1.50% in 1992-93 to 2.93% in 1995-96. The share of Non-Plan Expenditure on Urban Water Supply Programmes has shown a rise from 0.55% in 1992-93 to 0.99% in 1995-96. The share of Non-Plan Social Services Expenditure on Rural Water Supply Programmes has shown fluctuations. The share of Non-Plan Expenditure on Rural Water Supply Programmes has also shown fluctuations (see table-1, Appendix-1).

The share of Plan Social Services Expenditure on Urban Water Supply Programmes has shown a decline from 7.34% in 1996-97 to 3.84 % in 1998-99. The share of Plan Total Expenditure on Urban Water Supply Programmes has been the highest (2.91%) in 1996-97. The share of Plan Social Services Expenditure on Rural Water Supply Programmes has shown a fall from 34.49% in 1992-93 to 11.69% in 1998-99. The share of Plan Total Expenditure on Rural Water Supply Programmes has shown a decline from 12.11% in 1992-93 to 4.93% in 1994-95 (see table-2, Appendix-1).

The share of Centrally sponsored Social Services Expenditure on Urban Water Supply Programmes has shown a rise from 0% in 1993-94 to 0.79% in 1996-97. The share of Centrally sponsored Total Expenditure on Urban Water Supply Programmes is very low. The share of Centrally sponsored Social Services Expenditure on Rural Water Supply Programmes had been more than 18%. The

share of Centrally sponsored Total Expenditure on Rural Water Supply Programmes has been the lowest (8.38%) in 1993-94 (see table-3, Appendix-1).

Government Residential Buildings, Urban Housing and Rural Housing

The share of Social Services Expenditure on Government Residential Buildings has shown a rise from 1.95% in 1995-96 to 2.81% in 1999-2000. The share of Total Expenditure on Government Residential Buildings has shown a rise from 0.70% in 1995-96 to 1.01% in 1999-2000. The share of Social Services Expenditure on Urban Housing has been close to 0%. The share of Total Expenditure on Urban Housing is also 0%. The share of Social Services Expenditure on Rural Housing has shown a rise from 0.08% in 1992-93 to 2.96% in 1995-96, and shown a decline from 2.30% in 1997-98 to 0.14% in 1999-2000. The share of Total Expenditure on Rural Housing has shown a rise from 0.03% in 1992-93 to 1.07% in 1995-96 (see table-4, Appendix-1).

The share of Non-Plan Social Services Expenditure on Government Residential Buildings had been the highest (2.31%) in 1994-95. The share of Non-Plan Total Expenditure on Government Residential Buildings has shown a fall from 0.76% in 1994-95 to 0.10% in 2000-01. The share of Non-Plan Social Services Expenditure for both Urban and Rural Housing has been 0% for all the years. The share of Non-Plan Total Expenditure for both Urban and Rural Housing has been 0% for all the years (see table-1, Appendix-1).

The share of Plan Social Services Expenditure on Government Residential Buildings has shown a rise from 3.02% in 1995-96 to 6.04% in 1999-2000. The share of Plan Total Expenditure on Government Residential Buildings has shown a rise from 0.96% in 1994-95 to 2.88% in 1999-2000 (except in the year 1997-98). The share of Plan Social Services and Total Expenditure on Urban Housing has been close to 0%. The share of Plan Social Services Expenditure on Rural Housing has shown a rise from 0.29% in 1992-93 to 8.25% in 1995-96, and shown a decline from 5.67% in 1997-98 to 0.31% in 2000-01. The share of Plan Total Expenditure on Rural Housing has shown a rise from 0.10% in 1992-93 to 3.04% in 1995-96 (see table-1, Appendix-1).

The share of Centrally sponsored Social Services Expenditure on Government Residential Buildings has shown a rise from 0.25% in 1993-94 to 5.33% in 1995-96, and a decline from 0.13% in 1997-98 to 0% in 2000-01. The share of Centrally sponsored Social Services Expenditure on both Urban and Rural Housing has been 0% for all the years. The share of Centrally sponsored Total Expenditure on both Urban and Rural Housing has also been 0% (see table-3, Appendix-1).

(D) Information and Broadcasting

This will be discussed later when we will be discussing the broad categories.

(E) Welfare of SCs, STs and OBCs

The main categories under Welfare of SCs, STs and OBCs are Welfare of SCs (01, 01) and Welfare of STs (02, 02). It is imperative to know the Expenditure for the Welfare of SCs and STs because 29.56% of population is constituted by SCs and STs, which is quite higher than that of UP (21.25%), Punjab (28.31%), Haryana (14.2%) and all-India level (24.56%), according to Census-1991. Moreover, 14.55% of total population of Himachal Pradesh is constituted by SC and ST females, which are higher than that of UP, Punjab, Haryana and all-India level. Since SC and ST females constitute around 15% of total population, so we can say that a higher expenditure on the Welfare of SCs and STs will improve the quality of life for such women.

Welfare of SCs and STs

The share of Social Services Expenditure on the Welfare of SCs has declined from 1.28% in 1993-94 to 0.60% in 1996-97. The share of Total Expenditure on the Welfare of SCs has shown a decline from 0.48% in 1992-93 to 0.14% in 1999-2000, which clearly shows that the 1990s have seen a sharp decline in the expenditure on the Welfare of SCs (with a sharp break in 1994-95). This is a cause of concern. The share of Social Services Expenditure on the Welfare of STs has witnessed fluctuation. The share of Total Expenditure in the Welfare of STs has been very less (see table-4, Appendix-1).

The share of Non-Plan Social Services Expenditure on the Welfare of SCs has shown a decline from 0.41% in 1995-96 to 0.27% in 1998-99. The share of Non-Plan Expenditure on the Welfare of SCs has shown a decline from 0.14% in 1992-93 to 0.12% in 1994-95 and then a rise to 0.14% in 1995-96 to be followed by a decline from 0.10% in 1996-97 to 0.08% in 1999-2000. The share of Non-Plan Social Services Expenditure on the Welfare of STs has shown a stagnant allocation of 0.05% from 1994-95 to 1999-2000. The share of Non-Plan Total Expenditure on the Welfare of STs has been stagnant at 0.02% from 1992-93 to 1998-99 (see table-1, Appendix-1).

The share of Plan Social Services Expenditure on the Welfare of SCs has shown a decline from 1.25% in 1994-95 to 0.77% in 1996-97, followed by a rise in 1997-98 to be followed by a fall from 0.66% in 1998-99 to 0.28% in 1999-2000. The share of Plan Total Expenditure on the Welfare of SCs has shown a decline from 0.34% in 1995-96 to 0.13% in 1999-2000. The share of Plan Social Services Expenditure on the Welfare of STs has shown a fall from 0.39% in 1992-93 to

0.23% in 1994-95 and also a decline from 0.28% in 1998-99 to 0.14% in 2000-01. The share of Plan Total Expenditure on the Welfare of STs has declined from 0.17% in 1996-97 to 0.08% in 2000-01 (except 0.11% in 1998-99) (see table-2, Appendix-1).

The share of Centrally sponsored Social Services Expenditure on the Welfare of SCs has been high at 5.37% in 1992-93 and 7.98% in 1993-94. The share of Centrally sponsored Total Expenditure on the Welfare of SCs has shown a decline from 3.52% in 1992-93 to 0.89% in 1994-95. The share of Centrally sponsored Social Services Expenditure on the Welfare of STs has shown fluctuation. The share of Centrally sponsored Total Expenditure on the Welfare of STs has also shown fluctuation (see table-3, Appendix-1).

SOCIAL SERVICES AND ANALYSIS OF ITS BROAD CATEGORIES

Now we will analyze the allocation of Social Services and Total Expenditure on the 5 major categories—

(A) Education, Sports, Arts and Culture

The share of Social Services Expenditure on the Education, Sports, Arts and Culture has shown a rise from 45.52% in 1995-96 to 53.07% in 1999-00. This shows that the government spends a major chunk of its Social Services Expenditure on this category. The share of Total Expenditure on Education, Sports, Arts and Culture a fall from 17.68% in 1992-93 to 14.43% in 1994-95 and a rise from 16.52% in 1997-98 to 18.55% in 2000-01 (see table-4, Appendix-1, Page No. A-20).

The share of Non-Plan Social Services Expenditure on Education, Sports, Arts and Culture has been more than 50%. The share of Non-Plan Total Expenditure has been more than 15% (see table-1, Appendix-1, Page No. A-2).

The share of Plan Social Services Expenditure on Education, Sports, Arts and Culture has been more than 37% but has also shown fluctuations. The share of Plan total Expenditure on Education, Sports, Arts and Culture has shown a rise from 14.95% in 1997-98 to 24.89% in 2000-01 (see table-2, Appendix-1, Page No. A-9).

The share of Centrally sponsored Social Services Expenditure on Education, Sports, Arts and Culture has shown a rise from 12.88% in 1992-93 to 26.58% in 1994-95 and then a fall followed by a rise from 25.41% in 1996-97 to 36.16% in 1997-98 and again a fall to be followed by a rise from 27.57% in 1999-2000 to 30.76% in 2000-01. The share of Centrally sponsored Total Expenditure on Education, Sports, Arts and Culture has shown fluctuations (see table-3, Appendix-1, Page No.A-15).

(B) Health and Family Welfare

The share of Social Services Expenditure on Health and Family Welfare has shown a decline from 19.25% in 1992-93 to 16.70% in 1997-98 (except 18.44% in 1996-97). The share of Total Expenditure on Health and Family Welfare has been close to 6% for all the years (highest at 7.43% in 1992-93) (table-1, Appendix-1, Page No. A-21).

The share of Non-Plan Social Services Expenditure on Health and Family Welfare has shown a decline from 18.29% in 1992-93 to 16.66% in 1997-98 (except 18.13% in 1996-97). The share of Non-Plan Total Expenditure on Health and Family Welfare has been more than 6% for all the years, except that of 4.93% in 1999-2000 and 4.04% in 2000-01 (table-1, Appendix-1, Page No. A-3).

The share of Plan Social Services Expenditure on Health and Family Welfare has shown a rise from 14.74% in 1997-98 to 18.20% in 2000-01. The share of Plan Total Expenditure on Health and Family Welfare has shown a rise from 4.31% in 1994-95 to 9.54% in 2000-01 (except that of 5.48% in 1997-98) (Table-2, Appendix-1, Page No. A-10).

The share of Centrally sponsored Social Services Expenditure on Health and Family Welfare has shown a decline from 34.88% in 1996-97 to 20.18% in 2000-01 (except that of 34.10% in 1998-99). The share of Centrally sponsored Total Expenditure on Health and Family Welfare has shown a decline from 22.62% in 1994-95 to 9.94% in 2000-01 (except that of 20.03% in 1998-99) (table-3, Appendix-1, Page No. A-16).

(C) Water Supply, Sanitation, Housing and Urban Development

The share of Social Services Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a rise from 19.55% in 1993-94 to 24.13% in 1996-97. The share of Total Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a rise from 6.85% in 1993-94 to 8.76% in 1996-97 (see table-4, Appendix-1, Page No. A-22).

The share of Non-Plan Social Services Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown fluctuation, although it was more than 10% for all the years except that of 7.77% in 1993-94. The share of Non-Plan Total Expenditure on Water Supply, Sanitation, Housing and Urban Development has been the lowest at 2.65% in 1993-94 and highest at 5.24% in 1994-95 (see table-1, Appendix-1, Page No. A-6).

The share of Plan Social Services Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a fall from 40.51% in 1992-93 to 37.90% in 1994-95 to be followed by a rise to 39.52% in 1995-96 & again a fall

from 39.60% in 1996-97 to 17.74% in 1998-99. The share of Plan Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a decline from 14.23% in 1992-93 to 10.00% in 1994-95 to be followed by a rise to 14.58% in 1995-96 and then a fall from 15.72% in 1996-97 to 7.32% in 1998-99 (see table-2, Appendix-1, Page No. A-12).

The share of Centrally sponsored Social Services Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a decline from 42.50% in 1992-93 to 21.08% in 1994-95 and a rise from 21.12% in 1997-98 to 35.36% in 2000-01. The share of Centrally sponsored total Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a rise from 14.91% in 1996-97 to 19.97% in 1999-2000 (see table-3, Appendix-1, Page No.18).

(D) Information and Broadcasting

Information and Broadcasting is an important sector, which can play an important role for the empowerment of women. If the Information and Broadcasting plays the role of generating awareness for education of women along with health & family welfare, then the allocation for this sector becomes essential to enumerate.

The share of Social Services Expenditure on Information and Broadcasting has shown a decline from 0.81% in 1995-96 to 0.49% in 1998-99. The share of Total Expenditure on Information and Broadcasting has also shown a decline from 0.29% in 1995-96 to 0.18% in 1998-99 (table-4, Appendix-1, Page No. A-22).

The share of Non-Plan Social Services Expenditure on Information and Broadcasting has shown a decline from 0.65% in 1995-96 to 0.52% in 1998-99. The share of Non-Plan Total Expenditure on Information and Broadcasting has shown a decline from 0.22% in 1995-96 to 0.16% in 2000-01 (table-1, Appendix-1, Page No. A-6).

The share of Plan Social Services Expenditure on Information and Broadcasting has shown a decline from 1.25% in 1995-96 to 0.53% in 1998-99. The share of Plan Total Expenditure on Information and Broadcasting has shown a decline from 0.46% in 1995-96 to 0.22% in 1998-99 (table-2, Appendix-1, Page No. 12).

Both the share of Centrally sponsored Social Services and Total Expenditure on Information and Broadcasting has been 0 % for all the years (table-3, Appendix-1, Page No.18).

(E) Welfare of SCs, STs and OBCs

The share of Social Services Expenditure on Welfare of SCs, STs and OBCs has shown a decline from 1.20% in 1995-96 to 0.62% in 1999-2000. The share of Total Expenditure on Welfare of SCs, STs and OBCs has shown a fall from 0.43% in 1995-96 to 0.22% in 1999-2000 (table-4, Appendix-1, Page No. A-23).

The share of Non-Plan Social Services Expenditure on Welfare of SCs, STs and OBCs has shown a decline from 0.46% in 1995-96 to 0.32% in 1998-99. The share of Non-Plan Total Expenditure on Welfare of SCs, STs and OBCs has shown a decline from 0.15% in 1995-96 to 0.09% in 1999-2000 (table-1, Appendix-1, Page No. A-7).

The share of Plan Social Services Expenditure on Welfare of SCs, STs and OBCs has shown a decline from 2.06% in 1995-96 to 0.63% in 1999-2000. The share of Plan Total Expenditure on Welfare of SCs, STs and OBCs has shown a decline from 0.76% in 1995-96 to 0.30% in 1999-2000 (table-2, Appendix-1, Page No. A-13).

The share of Centrally sponsored Social Services Expenditure on Welfare of SCs, STs and OBCs has shown a fall from 5.49% in 1992-93 to 1.67% in 1994-95 and a rise from 1.95% in 1996-97 to 2.86% in 1998-99. The share of Centrally sponsored Total Expenditure on Welfare of SCs, STs and OBCs has shown a decline from 3.59% in 1992-93 to 0.95% in 1994-95 (table-3, Appendix-1, Page No.18).

ECONOMIC SERVICES

(A) Agriculture and Allied Activities

Under Agriculture and Allied activities, the main categories are Crop Husbandry (2401, 4401), Soil and Water Conservation (2402, 4402), Animal Husbandry (2403, 4403), Dairy Development (2404, 4404), Fisheries (2405, 4405), Forestry and Wildlife (2406, 4406), Food, Storage and Warehousing (2408, 4408), Agriculture Research and Education (2415, 4415) and Co-operation (2425, 4425). It is imperative to study the allocation of budget for Agriculture and Allied Activities since 86.91% of total female main workers work as cultivators (Census-1991). If the expenditure on Agriculture and Allied Activities is more then we can say that women would be benefited, provided they get their just share of production. Only 1.98% of total female main workers population is employed as agricultural laborers in HP, which is lower compared to UP (35.8%), Punjab (24.35%), Haryana (25.04%) and all-India level (44.24%)⁵.

⁵ Census 1991, Government of India.

Himachal Pradesh can really bring women into the mainstream of agriculture because women of this area were seen as quite bold, reasonable and smart in undertaking variety of activities. Since females has made an important contribution in agriculture, so there should be an accepted policy for the development of women in respect of their educational level (formal as well as informal) and their working environment. The extension services concentrate more on men and women are mostly left out. If training is arranged during the slack period on use of modern farm techniques, livestock rearing practices to women, their farm technical know-how would enhance and help in increased productivity shall make them economically independent. But a small fraction of main female workers engaged as agricultural laborers suggests that wage based labor opportunities is limited (86.91% of total main female workers as cultivators and 1.98% as agricultural laborers in 1991). The data is a pointer towards the increasing trend of marginalization and absorption of women workers in unpaid agricultural activities. As men are drawn more and more into the folds of the market mechanism, women are increasingly left behind to tend to subsistence activities. A similar trend has been reported from Himachal Pradesh where there was an increase in the proportion of women cultivators while the proportion of women agricultural labourers declined in the period 1981-1991⁶. The displacement of women from the wage labor has implications for the crucial issue of women's empowerment and the welfare of the household⁷.

It is essential to discuss the allocation of budget for Crop Husbandry only, and leave the rest like Soil and Water Conservation, Animal Husbandry, Dairy Development etc. since the percentage of total female main workers employed in livestock, forestry and such allied activities is only 0.72%⁸. The share of Economic Services Expenditure on Crop Husbandry has been over 6%. The share of Total Expenditure on Crop Husbandry has been more than 2% (except 1.98% in 1999-2000 and 1.92% in 2000-01) (see table-4, Appendix-2, Page No.A-7).

The share of Non-Plan Economic Services Expenditure on Crop Husbandry has shown a decline from 6.81% in 1997-98 to 5.14% in 2000-01 (it was highest at 17.82% in 1993-94). The share of Non-Plan Total Expenditure on Crop Husbandry has shown a decline from 1.63% in 1997-98 to 1.05% in 2000-01 (table-1, Appendix-2, Page No. A-1).

The share of Plan Economic Services Expenditure on Crop Husbandry has shown a decline from 7.97% in 1992-93 to 5.29% in 1997-98 (except 4.04% in 1994-95). The share of Plan Total Expenditure on Crop Husbandry has shown a decline from 4.80% in 1993-94 to 3.13% in 1997-98 (except 2.86% in 1994-95) (table-2, Appendix-2, Page No. A-3).

⁶ Sethi (1991). Women in Agriculture.

⁷ Darley Jose and Shanmugaratnam (1994). Vanishing Paddy Lands: Implications for Food Security and Self-Reliance.

⁸ Census (1991). Govt. of India.

The share of Centrally sponsored Economic Services Expenditure on Crop Husbandry has fluctuated over the years. The share of Centrally sponsored Total Expenditure on Crop Husbandry has decline from 4.58% in 1995-96 to 2.02% in 2000-01 (except 4.48% in 1998-99) (table-3, Appendix-2, Page No. A-5).

The other category for which the government allocates a huge chunk is Forestry and Wildlife. The share of Economic Services Expenditure on Forestry and Wildlife has been more than 10% except 8.09% in 1994-95 and 8.22% in 1997-98. The share of Economic Services Expenditure on Forestry and Wildlife has shown 8.22% in 1997-98 to 14.83% in 2000-01. The share of Total Expenditure on Forestry and Wildlife has been more than 3% (see table-4, Appendix-2, Page No. A-7).

(B) Rural Development

This will be discussed later when we will be discussing the broad categories.

(C) Irrigation and Flood Control

This will be discussed later when we will be discussing the broad categories.

(D) Industry and Minerals

This will be discussed later when we will be discussing the broad categories.

(E) Transport

Himachal Pradesh has a bad terrain, which becomes an obstacle for the access to health facilities (refer to--*Health In Himachal Pradesh—A Component of Human Development*’, by ISST, 25th August 2000). A high allocation to Transport is essential to access health facilities. There are mainly 2 sub-categories under Transport – Roads and Bridges (3054, 5054) and Road Transport (3055, 5055). The other categories like Civil Aviation, Water Transport etc. have not been taken because expenditure on them will have little impact for the access to health facilities.

Under Roads and Bridges, there are 3 sub-categories—Strategic and Border Roads (02, 02), State Highways (03, 03), District and Other Roads (04, 04). Let us discuss the budget allocation for State Highways and District and other Roads. The share of Economic Services Expenditure on State Highways has shown a fall from 7.37% in 1995-96 to 5.83% in 1997-98. The share of Total Expenditure on State Highways has shown a rising trend from 2.16% in 1996-97 to 2.96% in 1999-2000. The share of Economic Services Expenditure on District and other Roads has shown a rise from 8.77% in 1992-93 to 13.53% in 1996-97.

The share of Total Expenditure on District and other Roads has shown a rise from 2.73% in 1992-93 to 4.70% in 1996-97 (except in 1995-96). (see Table-12, Appendix-2, Page No. A-16)

The share of Non-Plan Economic Services Expenditure on State Highways has shown a fall from 14.30% in 1994-95 to 7.83% in 1997-98. The share of Non-Plan Expenditure on State Highways has shown a fall from 3.39% in 1994-95 to 1.80% in 2000-01 except 1.88% in 1999-00. The share of Non-Plan Economic Services Expenditure on District and other Roads has shown a rise from 8.02% in 1993-94 to 21.43% in 1996-97. The share of Non-Plan Expenditure on District and other Roads has shown fluctuation. (see table-9, Appendix-2, Page No. A-13).

The share of Plan Economic Services Expenditure on State Highways has shown a rising trend from 2.92% in 1992-93 to 12.66% in 2000-01 (except in 1994-95). The share of Plan Expenditure on State Highways has shown a rise from 1.74% in 1992-93 to 5.47% in 2000-01 (except 2.12% in 1994-95). The share of Plan Economic Services Expenditure on District and other Roads has shown a rise from 7.76% in 1997-98 to 12.14% in 1999-2000. The share of Plan Expenditure on District and other Roads has shown no specific trend but has remained over 4% in all the years. (see table-10, Appendix-2, Page No. A-14).

The share of Centrally sponsored Economic Services Expenditure on State Highways has remained 0 percent for the years. The share of Centrally sponsored Expenditure on State Highways has remained 0% for all the years. The share of Centrally sponsored Economic Services Expenditure on District and other Roads has remained 0% for all the years. The share of Centrally sponsored Expenditure on District and other Roads has remained 0%. (see table-11, Appendix-2, Page No. A-15).

Now let us discuss the budget allocation for Roads and Bridges and Road Transport. The share of Economic Services Expenditure on Roads and Bridges was 19.06% in 1994-95, which rose to 29.28% in 2000-01. The share of Total Expenditure on Roads and Bridges was 8.19% in 1994-95, which rose to 8.62% in 2000-01. The share of Economic Services Expenditure on Road Transport has shown a fall from 5.35% in 1997-98 to 3.09% in 2000-01. The share of Total Expenditure on Road Transport has shown a fall from 2.03% in 1997-98 to 0.91% in 2000-01 (see table-12, Appendix-2, Page No. A-16).

The share of Non-Plan Economic Services Expenditure on Roads and Bridges has shown fluctuation. The share of Non-Plan Expenditure on Roads and Bridges has shown a fall from 7.16% in 1996-97 to 6.11% in 2000-01. The share of Non-Plan Economic Services Expenditure on Road Transport has shown a fall from 12.27% in 1997-98 to 4.38% in 2000-01. The share of Non-Plan Expenditure on Road Transport has shown a decline from 2.94% in 1997-98 to 0.90% in 2000-01. (table-9, Appendix-2, Page No. A-13).

The share of Plan Economic Services Expenditure on Roads and Bridges has shown a rise from 17.59% in 1997-98 to 36.19% in 2000-01. The share of Plan Expenditure on Roads and Bridges has shown a rise from 10.43% in 1997-98 to 15.64% in 2000-01. The share of Plan Economic Services Expenditure on Road Transport has shown a rise from 1.53% in 1997-98 to 2.64% in 2000-01. The share of Plan Expenditure on Road Transport has shown a rise from 0.91% in 1997-98 to 1.14% in 2000-01. (table-10, Appendix-2, Page No. A-14).

The share of Centrally sponsored Economic Services Expenditure on Roads and Bridges has been the highest at 3.39% in 1994-95. The share of Centrally sponsored Expenditure on Roads and Bridges has been the highest at 1.28% in 1994-95. The share of Centrally sponsored Economic Services and Total Expenditure on Road Transport has been both 0%. (table-11, Appendix-2, Page No. A-15).

ECONOMIC SERVICES AND ANALYSIS OF ITS BROAD CATEGORIES

(A) Agriculture and Allied Activities

The share of Economic Services Expenditure on Agriculture and Allied Activities has been more than 30% in the years 1992-93, 1993-94, 1995-96, 1996-97, 1998-99, 1999-2000 and 2000-01. The share of Total Expenditure on Agriculture and Allied Activities has been near to 10% for almost all the years (see table-4, Appendix-2, Page No. A-8).

The share of Non-Plan Economic Services Expenditure on Agriculture and Allied Activities has shown a decline from 49.35% in 28.70% in 1997-98 (except 32.92% in 1996-97) and has shown a rise from 35.03% in 1998-99 to 35.64% in 2000-01. The share of Non-Plan Total Expenditure on Agriculture and Allied Activities has shown a decline from 9.40% in 1993-94 to 6.87% in 1997-98 (except 7.11% in 1996-97) and a rise to above 7% for the next 3 years (see table-1, Appendix-2, Page No. A-2).

The share of Plan Economic Services Expenditure on Agriculture and Allied Activities has been more than 25% except 16.36% in 1994-95 and 21.68% in 1997-98. The share of Plan Expenditure on Agriculture and Allied Activities has been more than 10% and has been the highest at 19.86% in 1992-93 (see table-2, Appendix-2, Page No. A-4).

The share of Centrally sponsored Economic Services Expenditure on Agriculture and Allied Activities has been the highest at 73.97% in 1994-95 and lowest at 20.51% in 2000-01. The share of Centrally sponsored Expenditure on Agriculture and Allied Activities has never been less than 10% (see table-3, Appendix-2, Page No. A-6).

(B) Rural Development

The share of Economic Services Expenditure on Rural Development has shown a decline from 10.57% in 1992-93 to 4.97% in 1994-95 and a rise to above 6% from 1995-96 to 1999-2000. The share of Total Expenditure on Rural Development has been around 2% but is quite less compared to the share of Total Expenditure on Agriculture and Allied Activities (see table-8, Appendix-2, Page No. A-12).

The share of Non-Plan Economic Services Expenditure on Rural Development has been more than 2%, except 1.6% in 1994-95. The share of Non-Plan Expenditure has shown a decline from 1.43% in 1997-98 to 0.98% in 2000-01 (see table-5, Appendix-2, Page No. A-9).

The share of Plan Economic Services Expenditure on Rural Development has been more than 6%, except 4.79% in 1994-95. The share of Plan Expenditure on Rural Development has been more than 3.5% (see table-6, Appendix-2, Page No. A-10).

The share of Centrally sponsored Economic Services Expenditure on Rural Development has shown fluctuation. The share of Centrally sponsored Expenditure on Rural Development has been the lowest at 0.59% in 1999-2000 and highest in 17.92% in 2000-01 (see table-7, Appendix-2, Page No. A-11).

(C) Irrigation and Flood Control

Irrigation is important for the success of agriculture. Since agriculture is the sector where most of the female main worker are employed (86.91% of total female main workers work as cultivators, Census-1991), so it is imperative that a modest share of budget is allocated for the development of infrastructure like irrigation. Improvement of irrigation means improvement in crop yield.

The share of Economic Services Expenditure on Irrigation and Flood Control has been more than 6%, except 4.89% in 1993-94 and 4.45% in 1994-95. The share of Total Expenditure on Irrigation and Flood Control has been more than 2%, except 1.71% in 1993-94 and 1.91% in 1994-95 (see table-8, Appendix-2, Page No. A-12).

The share of Non-Plan Economic Services Expenditure on Irrigation and Flood Control has been the highest at 2.24% in 2000-01 and lowest at 0.84% in 1993-94. The share of Non-Plan Total Expenditure on Irrigation and Flood Control has been more than 1% for the years 1993-94, 1998-99 and 2000-01 (see table-5, Appendix-2, Page No. A-9).

The share of Plan Economic Services Expenditure on Irrigation and Flood Control has shown fluctuation. The share of Plan Expenditure on Irrigation and Flood Control has been more than 4% except 3.18% in 1994-95(see table-6, Appendix-2, Page No. A-10).

The share of Centrally sponsored Economic Services Expenditure on Irrigation and Flood Control has been the highest at 5.72% in 1992-93. The share of Centrally sponsored Expenditure on Irrigation and Flood Control has been the highest at 1.83% in 1992-93(see table-7, Appendix-2, Page No. A-11).

(D) Industry and Minerals

It is pertinent to know the level of government expenditure on Industry and Minerals so that we can get to know how much importance the government gives to this sector compared to Agriculture and Allied Activities.

The share of Economic Services Expenditure on Industry and Minerals has shown fluctuation. The share of Total Expenditure on Industry and Minerals has been more than 1% for all the years and has been the highest at 2.91% in 1993-94(see table-8, Appendix-2, Page No. A-12).

The share of Non-Plan Economic Services Expenditure on Industry and Minerals has shown a decline from 0.65% in 1992-93 to 0.33% in 1994-95. The share of Non-Plan Expenditure on Industry and Minerals has shown a decline from 0.33% in 1992-93 to 0.17% in 2000-01. (see table-5, Appendix-2, Page No. A-9).

The share of Plan Economic Services Expenditure on Industry and Minerals has shown no specific trend. The share of Plan Expenditure on Industry and Minerals has shown a fall from 2.83% in 1997-98 to 1.24% in 1999-2000(see table-6, Appendix-2, Page No. A-10).

The share of Centrally sponsored Economic Services and Total Expenditure on Industry and Minerals both shown fluctuations (see table-7, Appendix-2, Page No. A-11).

(E) Transport

The share of Economic Services Expenditure on Transport has shown a rise from 26.25% in 1997-98 to 35.23% in 1999-2000. The share of Total Expenditure on Transport has shown a rise from 9.66% in 1996-97 to 10.45% in 1999-00 (see table-12, Appendix-2, Page No. A-16).

The share of Non-Plan Economic Services Expenditure on Transport has shown a fall from 40.98% in 1995-96 to 34.21% in 2000-01. The share of Non-Plan Expenditure on Transport has also shown a decline from 9.47% in 1997-98 to 7.00% in 2000-01(see table-9, Appendix-2, Page No. A-13).

The share of Plan Economic Services Expenditure on Transport has shown a rise from 19.86% in 1997-98 to 39.02% in 1999-2000. The share of Plan Total Expenditure on Transport has been more than 11%(see table-10, Appendix-2, Page No. A-14).

The share of Centrally sponsored Economic Services Expenditure and Total Expenditure on Transport has been the lowest at -6.27% in 1992-93 and -2.01% in 1992-93 respectively due to the Capital Account of Transport being Rs. (minus 24586642) in 1992-93(see table-11, Appendix-2, Page No. A-15).

SHARE OF DIFFERENT REVENUE EXPENDITURE CATEGORIES IN THE TOTAL REVENUE RECEIPT

Let us see how the revenue receipt of the government is spent on different sectors in the Revenue Account. This will give us an idea of how every 100 Rs. collected as revenue is spent on different sectors in the Revenue Account. Moreover we can get an inter-sectoral comparison, particularly between Health and Family Welfare with other sectors.

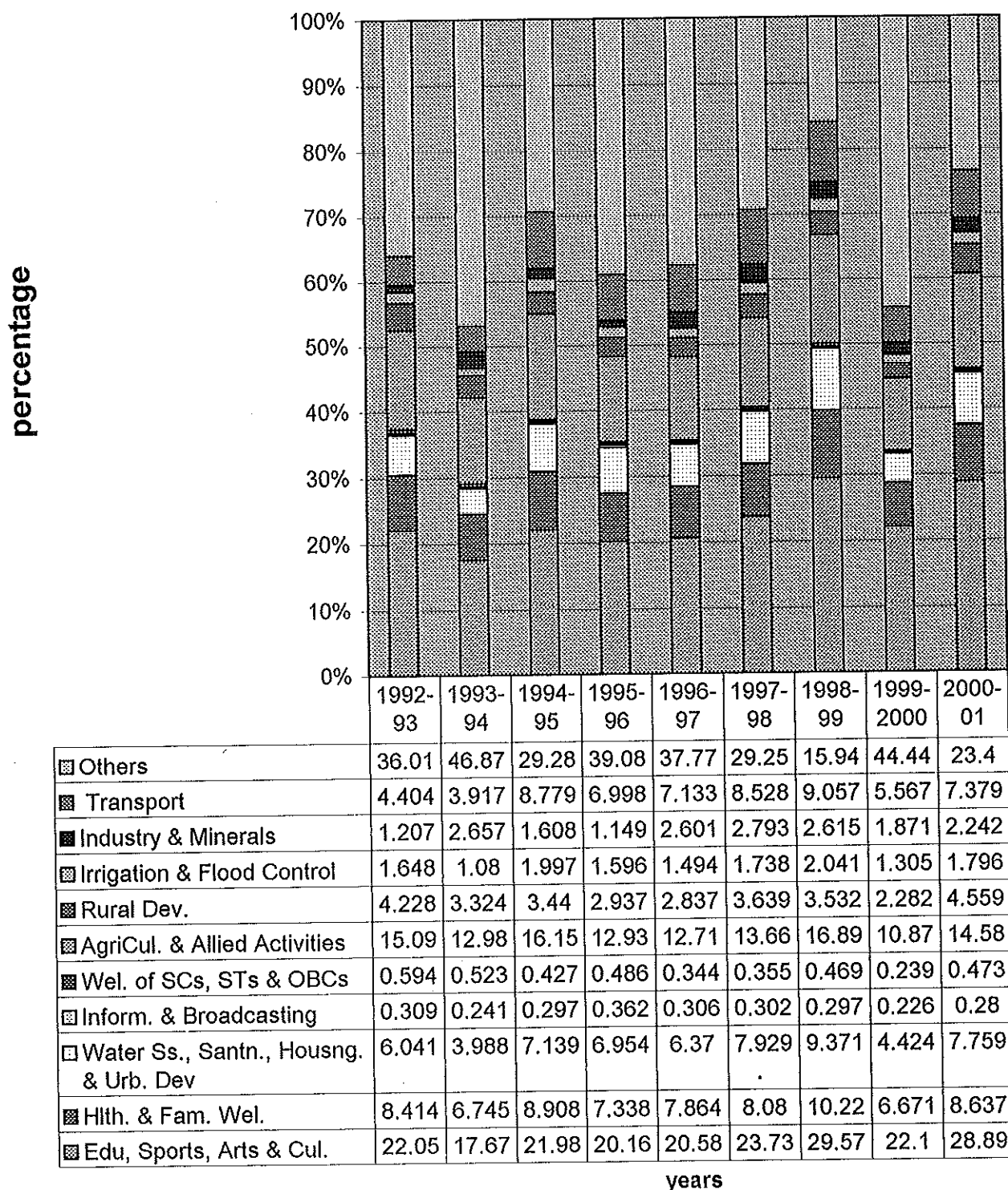
Expenditure on Education, Sports, Arts and Culture (on Revenue Account) as a percentage of Total Revenue Receipts is higher in comparison to other sectors-- Health and Family Welfare, Water Supply, Sanitation, Housing and Urban Development, Information and Broadcasting, Welfare of SCs, STs and OBCs, Agriculture and Allied Activities, Rural Development, Irrigation and Flood Control, Industry and Minerals and Transport. Agriculture and Allied Activities and Health and Family Welfare hold the second and third positions respectively. (see table-A)

Expenditure on Education, Sports, Arts and Culture (on Revenue Account) as a percentage of Total Revenue Receipts has shown a rise from 20.16% in 1995-96 to 29.57% in 1998-99. Expenditure on Health and Family Welfare (on Revenue Account) as a percentage of Total Revenue Receipts has shown a rise from 7.34% in 1995-96 to 10.22% in 1998-99. Expenditure on Water Supply, Sanitation, Housing and Urban Development (on Revenue Account) as a percentage of Total Revenue Receipts was highest at 9.37% in 1998-99 and lowest at 3.99% in 1993-94. Expenditure on Information and Broadcasting (on Revenue Account) as a percentage of Total Revenue Receipts was the highest at 0.36% in 1995-96 and lowest at 0.23% in 1999-2000. Expenditure on Welfare of SCs, STs and OBCs (on Revenue Account) as a percentage of Total Revenue Receipts has shown decline from 0.59% in 1992-93 to 0.43% in 1994-95. Expenditure on Agriculture and Allied Activities (on Revenue Account) as a percentage of Total Revenue Receipts has been the highest at 16.89% in 1998-99. Expenditure on Rural Development (on Revenue Account) as a percentage of Total Revenue Receipts has been the lowest at 2.28% in 1999-2000. Expenditure on Irrigation and Flood Control (on Revenue Account) as a percentage of Total Revenue Receipts has shown fluctuation. Expenditure on

Industry and Minerals (on Revenue Account) as a percentage of Total Revenue Receipts has been the lowest at 1.15% in 1995-96 and highest at 2.79% in 1997-98. Expenditure on Transport (on Revenue Account) as a percentage of Total Revenue Receipts has been the highest at 9.06% in 1998-99 and lowest at 3.92% in 1993-94.

If we look at chart-1, we find that component bar-diagram shows how revenue receipts have been allocated for different sectors in the Revenue Account. The others include—Labor and Labor Welfare, Social Welfare and Nutrition, Others, Energy, General Economic Services and Science and Technology (in the Revenue Account); and General Economic Services, Others, Energy (in the Capital Account).

Chart-1: Expenditure(in Revenue Account) on Different Sectors as % of Total Revenue Receipts



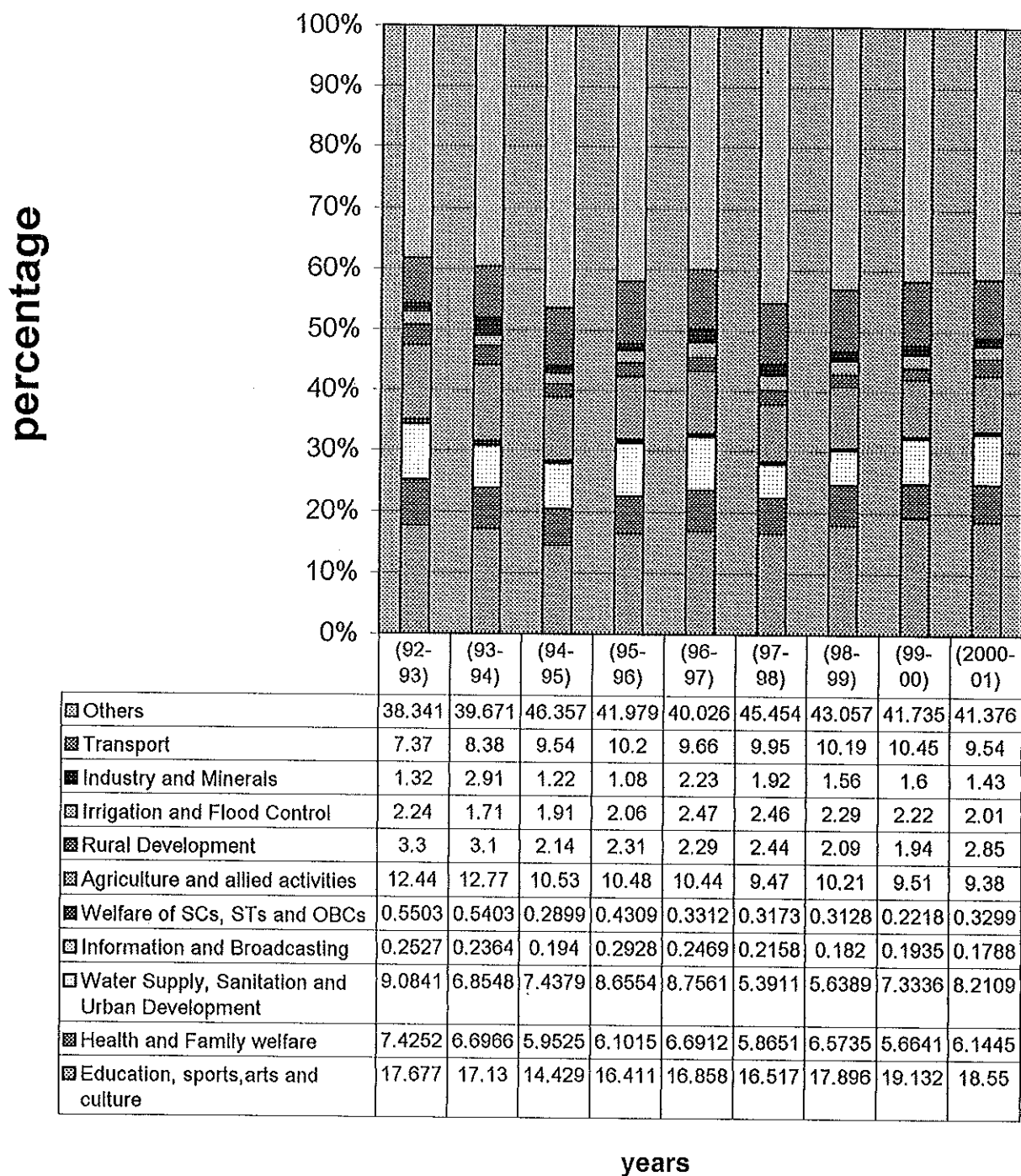
EXPENDITURE ON DIFFERENT SECTORS AS A PERCENTAGE OF TOTAL EXPENDITURE

We have already discussed i.e. the share of Total Expenditure on Education, Sports, Arts and Culture, Health and Family Welfare, Water Supply, Sanitation and Urban Development, Information and Broadcasting, Welfare of SCs, STs and OBCs, Agriculture and Allied Activities, Rural Development, Irrigation and Flood Control, Industry and Minerals, Transport and Others. We will now see in the Chart-2, that if government spends Rs.100, then which sectors get more priority compared to the others. We find that Education, Sports, Arts and Culture, Agriculture and Allied Activities, Transport, Water Supply, Sanitation and Urban Development and Health and Family Welfare have received maximum attention of the government in the period 1992-93 to 2000-01 (please see the component bar-diagram in the Chart-2).

The component Others include-- Labor and Labor Welfare, Social Welfare and Nutrition, Others, Energy, General Economic Services and Science and Technology (in the Revenue Account); and General Economic Services, Others, Energy (in the Capital Account).

Health and Family Welfare's share in Total Expenditure has been around 6%, which is less in comparison to Education, Sports, Arts and Culture; Agriculture and Allied Activities; and Transport.

Chart 2: Expenditure on different sectors as a % of Total Expenditure

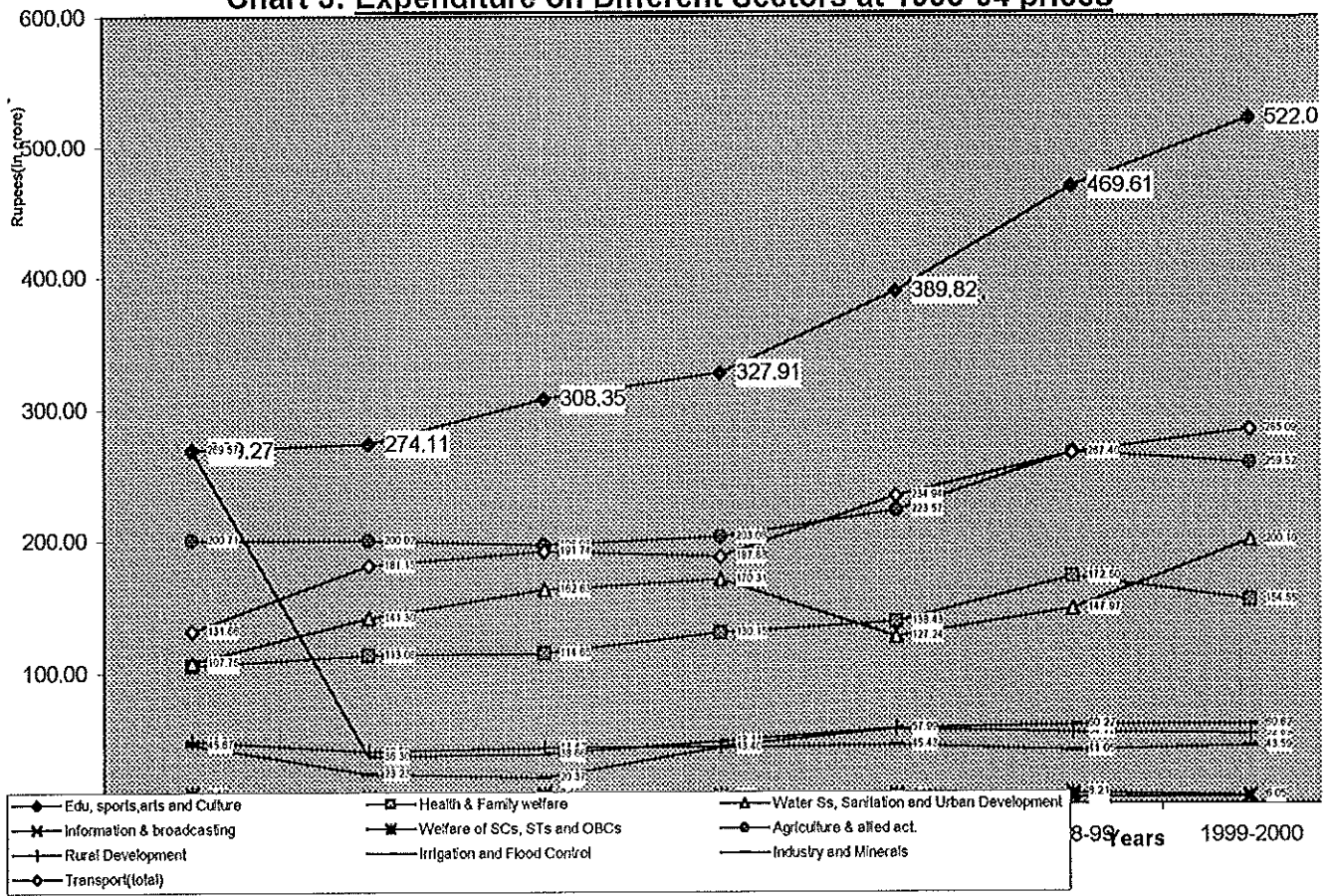


REAL ALLOCATION OF BUDGET TO DIFFERENT SECTORS FOR THE PERIOD 1992-93 TO 2000-01

By dividing the GDP at factor cost (at constant 1993-94 prices) by GDP at factor cost (at current prices), we get the P_0/P_i , where P_0 is the 1993-94 price level and P_i is the current price levels with respect to years 1993-94, 1994-95 ... 1999-2000. By multiplying the expenditure levels of different sectors corresponding to different years P_0/P_i , we get the expenditure levels of different sectors at constant price (i.e. at 1993-94 price level). This method will help us in analyzing the expenditure levels without taking into account the inflation component. Moreover this will not overestimate or underestimate the level of spending made by government on different sectors. Table-B shows us the level of government expenditure on different sectors at 1993-94 price level.

Table-C gives us the real growth rates (over previous years) of the level of expenditure made by the government on different sectors. For Education, Sports, Arts and Culture, the growth rate has been positive for all the years and the growth rate has risen from 6.34% in 1996-97 to 20.47% in 1998-99. For Health and Family Welfare, growth rate has been negative (10.40%) for the year 1999-2000 (i.e. expenditure on Health and Family Welfare at 1993-94 price-level has declined in between 1998-99 and 1999-2000). For Water Supply, Sanitation and Urban Development, the growth rate has been negative (25.29%) for the year 1997-98. For Information and Broadcasting, the growth rates have been negative for the years 1994-95, 1996-97 and 1998-99. For Welfare of SCs, STs and OBCs, the growth rates have been negative for the years 1994-95, 1996-97 and 1999-2000. For Agriculture and Allied Activities, the growth rates have been negative for the years 1994-95, 1995-96 and 1999-2000. For Rural Development, the growth rates have been for the 1994-95 and 1998-99. For Irrigation and Flood Control, the growth rates have been negative (86.53%) only for the year 1994-95. For Industry and Minerals, the growth rates have been negative in 1994-95, 1995-96 and 1998-99, which should be a major concern for the government. Industry and Minerals-sector can employ a large chunk of the population, thus reducing the pressure on land. For Transport, the growth rate has been negative for the year 1996-97. Chart-3 gives the sector-wise allocation of government expenditure (in crore at 1993-94 price), showing that education receives the highest attention compared to the other sectors, as we have already discussed.

Chart 3: Expenditure on Different Sectors at 1993-94 prices

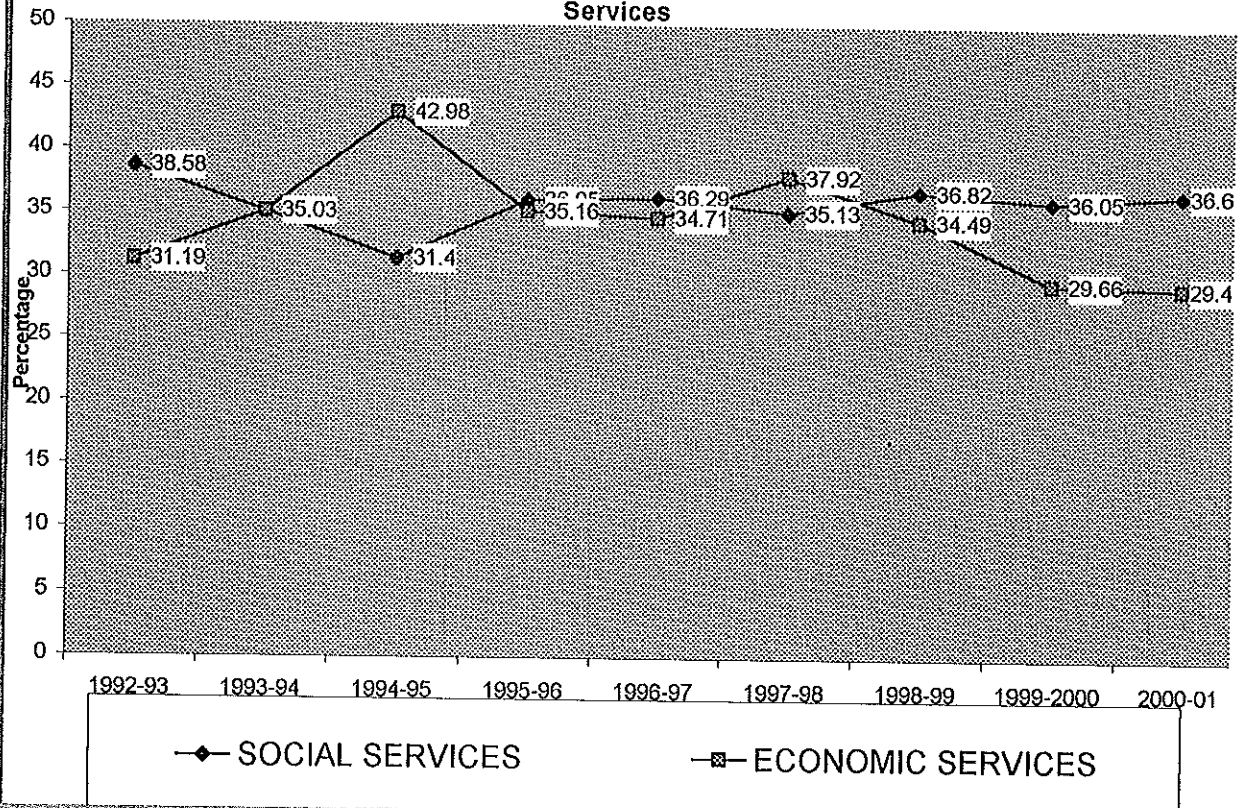


COMPARISON BETWEEN SOCIAL AND ECONOMIC SERVICES EXPENDITURE

If we look at the Chart-4, we will find that for the years 1992-93, 1993-94, 1995-96, 1996-97, 1998-99, 1999-2000 and 2000-01, the share of Total Expenditure on Social Services is greater than that on Economic Services. This shows that the government gives more priority to Expenditure on Social Services compared to Economic Services (we can also look at table-D). If we look at table-D, we find that the share of Non-Plan Expenditure on Social Services have been greater than that on Economic Services. The share of Plan Expenditure on Economic Services has been greater than that on Social Services. The share of Centrally sponsored Expenditure on Centrally sponsored Social Services has been greater than that on Economic Services. (See table-D).

Proceeding in the same direction to find the real growth rates (as we have done for the section "*Real Allocation of Budget to Different Sectors for the period 1992-93 to 2000-01*"), we find that for Social Services, the growth rate has been positive for all the years, but has declined from 17.46% in 1997-98 to 1.81% in 2000-01. For Economic Services, the growth rates have been negative for the years 1995-96 & 1999-2000 (i.e. expenditure on Economic Services at 1993-94 price-level has declined in between 1994-95 and 1995-95 and between 1998-99 and 1999-2000, respectively). The growth rates of the expenditure on Social Services have been greater than that of Economic Services, except for the years 1994-95 and 1997-98 (see table-C).

Chart 4: Share Of Total Expenditure on Social Services and Economic Services



PROGRAMMES/ SCHEMES FOR WOMEN

It is essential for us to know the importance of Gender Budgeting. From the Human Development Report-2002, we get that Gender-responsive budgets are an innovative new tool that empower women's organizations and civil society to hold public spending accountable to international and national commitments for promoting gender equality. In recent years such initiatives have spread to more than 40 countries. They are globally networked with the support of agencies such as Commonwealth Secretariat, United Nations Development Fund for Women and Organization for Economic Co-operation and Development. Gender-responsive budgets are not separate budgets for women and girls. Rather, they are analysis of spending through the lens of gender. They are a way of ensuring consistency between social commitments to achieve gender equality goals—such as in education or work—and the resources being allocated. The key question is what impact does fiscal policy have on gender equality? Does it reduce gender equality, increase it or leave it unchanged? Gender responsive budgets were started by Australian activists who pushed the government to assess the impact on gender equity of all elements of the national budget between the mid-1980s and mid-1990s. Many other countries later adopted the concept to expand participation and accountability in budgeting, especially in light of international commitments to promote gender equality. Some countries that have taken steps towards building up a gender responsive budgets are—South Africa, Tanzania, Mexico, Philippines, Uganda, UK & Brazil.

For looking into the Specifically Targeted Programme, we have consulted the Budget Documents of 2 years i.e. 1999-2000 and 2001-02. For finding the expenditure on Specifically Targeted Programmes and Schemes in Himachal Pradesh, we have consulted the 'Gender Budgeting in India' Report⁹. Total budgetary expenditure could be classified expenditure could be classified into 2 broad categories, viz., gender neutral and gender sensitive. The objective of the gender budget analysis of Himachal Pradesh is to identify the gender sensitive components of budgetary expenditure. Gender budgeting identifies two specific categories which directly or indirectly benefits women—(1) gender specific programmes which is specifically targeted for women (these are those schemes where 100% of the expenditure allocation is required to be spent on women); (2) public expenditure programmes with pro-women allocation (in identifying the pro-women schemes it is assumed that at least 30% of the total allocation/benefits of the total expenditure flows to women).

Public expenditure specifically targeted to women can be categorized into 4 clusters. *First*, there are protective and welfare services that are important to prevent the atrocities against women such as domestic violence, rape, kidnapping, dowry deaths including rehabilitation programmes.

⁹ Gender Budgeting in India (2002). National Institute of Public Finance and Policy, July.

Second, there are social services such as education, water supply and sanitation, housing, health and nutrition schemes, which can empower women to play their rightful role in the economy.

Third, there are economic services such as self-employment and training programmes, economic empowerment programmes and fuel supply management programmes, which can provide economic empowerment for women.

Fourth, there are regulatory services and awareness generation programmes for women like maternity benefit schemes and institutional mechanism like National Commission for Women etc.

For the year 1999-2000, the share of Protective and Welfare Services in the Specifically Targeted Programme is 92.39%, while that of Social Services is 3.77%, Economic Services is 3.30% and Regulatory Services and Awareness Generation is merely 0.54% in the Specifically Targeted Programme. This shows that the emphasis of the Government of Himachal Pradesh is on Protective and Welfare Services rather than on economic empowerment of women, when it comes to Specifically Targeted Programmes (see table-E).

Share of Specifically Targeted Programmes in the Total Expenditure made by the government of HP, is a negligible 0.68% in the year 1999-2000 (see table-E). For the year 1997-98, the share of Protective and Welfare Services in the Specifically Targeted Programme is 93.86%, while that of Social Services is 2.36%, Economic Services is 3.49% and Regulatory Services and Awareness Generation is merely 0.29% in the Specifically Targeted Programme (see table-F).

Share of Specifically Targeted Programmes in the Total Expenditure made by the government of HP, is a negligible 0.73% in the year 1997-98 (see table-F).

By adding the pro-women component of the budget with the women-specific allocation (the women component was assumed to be 30% in case of expenditure on programmes/schemes, which has a pro-women allocation, due to lack of information regarding the women component in the budget document) we get the total expenditure on women, which as a percentage of total government spending comes around 2.47% in 1999-2000 (see table-G) and 2.77% in 1997-98 (see table-H).

CONCLUSION

By looking into the various services of the budget, we can draw certain conclusion. They are as follows:

- In the case of General Education, Himachal Government has given more stress on Elementary Education compared to Secondary and University & Higher Education. The share of Social Services Expenditure on the Education, Sports, Arts and Culture has shown a rise from 45.52% in 1995-96 to 53.07% in 1999-00. This shows that the government spends a major chunk of its Social Services Expenditure on this category.
- Medical and Public Health Expenditure as a percentage of Total Social Service Expenditure is stagnant at around 15% whereas that of Family Welfare is declining from 4.44% in 1992-93 to 1.79% in 2000-01. The share of Social Services Expenditure on Public Health has shown a decline from 2.33% in 1996-97 to 1.31% in 2000-2001 and the share of Total Expenditure on Public Health has shown a decline from 0.84% in 1996-97 to 0.48% in 2000-01. The share of Social Services Expenditure on Health and Family Welfare has shown a decline from 19.25% in 1992-93 to 16.70% in 1997-98 (except 18.44% in 1996-97). Although the situation regarding health is better in HP compared to its neighbouring states, but our trend analysis shows that situation in HP is deteriorating. This should raise eyebrows of the policy makers. The share of Total Expenditure on Health and Family Welfare has been close to 6% for all the years which we have studied.
- Regarding the rural-urban bifurcation in health expenditure, we find that the share of Total Social Service Expenditure on Urban Health Services is nearly half of that of Rural Health Services. The share of Total Social Services Expenditure on Rural Health Services has shown a rise from 6.62% in 1992-93 to 6.98% in 1994-95.
- The share of Social Services Expenditure on Water Supply and Sanitation has been more than 17%. The share of Total Expenditure on Urban Water Supply Programmes has shown a rise from 0.91% in 1992-93 to 1.44% in 1996-97. The share of Social Services Expenditure on Rural Water Supply Programmes has been more than 11% for all the years. The share of Social Services Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a rise from 19.55% in 1993-94 to 24.13% in 1996-97. The share of Total Expenditure on Water Supply, Sanitation, Housing and Urban Development has shown a rise from 6.85% in 1993-94 to 8.76% in 1996-97. This is a positive achievement for HP.

- The share of Social Services Expenditure on Welfare of SCs, STs and OBCs has shown a decline from 1.20% in 1995-96 to 0.62% in 1999-2000. The share of Total Expenditure on Welfare of SCs, STs and OBCs has shown a fall from 0.43% in 1995-96 to 0.22% in 1999-2000. This is a grim situation for HP, where a significantly high proportion of the population is constituted by SCs, STs and OBCs.
- The share of Economic Services Expenditure on Agriculture and Allied Activities has been more than 30% in the years 1992-93, 1993-94, 1995-96, 1996-97, 1998-99, 1999-2000 and 2000-01. The share of Total Expenditure on Agriculture and Allied Activities has been near to 10% for almost all the years, whereas the share of Total Expenditure on Industry and Minerals has been more than 1% for all the years and has been the highest at 2.91% in 1993-94. This shows that the government is more interested in agricultural development compared to that of industrialization.
- The share of Economic Services Expenditure on Rural Development has shown a decline from 10.57% in 1992-93 to 4.97% in 1994-95 and a rise to above 6% from 1995-96 to 1999-2000. The share of Total Expenditure on Rural Development has been around 2% but is quite less compared to the share of Total Expenditure on Agriculture and Allied Activities.
- The share of Economic Services Expenditure on Transport has shown a rise from 26.25% in 1997-98 to 35.23% in 1999-2000. The share of Total Expenditure on Transport has shown a rise from 9.66% in 1996-97 to 10.45% in 1999-2000. This is a positive development for the state which has a bad terrain since poor transport create obstacle in accessing health facilities and education mainly.
- We have looked into the gender aspect of the HP budget so that we can get to know how much the government spends for the empowerment of women. The emphasis of the Government of Himachal Pradesh is on Protective and Welfare Services rather than on economic empowerment of women, when it comes to Specifically Targeted Programmes. Share of Specifically Targeted Programmes in the Total Expenditure made by the government of HP, is a negligible 0.68% in 1999-2000 and 0.73% in the year 1997-98. The total expenditure on women as a percentage of total government spending comes around 2.47% in 1999-2000 and 2.77% in 1997-98.

Appendix Table 1 : Non-Plan Social Services Expenditure

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01.
Gen. Edu.									
Total 01.Ele.Edu.(rev)	993905457	1096637657	1164004410	1389822033	1600778108	1863451893	2677497901	3055980324	3035322321
201.Ele.Edu.(cap)	0	0	0	0	0	0	0	0	0
Ele.Edu.(total)	993905457	1096637657	1164004410	1389822033	1600778108	1863451893	2677497901	3055980324	3035322321
Ele.Edu.(total)/Soc.Ser.	32.99	34.20	30.50	30.57	32.91	31.79	35.26	39.48	36.40
Ele.Edu.(total)/Tot.Exp.	12.16	11.67	9.89	10.33	10.71	10.05	11.50	11.17	10.00
Total 02.Secondary Edu.(rev)	555857305	619835656	677509583	770290344	828942427	969933360	1349491944	1144431182	1256593475
Total 202.Secondary Edu.(cap)	0	0	0	0	0	0	0	0	0
Secondary Edu.(total)	555857305	619835656	677509583	770290344	828942427	969933360	1349491944	1144431182	1256593475
Sec. Edu(total)/Soc.Ser.	18.45	19.33	17.55	16.95	17.04	16.55	17.77	14.79	15.07
Sec. Edu(total)/Tot.Exp.	6.80	6.60	5.75	5.72	5.55	5.23	5.80	4.18	4.14
Tot 03.University & Higher Edu(rev)	124047569	136377228	154913893	171515438	201387458	216630359	267984818	292180220	349848477
tot203.University & Higher Edu(cap)	0	0	0	0	0	0	0	0	0
University & Higher Edu(total)	124047569	136377228	154913893	171515438	201387458	216630359	267984818	292180220	349848477
University & Higher Edu(total)/Soc.Ser.	4.12	4.25	4.01	3.77	4.14	3.70	3.53	3.78	4.19
University & Higher Edu(total)/Tot.Exp.	1.52	1.45	1.32	1.27	1.35	1.17	1.15	1.07	1.15
Tot2202.Gen. Edu(rev)	1708069247	1890295244	2040014589	2380134013	2682224976	3123569748	4371350664	4569793406	4733287411
Tot01.Gen. Edu(cap)	0	0	0	0	0	0	0	0	0
Gen. Edu(total)	1708069247	1890295244	2040014589	2380134013	2682224976	3123569748	4371350664	4569793406	4733287411
Gen. Edu(total)/Soc.Ser.	56.69	58.94	52.86	52.36	55.14	53.28	57.56	59.04	56.76
Gen. Edu(total)/Tot.Exp.	20.90	20.11	17.33	17.69	17.94	16.85	18.77	16.71	15.60

Tech. Edu									
tot2203.Tech. Edu.(rev)	10857913	11269136	12644955	13833935	14981961	18397380	21749051	24078513	26130410
tot02.Tech. Edu(cap)	0	0	0	0	0	0	0	0	0
Tech. Edu(total)	10857913	11269136	12644955	13833935	14981961	18397380	21749051	24078513	26130410
Tech. Edu(total)/Soc.Ser.	0.36	0.35	0.33	0.30	0.31	0.31	0.29	0.31	0.31
Tech. Edu(total)/ totService	0.13	0.12	0.11	0.10	0.10	0.10	0.09	0.09	0.09
Tot(a)Edu, Sports, Arts & Cul.(rev)	1732909721	1916360107	2070267098	2416579576	2716968937	3166146607	4422436244	4624129058	4791535867
Total(a) Edu, Sports, Art & Cul.(cap)	0	0	0	0	0	0	0	0	0
Edu, sports,arts & Cul.(total)	1732909721	1916360107	2070267098	2416579576	2716968937	3166146607	4422436244	4624129058	4791535867
Edu, sports,arts & Cul.(total)/Soc.Ser.	57.52	59.76	53.64	53.16	55.86	54.01	58.24	59.75	57.45
Edu, sports,arts & Cul.(total)/Tot.Exp.	21.21	20.39	17.59	17.96	18.18	17.08	18.99	16.90	15.79
Med. & Pub. Hlth									
Tot02.Urb. Hlth Ser.(rev)	168846046	174398458	209399395	253509058	289095706	300996995	426891626	432690376	573537626
Tot01.Urb. Hlth Ser.(cap)	0	0	0	0	0	0	0	0	0
Urb. Hlth Ser.(total)	168846046	174398458	209399395	253509058	289095706	300996995	426891626	432690376	573537626
Urb. Hlth Ser.(total)/Soc.Ser.	5.60	5.44	5.43	5.58	5.94	5.13	5.62	5.59	6.88
Urb. Hlth Ser.(total)/Tot.Exp.	2.07	1.86	1.78	1.88	1.93	1.62	1.83	1.58	1.89
tot04.Rur. Hlth Ser.(rev)	250142493	264590395	310948682	363109774	398361932	451490884	605094358	608487055	394245182
tot02.Rur. Hlth Ser.(cap)	0	0	0	0	0	0	0	0	0
Rur. Hlth Ser.(total)	250142493	264590395	310948682	363109774	398361932	451490884	605094358	608487055	394245182
Rur. Hlth Ser.(total)/Soc.Ser.	8.30	8.25	8.06	7.99	8.19	7.70	7.97	7.86	4.73
Rur. Hlth Ser.(total)/ totSer.	3.06	2.82	2.64	2.70	2.66	2.43	2.60	2.22	1.30

tot06.Pub. Hlth(rev)	74909024	80868633	87011416	100490259	111643005	133749774	167876808	163432579	58080532
tot04.Pub. Hlth(cap)	0	0	0	0	0	0	0	0	0
Pub. Hlth(total)	74909024	80868633	87011416	100490259	111643005	133749774	167876808	163432579	58080532
Pub. Hlth(total)/Soc.Ser.	2.49	2.52	2.25	2.21	2.30	2.28	2.21	2.11	0.70
Pub. Hlth(total)/Tot.Exp.	0.92	0.86	0.74	0.75	0.75	0.72	0.72	0.60	0.19
tot2210.Med. & Pub. Hlth(rev)	538712690	565610237	662961642	773335060	869247558	963311086	1304506231	1331104539	1209542455
tot4210.Cap. Exp. On Med. & Pub. Hlth(cap)	0	0	1800000	0	0	0	0	0	0
Med. & Pub. Hlth (total)	538712690	565610237	664761642	773335060	869247558	963311086	1304506231	1331104539	1209542455
Med. & Pub. Hlth (total)/Soc.Ser.	17.88	17.64	17.22	17.01	17.87	16.43	17.18	17.20	14.50
Med. & Pub. Hlth (total)/Tot.Exp.	6.59	6.02	5.65	5.75	5.81	5.20	5.60	4.87	3.99
Fam. Wel.									
tot2211.Fam. Wel.(rev)	12260285	10585219	9990358	11073647	12396762	13605079	17484863	17505628	15898539
tot4211.Cap. Exp. On Fam. Wel.(cap)	0	0	0	0	0	0	0	0	0
Fam. Wel.(total)	12260285	10585219	9990358	11073647	12396762	13605079	17484863	17505628	15898539
Fam. Wel.(total)/Soc.Ser.	0.41	0.33	0.26	0.24	0.25	0.23	0.23	0.23	0.19
Fam. Wel.(total)/Tot.Exp.	0.15	0.11	0.08	0.08	0.08	0.07	0.08	0.06	0.05
tot(b)Hlth & Fam. Wel.(rev)	550972975	576195456	672952000	784408707	881644320	976916165	1321991094	1348610167	1225440994
tot(b)Hlth & Fam. Wel.(cap)	0	0	1800000	0	0	0	0	0	0
Hlth & Fam. Wel.(total)	550972975	576195456	674752000	784408707	881644320	976916165	1321991094	1348610167	1225440994
Hlth & Fam. Wel.(total)/Soc.Ser.	18.29	17.97	17.48	17.26	18.13	16.66	17.41	17.42	14.69
Hlth & Fam. Wel.(total)/Tot.Exp.	6.74	6.13	5.73	5.83	5.90	5.27	5.68	4.93	4.04

WATER Ss. & San.									
101.Urb. Water Ss. Prgm.(rev)	45228133	69763818	93267944	133397001	103368022	201696008	192421955	136998322	240714346
tot101.Urb. Water Ss.(cap)	0	0	0	0	0	0	0	0	0
Urb. Water Ss.(total)	45228133	69763818	93267944	133397001	103368022	201696008	192421955	136998322	240714346
Urb. Water Ss.(total)/Soc.Ser.	1.50	2.18	2.42	2.93	2.13	3.44	2.53	1.77	2.89
Urb. Water Ss.(total)/Tot.Exp.	0.55	0.74	0.79	0.99	0.69	1.09	0.83	0.50	0.79
102.Rur. Water Ss. Prgm.(rev)	250536454	156418049	393472974	379934519	440443600	522283627	868372865	132317951	882282450
tot102.Rur. Water Ss.(cap)	0	0	0	0	0	0	0	0	0
Rur. Water Ss.(total)	250536454	156418049	393472974	379934519	440443600	522283627	868372865	132317951	882282450
Rur. Water Ss.(total)/Soc.Ser.	8.32	4.88	10.20	8.36	9.06	8.91	11.44	1.71	10.58
Rur. Water Ss.(total)/Tot.Exp.	3.07	1.66	3.34	2.82	2.95	2.82	3.73	0.48	2.91
Total-01.Water Ss.(rev)	302256567	229072559	503024990	526043352	576865827	753798285	1091707115	901137109	1159018365
tot01.Water Ss.(cap)	0	0	0	0	0	0	0	0	0
Water Ss.(total)	302256567	229072559	503024990	526043352	576865827	753798285	1091707115	901137109	1159018365
Water Ss.(total)/Soc.Ser.	10.03	7.14	13.03	11.57	11.86	12.86	14.38	11.64	13.90
Water Ss.(total)/Tot.Exp.	3.70	2.44	4.27	3.91	3.86	4.07	4.69	3.29	3.82
tot02.Sewerage & San.(rev)	2258659	2487926	19472261	13914000	14305000	13453000	10000000	0	0
tot02.Sewerage & San.(cap)	0	0	0	0	0	0	0	0	0
Sewerage & San.(total)	2258659	2487926	19472261	13914000	14305000	13453000	10000000	0	0
Sewerage & San.(total)/Soc.Ser.	0.07	0.08	0.50	0.31	0.29	0.23	0.13	0.00	0.00
Sewerage & San.(total)/Tot.Exp.	0.03	0.03	0.17	0.10	0.10	0.07	0.04	0.00	0.00
Total-2215 Water Ss. & San.(rev)	304515226	231560485	522497251	539957352	591170827	767251285	1101707115	901137109	1159018365
tot4215.Cap. Exp. on Water Ss. & San.(cap)	0	0	0	0	0	0	0	0	0
Water Ss. & San.(total)	304515226	231560485	522497251	539957352	591170827	767251285	1101707115	901137109	1159018365
Water Ss. & San.(total)/Soc.Ser.	10.11	7.22	13.54	11.88	12.15	13.09	14.51	11.64	13.90
Water Ss. & San.(total)/Tot.Exp.	3.73	2.46	4.44	4.01	3.95	4.14	4.73	3.29	3.82

Hous.									
tot01.Govt. Residential Buildings(rev)	13441937	13250084	48303008	36707501	23255803	30098476	29156602	31582688	31433142
tot01.Govt. Residential Buildings(cap)	0	0	40874000	0	20302	0	0	0	0
Govt. Residential Buildings(total)	13441937	13250084	89177008	36707501	23276105	30098476	29156602	31582688	31433142
Govt. Residential Buildings(total)/Soc.Ser.	0.45	0.41	2.31	0.81	0.48	0.51	0.38	0.41	0.38
Govt. Residential Buildings(total)/Tot.Exp.	0.16	0.14	0.76	0.27	0.16	0.16	0.13	0.12	0.10
tot02.Urb. Hous.(rev)	0	0	0	0	0	0	0	0	0
tot02.Urb. Hous.(cap)	0	0	0	0	0	0	0	0	0
Urb. Hous.(total)	0	0	0	0	0	0	0	0	0
Urb. Hous.(total)/Soc.Ser.	0	0	0	0	0	0	0	0	0
Urb. Hous.(total)/Tot.Exp.	0	0	0	0	0	0	0	0	0
tot03.Rur. Hous.(rev)	0	0	0	0	0	0	0	0	0
tot03.Rur. Hous.(cap)	0	0	0	0	0	0	0	0	0
Rur. Hous.(total)	0	0	0	0	0	0	0	0	0
Rur. Hous.(total)/Soc.Ser.	0	0	0	0	0	0	0	0	0
Rur. Hous.(total)/Tot.Exp.	0	0	0	0	0	0	0	0	0
tot2216.Hous.(rev)	13441937	13250084	48303008	36707501	23255803	30098476	29156602	31582688	31433142
tot4216.Cap. Exp. On Hous.(cap)	0	0	40874000	0	20302	0	0	0	0
Hous.(total)	13441937	13250084	89177008	36707501	23276105	30098476	29156602	31582688	31433142
Hous.(total)/Soc.Ser.	0.45	0.41	2.31	0.81	0.48	0.51	0.38	0.41	0.38
Hous.(total)/Tot.Exp.	0.16	0.14	0.76	0.27	0.16	0.16	0.13	0.12	0.10

tot(c)Water Ss , San., Hous. & Urb. Dev.(rev)	322483687	249115491	575526325	582393410	621365674	804937890	1133133991	934897501	1192907499
tot(c)Water Ss., San., Hous. & Urb. Dev.(cap)	0	0	40874000	0	20302	0	0	0	0
Water Ss., San. & Urb. Dev.(total)	322483687	249115491	616400325	582393410	621385976	804937890	1133133991	934897501	1192907499
Water Ss., San. & Urb. Dev.(total)/Soc.Ser.	10.70	7.77	15.97	12.81	12.78	13.73	14.92	12.08	14.30
Water Ss., San. & Urb. Dev.(total)/Tot.Exp.	3.95	2.65	5.24	4.33	4.16	4.34	4.87	3.42	3.93
tot(d)Information & Broadcasting(rev)	17270724	19379129	20482127	29354424	29969097	33953200	39640941	42732206	47720991
tot(d)Information & Broadcasting(cap)	0	0	0	0	0	0	0	0	0
Information & broadcasting(total)	17270724	19379129	20482127	29354424	29969097	33953200	39640941	42732206	47720991
Information & broadcasting(total)/Soc.Ser.	0.57	0.60	0.53	0.65	0.62	0.58	0.52	0.55	0.57
Information & Broadcasting(total)/Tot.Exp.	0.21	0.21	0.17	0.22	0.20	0.18	0.17	0.16	0.16
tot01.Wel. of SCs(rev)	11461921	12685147	13543328	18534019	15625020	17436175	20698186	22220093	29550791
tot01.Wel. of SCs(cap)	0	0	0	0	0	0	0	0	0
Wel. of SCs(total)	11461921	12685147	13543328	18534019	15625020	17436175	20698186	22220093	29550791
Wel. of SCs(total)/Soc.Ser.	0.38	0.40	0.35	0.41	0.32	0.30	0.27	0.29	0.35
Wel. of SCs(total)/Tot.Exp.	0.14	0.13	0.12	0.14	0.10	0.09	0.09	0.08	0.10
tot02.Wel. of STs(rev)	1873992	2227039	2077500	2319110	2495955	2797191	3676743	3691713	3448086
tot02.Wel. of STs(cap)	0	0	0	0	0	0	0	0	0
Wel. of STs(total)	1873992	2227039	2077500	2319110	2495955	2797191	3676743	3691713	3448086
Wel. of STs(total)/Soc.Ser.	0.06	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.04
Wel. of STs(total)/Tot.Exp.	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01

tot(e)Wel. of SCs, STs & OBCs(rev)	13342241	14912186	15620828	20853129	18129975	20243366	24384929	25930256	32998877
tot(e)Wel. of SCs, STs & OBCs(cap)	0	0	0	0	0	0	0	0	0
Wel. of SCs, STs & OBCs(total)	13342241	14912186	15620828	20853129	18129975	20243366	24384929	25930256	32998877
Wel. of SCs, STs & OBCs(total)/Soc.Ser.	0.44	0.46	0.40	0.46	0.37	0.35	0.32	0.34	0.40
Wel. of SCs, STs & OBCs(total)/Tot.Exp.	0.16	0.16	0.13	0.15	0.12	0.11	0.10	0.09	0.11
totB.Soc.Ser.(rev)	3012926880	3207011287	3816718210	4545713500	4864003921	5862255874	7593872310	7739691777	8339677395
totB Cap. ACCOUNT OF Soc.Ser.(cap)	0	0	42674000	0	20302	0	0	0	0
Soc.Ser. (TOTAL)	3012926880	3207011287	3859392210	4545713500	4864024223	5862255874	7593872310	7739691777	8339677395
Soc.Ser. (TOTAL)/Tot.Exp.	36.87	34.12	32.78	33.78	32.54	31.62	32.61	28.29	27.48
Tot.Exp.(REV,A/C)(rev)	8188368810	9424927472	11735520943	13437612530	14963335178	18573109698	23285207890	27389433328	30393366858
totEXPENDITURE HEADS	-16398623	-26730761	37045965	18128909	-14551396	-30680107	-305872	-34358208	-50412826
(Cap. ACCOUNT)(cap)									
Tot.Exp.	8171970187	9398196711	11772566908	13455741439	14948783782	18542429591	23284902018	27355075120	30342954032

Table 2 : Plan Social Services Expenditure

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Gen. Edu									
tot01.Elementary Edu(rev)	205505387	217462122	262276596	446919812	484514570	711151862	1063603910	1647799977	1571592530
201.Elementary Edu(cap)	5141381	3729431	4000000	8538489	7946270	19881270	20500170	10770544	35779873
Elementary Edu(total)	210646768	221191553	266276596	455458301	492460840	731013132	1084104080	1658570521	1607372403
Elementary Edu(total)/Soc.Ser.	19.40	17.72	17.69	21.37	20.15	21.59	24.99	31.90	26.62
Elementary Edu(total)/Tot.Exp.	4.94	4.36	3.20	5.80	5.73	5.88	7.56	11.58	10.70
tot02.Sec. Edu(rev)	202381130	255579874	292584300	395120579	487510801	670464315	776132325	1164347649	1485721122
tot202.Sec. Edu(cap)	4920517	25539777	18736000	16703449	21034560	19611784	18046734	29878258	64444310
Sec. Edu(total)	207301647	281119651	311320300	411824028	508545361	690076099	794179059	1194225907	1550165432
Sec. Edu(total)/Soc.Ser.	13.83	15.63	14.16	14.22	14.90	14.94	13.42	17.51	19.70
Sec. Edu(total)/Tot.Exp.	4.86	5.54	3.74	5.25	5.92	5.55	5.54	8.34	10.32
tot03.University & Higher Edu(rev)	46980734	54322789	77777238	94411245	114378915	197112992	170055813	284906909	295760918
tot203.University & Higher Edu(cap)	4920517	14055303	24635897	22284864	4861930	27556033	14202058	35278705	22396636
University & Higher Edu(total)	51901251	68378092	102413135	116696109	119240845	224669025	184257871	320185614	318157554
University & Higher Edu(total)/Soc.Ser.	3.46	3.80	4.66	4.03	3.49	4.86	3.11	4.69	4.04
University & Higher Edu(total)/Tot.Exp.	1.22	1.35	1.23	1.49	1.39	1.81	1.28	2.24	2.12

tot2202.Gen. Edu(rev)	475094078	545490994	654719934	954756408	1107086794	1601092063	2033523576	3126342041	3382069360
tot01.Gen. Edu(cap)	15647396	48793317	60081737	57784877	50766084	87100278	83759256	100950963	182321192
Gen. Edu(total)	490741474	594284311	714801671	1012541285	1157852878	1688192341	2117282832	3227293004	3564390552
Gen. Edu(total)/Soc.Ser.	32.75	33.05	32.50	34.97	33.92	36.55	35.77	47.31	45.30
Gen. Edu(total)/Tot.Exp.	11.50	11.70	8.58	12.90	13.47	13.57	14.76	22.53	23.73
Tech. Edu									
tot2203.Tech. Edu(rev)	14881973	23882715	25202998	32090090	41543771	46539247	123072786	72950176	46485734
tot02.Tech. Edu(cap)	32967533	41669631	44727639	53288884	48027803	58997102	63555476	43174571	47935578
Tech. Edu(total)	47849506	65552346	69930637	85378974	89571574	105536349	186628262	116124747	94421312
Tech. Edu(total)/Soc.Ser.	3.19	3.65	3.18	2.95	2.62	2.28	3.15	1.70	1.20
Tech. Edu(total)/ totService	1.12	1.29	0.84	1.09	1.04	0.85	1.30	0.81	0.63
tot(a)Edu, Sports, Arts & Cul.(rev)	508270342	597037867	706480340	1015215233	1182213402	1697876251	2205697284	3256297290	3490785831
Total(a) Edu, Sports, Art & Cul.(cap)	56551398	97832014	116271739	123907215	112703185	162127392	165277011	156399621	248098444
Edu, sports,arts & Cul.(total)	564821740	694869881	822752079	1139122448	1294916587	1860003643	2370974295	3412696911	373884275
Edu, sports,arts & Cul.(total)/Soc.Ser.	37.69	38.64	37.41	39.34	37.93	40.27	40.06	50.03	47.51
Edu, sports,arts & Cul.(total)/Tot.Exp.	13.24	13.68	9.87	14.51	15.06	14.95	16.53	23.83	24.89
Med. & Pub. Hlth									
tot02.Urb. Hlth Ser.(rev)	20559427	26787521	35133930	39528044	62536007	80213881	129829134	119413190	134405935
tot01.Urb. Hlth Ser.(cap)	10365525	13178588	12519501	12584065	11528912	14722702	20100178	26490595	25315214
Urb. Hlth Ser.(total)	30924952	39966109	47653431	52112109	74064919	94936583	149929312	145903785	159721149
Urb. Hlth Ser.(total)/Soc.Ser.	2.06	2.22	2.17	1.80	2.17	2.06	2.53	2.14	2.03
Urb. Hlth Ser.(total)/Tot.Exp.	0.72	0.79	0.57	0.66	0.86	0.76	1.05	1.02	1.06

tot04.Rur. Hlth Ser.(rev)	82843613	97724524	111510726	137718806	175338054	247100956	340028663	412723984	598515940
tot02.Rur. Hlth Ser.(cap)	11005973	11195062	28215624	28155786	41230327	50661419	58799355	72286971	76471934
Rur. Hlth Ser.(total)	93849586	108919586	139726350	165874592	216568381	297762375	398828018	485010955	674987874
Rur. Hlth Ser.(total)/Soc.Ser.	6.26	6.06	6.35	5.73	6.34	6.45	6.74	7.11	8.58
Rur. Hlth Ser.(total)/ totSer.	2.20	2.15	1.68	2.11	2.52	2.39	2.78	3.39	4.49
tot06.Pub. Hlth(rev)	38255535	42665004	43143199	48411829	66244998	79247102	97159638	113584254	148202999
tot04.Pub. Hlth(cap)	0	41063818	65709792	0	0	0	0	0	0
Pub. Hlth(total)	38255535	83728822	108852991	48411829	66244998	79247102	97159638	113584254	148202999
Pub. Hlth(total)/Soc.Ser.	2.55	4.66	4.95	1.67	1.94	1.72	1.64	1.67	1.88
Pub. Hlth(total)/Tot.Exp.	0.90	1.65	1.31	0.62	0.77	0.64	0.68	0.79	0.99
tot2210.Med. & Pub. Hlth(rev)	172055268	205682261	271520812	290294550	403948471	524923098	718860782	842555127	1062005299
tot4210.Cap. Exp. On Med. & Pub. Hlth(cap)	42562881	41063818	65709792	67955790	95677162	146631809	213368277	271382012	361659105
Med. & Pub. Hlth (total)	214618149	246746079	337230604	358250340	499625633	671554907	932229059	1113937139	1423664404
Med. & Pub. Hlth (total)/Soc.Ser.	14.32	13.72	15.33	12.37	14.64	14.54	15.75	16.33	18.09
Med. & Pub. Hlth (total)/Tot.Exp.	5.03	4.86	4.05	4.56	5.81	5.40	6.50	7.78	9.48
Fam. Wel.									
tot2211.Fam. Wel.(rev)	8508431	18866578	12370586	9843677	8376341	9062344	10137674	7625048	8608696
tot4211.Cap. Exp. On Fam. Wel.(cap)	1926619	2679130	9165408	607739	7170153	351289	97885	0	0
Fam. Wel.(total)	10435050	21545708	21535994	10451416	15546494	9413633	10235559	7625048	8608696
Fam. Wel.(total)/Soc.Ser.	0.70	1.20	0.98	0.36	0.46	0.20	0.17	0.11	0.11
Fam. Wel.(total)/Tot.Exp.	0.24	0.42	0.26	0.13	0.18	0.08	0.07	0.05	0.06
tot(b)Hlth & Fam. Wel.(rev)	180563699	224548839	283891398	300138227	412324812	533985442	728998456	850180175	1070613995
tot(b)Hlth & Fam. Wel.(cap)	44489500	43742948	74875200	68563529	102847315	146983098	213466162	271382012	361659105
Hlth & Fam. Wel.(total)	225053199	268291787	358766598	368701756	515172127	680968540	942464618	1121562187	1432273100
Hlth & Fam. Wel.(total)/Soc.Ser.	15.02	14.92	16.31	12.73	15.09	14.74	15.92	16.44	18.20
Hlth & Fam. Wel.(total)/Tot.Exp.	5.27	5.28	4.31	4.70	5.99	5.48	6.57	7.83	9.54

WATER Ss. & San.									
101.Urb. Water Ss. Prgm.(rev)	41412329	54207417	50886247	56062420	72057873	80403964	101641614	94539154	91730023
tot101.Urb. Water Ss.(cap)	36440282	38135646	85392490	122838831	178478665	164294816	125541338	172271090	168084989
Urb. Water Ss.(total)	77852611	92343063	136278737	178901251	250536538	244698780	227182952	266810244	259815012
Urb. Water Ss.(total)/Soc.Ser.	5.20	5.14	6.20	6.18	7.34	5.30	3.84	3.91	3.30
Urb. Water Ss.(total)/Tot.Exp.	1.82	1.82	1.64	2.28	2.91	1.97	1.58	1.86	1.73
102.Rur. Water Ss. Prgm.(rev)	167182765	166564179	187529105	209642335	207477878	252648867	329069459	443061718	310230936
tot102.Rur. Water Ss.(cap)	349611237	262672071	223376176	241444510	316155519	336528874	362859916	369782132	392511103
Rur. Water Ss.(total)	516794002	429236250	410905281	451086845	523633397	589177741	691929375	812843850	702742039
Rur. Water Ss.(total)/Soc.Ser.	34.49	23.87	18.68	15.58	15.34	12.76	11.69	11.92	8.93
Rur. Water Ss.(total)/Tot.Exp.	12.11	8.45	4.93	5.75	6.09	4.74	4.82	5.68	4.68
Total-01.Water Ss.(rev)	221547067	226815394	238227625	268946915	320240620	394697419	553536379	540625652	829167869
tot01.Water Ss.(cap)	227523521	296124239	329697312	397408692	527742303	534692632	526519581	598299832	627230926
Water Ss.(total)	449070588	522939633	567924937	666355607	847982923	929390051	1080055960	1138925484	1456398795
Water Ss.(total)/Soc.Ser.	29.97	29.08	25.82	23.01	24.84	20.12	18.25	16.70	18.51
Water Ss.(total)/Tot.Exp.	10.52	10.30	6.82	8.49	9.86	7.47	7.53	7.95	9.70
tot02.Sewerage & San.(rev)	8836241	35871776	26891394	16625000	20728369	25394759	18304028	14207258	11692643
tot02.Sewerage & San.(cap)	201022230	49840224	85445056	59201083	34041027	93555075	274848165	175517171	147158647
Sewerage & San.(total)	28938471	85712000	112336450	75826083	54769396	118949834	293152193	189724429	158851290
Sewerage & San.(total)/Soc.Ser.	1.93	4.77	5.11	2.62	1.60	2.58	4.95	2.78	2.02
Sewerage & San.(total)/Tot.Exp.	0.68	1.69	1.35	0.97	0.64	0.96	2.04	1.32	1.06
Total-2215 Water Ss. & San.(rev)	230383308	262687170	265119019	296494213	340968989	420092178	571840407	554832910	840860512
tot4215.Cap. Exp. on Water Ss. & San.(cap)	247625751	345964463	415142368	456809775	561783330	628247707	801367746	773817003	774389573
Water Ss. & San.(total)	478009059	608651633	680261387	753103988	902752319	1048339885	1373208153	1328649913	1615250085
Water Ss. & San.(total)/Soc.Ser.	31.90	33.85	30.93	26.01	26.45	22.70	23.20	19.48	20.53
Water Ss. & San.(total)/Tot.Exp.	11.20	11.99	8.16	9.59	10.50	8.43	9.58	9.28	10.75

Hous.										
tot01.Govt. Residential Buildings(rev)	9852932	10879423	11824238	12513479	12199062	12289275	7971351	7667832		5841968
tot01.Govt. Residential Buildings(cap)	47064713	41874380	67934738	74880623	158001103	230574201	335574052	404255717		414559901
Govt. Residential Buildings(total)	56917645	52753803	79758976	87394102	170200165	242863476	343545403	411923549		420401869
Govt. Residential Buildings(total)/Soc.Ser.	3.80	2.93	3.63	3.02	4.99	5.26	5.80	6.04		5.34
Govt. Residential Buildings(total)/Tot.Exp.	1.33	1.04	0.96	1.11	1.98	1.95	2.40	2.88		2.80
tot02.Urb. Hous.(rev)	98800	197400	160000	574000	2380400	600400	553000	600400		600400
tot02.Urb. Hous.(cap)	0	0	0	0	0	205000	0	0		0
Urb. Hous.(total)	98800	197400	160000	574000	2380400	805400	553000	600400		600400
Urb. Hous.(total)/Soc.Ser.	0.01	0.01	0.01	0.02	0.07	0.02	0.01	0.01		0.01
Urb. Hous.(total)/Tot.Exp.	0.00	0.00	0.00	0.01	0.03	0.01	0.00	0.00		0.00
tot03.Rur. Hous.(rev)	3500000	5000000	35838000	238440300	190584800	262005800	323765000	22180500		24644060
tot03.Rur. Hous.(cap)	800000	950000	20000	397500	365000	0	231000	0		0
Rur. Hous.(total)	4300000	5950000	35858000	238837800	190949800	262005800	323996000	22180500		24644060
Rur. Hous.(total)/Soc.Ser.	0.29	0.33	1.63	8.25	5.59	5.67	5.47	0.33		0.31
Rur. Hous.(total)/Tot.Exp.	0.10	0.12	0.43	3.04	2.22	2.11	2.26	0.15		0.16
tot2216.Hous.(rev)	13451732	16076823	47822238	251527779	205227462	274895475	332289351	30448732		31086428
tot4216.Cap. Exp. On Hous.(cap)	47864713	42824380	67954738	75184993	158366103	230574201	335805052	404255717		414494647
Hous.(total)	61316445	58901203	115776976	326712772	363593565	505469676	668094403	434704449		445581075
Hous.(total)/Soc.Ser.	4.09	3.28	5.26	11.28	10.65	10.94	11.29	6.37		5.66
Hous.(total)/Tot.Exp.	1.44	1.16	1.39	4.16	4.23	4.06	4.66	3.04		2.97
tot(c)Water Ss., San., Hous. & Urb. Dev.(rev)	304697574	324659730	344495555	605745618	618829296	897487988	1007467572	674627129		1017978210
tot(c)Water Ss., San., Hous. & Urb. Dev.(cap)	302303021	395522678	488965493	538691347	732859577	25753521	42690150	1184289883		1199425954
Water Ss., San. & Urb. Dev.(total)	607000595	720182408	833461048	1144436965	1351688873	923241509	1050157722	1858917012		2217404164
Water Ss., San. & Urb. Dev.(total)/Soc.Ser.	40.51	40.05	37.90	39.52	39.60	19.99	17.74	27.25		28.18
Water Ss., San. & Urb. Dev.(total)/Tot.Exp.	14.23	14.18	10.00	14.58	15.72	7.42	7.32	12.98		14.76
tot(d)Information & Broadcasting(rev)	15209082	15912193	18371279	34072639	30984569	31576606	29010126	41308426		37640740
tot(d)Information & Broadcasting(cap)	1652094	1873806	2039984	2038915	729558	4391132	2633480	628487		1848000
Information & broadcasting(total)	16861176	17785999	20411263	36111554	31714127	35967738	31643606	41936913		39488740
Information & broadcasting(total)/Soc.Ser.	1.13	0.99	0.93	1.25	0.93	0.78	0.53	0.61		0.50
Information & Broadcasting(total)/Tot.Exp.	0.40	0.35	0.24	0.46	0.37	0.29	0.22	0.29		0.26

tot01.Wel. of SCs(rev)	12785626	14195624	22744600	18570835	20595364	23198423	32352011	19326886	44252031
tot01.Wel. of SCs(cap)	3500000	3500000	4700000	8400000	5800000	15352000	6600000	0	7500000
Wel. of SCs(total)	16285626	17695624	27444600	26970835	26395364	38550423	38952011	19326886	51752031
Wel. of SCs(total)/Soc.Ser.	1.09	0.98	1.25	0.93	0.77	0.83	0.66	0.28	0.66
Wel. of SCs(total)/Tot.Exp.	0.38	0.35	0.33	0.34	0.31	0.31	0.27	0.13	0.34
tot02.Wel. of STs(rev)	5389153	5348000	5139232	6049280	13055299	10503972	16002124	12590978	9337147
tot02.Wel. of STs(cap)	500000	600000	0	1300000	1500000	1600000	300000	400000	2000000
Wel. of STs(total)	5889153	5948000	5139232	7349280	14555299	12103972	16302124	12990978	11337147
Wel. of STs(total)/Soc.Ser.	0.39	0.33	0.23	0.25	0.43	0.26	0.28	0.19	0.14
Wel. of STs(total)/Tot.Exp.	0.14	0.12	0.06	0.09	0.17	0.10	0.11	0.09	0.08
tot(e)Wel. of SCs, STs & OBCs(rev)	18573779	23953508	31456458	50026406	38922489	40972584	58343082	37293071	61359156
tot(e)Wel. of SCs, STs & OBCs(cap)	4000000	4100000	4700000	9700000	10300000	22676000	13742000	5400000	15200000
Wel. of SCs, STs & OBCs(total)	22573779	28053508	36156458	59726406	49222489	63648584	72085082	42693071	76559156
Wel. of SCs, STs & OBCs(total)/Soc.Ser.	1.51	1.56	1.64	2.06	1.44	1.38	1.22	0.63	0.97
Wel. of SCs, STs & OBCs(total)/Tot.Exp.	0.53	0.55	0.43	0.76	0.57	0.51	0.50	0.30	0.51
totB.Soc.Ser.(rev)	1085829305	1248197272	1505300578	2131404355	2443485544	3386223866	4337867558	5199885972	6037910510
totB Cap. ACCOUNT OF Soc.Ser.(cap)	412648371	550047927	694050812	764316687	970031312	1232547332	1581188711	1621793296	1831265687
Soc.Ser. (TOTAL)	1498477676	1798245199	2199351390	2895721042	3413516856	4618771198	5919056269	6821679268	7869176197
Soc.Ser. (TOTAL)/Tot.Exp.	35.12	35.41	26.40	36.88	39.71	37.14	41.27	47.63	52.39
Tot.Exp.(REV.A/C)(rev)	2575115607	3007986458	3649667033	4803531173	5305002797	7258350597	8736014675	9165615792	10031401154
totEXPENDITURE HEADS (Cap. ACCOUNT)(cap)	1691891172	2069750798	4682498361	3047643985	3292056871	5179329474	5604667655	5156002317	4987727665
Tot.Exp.	4267006779	5077737256	8332165394	7851175158	8597059668	12437680071	14340682330	14321618109	15019128819

Table-3: Centrally Sponsored Social Services Expenditure

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01.
tot01.Elementary Edu(rev)	53470455	29425865	55151477	61358241	150355564	247153697	139751971	275302960	456794998
201.Elementary Edu(cap)	9638182	3622493	38243241	0	673260	34956180	4300000	0	0
Elementary Edu(total)	63108637	33048358	93394718	61358241	151028824	282109877	144051971	275302960	456794998
Elementary Edu(total)/Soc.Ser.	19.75	8.75	24.25	14.46	25.35	41.13	20.12	33.42	37.06
Elementary Edu(total)/Tot.Exp.	5.90	2.66	9.54	5.85	10.48	19.89	9.28	13.25	13.39
tot02.Sec. Edu(rev)	13416355	26904766	16451802	16555705	18695323	7580202	34097164	12658333	10909112
tot202.Sec. Edu(cap)	0	0	0	0	0	0	0	0	0
Sec. Edu(total)	13416355	26904766	16451802	16555705	18695323	7580202	34097164	12658333	10909112
Sec. Edu(total)/Soc.Ser.	1.92	5.31	2.93	2.67	2.37	0.84	3.74	1.04	0.65
Sec. Edu(total)/Tot.Exp.	1.25	2.16	1.68	1.58	1.30	0.53	2.20	0.61	0.32
tot03.University & Higher Edu(rev)	0	0	300000	52000	0	0	0	0	0
tot203.University & Higher Edu(cap)	0	1899999	0	1900450	0	0	0	0	0
University & Higher Edu(total)	0	1899999	300000	1952450	0	0	0	0	0
University & Higher Edu(total)/Soc.Ser.	0	0.38	0.05	0.32	0	0	0	0	0
University & Higher Edu(total)/Tot.Exp.	0	0.15	0.03	0.19	0	0	0	0	0
tot2202.Gen. Edu(rev)	77961108	68671777	85844282	96678423	187629591	274148659	198366981	327531118	508208548
tot01.Gen. Edu(cap)	9638182	5522492	38243241	7400450	673260	39067547	9800000	3919415	0
Gen. Edu(total)	87599290	74194269	124087523	104078873	188302851	313216206	208166981	331450533	508208548
Gen. Edu(total)/Soc.Ser.	12.51	14.65	22.11	16.81	23.87	34.84	22.83	27.36	30.23
Gen. Edu(total)/Tot.Exp.	8.19	5.97	12.67	9.92	13.07	22.08	13.41	15.95	14.89
tot2203.Tech. Edu(rev)	0	100800	182400	374300	0	0	0	0	0
tot02.Tech. Edu(cap)	1201049	50950	16916484	878514	0	0	0	0	0
Tech. Edu(total)	1201049	151750	17098884	1252814	0	0	0	0	0
Tech. Edu(total)/Soc.Ser.	0.17	0.03	3.05	0.20	0	0	0	0	0
Tech. Edu(total)/ totService	0.11	0.01	1.75	0.12	0	0	0	0	0

tot(a)Edu, Sports, Arts & Cul.(rev)	79360822	75083297	94055063	104827241	199825882	286002787	208074877	330158492	517112261
Total(a) Edu, Sports, Art & Cul.(cap)	10839231	6342536	55160339	8278964	673260	39067547	9800000	3919415	0
Edu, sports,arts & Cul.(total)	90200053	81425833	149215402	113106205	200499142	325070334	217874877	334077907	517112261
Edu, sports,arts & Cul.(total)/Soc.Ser.	12.88	16.08	26.58	18.27	25.41	36.16	23.90	27.57	30.76
Edu, sports,arts & Cul.(total)/Tot.Exp.	8.43	6.55	15.24	10.78	13.92	22.91	14.04	16.08	15.15
tot02.Urb. Hlth Ser.(rev)	16851	62550	59350	228256	199045	0	0	0	0
tot01.Urb. Hlth Ser.(cap)	0	0	0	0	0	0	0	0	0
Urb. Hlth Ser.(total)	16851	62550	59350	228256	199045	0	0	0	4740000
Urb. Hlth Ser.(total)/Soc.Ser.	0.00	0.01	0.01	0.04	0.03	0.00	0.00	0.00	4740000
Urb. Hlth Ser.(total)/Tot.Exp.	0.00	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.28
									0.14
tot04.Rur. Hlth Ser.(rev)	941051	4076769	8450413	1651999	5408793	11405065	11545484	6645619	10542593
tot02.Rur. Hlth Ser.(cap)	0	0	2750000	0	0	0	0	0	0
Rur. Hlth Ser.(total)	941051	4076769	11200413	1651999	5408793	11405065	11545484	6645619	10542593
Rur. Hlth Ser.(total)/Soc.Ser.	0.13	0.80	2.00	0.27	0.69	1.27	1.27	0.55	0.63
Rur. Hlth Service(total)/Tot.Exp.	0.09	0.33	1.14	0.16	0.38	0.80	0.74	0.32	0.31
tot06.Pub. Hlth(rev)	15949446	17926685	26896107	26897334	33101864	25555942	23976630	6606913	27444717
tot04.Pub. Hlth(cap)	0	0	2750000	0	0	0	0	0	0
Pub. Hlth(total)	15949446	17926685	29646107	26897334	33101864	25555942	23976630	6606913	27444717
Pub. Hlth(total)/Soc.Ser.	2.28	3.54	5.28	4.35	4.20	2.84	2.63	0.55	1.63
Pub. Hlth(total)/Tot.Exp.	1.49	1.44	3.03	2.56	2.30	1.80	1.54	0.32	0.80
tot2210.Med. & Pub. Hlth(rev)	18384348	22066004	35405870	28777589	53709702	36961007	35522114	13252532	37987310
tot4210.Cap. Exp. On Med. & Pub. Hlth(cap)	0	0	2750000	0	0	0	0	0	4740000
Med. & Pub. Hlth (total)	18384348	22066004	38155870	28777589	53709702	36961007	35522114	13252532	42727310
Med. & Pub. Hlth (total)/Soc.Ser.	2.63	4.36	6.80	4.65	6.81	4.11	3.90	1.09	2.54
Med. & Pub. Hlth (total)/Tot.Exp.	1.72	1.78	3.90	2.74	3.73	2.61	2.29	0.64	1.25

tot2211.Fam. Wel.(rev)	135627964	165414718	171449793	173554742	218921318	205772794	275291114	266240663	296533105
tot4211.Cap. Exp. On Fam. Wel.(cap)	73027971	20652575	11901575	8378539	2490916	-402472	91144	0	0
Fam. Wel.(total)	208655935	186067293	183351368	181933281	221412234	205370322	275382258	266240663	296533105
Fam. Wel.(total)/Soc.Ser.	29.79	36.73	32.66	29.39	28.06	22.84	30.21	21.98	17.64
Fam. Wel.(total)/Tot.Exp.	19.50	14.97	18.72	17.34	15.37	14.48	17.74	12.82	8.69
tot(b)Hlth & Fam. Wel.(rev)	154012312	187480722	206855663	202582331	272715374	242733801	310813228	279493195	334520415
tot(b)Hlth & Fam. Wel.(cap)	73027971	20652575	14651575	8378539	2490916	-402472	91144	0	4740000
Hlth & Fam. Wel.(total)	227040283	208133297	221507238	210960870	275206290	242331329	310904372	279493195	339260415
Hlth & Fam. Wel.(total)/Soc.Ser.	32.42	41.09	39.46	34.08	34.88	26.96	34.10	23.07	20.18
Hlth & Fam. Wel.(total)/Tot.Exp.	21.22	16.75	22.62	20.10	19.10	17.08	20.03	13.45	9.94
101.Urb. Water Ss. Prgm.(rev)	0	0	0	0	0	0	0	0	0
tot101.Urb. Water Ss.(cap)	0	0	1866011	2058000	6225826	3851423	5317078	2883368	8588036
Urb. Water Ss.(total)	0	0	1866011	2058000	6225826	3851423	5317078	2883368	8588036
Urb. Water Ss.(total)/Soc.Ser.	0.00	0.00	0.33	0.33	0.79	0.43	0.58	0.24	0.51
Urb. Water Ss.(total)/Tot.Exp.	0.00	0.00	0.19	0.20	0.43	0.27	0.34	0.14	0.25
102.Rur. Water Ss. Prgm.(rev)	7070915	8762889	11207349	27758472	19847147	16530761	19747285	33072085	130500766
tot102.Rur. Water Ss.(cap)	285928841	95348059	95262734	137729105	173273084	166378094	177043461	376436323	433601833
Rur. Water Ss.(total)	292999756	104110948	106470083	165487577	193120231	182908855	196790746	409508408	564102599
Rur. Water Ss.(total)/Soc.Ser.	41.84	20.55	18.97	26.73	24.48	20.35	21.59	33.80	33.55
Rur. Water Ss.(total)/Tot.Exp.	27.39	8.38	10.87	15.77	13.40	12.89	12.68	19.71	16.53
Total-01.Water Ss.(rev)	8650167	10589534	12586236	31524460	28674349	18476538	23310234	34072085	140454676
tot01.Water Ss.(cap)	287128497	96349802	102690701	143669502	185289433	170229517	184692841	380431510	442189869
Water Ss.(total)	295778664	106939336	115276937	175193962	213963782	188706055	208003075	414503595	582644545
Water Ss.(total)/Soc.Ser.	42.23	21.11	20.54	28.30	27.12	20.99	22.82	34.21	34.66
Water Ss.(total)/Tot.Exp.	27.65	8.61	11.77	16.69	14.85	13.30	13.40	19.95	17.07
tot02.Sewerage & San.(rev)	0	0	0	0	0	0	0	0	0
tot02.Sewerage & San.(cap)	0	0	0	0	0	0	0	0	0
Sewerage & San.(total)	0	0	0	0	0	0	0	0	0
Sewerage & San.(total)/Soc.Ser.	0	0	0	0	0	0	0	0	0
Sewerage & San.(total)/Tot.Exp.	0	0	0	0	0	0	0	0	0

Total-2215 Water Ss. & San.(rev)	8650167	10539534	12586236	31524460	28674349	18476538	23310234	34072085	140454676
tot4215.Cap. Exp. on Water Ss. & San.(cap)	287128497	96349802	102690701	143669502	185289433	170229517	184692841	380431510	442189869
Water Ss. & San.(total)	295778664	106889336	115276937	175193962	213963782	188706055	208003075	414503595	582644545
Water Ss. & San.(total)/Soc.Ser.	42.23	21.10	20.54	28.30	27.12	20.99	22.82	34.21	34.66
Water Ss. & San.(total)/Tot.Exp.	27.65	8.60	11.77	16.69	14.85	13.30	13.40	19.95	17.07
tot01.Govt. Residential Buildings(rev)	0	0	0	0	0	0	0	0	0
tot01.Govt. Residential Buildings(cap)	1894782	1287304	3067999	33000525	828000	1168936	770806	425200	0
Govt. Residential Buildings(total)	1894782	1287304	3067999	33000525	828000	1168936	770806	425200	0
Govt. Residential Buildings(total)/Soc.Ser.	0.27	0.25	0.55	5.33	0.10	0.13	0.08	0.04	0.00
Govt. Residential Buildings(total)/Tot.Exp.	0.18	0.10	0.31	3.14	0.06	0.08	0.05	0.02	0.00
tot02.Urb. Hous.(rev)	0	0	0	0	0	0	0	0	0
tot02.Urb. Hous.(cap)	0	0	0	0	0	0	0	0	0
Urb. Hous.(total)	0	0	0	0	0	0	0	0	0
Urb. Hous.(total)/Soc.Ser.	0	0	0	0	0	0	0	0	0
Urb. Hous.(total)/Tot.Exp.	0	0	0	0	0	0	0	0	0
tot03.Rur. Hous.(rev)	0	0	0	0	0	0	0	0	0
tot03.Rur. Hous.(cap)	0	0	0	0	0	0	0	0	0
Rur. Hous.(total)	0	0	0	0	0	0	0	0	0
Rur. Hous.(total)/Soc.Ser.	0	0	0	0	0	0	0	0	0
Rur. Hous.(total)/Tot.Exp.	0	0	0	0	0	0	0	0	0
tot2216.Hous.(rev)	0	0	0	0	0	0	0	0	0
tot4216.Cap. Exp. On Hous.(cap)	1894782	1297304	3067999	33000525	828000	1168936	770806	425200	0
Hous.(total)	1894782	1297304	3067999	33000525	828000	1168936	770806	425200	0
Hous.(total)/Soc.Ser.	0.27	0.26	0.55	5.33	0.10	0.13	0.08	0.04	0.00
Hous.(total)/Tot.Exp.	0.18	0.10	0.31	3.14	0.06	0.08	0.05	0.02	0.00

tot(c)Water Ss., San., Hous. & Urb. Dev.(rev)	8650167	10539534	12586236	31524460	28674349	18476538	25910234	34072085	152318676
tot(c)Water Ss., San., Hous. & Urb. Dev.(cap)	289023279	97647106	105758700	176670027	186117433	171398453	185463647	380856710	442189869
Water Ss., San. & Urb. Dev.(total)	297673446	108186640	118344936	208194487	214791782	189874991	211373881	414928795	594508545
Water Ss., San. & Urb. Dev.(total)/Soc.Ser.	42.50	21.36	21.08	33.63	27.23	21.12	23.19	34.25	35.36
Water Ss., San. & Urb. Dev.(total)/Tot.Exp.	27.82	8.71	12.09	19.84	14.91	13.38	13.62	19.97	17.42
tot(d)Information & Broadcasting(rev)	0	0	0	0	0	0	0	0	0
tot(d)Information & Broadcasting(cap)	0	0	0	0	0	0	0	0	0
Information & broadcasting(total)	0	0	0	0	0	0	0	0	0
Information & broadcasting(total)/Soc.Ser.	0	0	0	0	0	0	0	0	0
Information & Broadcasting(total)/Tot.Exp.	0	0	0	0	0	0	0	0	0
tot01.Wel. of SCs(rev)	29983900	36835785	8000000	11520000	10500000	13500000	12745000	18246343	30833958
tot01.Wel. of SCs(cap)	7643000	3595000	673000	0	1500000	1500000	0	0	0
Wel. of SCs(total)	37626900	40430785	8673000	11520000	12000000	15000000	12745000	18246343	30833958
Wel. of SCs(total)/Soc.Ser.	5.37	7.98	1.55	1.86	1.52	1.67	1.40	1.51	1.83
Wel. of SCs(total)/Tot.Exp.	3.52	3.25	0.89	1.10	0.83	1.06	0.82	0.88	0.90
tot02.Wel. of STs(rev)	600000	865000	674000	2825000	1000000	2400000	12950000	7270000	18712000
tot02.Wel. of STs(cap)	200000	673000	0	1400000	2400000	1500000	400000	2900000	1800000
Wel. of STs(total)	800000	1538000	674000	4225000	3400000	3900000	13350000	10170000	20512000
Wel. of STs(total)/Soc.Ser.	0.11	0.30	0.12	0.68	0.43	0.43	1.46	0.839418735	1.220073778
Wel. of STs(total)/Tot.Exp.	0.07	0.12	0.07	0.40	0.24	0.27	0.86	0.489533549	0.601091625
tot(e)Wel. of SCs, STs & OBCs(rev)	30583900	37700785	8674000	14345000	11500000	15900000	25695000	25516343	49545958
tot(e)Wel. of SCs, STs & OBCs(cap)	7843000	4268000	673000	1400000	3900000	3000000	400000	2900000	1800000
Wel. of SCs, STs & OBCs(total)	38426900	41968785	9347000	15745000	15400000	18900000	26095000	28416343	51345958
Wel. of SCs, STs & OBCs(total)/Soc.Ser.	5.49	8.29	1.67	2.54	1.95	2.10	2.86	2.35	3.05
Wel. of SCs, STs & OBCs(total)/Tot.Exp.	3.59	3.38	0.95	1.50	1.07	1.33	1.68	1.37	1.50
totB.Soc.Ser.(rev)	319604427	377616985	385099209	424280862	595754651	685957432	715894223	823876533	1232479938
totB Cap. ACCOUNT OF Soc.Ser.(cap)	380733481	128910217	176243614	194727530	193181609	213063528	195754791	387676125	448729869
Soc.Ser. (TOTAL)	700337908	506527202	561342823	619008392	788936260	899020960	911649014	1211552658	1681209807
Soc.Ser. (TOTAL)/Tot.Exp.	65.46	40.76	57.32	58.99	54.75	63.37	58.73	58.32	49.27
Tot.Exp.(REV.A/C)(rev)	692197817	1082077885	757586734	802331449	1200445044	1159937639	1321420729	1660354848	2862675982
totEXPENDITURE HEADS (Cap. ACCOUNT)(cap)	377694677	160654955	221665695	247053668	240432332	258661637	230920729	417133002	549782145
Tot.Exp.	1069892494	1242732840	979252429	1049385117	1440877376	1418599276	1552341458	2077487850	3412458127

Table-4: Total Social Services Expenditure

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Gen. Edu									
tot01.Elementary Edu(rev)	1252881299	1343525644	1481432483	1898100086	2235648242	2821757452	3880853782	4979083261	5063709849
201.Elementary Edu(cap)	14779563	7351924	42243241	8538489	8619530	54817450	24800170	10770544	35779873
Elementary Edu(total)	1267660862	1350877568	1523675724	1906638575	2244267772	2876574902	3905653952	4989853805	5099489722
Elementary Edu(total)/Soc.Ser.	28.69	27.95	26.70	26.85	28.40	28.96	30.88	36.25	32.67
Elementary Edu(total)/Tot.Exp.	9.38	8.59	7.23	8.53	8.98	8.88	9.97	11.40	10.46
tot02.Sec. Edu(rev)	771659790	902320296	986545685	1181966628	1330148551	1647977877	2159721433	2321437164	2753223709
tot202.Sec. Edu(cap)	4920517	25539777	18736000	16703449	21034560	19611784	18046734	29878258	64444310
Sec. Edu(total)	776580307	927860073	1005281685	1198670077	1351183111	1667589661	2177768167	2351315422	2817668019
Sec. Edu(total)/Soc.Ser.	14.90	16.83	15.19	14.87	14.90	14.65	15.10	14.91	15.75
Sec. Edu(total)/Tot.Exp.	5.75	5.90	4.77	5.36	5.41	5.15	5.56	5.37	5.78
tot03.University & Higher Edu(rev)	171028303	190700017	232991131	265978683	315766373	413743351	438040631	577087129	645609395
tot203.University & Higher Edu(cap)	4920517	15955302	24635897	24185314	4861930	27556033	14202058	35278705	22396636
University & Higher Edu(total)	175948820	206655319	257627028	290163997	320628303	441299384	452242689	612365834	668006031
University & Higher Edu(total)/Soc.Ser.	3.38	3.75	3.89	3.60	3.54	3.88	3.14	3.88	3.73
University & Higher Edu(total)/Tot.Exp.	1.30	1.31	1.22	1.30	1.28	1.36	1.15	1.40	1.37
tot2202.Gen. Edu(rev)	2261124433	2504458015	2780578805	3431568844	3976941361	4998810470	6603241221	8023666565	8623565319
tot01.Gen. Edu(cap)	25285578	54315809	98324978	65185327	51439344	126167825	93559256	104870378	182321192
Gen. Edu(total)	2286410011	2558773824	2878903783	3496754171	4028380705	5124978295	6696800477	8128536943	8805886511
Gen. Edu(total)/Soc.Ser.	43.87	46.42	43.49	43.38	44.43	45.03	46.43	51.53	49.22
Gen. Edu(total)/Tot.Exp.	16.93	16.28	13.65	15.64	16.12	15.82	17.09	18.58	18.05
tot2203.Tech. Edu(rev)	25739886	35252651	38030353	46298325	56525732	64936627	144821837	97028689	72616144
tot02.Tech. Edu(cap)	34168582	41720581	61644123	54167398	48027803	58997102	63555476	43174571	47935578
Tech. Edu(total)	59908468	76973232	99674476	100465723	104553535	123933729	208377313	140203260	120551722
Tech. Edu(total)/Soc.Ser.	1.15	1.40	1.51	1.25	1.15	1.09	1.44	0.89	0.67
Tech. Edu(total)/ totService	0.44	0.49	0.47	0.45	0.42	0.38	0.53	0.32	0.25

tot(a)Edu, Sports, Arts & Cul.(rev)	2320540885	2588481271	2870802501	3536622050	4099008221	5150025645	6836208405	8210584840	8799433959
Total(a) Edu, Sports, Art & Cul.(cap)	67390629	104174550	171432078	132186179	113376445	201194939	175077011	160319036	248098444
Edu, sports,arts & Cul.(total)	2387931514	2692655821	3042234579	3668808229	4212384666	5351220584	7011285416	8370903876	9047532403
Edu, sports,arts & Cul.(total)/Soc.Ser.	45.82	48.85	45.95	45.52	46.46	47.02	48.61	53.07	50.57
Edu, sports,arts & Cul.(total)/Tot.Exp.	17.68	17.13	14.43	16.41	16.86	16.52	17.90	19.13	18.55
tot02.Urb. Hlth Ser.(rev)	189422324	201248529	244592675	293265358	351830758	381210876	556720760	552103566	707943561
tot01.Urb. Hlth Ser.(cap)	10365525	13178588	12519501	12584065	11528912	14722702	20100178	26490595	30055214
Urb. Hlth Ser.(total)	199787849	214427117	257112176	305849423	363359670	395933578	576820938	578594161	737998775
Urb. Hlth Ser.(total)/Soc.Ser.	3.83	3.89	3.88	3.79	4.01	3.48	4.00	3.67	4.13
Urb. Hlth Ser.(total)/Tot.Exp.	1.48	1.36	1.22	1.37	1.45	1.22	1.47	1.32	1.51
tot04.Rur. Hlth Ser.(rev)	333927157	366391688	430909821	502480579	579108779	709996905	956668505	1027856658	1003303715
tot02.Rur. Hlth Ser.(cap)	11005973	11195062	30965624	28155786	41230327	50661419	58799355	72286971	76471934
Rur. Hlth Ser.(total)	344933130	377586750	461875445	530636365	620339106	760658324	1015467860	1100143629	1079775649
Rur. Hlth Ser.(total)/Soc.Ser.	6.62	6.85	6.98	6.58	6.84	6.68	7.04	6.97	6.04
Rur. Hlth Service(total)/Tot.Exp.	2.55	2.40	2.19	2.37	2.48	2.35	2.59	2.51	2.21
tot06.Pub. Hlth(rev)	129114005	141460322	157050722	175799422	210989867	238552818	289013076	283623746	233728248
tot04.Pub. Hlth(cap)	0	41063818	70259792	0	0	0	0	0	0
Pub. Hlth(total)	129114005	182524140	225510514	175799422	210989867	238552818	289013076	283623746	233728248
Pub. Hlth(total)/Soc.Ser.	2.48	3.31	3.41	2.18	2.33	2.10	2.00	1.80	1.31
Pub. Hlth(total)/Tot.Exp.	0.96	1.16	1.07	0.79	0.84	0.74	0.74	0.65	0.48
tot2210.Med. & Pub. Hlth(rev)	729152306	793358502	969888324	1092407199	1326905731	1525195191	2058889127	2186912198	2309535064
tot4210.Cap. Exp. On Med. & Pub. Hlth(cap)	42562881	41063818	70259792	67955790	95677162	146631809	213368277	271382012	366399105
Med. & Pub. Hlth (total)	771715187	834422320	1040148116	1160362989	1422582893	1671827000	2272257404	2458294210	2675934169
Med. & Pub. Hlth (total)/Soc.Ser.	14.81	15.14	15.71	14.40	15.69	14.69	15.75	15.59	14.96
Med. & Pub. Hlth (total)/Tot.Exp.	5.71	5.31	4.93	5.19	5.69	5.16	5.80	5.62	5.49

tot2211.Fam. Wel.(rev)	156396680	194866515	193810737	194722066	239778775	228440217	302913651	291371339	321040340
tot4211.Cap. Exp. On Fam. Wel.(cap)	74954590	23331705	21066983	8986278	9661069	-51183	189029	0	0
Fam. Wel.(total)	231351270	218198220	214877720	203708344	249439844	228389034	303102680	291371339	321040340
Fam. Wel.(total)/Soc.Ser.	4.44	3.96	3.25	2.53	2.75	2.01	2.10	1.85	1.79
Fam. Wel.(total)/Tot.Exp.	1.71	1.39	1.02	0.91	1.00	0.70	0.77	0.67	0.66
tot(b)Hlth & Fam. Wel.(rev)	885548986	988225017	1163699061	1287129265	1566584506	1753635408	2361802778	2478283537	2630575404
tot(b)Hlth & Fam. Wel.(cap)	117517471	64395523	91326775	76942068	105338231	146580626	213557306	0	366399105
Hlth & Fam. Wel.(total)	1003066457	1052620540	1255025836	1364071333	1671922737	1900216034	2575360084	2478283537	2996974509
Hlth & Fam. Wel.(total)/Soc.Ser.	19.25	19.10	18.96	16.92	18.44	16.70	17.85	15.71	16.75
Hlth & Fam. Wel.(total)/Tot.Exp.	7.43	6.70	5.95	6.10	6.69	5.87	6.57	5.66	6.14
101.Urb. Water Ss. Prgm.(rev)	86640462	123971235	144154191	189459421	175425895	282099972	294063569	231537476	332444369
tot101.Urb. Water Ss.(cap)	36440282	38135646	87258501	124896831	184704491	168146239	130858416	175154458	176673025
Urb. Water Ss.(total)	123080744	162106881	231412692	314356252	360130386	450246211	424921985	406691934	509117394
Urb. Water Ss.(total)/Soc.Ser.	2.36	2.94	3.50	3.90	3.97	3.96	2.95	2.58	2.85
Urb. Water Ss.(total)/Tot.Exp.	0.91	1.03	1.10	1.41	1.44	1.39	1.08	0.93	1.04
102.Rur. Water Ss. Prgm.(rev)	424790134	331745117	592209428	617335326	667768625	791463255	1217189609	1208451754	1323014152
tot102.Rur. Water Ss.(cap)	635540078	358020130	318638910	379173615	489428603	502906968	539903377	746218455	826112936
Rur. Water Ss.(total)	1060330212	689765247	910848338	996508941	1157197228	1294370223	1757092986	1954670209	2149127088
Rur. Water Ss.(total)/Soc.Ser.	20.35	12.51	13.76	12.36	12.76	11.37	12.18	12.39	12.01
Rur. Water Ss.(total)/Tot.Exp.	7.85	4.39	4.32	4.46	4.63	4.00	4.48	4.47	4.41
Total-01.Water Ss.(rev)	532453801	466427487	753838851	826514727	92578079	1166972242	1668553728	1475834846	2128640910
tot01.Water Ss.(cap)	514652018	392474041	432388013	541078194	713031736	704922149	711212422	978731342	1069420795
Water Ss.(total)	1047105819	858901528	1186226864	1367592921	805609815	1871894391	2379766150	2454566188	3198061705
Water Ss.(total)/Soc.Ser.	20.09	15.58	17.92	16.97	8.89	16.45	16.50	15.56	17.88
Water Ss.(total)/Tot.Exp.	7.75	5.46	5.63	6.12	3.22	5.78	6.07	5.61	6.56
tot02.Sewerage & San.(rev)	11094900	38359702	46363655	30539000	35033369	38847759	28304028	14207258	11692643
tot02.Sewerage & San.(cap)	20102230	49840224	85445056	59201083	34041027	93555075	274848165	175517171	147158647
Sewerage & San.(total)	31197130	88199926	131808711	89740083	69074396	132402834	303152193	189724429	158851290
Sewerage & San.(total)/Soc.Ser.	0.60	1.60	1.99	1.11	0.76	1.16	2.10	1.20	0.89
Sewerage & San.(total)/Tot.Exp.	0.23	0.56	0.63	0.40	0.28	0.41	0.77	0.43	0.33
Total-2215 Water Ss. & San.(rev)	543548701	504787189	800202506	867976025	96081465	1205820001	1696857756	1490042104	2140333553
tot4215.Cap. Exp. on Water Ss. & San.(cap)	534754248	442314265	517833069	600279277	747072763	798477224	986060587	1154248513	1216579442

Water Ss. & San.(total)	1078302949	947101454	1318035575	1468255302	843154228	2004297225	2682918343	2644290617	3356912995
Water Ss. & San.(total)/Soc.Ser.	20.69	17.18	19.91	18.22	9.30	17.61	18.60	16.76	18.76
Water Ss. & San.(total)/Tot.Exp.	7.98	6.03	6.25	6.57	3.37	6.19	6.85	6.04	6.88
tot01.Govt. Residential Buildings(rev)	23294869	24129507	60127246	49220980	35454865	42387751	37127953	39250520	37275110
tot01.Govt. Residential Buildings(cap)	48959495	43171684	111876737	107881148	158849405	231743137	336344858	404680917	414559501
Govt. Residential Buildings(total)	72254364	67301191	172003983	157102128	194304270	274130888	373472811	443931437	451834611
Govt. Residential Buildings(total)/Soc.Ser.	1.39	1.22	2.60	1.95	2.14	2.41	2.59	2.81	2.53
Govt. Residential Buildings(total)/Tot.Exp.	0.53	0.43	0.82	0.70	0.78	0.85	0.95	1.01	0.93
tot02.Urb. Hous.(rev)	98800	197400	160000	574000	2380400	600400	553000	600400	600400
tot02.Urb. Hous.(cap)	0	0	0	0	0	205000	0	0	0
Urb. Hous.(total)	98800	197400	160000	574000	2380400	805400	553000	600400	600400
Urb. Hous.(total)/Soc.Ser.	0.00	0.00	0.00	0.01	0.03	0.01	0.00	0.00	0.00
Urb. Hous.(total)/Tot.Exp.	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
tot03.Rur. Hous.(rev)	3500000	5000000	35838000	238440300	190584800	262005800	323765000	22180500	24644060
tot03.Rur. Hous.(cap)	800000	950000	20000	397500	365000	0	231000	0	0
Rur. Hous.(total)	4300000	5950000	35858000	238837800	190949800	262005800	323996000	22180500	24644060
Rur. Hous.(total)/Soc.Ser.	0.08	0.11	0.54	2.96	2.11	2.30	2.25	0.14	0.14
Rur. Hous.(total)/Tot.Exp.	0.03	0.04	0.17	1.07	0.76	0.81	0.83	0.05	0.05
tot2216.Hous.(rev)	26893669	29326907	96125246	288235280	228483265	304993951	361445953	62031420	62519570
tot4216.Cap. Exp. On Hous.(cap)	49759495	44121684	111896737	108185518	159214405	231743137	336575858	404680917	414494647
Hous.(total)	76653164	73448591	208021983	396420798	387697670	536737088	698021811	466712337	477014217
Hous.(total)/Soc.Ser.	1.47	1.33	3.14	4.92	4.28	4.72	4.84	2.96	2.67
Hous.(total)/Tot.Exp.	0.57	0.47	0.99	1.77	1.55	1.66	1.78	1.07	0.98
tot(c)Water Ss., San., Hous. & Urb. Dev.(rev)	635831428	584314755	932608116	1219663488	1268869319	1720902416	2166511797	1643596715	2363204385
tot(c)Water Ss., San., Hous. & Urb. Dev.(cap)	591326300	493169784	635598193	715361374	918997312	25753521	42690150	1565146593	1641615823
Water Ss., San. & Urb. Dev.(total)	1227157728	1077484539	1568206309	1935024862	2187866631	1746655937	2209201947	3208743308	4004820208
Water Ss., San. & Urb. Dev.(total)/Soc.Ser.	23.55	19.55	23.69	24.01	24.13	15.35	15.32	20.34	22.39
Water Ss., San. & Urb. Dev.(total)/Tot.Exp.	9.08	6.85	7.44	8.66	8.76	5.39	5.64	7.33	8.21
tot(d)Information & Broadcasting(rev)	32479806	35291322	38853406	63427063	60953666	65529806	68651067	84040632	85361731
tot(d)Information & Broadcasting(cap)	1652094	1873806	2039984	2038915	729558	4391132	2633480	628487	1848000
Information & broadcasting(total)	34131900	37165128	40893390	65465978	61683224	69920938	71284547	84669119	87209731
Information & broadcasting(total)/Soc.Ser.	0.65	0.67	0.62	0.81	0.68	0.61	0.49	0.54	0.49
Information & Broadcasting(total)/Tot.Exp.	0.25	0.24	0.19	0.29	0.25	0.22	0.18	0.19	0.18

to01.Wel. of SCs(rev)	54231447	63716556	44287928	48624854	46720384	54134598	65795197	59793322	104636780
tot01.Wel. of SCs(cap)	11143000	7095000	5373000	8400000	7300000	16852000	6600000	0	7500000
Wel. of SCs(total)	65374447	70811556	49660928	57024854	54020384	70986598	72395197	59793322	112136780
Wel. of SCs(total)/Soc.Ser.	1.25	1.28	0.75	0.71	0.60	0.62	0.50	0.38	0.63
Wel. of SCs(total)/Tot.Exp.	0.48	0.45	0.24	0.26	0.22	0.22	0.18	0.14	0.23
tot02.Wel. of STs(rev)	7863145	8440039	7890732	11193390	16551254	15701163	32628867	23552691	31497233
tot02.Wel. of STs(cap)	700000	1273000	0	2700000	3900000	3100000	700000	3300000	3800000
Wel. of STs(total)	8563145	9713039	7890732	13893390	20451254	18801163	33328867	26852691	35297233
Wel. of STs(total)/Soc.Ser.	0.16	0.18	0.12	0.17	0.23	0.17	0.23	0.17	0.20
Wel. of STs(total)/Tot.Exp.	0.06	0.06	0.04	0.06	0.08	0.06	0.09	0.06	0.07
tot(e)Wel. of SCs, STs & OBCs(rev)	62499920	76566479	55751286	85224535	68552464	77115950	108423011	88739670	143903991
tot(e)Wel. of SCs, STs & OBCs(cap)	11843000	8368000	5373000	11100000	14200000	25676000	14142000	8300000	17000000
Wel. of SCs, STs & OBCs(total)	74342920	84934479	61124286	96324535	82752464	102791950	122565011	97039670	160903991
Wel. of SCs, STs & OBCs(total)/Soc.Ser.	1.43	1.54	0.92	1.20	0.91	0.90	0.85	0.62	0.90
Wel. of SCs, STs & OBCs(total)/Tot.Exp.	0.55	0.54	0.29	0.43	0.33	0.32	0.31	0.22	0.33
totB.Soc.Ser.(rev)	4418360612	4832825544	5707117997	7101398717	7903294116	9934437172	12647634091	13763454282	15610067843
totB Cap. ACCOUNT OF Soc.Ser.(cap)	793381852	678958144	912968426	959044217	1163233223	1445610860	1776943502	2009469421	2279995556
Soc.Ser. (TOTAL)	5211742464	5511783688	6620086423	8060442934	9066527339	11380048032	14424577593	15772923703	17890063399
Soc.Ser. (TOTAL)/Tot.Exp.	38.58	35.07	31.40	36.05	36.29	35.13	36.82	36.05	36.68
Tot.Exp.(REV.A/C)(rev)	11455682234	13514991815	16142774710	19043475152	21468783019	26991397934	33342643294	38215403968	43287443994
totEXPENDITURE HEADS (Cap. ACCOUNT)(cap)	2053187226	2203674992	4941210021	3312826561	3517937807	5407311004	5835282512	5538777111	5487096984
Tot.Exp.	13508869460	15718666807	21083984731	22356301713	24986720826	32398708938	39177925806	43754181079	48774540978

Table 5 : Allopathy

	Non-Plan (92-93)	Non-Plan (93-94)	Non-Plan (94-95)	Non-Plan (95-96)	Non-Plan (96-97)	Non-Plan (97-98)	Non-Plan(98-99)	Non-Plan (99-00)	Non-Plan (2000-01)
Tot. 01.Urb. Hlth Ser Allo.	156918816	161629919	193119064	237142159	271338877	281202908	400244460	404924977	402904023
Tot. 03.Rur. Hlth Ser(Allop.)	170455190	185943278	220538400	263326224	284024739	330222080	441595260	433262809	366649235
05.Med. Edu., Train. & Resrch. 105.Allop.	42048101	42675685	52340436	52563986	65931719	72208043	98241465	119513528	174842656
Allop. Tot. (rev)	369422107	390248882	465997900	553032369	621295335	683633031	940081185	957701314	944395914
Allop. Tot. (rev)/Soc. Ser(rev)	12.26	12.17	12.21	12.17	12.77	11.66	12.38	12.37	11.32
Allop. Tot. (rev)/ Tot. (rev)	4.51	4.14	3.97	4.12	4.15	3.68	4.04	3.50	3.11
	Plan (92-93)	Plan (93-94)	Plan (94-95)	Plan(95-96)	Plan (96-97)	Plan (97-98)	Plan(98-99)	Plan (99-00)	Plan (2000-01)
Tot. 01.Urb. Hlth Ser Allo.	14151083	18136112	27210933	27538005	48535375	65142141	107434590	94761226	106577194
Tot. 03.Rur. Hlth Ser(Allop.)	63450740	76139007	84924800	99931149	131468604	186612940	231447841	271626778	408310540
05.Med. Edu., Train. & Resrch. 105.Allop.	28656776	36023775	78944137	56901316	89622365	107879543	138561183	180701783	166422963
Allop. Tot. (rev)	106258599	130298894	191079870	184370470	269626344	359634624	477443614	547089787	681310697
Allop. Tot. (rev)/Soc. Ser(rev)	9.79	10.44	12.69	8.65	11.03	10.62	11.01	10.52	11.28
Allop. Tot. (rev)/ Tot. (rev)	4.13	4.33	5.24	3.84	5.08	4.95	5.47	5.97	6.79
	Centr. spons.(92-93)	Centr. spons. (93-94)	Centr. spons. (94-95)	Centr. spons. (95-96)	Centr. spons. (96-97)	Centr. spons. (97-98)	Centr. spons.(98-99)	Centr. spons.(99-00)	Centr. spons.(2000-01)
Tot. 01.Urb. Hlth Ser Allo.	16851	62550	59350	228256	199045	0	0	0	0
Tot. 03.Rur. Hlth Ser(Allop.)	891051	4076769	8350413	1551999	5308793	11255065	11395484	6495619	10392593
05.Med. Edu., Train. & Resrch. 105.Allop.	0	0	0	0	15000000	0	0	0	0
Allop. Tot. (rev)	907902	4139319	8409763	1780255	20507838	11255065	11395484	6495619	10392593
Allop. Tot. (rev)/Soc. Ser(rev)	0.28	1.10	2.18	0.42	3.44	1.64	1.59	0.79	0.84
Allop. Tot. (rev)/ Tot. (rev)	0.13	0.38	1.11	0.22	1.71	0.97	0.86	0.39	0.36
	tot. (92-93)	tot. (93-94)	tot. (94-95)	tot.(95-96)	tot. (96-97)	tot.(97-98)	tot.(98-99)	tot. (99-00)	tot. (2000-01)
Tot. 01.Urb. Hlth Ser Allo.	171086750	179828581	220389347	264908420	320073297	346434959	507679050	499686203	509481217
Tot. 03.Rur. Hlth Ser(Allop.)	234796981	266159054	313813613	364809372	420850830	528090085	684438585	711385206	785352368
05.Med. Edu., Train. & Resrch. 105.Allop.	70704877	78699460	131284573	109465302	170554084	180202484	236802648	300215311	341265619
Allop. Tot. (rev)	476588608	524687095	665487533	739183094	911478211	1054727528	1428920283	1511286720	1636099204
Allop. Tot. (rev)/Soc. Ser(rev)	10.79	10.86	11.66	10.41	11.53	10.62	11.30	10.98	10.48
Allop. Tot. (rev)/ Tot. (rev)	4.16	3.88	4.12	3.88	4.25	3.91	4.29	3.95	3.78

OTHER THAN ALLOPATHY

	Non-Plan (92-93)	Non-Plan (93-94)	Non-Plan (94-95)	Non-Plan (95-96)	Non-Plan (96-97)	Non-Plan (97-98)	Non-Plan(98-99)	Non-Plan (99-00)	Non-Plan (2000-01)
Tot. 02.Urb. Hlth Ser(Other Than Allo.)	11927230	12768539	16280331	16366899	17756829	19704177	26647166	27765399	170633603
Tot. 04.Rur. Hlth Ser(Other than Allo.)	79687303	78647117	90410282	99783550	114288499	121268804	163499098	175224246	27595947
05.Med. Edu., Train. & Resrch. 101.Ayur.	2678327	2994087	3173026	3552537	4066255	4711973	6225366	6761842	8836459
Other than Allo. Tot. (rev)	94292860	94409743	109863639	119702986	136111583	145684954	196371630	209751487	207066009
Other than Allo. Tot. (rev)/Soc. Ser(rev)	3.13	2.94	2.88	2.63	2.80	2.49	2.59	2.71	2.48
Other Than Allo. Tot. (rev)/ Tot. (rev)	1.15	1.00	0.94	0.89	0.91	0.78	0.84	0.77	0.68
	Plan (92-93)	Plan (93-94)	Plan (94-95)	Plan(95-96)	Plan (96-97)	Plan (97-98)	Plan(98-99)	Plan (99-00)	Plan (2000-01)
Tot. 01.Urb. Hlth Ser Other than Allo.	6408344	8651409	7922997	11990039	14000632	15071740	22394544	24651964	27828741
Tot. 03.Rur. Hlth Ser(Other than Allo.)	19392873	21585517	26585926	37787657	43869450	60488016	108580822	141097206	190205400
05.Med. Edu., Train. & Resrch. 101.Ayur.	1739917	2481437	2788820	7734555	10207047	10481616	13282164	16131916	14457462
Other Than Allo. Tot. (rev)	27541134	32718363	37297743	57512251	68077129	86041372	144257530	181881086	232491603
Other Than Allo. Tot. (rev)/Soc. Ser(rev)	2.54	2.62	2.48	2.70	2.79	2.54	3.33	3.50	3.85
Other than Allo. Tot. (rev)/ Tot. (rev)	1.07	1.09	1.02	1.20	1.28	1.19	1.65	1.98	2.32
	Centr. spons.(92-93)	Centr. spons. (93-94)	Centr. spons. (94-95)	Centr. spons. (95-96)	Centr. spons. (96-97)	Centr. spons. (97-98)	Centr. spons.(98-99)	Centr. spons.(99-00)	Centr. spons.(2000-01)
Tot. 01.Urb. Hlth Ser Other Than Allo.	0	0	0	0	0	0	0	0	0
Tot. 03.Rur. Hlth Ser(Other than Allo.)	50000	0	100000	100000	100000	150000	150000	150000	150000
05.Med. Edu., Train. & Resrch. 101.Ayur.	0	0	0	0	0	0	0	0	0
Other Than Allo. Tot. (rev)	50000	0	100000	100000	100000	150000	150000	150000	150000
Other Than Allo. Tot. (rev)/Soc. Ser(rev)	0.02	0.00	0.03	0.02	0.02	0.02	0.02	0.02	0.01
Other Than Allo. Tot. (rev)/ Tot. (rev)	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	tot. (92-93)	tot. (93-94)	tot. (94-95)	tot.(95-96)	tot. (96-97)	tot(97-98)	tot(98-99)	tot (99-00)	tot (2000-01)
Tot. 01.Urb. Hlth Ser Allo.	18335574	21419948	24203328	28356938	31757461	34775917	49041710	52417363	198462344
Tot. 03.Rur. Hlth Ser(Other than Allo.)	99130176	100232634	117096208	137671207	158257949	181906820	272229920	316471452	217951347
05.Med. Edu., Train. & Resrch. 101.Ayur.	4418244	5475524	5961846	11287092	14273302	15078691	19507530	22893758	23293921
Other than Allo. Tot. (rev)	121883994	127128106	147261382	177315237	204288712	231761428	340779160	391782573	439707612
Other than Allo. Tot. (rev)/Soc. Ser(rev)	2.76	2.63	2.58	2.50	2.58	2.33	2.69	2.85	2.82
Other than Allo. Tot. (rev)/ Tot. (rev)	1.06	0.94	0.91	0.93	0.95	0.86	1.02	1.03	1.02

Appendix 2

Table 1 : Non-Plan Economic Services Expenditure on Agriculture and Allied Activities

(a)Agr. & Allied. act.---	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
tot. 2401.Crp. Hub&ry(rev)	119499779	300168744	315010489	191879760	215471898	302250414	300849079	315910858	319406354
tot. 4401.Cap. Exp. on Crp. Hub&ry	0	0	0	0	0	0	0	0	0
Crp. Hub&ry tot.	119499779	300168744	315010489	191879760	215471898	302250414	300849079	315910858	319406354
Crp. Hub&ry tot./Eco. Serv. tot.	9.05	17.82	11.28	6.78	6.68	6.81	5.94	5.78	5.14
Crp. Hub&ry tot./ tot. Exp.	1.46	3.19	2.68	1.43	1.44	1.63	1.29	1.15	1.05
tot. 2402.Soil & Wtr. consrv.(rev)	17027935	19632428	19981655	23937518	27636716	32824115	39820070	44803428	46245727
tot. 4402.Cap. Exp. On Soil & Wtr. consrv.	0	0	0	0	0	0	0	0	0
Soil & Wtr. consrv. tot.	17027935	19632428	19981655	23937518	27636716	32824115	39820070	44803428	46245727
Soil & Wtr. consrv. tot./Eco. Serv. tot.	1.29	1.17	0.72	0.85	0.86	0.74	0.79	0.82	0.74
Soil & Wtr. consrv. tot./ tot. Exp.	0.21	0.21	0.17	0.18	0.18	0.18	0.17	0.16	0.15
tot. 2403.Anl. Hub&ry(rev)	117110401	129911500	137940564	151078842	331787341	207008231	240540265	259104519	290364716
tot. 4403.Cap. Exp. On Anl. Hub&ry	0	0	0	0	0	0	0	0	0
Anl. Hub&ry tot.	117110401	129911500	137940564	151078842	331787341	207008231	240540265	259104519	290364716
Anl. Hub&ry tot./Eco. Serv. tot.	8.87	7.71	4.94	5.34	10.28	4.67	4.75	4.74	4.67
Anl. Hub&ry tot./ tot. Exp.	1.43	1.38	1.17	1.12	2.22	1.12	1.03	0.95	0.96
tot. 2404.Dairy dev.(rev)	2100884	1215135	9258520	1316754	1505511	8538301	3463407	2073355	2026681
tot. 4404.Cap. Exp. On Dairy dev..	0	0	0	0	0	0	0	0	0
Dairy dev. tot.	2100884	1215135	9258520	1316754	1505511	8538301	3463407	2073355	2026681
Dairy dev. tot./Eco. Serv. tot.	0.16	0.07	0.33	0.05	0.05	0.19	0.07	0.04	0.03
Dairy dev. tot./ tot. Exp.	0.03	0.01	0.08	0.01	0.01	0.05	0.01	0.01	0.01
tot. 2405.Fisheries(rev)	9770315	10312975	11194925	13500887	14561918	17322322	21958500	23267810	24919743
tot. 4405. Cap. Exp. On Fisheries	0	0	0	0	0	0	0	0	0
Fisheries tot.	9770315	10312975	11194925	13500887	14561918	17322322	21958500	23267810	24919743
Fisheries tot./Eco. Serv. tot.	0.74	0.61	0.40	0.48	0.45	0.39	0.43	0.43	0.40
Fisheries tot./ tot. Exp.	0.12	0.11	0.10	0.10	0.10	0.09	0.09	0.09	0.08
tot. 2406.Forest. & Wildlf.(rev)	226068791	250107486	282752128	329688668	406193766	442220436	903187513	1043977913	1314954025
tot. 4406.Cap. Exp. On Forest. & Wildlf.	0	0	0	0	0	0	0	0	0
Forest. & Wildlf. tot.	226068791	250107486	282752128	329688668	406193766	442220436	903187513	1043977913	1314954025
Forest. & Wildlf. tot./Eco. Serv. tot.	17.12	14.85	10.13	11.65	12.59	9.97	17.84	19.10	21.17
Forest. & Wildlf. tot./ tot. Exp.	2.77	2.66	2.40	2.45	2.72	2.38	3.88	3.82	4.33

tot. 2408.Fd., Strg. & Warehousn.(rev)	69718022	77624548	70351014	70855075	95031526	123375655	75195030	46533017	29764488
tot. 4408.Cap. Exp. On Fd. Strg. & Warehousn.	-16398623	-26730761	-7606382	-3586735	-14571698	-30680107	-305872	-34358208	-50412826
Fd., Strg. & Warehousn. tot.	53319399	50893787	62744632	67268340	80459828	92695548	74889158	12174809	-20648338
Fd., Strg. & Warehousn. tot./Eco. Serv. tot.	4.04	3.02	2.25	2.38	2.49	2.09	1.48	0.22	-0.33
Fd., Strg. & Warehousn. tot./ tot. Exp.	0.65	0.54	0.53	0.50	0.54	0.50	0.32	0.04	-0.07
tot. 2415.Agrl. Resrch. & Edu..	63686390	70014975	77051383	84770772	93189194	102414808	105667474	146248907	150521000
tot. 4415. Cap. Exp. on Agr. Resrch. & Edu.	0	0	0	0	0	0	0	0	0
Agrl. Resrch. & Edu. tot.	63686390	70014975	77051383	84770772	93189194	102414808	105667474	146248907	150521000
Agrl. Resrch. & Edu. tot./Eco. Serv. tot.	4.82	4.16	2.76	2.99	2.89	2.31	2.09	2.68	2.42
Agrl. Resrch. & Edu. tot./ tot. Exp.	0.78	0.74	0.65	0.63	0.62	0.55	0.45	0.53	0.50
tot. 2425. Co-oprn.	40197902	41839366	59759825	52176117	53343389	63305089	78661433	82740087	82357897
tot. 4425.Cap. Exp. On Co-oprn..	0	0	0	0	0	0	0	0	0
Co-oprn. tot.	40197902	41839366	59759825	52176117	53343389	63305089	78661433	82740087	82357897
Co-oprn. tot./Eco. Serv. tot.	3.04	2.48	2.14	1.84	1.65	1.43	1.55	1.51	1.33
Co-oprn. tot./ tot. Exp.	0.49	0.45	0.51	0.39	0.36	0.34	0.34	0.30	0.27
tot. (a) Agr. & Alld. act.(rev)	668134463	910443567	987012515	923237156	1076762069	1303993477	1773210798	1968350084	2264041576
tot. (a) Cap. Account Of Agr. & Alld. act.	-16398623	-26730761	-5628035	-3586735	-14571698	-30680107	-305872	-34358208	-50412826
Agr. & Alld. act. tot.	651735840	883712806	981384480	919650421	1062190371	1273313370	1772904926	1933991876	2213628750
Agr. & Alld. act. tot./Eco. Serv. tot.	49.35	52.46	35.15	32.49	32.92	28.70	35.03	35.39	35.64
Agr. & Alld. act. tot./ tot. Exp.	7.98	9.40	8.34	6.83	7.11	6.87	7.61	7.07	7.30
tot. C.Eco. Serv.(rev)	1336914486	1711428878	2797764438	2812377181	3240956052	4468008737	5061789650	5499473947	6261804297
tot. C.Cap. ACCOUNT OF Eco. Serv.	-16398623	-26730761	-5628035	18128908	-14571698	-30680107	-305872	-34358208	-50412826
Eco. Serv. tot.	1320515863	1684698117	2792136403	2830506089	3226384354	4437328630	5061483778	5465115739	6211391471
Eco. Serv. tot./ tot. Exp.	16.16	17.93	23.72	21.04	21.58	23.93	21.74	19.98	20.47
tot. Exp.(REV.A/C)	8188368810	9424927472	11735520943	13437612530	14963335178	18573109698	23285207890	27389433328	30393366858
tot. Exp. HEADS(Cap. ACCOUNT)	-16398623	-26730761	37045965	18128909	-14551396	-30680107	-305872	-34358208	-50412826
tot. Exp.	8171970187	9398196711	11772566908	13455741439	14948783782	18542429591	23284902018	27355075120	30342954032

Table-2: Plan Economic Services Expenditure on Agriculture and Allied Activities

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
<i>(a) Agr. & Allied act.—</i>									
tot. 2401.Crp. Hub&ry(rev)	167188488	173790110	193538424	264393300	281047263	379244452	601124356	421103695	503148423
tot. 4401.Cap. Exp. on Crp. Hub&ry	36116067	70104217	44798790	11591697	-2256285	10509186	-13834061	61222830	44305802
Crp. Hub&ry tot.	203304555	243894327	238337214	275984997	278790978	389753638	587290295	482326525	547454225
Crp. Hub&ry tot./Eco. Serv. tot.	7.97	7.84	4.04	5.94	5.74	5.29	7.48	7.16	8.43
Crp. Hub&ry tot./ tot. Exp.	4.76	4.80	2.86	3.52	3.24	3.13	4.10	3.37	3.65
tot. 2402.Soil & Wtr. consrv.(rev)	35315229	36878054	45139999	52735212	64624857	97886328	105922651	109515189	94308017
tot. 4402.Cap. Exp. On Soil & Wtr. consrv.	0	0	0	0	0	0	218000	0	34956330
Soil & Wtr. consrv. tot.	35315229	36878054	45139999	52735212	64624857	97886328	106140651	109515189	129264347
Soil & Wtr. consrv. tot./Eco. Serv. tot.	1.38	1.19	0.76	1.14	1.33	1.33	1.35	1.63	1.99
Soil & Wtr. consrv. tot./ tot. Exp.	0.83	0.73	0.54	0.67	0.75	0.79	0.74	0.76	0.86
tot. 2403.Anl. Hub&ry(rev)	36700966	47613714	64835261	88012811	106338705	132963538	165841393	195913136	195175185
tot. 4403.Cap. Exp. On Anl. Hub&ry	4567412	5495436	6292468	5268723	13037146	10409847	11069563	10277265	10170833
Anl. Hub&ry tot.	41268378	53109150	71127729	93281534	119375851	143373385	176910956	206190401	205346018
Anl. Hub&ry tot./Eco. Serv. tot.	1.62	1.71	1.21	2.01	2.46	1.94	2.25	3.06	3.16
Anl. Hub&ry tot./ tot. Exp.	0.97	1.05	0.85	1.19	1.39	1.15	1.23	1.44	1.37
tot. 2404.Dairy dev.(rev)	10146532	17839932	18001756	19475732	28612569	37465814	29692878	30349298	37040862
tot. 4404.Cap. Exp. On Dairy dev..	611857	273572	82546	1384	-1713	7586833	7695446	2500000	0
Dairy dev. tot.	10758389	18113504	18084302	19477116	28610856	45052647	37388324	32849298	37040862
Dairy dev. tot./Eco. Serv. tot.	0.42	0.58	0.31	0.42	0.59	0.61	0.48	0.49	0.57
Dairy dev. tot./ tot. Exp.	0.25	0.36	0.22	0.25	0.33	0.36	0.26	0.23	0.25
tot. 2405.Fisheries(rev)	6578412	8916026	9410357	10711880	11837096	13100426	17971785	17212314	18333138
tot. 4405. Cap. Exp. On Fisheries	6318268	5357821	7298743	11927110	13772035	11516696	10053118	11401591	10756552
Fisheries tot.	12896680	14273847	16709100	22638990	25609131	24617122	28024903	28613905	29089690
Fisheries tot./Eco. Serv. tot.	0.51	0.46	0.28	0.49	0.53	0.33	0.36	0.43	0.45
Fisheries tot./ tot. Exp.	0.30	0.28	0.20	0.29	0.30	0.20	0.20	0.20	0.19
tot. 2406.Forest & Wildlf.(rev)	365178178	316227903	374012326	455035891	505197198	522290998	686911376	784891538	733088096
tot. 4406.Cap. Exp. On Forest. & Wildlf.	24726422	14539133	14920471	13598873	21006645	25113520	40456475	40565093	26245907
Forest. & Wildlf. tot.	389904600	330767036	388932797	468634764	526203843	547404518	727367851	825456631	759334003
Forest. & Wildlf. tot./Eco. Serv. tot.	15.29	10.63	6.59	10.09	10.84	7.42	9.27	12.26	11.70
Forest. & Wildlf. tot./ tot. Exp.	9.14	6.51	4.67	5.97	6.12	4.40	5.07	5.76	5.06

tot. 2408.Fd., Strg. & Warehousn.(rev)	60302481	61119152	65402238	73336999	71019170	50549676	67658740	38570181	35947583
tot. 4408.Cap. Exp. On Fd. Strg. & Warehousn.	1465000	951000	6117448	3245141	7094711	11408197	15418739	15020388	13384301
Fd., Strg. & Warehousn. tot.	61767481	62070152	71519686	76582140	78113881	61957873	83077479	53590569	49331884
Fd., Strg. & Warehousn. tot./Eco. Serv. tot.	2.42	2.00	1.21	1.65	1.61	0.84	1.06	0.80	0.76
Fd., Strg. & Warehousn. tot./ tot. Exp.	1.45	1.22	0.86	0.98	0.91	0.50	0.58	0.37	0.33
tot. 2415.Agr. Resrch. & Edu..	59363000	71617010	87200000	123005009	136694000	233942966	192051000	185419999	233182000
tot. 4415. Cap. Exp. on Agr. Resrch. & Edu.	0	0	0	0	0	0	0	0	0
Agr. Resrch. & Edu. tot.	59363000	71617010	87200000	123005009	136694000	233942966	192051000	185419999	233182000
Agr. Resrch. & Edu. tot./Eco. Serv. tot.	2.33	2.30	1.48	2.65	2.82	3.17	2.45	2.75	3.59
Agr. Resrch. & Edu. tot./ tot. Exp.	1.39	1.41	1.05	1.57	1.59	1.88	1.34	1.29	1.55
tot. 2425. Co-oprn.	10892145	13579134	17295503	17050345	22476435	23682870	24184712	25635764	27230277
tot. 4425.Cap. Exp. On Co-oprn..	11288711	1258164	6096180	5142306	13474345	26764979	547113	-5107178	3411615
Co-oprn. tot.	22180856	14837298	23391683	22192651	35950780	50447849	24731825	20528586	30641892
Co-oprn. tot./Eco. Serv. tot.	0.87	0.48	0.40	0.48	0.74	0.68	0.32	0.30	0.47
Co-oprn. tot./ tot. Exp.	0.52	0.29	0.28	0.28	0.42	0.41	0.17	0.14	0.20
tot. (a) Agr. & Alld. act.(rev)	756101230	763290856	878563970	1110819557	1230526228	1494850120	1895449518	1812707365	1881419581
tot. (a) Cap. Account Of Agr. & Alld. act.	91246209	107386868	87041235	53561882	66327329	103616174	71824393	135879989	143231340
Agr. & Alld. act. tot.	847347439	870677724	965605205	1164381439	1296853557	1598466294	1967273911	1948587354	2024650921
Agr. & Alld. act. tot./Eco. Serv. tot.	33.23	27.98	16.36	25.08	26.72	21.68	25.07	28.94	31.19
Agr. & Alld. act. tot./ tot. Exp.	19.86	17.15	11.59	14.83	15.08	12.85	13.72	13.61	13.48
tot. C.Eco. Serv.(rev)	1381273807	1650490250	2027287079	2508913320	2696033095	3617857754	4033157712	3532458602	3489119150
tot. C.Cap. ACCOUNT OF Eco. Serv.	1168930991	1460772776	3874384438	2134579133	2157528224	3755392362	3815026306	3200010168	3003085684
Eco. Serv. tot.	2550204798	3111263026	5901671517	4643492453	4853561319	7373250116	7848184018	6732468770	6492204834
Eco. Serv. tot./ tot. Exp.	59.77	61.27	70.83	59.14	56.46	59.28	54.73	47.01	43.23
tot. Exp.(REV.A/C)	2575115607	3007986458	3649667033	4803531173	5305002797	7258350597	8736014675	9165615792	10031401154
tot. Exp. HEADS(Cap. ACCOUNT)	1691891172	2069750798	4682498361	3047643985	3292056871	5179329474	5604667655	5156002317	4987727665
tot. Exp.	4267006779	5077737256	8332165394	7851175158	8597059668	12437680071	14340682330	14321618109	15019128819

Table-3: Centrally Sponsored Economic Services Expenditure on Agriculture and Allied Activities

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
(a) Agr. & Allied act.—									
tot. 2401.Crp. Hub&ry(rev)	43072266	51611519	33237896	48080633	55468481	48131876	69534359	67228216	69092946
tot. 4401.Cap. Exp. on Crp. Hub&ry	1506	0	0	0	0	0	0	0	0
Crp. Hub&ry tot.	43073772	51611519	33237896	48080633	55468481	48131876	69534359	67228216	69092946
Crp. Hub&ry tot./Eco. Serv. tot.	12.55	7.26	9.01	12.46	9.36	10.11	11.52	8.64	4.20
Crp. Hub&ry tot./ tot. Exp.	4.03	4.15	3.39	4.58	3.85	3.39	4.48	3.24	2.02
tot. 2402.Soil & Wtr. consrv.(rev)	51126444	72061456	119008862	115601635	92200894	73508775	101433317	92802467	92314656
tot. 4402.Cap. Exp. On Soil & Wtr. consrv.	0	0	0	0	0	0	0	0	0
Soil & Wtr. consrv. tot.	51126444	72061456	119008862	115601635	92200894	73508775	101433317	92802467	92314656
Soil & Wtr. consrv. tot./Eco. Serv. tot.	14.89	10.13	32.25	29.95	15.55	15.45	16.81	11.92	5.61
Soil & Wtr. consrv. tot./ tot. Exp.	4.78	5.80	12.15	11.02	6.40	5.18	6.53	4.47	2.71
tot. 2403.Anl. Hub&ry(rev)	14362041	13117196	17960386	13121817	12221008	11341497	14018845	29627671	45816618
tot. 4403.Cap. Exp. On Anl. Hub&ry	0	450609	0	0	0	0	0	0	0
Anl. Hub&ry tot.	14362041	13567805	17960386	13121817	12221008	11341497	14018845	29627671	45816618
Anl. Hub&ry tot./Eco. Serv. tot.	4.18	1.91	4.87	3.40	2.06	2.38	2.32	3.81	2.78
Anl. Hub&ry tot./ tot. Exp.	1.34	1.09	1.83	1.25	0.85	0.80	0.90	1.43	1.34
tot. 2404.Dairy dev.(rev)	0	0	0	0	0	0	10000000	15700000	10000000
tot. 4404.Cap. Exp. On Dairy dev..	0	0	0	0	0	0	0	0	0
Dairy dev. tot.	0	0	0	0	0	0	10000000	15700000	10000000
Dairy dev. tot./Eco. Serv. tot.	0.00	0.00	0.00	0.00	0.00	0.00	1.66	2.02	0.61
Dairy dev. tot./ tot. Exp.	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.76	0.29
tot. 2405.Fisheries(rev)	440298	1971846	548333	3576394	773025	813300	1901937	3078909	2599819
tot. 4405. Cap. Exp. On Fisheries	0	0	0	0	0	0	0	0	0
Fisheries tot.	440298	1971846	548333	3576394	773025	813300	1901937	3078909	2599819
Fisheries tot./Eco. Serv. tot.	0.13	0.28	0.15	0.93	0.13	0.17	0.32	0.40	0.16
Fisheries tot./ tot. Exp.	0.04	0.16	0.06	0.34	0.05	0.06	0.12	0.15	0.08
tot. 2406.Forest. & Wildlf.(rev)	42022115	59875702	59822552	38995608	34619924	18862547	25207405	37839795	51575563
tot. 4406.Cap. Exp. On Forest. & Wildlf.	2843004	1989472	1938893	300000	1036000	1565233	860000	2345000	2435000
Forest. & Wildlf. tot.	44865119	61865174	61761445	39295608	35655924	20427780	26067405	40184795	54010563
Forest. & Wildlf. tot./Eco. Serv. tot.	13.07	8.70	16.74	10.18	6.01	4.29	4.32	5.16	3.28
Forest. & Wildlf. tot./ tot. Exp.	4.19	4.98	6.31	3.74	2.47	1.44	1.68	1.93	1.58

tot. 2408.Fd., Strg. & Warehousn.(rev)	1497804	5386000	4137588	3620000	7465000	4248000	6001000	2620000	7887286
tot. 4408.Cap. Exp. On Fd. Strg. & Warehousn.	0	0	15000	5035500	2320000	8815000	371500	2073750	1725350
Fd., Strg. & Warehousn. tot.	1497804	5386000	4152588	8655500	9785000	13063000	6372500	4693750	9612636
Fd., Strg. & Warehousn. tot./Eco. Serv. tot.	0.44	0.76	1.13	2.24	1.65	2.74	1.06	0.60	0.58
Fd., Strg. & Warehousn. tot./ tot. Exp.	0.14	0.43	0.42	0.82	0.68	0.92	0.41	0.23	0.28
tot. 2415.Agrl. Resrch. & Edu..	0	0	0	0	0	0	0	0	0
tot. 4415. Cap. Exp. on Agr. Resrch. & Edu.	0	0	0	0	0	0	0	0	0
Agrl. Resrch. & Edu. tot.	0	0	0	0	0	0	0	0	0
Agrl. Resrch. & Edu. tot./Eco. Serv. tot.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Agrl. Resrch. & Edu. tot./ tot. Exp.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tot. 2425. Co-oprn.	11875099	18152347	9668820	11552295	20634618	8901692	8361432	9365872	16223007
tot. 4425.Cap. Exp. On Co-oprn..	13893850	21439475	26606300	19648660	22679000	21116000	23808500	16278000	38081000
Co-oprn. tot.	25768949	39591822	36275120	31200955	43313618	30017692	32169932	25643872	54304007
Co-oprn. tot./Eco. Serv. tot.	7.51	5.57	9.83	8.08	7.31	6.31	5.33	3.29	3.30
Co-oprn. tot./ tot. Exp.	2.41	3.19	3.70	2.97	3.01	2.12	2.07	1.23	1.59
tot. (a) Agr. & Alld. act.(rev)	164396067	228596359	244384437	234548382	223682950	165807687	236458295	258262930	295509895
tot. (a) Cap. Account Of Agr. & Alld. act.	17238360	24129556	28560193	25134160	26035000	31496233	25040000	20696750	42241350
Agr. & Alld. act. tot.	181634427	252725915	272944630	259682542	249717950	197303920	261498295	278959680	337751245
Agr. & Alld. act. tot./Eco. Serv. tot.	52.91	35.54	73.97	67.28	42.12	41.46	43.34	35.83	20.51
Agr. & Alld. act. tot./ tot. Exp.	16.98	20.34	27.87	24.75	17.33	13.91	16.85	13.43	9.90
tot. C.Eco. Serv.(rev)	346301407	679308756	326904020	343551946	555972928	434506312	571888670	752677444	1585744824
tot. C.Cap. ACCOUNT OF Eco. Serv.	-3038804	31744738	42107642	42448942	36905740	41429581	31467833	25865792	61171672
Eco. Serv. tot.	343262603	711053494	369011662	386000888	592878668	475935893	603356503	778543236	1646916496
Eco. Serv. tot./ tot. Exp.	32.08	57.22	37.68	36.78	41.15	33.55	38.87	37.48	48.26
tot. Exp.(REV.A/C)	692197817	1082077885	757586734	802331449	1200445044	1159937639	1321420729	1660354848	2862675982
tot. Exp. HEADS(Cap. ACCOUNT)	377694677	160654955	221665695	247053668	240432332	258661637	230920729	417133002	549782145
tot. Exp.	1069892494	1242732840	979252429	1049385117	1440877376	1418599276	1552341458	2077487850	3412458127

Table-4: Total Economic Services Expenditure on Agriculture and Allied Activities

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
(a) Agr. & Allied act.---									
tot. 2401.Crp. Hub&ry(rev)	329760533	525570373	541786809	504353693	551987642	729626742	971507794	804242769	891647723
tot. 4401.Cap. Exp. on Crp. Hub&ry	36117573	70104217	44798790	11591697	-2256285	10509186	-13834061	61222830	44305802
Crp. Hub&ry tot.	365878106	595674590	586585599	515945390	549731357	740135928	957673733	865465599	935953525
Crp. Hub&ry tot./Eco. Serv. tot.	8.68	10.82	6.47	6.56	6.34	6.02	7.09	6.67	6.52
Crp. Hub&ry tot/ tot. Exp.	2.71	3.79	2.78	2.31	2.20	2.28	2.44	1.98	1.92
tot. 2402.Soil & Wtr. consrv.(rev)	103469608	128571938	184130516	192274365	184462467	204219218	247176038	247121084	232868400
tot. 4402.Cap. Exp. On Soil & Wtr. consrv.	0	0	0	0	0	0	218000	0	34956330
Soil & Wtr. consrv. tot.	103469608	128571938	184130516	192274365	184462467	204219218	247394038	247121084	267824730
Soil & Wtr. consrv. tot./Eco. Serv. tot.	2.46	2.33	2.03	2.45	2.13	1.66	1.83	1.90	1.87
Soil & Wtr. consrv. tot/ tot. Exp.	0.77	0.82	0.87	0.86	0.74	0.63	0.63	0.56	0.55
tot. 2403.Anl. Hub&ry(rev)	168173408	190642410	220736211	252213470	284456660	351313266	420400500	484645326	531356519
tot. 4403.Cap. Exp. On Anl. Hub&ry	4567412	5946045	6292468	5268723	13037146	10409847	11069563	10277265	10170833
Anl. Hub&ry tot.	172740820	196588455	227028679	257482193	297493806	361723113	431470063	494922591	541527352
Anl. Hub&ry tot./Eco. Serv. tot.	4.10	3.57	2.51	3.28	3.43	2.94	3.19	3.81	3.77
Anl. Hub&ry tot/ tot. Exp.	1.28	1.25	1.08	1.15	1.19	1.12	1.10	1.13	1.11
tot. 2404.Dairy dev.(rev)	12247416	19055067	27260276	20792486	30118080	46004115	43156285	48122653	49067543
tot. 4404.Cap. Exp. On Dairy dev..	611857	273572	82546	1384	-1713	7586833	7695446	2500000	0
Dairy dev. tot.	12859273	19328639	27342822	20793870	30116367	53590948	50851731	50622653	49067543
Dairy dev. tot./Eco. Serv. tot.	0.31	0.35	0.30	0.26	0.35	0.44	0.38	0.39	0.34
Dairy dev. tot/ tot. Exp.	0.10	0.12	0.13	0.09	0.12	0.17	0.13	0.12	0.10
tot. 2405.Fisheries(rev)	16789025	21200847	21153615	27789161	27172039	31236048	41832222	43559033	45852691
tot. 4405. Cap. Exp. On Fisheries	6318268	5357821	7298743	11927110	13772035	11516696	10053118	11401591	10756552
Fisheries tot.	23107293	26558668	28452358	39716271	40944074	42752744	51885340	54960624	56609243
Fisheries tot./Eco. Serv. tot.	0.55	0.48	0.31	0.51	0.47	0.35	0.38	0.42	0.39
Fisheries tot/ tot. Exp.	0.17	0.17	0.13	0.18	0.16	0.13	0.13	0.13	0.12
tot. 2406.Forest. & Wildlf.(rev)	633269084	626211091	716587106	823720167	946010888	983373981	1615306294	1866709246	2099617684
tot. 4406.Cap. Exp. On Forest. & Wildlf.	27569426	16528605	16859364	13898873	22042645	26678753	41316475	42910093	28680907
Forest. & Wildlf. tot.	660838510	642739696	733446470	837619040	968053533	1010052734	1656622769	1909619339	2128298591
Forest. & Wildlf. tot./Eco. Serv. tot.	15.68	11.67	8.09	10.66	11.16	8.22	12.26	14.72	14.83
Forest. & Wildlf. tot/ tot. Exp.	4.89	4.09	3.48	3.75	3.87	3.12	4.23	4.36	4.36

tot. 2408.Fd., Strg. & Warehousn.(rev)	131518307	144129700	139890840	149005363	173515696	176614437	148854770	87723198	73599357
tot. 4408.Cap. Exp. On Fd. Strg. & Warehousn.	-14933623	-25779761	-1473934	4693906	-5156987	-10456910	15484367	-17264070	-35303175
Fd., Strg. & Warehousn. tot.	116584684	118349939	138416906	153699269	168358709	166157527	164339137	70459128	38296182
Fd., Strg. & Warehousn. tot./Eco. Serv. tot.	2.77	2.15	1.53	1.96	1.94	1.35	1.22	0.54	0.27
Fd., Strg. & Warehousn. tot./ tot. Exp.	0.86	0.75	0.66	0.69	0.67	0.51	0.42	0.16	0.08
tot. 2415.Agrl. Resrch. & Edu..	123049390	141631985	164251383	207775781	229883194	336357774	297718474	331668906	383703000
tot. 4415. Cap. Exp. on Agr. Resrch. & Edu.	0	0	0	0	0	0	0	0	0
Agrl. Resrch. & Edu. tot.	123049390	141631985	164251383	207775781	229883194	336357774	297718474	331668906	383703000
Agrl. Resrch. & Edu. tot./Eco. Serv. tot.	2.92	2.57	1.81	2.64	2.65	2.74	2.20	2.56	2.67
Agrl. Resrch. & Edu. tot./ tot. Exp.	0.91	0.90	0.78	0.93	0.92	1.04	0.76	0.76	0.79
tot. 2425. Co-oprn.	62965146	73570847	86724148	80778757	96454442	95889651	111207577	117741723	125811181
tot. 4425.Cap. Exp. On Co-oprn..	25182561	22697639	32702480	24790966	36153345	47880979	24355613	11170822	41492615
Co-oprn. tot.	88147707	96268486	119426628	105569723	132607787	143770630	135563190	128912545	167303796
Co-oprn. tot./Eco. Serv. tot.	2.09	1.75	1.32	1.34	1.53	1.17	1.00	0.99	1.17
Co-oprn. tot./ tot. Exp.	0.65	0.61	0.57	0.47	0.53	0.44	0.35	0.29	0.34
tot. (a) Agr. & Alld. act.(rev)	1588631760	1902330782	2109960922	2268605095	2530971247	2964651284	3905118611	4039320379	4440971052
tot. (a) Cap. Account Of Agr. & Alld. act.	92085946	104785663	109973393	75109307	77790631	104432300	96558521	122218531	135059864
Agr. & Alld. act. tot.	1680717706	2007116445	2219934315	2343714402	2608761878	3069083584	4001677132	4161538910	4576030916
Agr. & Alld. act. tot./Eco. Serv. tot.	39.88	36.45	24.49	29.82	30.08	24.98	29.61	32.07	31.89
Agr. & Alld. act. tot./ tot. Exp.	12.44	12.77	10.53	10.48	10.44	9.47	10.21	9.51	9.38
tot. C.Eco. Serv.(rev)	3064489700	4041227884	5151955537	5664842447	6492962075	8520372803	9666836032	9784609993	11336668271
tot. C.Cap. ACCOUNT OF Eco. Serv.	1149493564	1465786753	3910864045	2195156983	2179862266	3766141836	3846188267	3191517752	3013844530
Eco. Serv. tot.	4213983264	5507014637	9062819582	7859999430	8672824341	12286514639	13513024299	12976127745	14350512801
Eco. Serv. tot./ tot. Exp.	31.19	35.03	42.98	35.16	34.71	37.92	34.49	29.66	29.42
tot. Exp.(REV./A/C)	11455682234	13514991815	16142774710	19043475152	21468783019	26991397934	33342643294	38215403968	43287443994
tot. Exp. HEADS(Cap. ACCOUNT)	2053187226	2203674992	4941210021	3312826561	3517937807	5407311004	5835282512	5538777111	5487096984
tot. Exp.	13508869460	15718666807	21083984731	22356301713	24986720826	32398708938	39177925806	43754181079	48774540978

Table 5 : Non-Plan Economic Services Expenditure

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
tot. 2515.Other Rural dev. Programmes(REV)	114697700	121936933	131668237	160488550	169326076	201686778	244221413	264730445	287905334
tot. 4515.Cap. Exp. On Other Rural dev. Prog.	0	0	0	0	0	0	0	0	0
Other Rural dev. Programmes tot.	114697700	121936933	131668237	160488550	169326076	201686778	244221413	264730445	287905334
Other Rural dev. Programmes tot./Eco. Serv. tot.	2.72	2.21	1.45	2.04	1.95	1.64	1.81	2.04	2.01
Other Rural dev. Programmes tot./ tot. Exp.	1.40	1.30	1.12	1.19	1.13	1.09	1.05	0.97	0.95
tot. (b)Rural dev.(rev)	126151106	130873193	145249430	176340475	186303986	265370753	287734465	292936032	296583452
tot. (b) Cap. Account Of Rural dev.	0	0	0	0	0	0	0	0	0
Rural dev. tot.	126151106	130873193	145249430	176340475	186303986	265370753	287734465	292936032	296583452
Rural dev. tot./Eco. Service tot.	2.99	2.38	1.60	2.24	2.15	2.16	2.13	2.26	2.07
Rural dev. tot./ tot. Exp.	1.54	1.39	1.23	1.31	1.25	1.43	1.24	1.07	0.98
tot. (d)Irrigation & Flood Control(rev)	47953664	46347601	130997255	118727708	133475113	171576203	240463377	240769594	321361364
tot. (d) Cap. Exp. of Irrigation & Flood Control	0	0	0	0	0	0	0	0	0
Irrigation & Flood Control tot.	47953664	46347601	130997255	118727708	133475113	171576203	240463377	240769594	321361364
Irrigation & Flood Control tot./Eco. Serv. tot.	1.14	0.84	1.45	1.51	1.54	1.40	1.78	1.86	2.24
Irrigation & Flood Control tot./ tot. Exp.	0.59	0.49	1.11	0.88	0.89	0.93	1.03	0.88	1.06
tot. (f) Industry & Minerals(rev)	27276671	27918083	29618495	33666709	36270824	44183276	47677095	49891892	51047370
tot. (f)Cap. Account Of Industry & Minerals	0	0	0	0	0	0	0	0	0
Industry & Minerals tot.	27276671	27918083	29618495	33666709	36270824	44183276	47677095	49891892	51047370
Industry & Minerals tot./Eco. Serv. tot.	0.65	0.51	0.33	0.43	0.42	0.36	0.35	0.38	0.36
Industry & Minerals tot./ tot. Exp.	0.33	0.30	0.25	0.25	0.24	0.24	0.20	0.18	0.17
Eco. Serv. tot.	4213983264	5507014637	9062819582	7859999430	8672824341	12286514639	13513024299	12976127745	14350512801
Eco. Serv. tot./ tot. Exp.	31.19	35.03	42.98	35.16	34.71	37.92	34.49	29.66	29.42
tot. Exp.	8171970187	9398196711	11772566908	13455741439	14948783782	18542429591	23284902018	27355075120	30342954032

Table 6 : Plan Economic Services Expenditure

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
tot. 2515.Other Rural dev. Programmes(REV)	107225869	122330538	149415335	154451519	192567268	267244448	288578471	295713737	293311658
tot. 4515.Cap. Exp. On Other Rural dev. Prog.	488735	412100	1174136	1447427	7238253	454522	500158	216649	409000
Other Rural dev. Programmes tot.	107714604	122742638	150589471	155898946	199805521	267698970	289078629	295930386	293720658
Other Rural dev. Programmes tot./Eco. Serv. tot.	4.22	3.95	2.55	3.36	4.12	3.63	3.68	4.40	4.52
Other Rural dev. Programmes tot./ tot. Exp.	2.52	2.42	1.81	1.99	2.32	2.15	2.02	2.07	1.96
tot. (b)Rural dev.(rev)	196437312	205715897	281526632	275538964	369714375	500605670	515583553	542727306	481459439
tot. (b) Cap. Account Of Rural dev. Rural dev. tot.	488735	412100	1174136	1447427	7238253	454522	500158	216649	409000
Rural dev. tot./Eco. Service tot.	196926047	206127997	282700768	276986391	376952628	501060192	516083711	542943955	481868439
Rural dev. tot./ tot. Exp.	7.72	6.63	4.79	5.97	7.77	6.80	6.58	8.06	7.42
	4.62	4.06	3.39	3.53	4.38	4.03	3.60	3.79	3.21
tot. (d)Irrigation & Flood Control(rev)	109882694	110471252	127984796	158021230	162505036	204592841	229579616	242507609	222941653
tot. (d) Cap. Exp. of Irrigation & Flood Control	124529768	107786833	136868865	175720238	313373435	412869344	421794340	482195663	419430681
Irrigation & Flood Control tot.	234412462	218258085	264853661	333741468	475878471	617462185	651373956	724703272	642372334
Irrigation & Flood Control tot./Eco. Serv. tot.	9.19	7.02	4.49	7.19	9.80	8.37	8.30	10.76	9.89
Irrigation & Flood Control tot./ tot. Exp.	5.49	4.30	3.18	4.25	5.54	4.96	4.54	5.06	4.28
tot. (f) Industry & Minerals(rev)	74893035	90496514	149558825	134285196	169816207	335471420	244845381	174589812	192774511
tot. (f)Cap. Account Of Industry & Minerals Industry & Minerals tot.	51657997	65374539	47741468	38645887	38823753	16666116	7659466	3707723	10698895
Industry & Minerals tot./Eco. Serv.	126551032	155871053	197300293	172931083	208639960	352137536	252504847	178297535	203473406
Industry & Minerals tot./ tot. Exp.	4.96	5.01	3.34	3.72	4.30	4.78	3.22	2.65	3.13
	2.97	3.07	2.37	2.20	2.43	2.83	1.76	1.24	1.35
Eco. Serv. tot.	2550204798	3111263026	5901671517	4643492453	4853561319	7373250116	7848184018	6732468770	6492204834
Eco. Serv. tot./ tot. Exp.	59.77	61.27	70.83	59.14	56.46	59.28	54.73	47.01	43.23
tot. Exp.	4267006779	5077737256	8332165394	7851175158	8597059668	12437680071	14340682330	14321618109	15019128819

Table 7 : Centrally Sponsored Economic Services Expenditure

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
tot. 2515.Other Rural dev. Programmes(REV)	0	3637000	3842000	24951405	2700400	5054000	7076800	4613000	3880000
tot. 4515.Cap. Exp. On Other Rural dev. Prog.	0	0	0	0	0	0	0	0	931000
Other Rural dev. Programmes tot.	0	3637000	3842000	24951405	2700400	5054000	7076800	4613000	4811000
Other Rural dev. Programmes tot./Eco. Serv. tot.	0.00	0.51	1.04	6.46	0.46	1.06	1.17	0.59	0.29
Other Rural dev. Programmes tot./ tot. Exp.	0.00	0.29	0.39	2.38	0.19	0.36	0.46	0.22	0.14
tot. (b)Rural dev.(rev)	122421690	150450150	22574608	63274905	9043600	23814000	13162800	12239700	610519500
tot. (b) Cap. Account Of Rural dev.	0	0	0	0	0	0	0	0	931000
Rural dev. tot.	122421690	150450150	22574608	63274905	9043600	23814000	13162800	12239700	611450500
Rural dev. tot./Eco. Service tot.	35.66	21.16	6.12	16.39	1.53	5.00	2.18	1.57	37.13
Rural dev. tot./ tot. Exp.	11.44	12.11	2.31	6.03	0.63	1.68	0.85	0.59	17.92
tot. (d)Irrigation & Flood Control(rev)	15579148	1361551	1846180	3157843	1695943	1156865	1834269	1624865	2585073
tot. (d) Cap. Exp. of Irrigation & Flood Control	4040478	3596566	5197314	4400083	6970929	5784983	5406052	4994092	12548322
Irrigation & Flood Control tot.	19619626	4958117	7043494	7557926	8666872	6941848	7240321	6618957	15133395
Irrigation & Flood Control tot./Eco. Serv. tot.	5.72	0.70	1.91	1.96	1.46	1.46	1.20	0.85	0.92
Irrigation & Flood Control tot./ tot. Exp.	1.83	0.40	0.72	0.72	0.60	0.49	0.47	0.32	0.44
tot. (f) Industry & Minerals(rev)	24885588	270835099	30911999	33528986	312069503	226478400	312153197	470672243	439074724
tot. (f)Cap. Account Of Industry & Minerals	269000	2060250	0	2254250	506250	839250	467850	174950	5450000
Industry & Minerals tot.	25154588	272895349	30911999	35783236	312575753	227317650	312621047	470847193	444524724
Industry & Minerals tot./Eco. Serv.	7.33	38.38	8.38	9.27	52.72	47.76	51.81	60.48	26.99
Industry & Minerals tot./ tot. Exp.	2.35	21.96	3.16	3.41	21.69	16.02	20.14	22.66	13.03
Eco. Serv. tot.	343262603	711053494	369011662	386000888	592878668	475935893	603356503	778543236	1646916496
Eco. Serv. tot./ tot. Exp.	32.08	57.22	37.68	36.78	41.15	33.55	38.87	37.48	48.26
tot. Exp.	1069892494	1242732840	979252429	1049385117	1440877376	1418599276	1552341458	2077487850	3412458127

Table 8 : Total Economic Service Expenditure

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
tot. 2515.Other Rural dev. Programmes(REV)	221923569	247904471	284925572	339891474	364593744	473985226	539876684	565057182	585096992
tot. 4515.Cap. Exp. On Other Rural dev. Prog.	488735	412100	1174136	1447427	7238253	454522	500158	216649	1340000
Other Rural dev. Programmes tot.	222412304	248316571	286099708	341338901	371831997	474439748	540376842	565273831	586436992
Other Rural dev. Programmes tot./Eco. Serv. tot.	5.28	4.51	3.16	4.34	4.29	3.86	4.00	4.36	4.09
Other Rural dev. Programmes tot./ tot. Exp.	1.65	1.58	1.36	1.53	1.49	1.46	1.38	1.29	1.20
tot. (b)Rural dev.(rev)	445010108	487039240	449350670	515154344	565061961	789790423	816480818	847903038	1388562391
tot. (b) Cap. Account Of Rural dev. Rural dev. tot.	488735	412100	1174136	1447427	7238253	454522	500158	216649	1340000
Rural dev. tot./Eco. Service tot.	445498843	487451340	450524806	516601771	572300214	790244945	816980976	848119687	1389902391
Rural dev. tot./ tot. Exp.	10.57	8.85	4.97	6.57	6.60	6.43	6.05	6.54	9.69
	3.30	3.10	2.14	2.31	2.29	2.44	2.09	1.94	2.85
tot. (d)Irrigation & Flood Control(rev)	173415506	158180404	260828231	279906781	297676092	377325909	471877262	484902068	546888090
tot. (d) Cap. Exp. of Irrigation & Flood Control	128570246	111383399	142066179	180120321	320344364	418654327	427200392	487189755	431979003
Irrigation & Flood Control tot.	301985752	269563803	402894410	460027102	618020456	795980236	899077654	972091823	978867093
Irrigation & Flood Control tot./Eco. Serv. tot.	7.17	4.89	4.45	5.85	7.13	6.48	6.65	7.49	6.82
Irrigation & Flood Control tot./ tot. Exp.	2.24	1.71	1.91	2.06	2.47	2.46	2.29	2.22	2.01
tot. (f) Industry & Minerals(rev)	127055294	389249696	210089319	201480891	518156534	606133096	604675673	695153947	682896605
tot. (f)Cap. Account Of Industry & Minerals	51926997	67434789	47741468	40900137	39330003	17505366	8127316	3882673	16148895
Industry & Minerals tot.	178982291	456684485	257830787	242381028	557486537	623638462	612802989	699036620	699045500
Industry & Minerals tot./Eco. Serv.	4.25	8.29	2.84	3.08	6.43	5.08	4.53	5.39	4.87
Industry & Minerals tot./ tot. Exp.	1.32	2.91	1.22	1.08	2.23	1.92	1.56	1.60	1.43
Eco. Serv. tot.	4213983264	5507014637	9062819582	7859999430	8672824341	12286514639	13513024299	12976127745	14350512801
Eco. Serv. tot./ tot. Exp.	31.19	35.03	42.98	35.16	34.71	37.92	34.49	29.66	29.42
tot. Exp.	13508869460	15718666807	21083984731	22356301713	24986720826	32398708938	39177925806	43754181079	48774540978

Table-9: Non-Plan Economic Services Expenditure on Transport

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	
(g) Trans.--										
3054.Rd.s & Bridges---										
Tot. 02.Strtgc. & Bordr. Rd.s(rev)		0	0	3741160	5954927	14295098	12901301	15282433	15898633	20467324
Tot. 02.Strtgc. & Bordr. Rd.s(cap)		0	0	0	0	0	0	0	0	0
Strtgc. & Bordr. Rd.s(Tot.)		0	0	3741160	5954927	14295098	12901301	15282433	15898633	20467324
Strtgc. & Bordr. Rd.s(Tot.)/Eco. Serv.(Tot.)		0.00	0.00	0.13	0.21	0.44	0.29	0.30	0.29	0.33
Strtgc. & Bordr. Rd.s(Tot.)/ Tot. Exp.		0.00	0.00	0.03	0.04	0.10	0.07	0.07	0.06	0.07
Tot. 03 St. Highwys.(rev)	109455677	100708287	399184760	371334740	310105979	347508228	431142920	514178618	545156675	
Tot. 03.St. Highway(cap)	0	0	0	0	0	0	0	0	0	
St. Highwys.(Tot.)	109455677	100708287	399184760	371334740	310105979	347508228	431142920	514178618	545156675	
St. Highwys.(Tot.)/Eco. Serv.	8.29	5.98	14.30	13.12	9.61	7.83	8.52	9.41	8.78	
St. Highwys.(Tot.)/ Tot. Exp.	1.34	1.07	3.39	2.76	2.07	1.87	1.85	1.88	1.80	
Tot. 04.District. & Other Rd.s(rev)	125660909	135091020	471002219	489184149	691511738	786474884	1018080043	1082076952	1220649747	
Tot. 04.District. & Other Rd.s(cap)	0	0	0	0	0	0	0	0	0	
District. & Other Rd.s (Tot.)	125660909	135091020	471002219	510899792	691511738	786474884	1018080043	1082076952	1220649747	
District. & Other Rd.s (Tot.)/Eco. Serv.	9.52	8.02	16.87	18.05	21.43	17.72	20.11	19.80	19.65	
District. & Other Rd.s (Tot.)/ Tot. Exp.	1.54	1.44	4.00	3.80	4.63	4.24	4.37	3.96	4.02	
Tot. 3054.Rd.s & Bridges(rev)	240592643	252609009	894074810	893707244	1070359850	1210870101	1514079637	1670666890	1852581900	
Tot. 5054.Cap. A/C on Rd.s & Bridges(cap)	0	0	0	21715643	0	0	0	0	0	
Rd.s & Bridges(Tot.)	240592643	252609009	894074810	915422887	1070359850	1210870101	1514079637	1670666890	1852581900	
Rd.s & Bridges(Tot.)/Eco. Serv.	18.22	14.99	32.02	32.34	33.18	27.29	29.91	30.57	29.83	
Rd.s & Bridges(Tot.)/ Tot. Exp.	2.94	2.69	7.59	6.80	7.16	6.53	6.50	6.11	6.11	
Tot. 3055.Rd. Trans.(rev)	140909549	226892569	164206595	244480203	244500289	544449090	424826269	271542676	272052421	
Tot. 5055.Cap. Exp. on Rd. Trans.(cap)	0	0	0	0	0	0	0	0	0	
Rd. Trans. (Tot.)	140909549	226892569	164206595	244480203	244500289	544449090	424826269	271542676	272052421	
Rd. Trans. (Tot.)/Eco. Service	10.67	13.47	5.88	8.64	7.58	12.27	8.39	4.97	4.38	
Rd. Trans. (Tot.)/ Tot. Exp.	1.72	2.41	1.39	1.82	1.64	2.94	1.82	0.99	0.90	
Tot. (g) Trans.(rev)	381502192	479501578	1058281405	1138187447	1314860139	1755319191	1938905906	1942209566	2124634321	
Tot. (g)Cap. A/C of Trans.(cap)	0	0	0	21715643	0	0	0	0	0	
Trans.(Tot.)	381502192	479501578	1058281405	1159903090	1314860139	1755319191	1938905906	1942209566	2124634321	
Trans.(Tot.)/Eco. Serv.	28.89	28.46	37.90	40.98	40.75	39.56	38.31	35.54	34.21	
Trans.(Tot.)/ Tot. Exp.	4.67	5.10	8.99	8.62	8.80	9.47	8.33	7.10	7.00	
Tot. C.Eco. Serv.(rev)	1336914486	1711428878	2797764438	2812377181	3240956052	4468008737	5061789650	5499473947	6261804297	
Tot. C.Cap. A/C OF Eco. Serv.(cap)	-16398623	-26730761	-5628035	18128908	-14571698	-30680107	-305872	-34358208	-50412826	
Eco. Serv. Tot.	1320515863	1684698117	2792136403	2830506089	3226384354	4437328630	5061483778	5465115739	6211391471	
Eco. Serv. Tot./ Tot. Exp.	16.16	17.93	23.72	21.04	21.58	23.93	21.74	19.98	20.47	
Tot. Exp.	8171970187	9398196711	11772566908	13455741439	14948783782	18542429591	23284902018	27355075120	30342954032	

Table 10 : Plan Economic Services Expenditure on Transport

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
(g) Trans.—									
3054.Rd.s & Bridges—									
Tot. 02.Strtgc. & Bordr. Rd.s(rev)	1792369	5046159	0	193292	0	0	0	0	0
Tot. 02.Strtgc. & Bordr. Rd.s(cap)	0	0	0	0	0	0	0	0	0
Strtgc. & Bordr. Rd.s(Tot.)	1792369	5046159	0	193292	0	0	0	0	0
Strtgc. & Bordr. Rd.s(Tot.)/Eco. Serv.(Tot.)	0.07	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Strtgc. & Bordr. Rd.s(Tot.)/ Tot. Exp.	0.04	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. 03 St. Highways.(rev)									
Tot. 03.St. Highway(cap)	35018359	96455134	136569601	164206099	189529246	346664501	609653943	748760505	791410284
St. Highways.(Tot.)	74397416	133608431	176576936	208044893	229941211	368706482	654155056	778808738	821952192
St. Highways.(Tot.)/Eco. Serv.	2.92	4.29	2.99	4.48	4.74	5.00	8.34	11.57	12.66
St. Highways.(Tot.)/ Tot. Exp.	1.74	2.63	2.12	2.65	2.67	2.96	4.56	5.44	5.47
Tot. 04.District. & Other Rd.s(rev)									
Tot. 04.District. & Other Rd.s(cap)	221234435	324358256	385691448	353013531	435340893	509101733	556819277	733331702	619589171
District. & Other Rd.s (Tot.)	243729483	355932681	411743596	390538905	482091684	572457471	657160045	817444669	702651838
District. & Other Rd.s (Tot.)/Eco. Serv.	9.56	11.44	6.98	8.41	9.93	7.76	8.37	12.14	10.82
District. & Other Rd.s (Tot.)/ Tot. Exp.	5.71	7.01	4.94	4.97	5.61	4.60	4.58	5.71	4.68
Tot. 3054.Rd.s & Bridges(rev)									
Tot. 5054.Cap. A/C on Rd.s & Bridges(cap)	470054440	611905821	746051708	1021528161	889151439	1211134587	1704683886	2130991731	2235731768
Rd.s & Bridges(Tot.)	547412101	698118759	820344082	1105527314	990324645	1296972571	1850452430	2246367897	2349636397
Rd.s & Bridges(Tot.)/Eco. Serv.	21.47	22.44	13.90	23.81	20.40	17.59	23.58	33.37	36.19
Rd.s & Bridges(Tot.)/ Tot. Exp.	12.83	13.75	9.85	14.08	11.52	10.43	12.90	15.69	15.64
Tot. 3055.Rd. Trans.(rev)									
Tot. 5055.Cap. Exp. on Rd. Trans.(cap)	86257907	124313076	97522514	103802938	93939639	107098480	124954266	133289881	164950000
Rd. Trans. (Tot.)	86889858	125566549	98983407	108125154	96978564	112831147	132083399	139764561	171552618
Rd. Trans. (Tot.)/Eco. Service	3.41	4.04	1.68	2.33	2.00	1.53	1.68	2.08	2.64
Rd. Trans. (Tot.)/ Tot. Exp.	2.04	2.47	1.19	1.38	1.13	0.91	0.92	0.98	1.14
Tot. (g) Trans.(rev)									
Tot. (g)Cap. A/C of Trans.(cap)	556956534	740734300	855304760	1021528161	989299782	1370966478	1897975990	2503224144	2407841768
Trans.(Tot.)	635965712	835163787	939723229	1110558463	1095180946	1464019726	2052782104	2626824837	2530545991
Trans.(Tot.)/Eco. Serv.	24.94	26.84	15.92	23.92	22.56	19.86	26.16	39.02	38.98
Trans.(Tot.)/ Tot. Exp.	14.90	16.45	11.28	14.15	12.74	11.77	14.31	18.34	16.85
Tot. C.Eco. Serv.(rev)									
Tot. C.Cap. A/C OF Eco. Serv.(cap)	1168930991	1460772776	3874384438	2134579133	2157528224	3755392362	3815026306	3200010168	3003085684
Eco. Serv. Tot.	2550204798	3111263026	5901671517	4643492453	4853561319	7373250116	7848184018	6732468770	6492204834
Eco. Serv. Tot./ Tot. Exp.	59.77	61.27	70.83	59.14	56.46	59.28	54.73	47.01	43.23
Tot. Exp.	4267006779	5077737256	8332165394	7851175158	8597059668	12437680071	14340682330	14321618109	15019128819

Table 11 : Centrally Sponsored Scheme Expenditure on Transport

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
(g) Trans.—									
3054.Rd.s & Bridges—									
Tot. 02.Strtgc. & Bordr. Rd.s(rev)	0	0	0	0	0	0	0	0	0
Tot. 02.Strtgc. & Bordr. Rd.s(cap)	4471536	838570	7773399	10006131	3393561	3309115	553931	0	0
Strtgc. & Bordr. Rd.s(Tot.)	4471536	838570	7773399	10006131	3393561	3309115	553931	0	0
Strtgc. & Bordr. Rd.s(Tot.)/Eco. Serv.(Tot.)	1.30	0.12	2.11	2.59	0.57	0.70	0.09	0.00	0.00
Strtgc. & Bordr. Rd.s(Tot.)/ Tot. Exp.	0.42	0.07	0.79	0.95	0.24	0.23	0.04	0.00	0.00
Tot. 03 St. Highwys.(rev)									
Tot. 03.St. Highway(cap)	0	0	0	0	0	0	0	0	0
St. Highwys.(Tot.)	0	0	0	0	0	0	0	0	0
St. Highwys.(Tot.)/Eco. Serv.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
St. Highwys.(Tot.)/ Tot. Exp.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. 04.District. & Other Rd.s(rev)									
Tot. 04.District. & Other Rd.s(cap)	0	0	0	0	0	0	0	0	0
District. & Other Rd.s (Tot.)	0	0	0	0	0	0	0	0	0
District. & Other Rd.s (Tot.)/Eco. Serv.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
District. & Other Rd.s (Tot.)/ Tot. Exp.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. 3054.Rd.s & Bridges(rev)									
Tot. 5054.Cap. A/C on Rd.s & Bridges(cap)	7768536	1958366	8350135	10660449	3393561	3309115	553931	0	0
Rd.s & Bridges(Tot.)	10817305	1958366	12525589	10876625	3496357	5809271	653931	0	0
Rd.s & Bridges(Tot.)/Eco. Serv.	3.15	0.28	3.39	2.82	0.59	1.22	0.11	0.00	0.00
Rd.s & Bridges(Tot.)/ Tot. Exp.	1.01	0.16	1.28	1.04	0.24	0.41	0.04	0.00	0.00
Tot. 3055.Rd. Trans.(rev)									
Tot. 5055.Cap. Exp. on Rd. Trans.(cap)	0	0	0	0	0	0	0	2500000	0
Rd. Trans. (Tot.)	0	0	0	0	0	0	0	2500000	0
Rd. Trans. (Tot.)/Eco. Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00
Rd. Trans. (Tot.)/ Tot. Exp.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00
Tot. (g) Trans.(rev)									
Tot. (g)Cap. A/C of Trans.(cap)	-24586642	1958366	8350135	10660449	3393561	3309115	553931	0	1000
Trans.(Tot.)	-21537873	1958366	12525589	10876625	3496357	5809271	653931	2500000	1000
Trans.(Tot.)/Eco. Serv.	-6.27	0.28	3.39	2.82	0.59	1.22	0.11	0.32	0.00
Trans.(Tot.)/ Tot. Exp.	-2.01	0.16	1.28	1.04	0.24	0.41	0.04	0.12	0.00
Tot. C.Eco. Serv.(rev)									
Tot. C.Cap. A/C OF Eco. Serv.(cap)	346301407	679308756	326904020	343551946	555972928	434506312	571888670	752677444	1585744824
Eco. Serv. Tot.	-3038804	31744738	42107642	42448942	36905740	41429581	31467833	25865792	61171672
Eco. Serv. Tot./ Tot. Exp.	343262603	711053494	369011662	386000888	592878668	475935893	603356503	778543236	1646916496
Tot. Exp.	32.08	57.22	37.68	38.78	41.15	33.55	38.87	37.48	48.26
	1069892494	1242732840	979252429	1049385117	1440877376	1418599276	1552341458	2077487850	3412458127

Table 11 : Centrally Sponsored Scheme Expenditure on Transport

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
(g) Trans.--									
3054.Rd.s & Bridges--									
Tot. 02.Strtgc. & Bordr. Rd.s(rev)	0	0	0	0	0	0	0	0	0
Tot. 02.Strtgc. & Bordr. Rd.s(cap)	4471536	838570	7773399	10006131	3393561	3309115	553931	0	0
Strtgc. & Bordr. Rd.s(Tot.)	4471536	838570	7773399	10006131	3393561	3309115	553931	0	0
Strtgc. & Bordr. Rd.s(Tot.)/Eco. Serv.(Tot.)	1.30	0.12	2.11	2.59	0.57	0.70	0.09	0.00	0.00
Strtgc. & Bordr. Rd.s(Tot.)/ Tot. Exp.	0.42	0.07	0.79	0.95	0.24	0.23	0.04	0.00	0.00
Tot. 03 St. Highwys.(rev)	0	0	0	0	0	0	0	0	0
Tot. 03.St. Highway(cap)	0	0	0	0	0	0	0	0	0
St. Highwys.(Tot.)	0	0	0	0	0	0	0	0	0
St. Highwys.(Tot.)/Eco. Serv.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
St. Highwys.(Tot.)/ Tot. Exp.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. 04.District. & Other Rd.s(rev)	0	0	0	0	0	0	0	0	0
Tot. 04.District. & Other Rd.s(cap)	0	0	0	0	0	0	0	0	0
District. & Other Rd.s (Tot.)	0	0	0	0	0	0	0	0	0
District. & Other Rd.s (Tot.)/Eco. Serv.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
District. & Other Rd.s (Tot.)/ Tot. Exp.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. 3054.Rd.s & Bridges(rev)	3048769	0	4175454	216176	102796	2500156	100000	0	0
Tot. 5054.Cap. A/C on Rd.s & Bridges(cap)	7768536	1958366	8350135	10660449	3393561	3309115	553931	0	0
Rd.s & Bridges(Tot.)	10817305	1958366	12525589	10876625	3496357	5809271	653931	0	0
Rd.s & Bridges(Tot.)/Eco. Serv.	3.15	0.28	3.39	2.82	0.59	1.22	0.11	0.00	0.00
Rd.s & Bridges(Tot.)/ Tot. Exp.	1.01	0.16	1.28	1.04	0.24	0.41	0.04	0.00	0.00
Tot. 3055.Rd. Trans.(rev)	0	0	0	0	0	0	0	2500000	0
Tot. 5055.Cap. Exp. on Rd. Trans.(cap)	0	0	0	0	0	0	0	0	0
Rd. Trans. (Tot.)	0	0	0	0	0	0	0	2500000	0
Rd. Trans. (Tot.)/Eco. Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00
Rd. Trans. (Tot.)/ Tot. Exp.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00
Tot. (g) Trans.(rev)	3048769	0	4175454	216176	102796	2500156	100000	2500000	0
Tot. (g)Cap. A/C of Trans.(cap)	-24586642	1958366	8350135	10660449	3393561	3309115	553931	0	1000
Trans.(Tot.)	-21537873	1958366	12525589	10876625	3496357	5809271	653931	2500000	1000
Trans.(Tot.)/Eco. Serv.	-6.27	0.28	3.39	2.82	0.59	1.22	0.11	0.32	0.00
Trans.(Tot.)/ Tot. Exp.	-2.01	0.16	1.28	1.04	0.24	0.41	0.04	0.12	0.00
Tot. C.Eco. Serv.(rev)	346301407	679308756	326904020	343551946	555972928	434506312	571888670	752677444	1585744824
Tot. C.Cap. A/C OF Eco. Serv.(cap)	-3038804	31744738	42107642	42448942	36905740	41429581	31467833	25865792	61171672
Eco. Serv. Tot.	343262603	711053494	369011662	386000888	592878668	475935893	603356503	778543236	1646916496
Eco. Serv. Tot./ Tot. Exp.	32.08	57.22	37.68	36.78	41.15	33.55	38.87	37.48	48.26
Tot. Exp.	1069892494	1242732840	979252429	1049385117	1440877376	1418599276	1552341458	2077487850	3412458127

Table 12 : Centrally Sponsored Scheme Expenditure on Transport

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
(g) Trans.—									
3054.Rd.s & Bridges—									
Tot. 02.Strtgc. & Bordr. Rd.s(rev)	1792369	5046159	3741160	6148219	14295098	12901301	15282433	15898633	20467324
Tot. 02.Strtgc. & Bordr. Rd.s(cap)	4471536	838570	7773399	10006131	3393561	3309115	553931	0	0
Strtgc. & Bordr. Rd.s(Tot.)	6263905	5884729	11514559	16154350	17688659	16210416	15836364	15898633	20467324
Strtgc. & Bordr. Rd.s(Tot.)/Eco. Serv.(Tot.)	0.15	0.11	0.13	0.21	0.20	0.13	0.12	0.12	0.14
Strtgc. & Bordr. Rd.s(Tot.)/ Tot. Exp.	0.05	0.04	0.05	0.07	0.07	0.05	0.04	0.04	0.04
Tot. 03 St. Highwys.(rev)									
Tot. 03.St. Highway(cap)	148834734	137861584	439192095	415173534	350517944	369550209	475644033	544226851	575698583
St. Highwys.(Tot.)	35018359	96455134	136569601	164206099	189529246	346664501	609653943	748760505	791410284
St. Highwys.(Tot.)/Eco. Serv.	183853093	234316718	575761696	579379633	540047190	716214710	1085297976	1292987356	1367108867
St. Highwys.(Tot.)/ Tot. Exp.	4.36	4.25	6.35	7.37	6.23	5.83	8.03	9.96	9.53
	1.36	1.49	2.73	2.59	2.16	2.21	2.77	2.96	2.80
Tot. 04.District. & Other Rd.s(rev)									
Tot. 04.District. & Other Rd.s(cap)	148155957	166665445	497054367	516709523	738262529	849830622	1118420811	1166189919	1303712414
District. & Other Rd.s (Tot.)	221234435	324358256	385691448	374729174	435340893	509101733	556819277	733331702	619589171
District. & Other Rd.s (Tot.)/Eco. Serv.	369390392	491023701	882745815	891438697	1173603422	1358932355	1675240088	1899521621	1923301585
District. & Other Rd.s (Tot.)/ Tot. Exp.	8.77	8.92	9.74	11.34	13.53	11.06	12.40	14.64	13.40
	2.73	3.12	4.19	3.99	4.70	4.19	4.28	4.34	3.94
Tot. 3054.Rd.s & Bridges(rev)									
Tot. 5054.Cap. A/C on Rd.s & Bridges(cap)	320999073	338821947	972542638	977922573	1171635852	1299208241	1659948181	1786043056	1966486529
Rd.s & Bridges(Tot.)	477822976	613864187	754401843	1053904253	892545000	1214443702	1705237817	2130991731	2235731768
Rd.s & Bridges(Tot.)/Eco. Serv.	798822049	952686134	1726944481	2031826826	2064180852	2513651943	3365185998	3917034787	4202218297
Rd.s & Bridges(Tot.)/ Tot. Exp.	18.96	17.30	19.06	25.85	23.80	20.46	24.90	30.19	29.28
	5.91	6.06	8.19	9.09	8.26	7.76	8.59	8.95	8.62
Tot. 3055.Rd. Trans.(rev)									
Tot. 5055.Cap. Exp. on Rd. Trans.(cap)	141541500	228146042	165667488	248802419	247539214	550181757	431955402	280517356	278655039
Rd. Trans. (Tot.)	86257907	124313076	97522514	103802938	93939639	107098480	124954266	133289881	164950000
Rd. Trans. (Tot.)/Eco. Service	227799407	352459118	263190002	352605357	341478853	657280237	556909668	413807237	443605039
Rd. Trans. (Tot.)/ Tot. Exp.	5.41	6.40	2.90	4.49	3.94	5.35	4.12	3.19	3.09
	1.69	2.24	1.25	1.58	1.37	2.03	1.42	0.95	0.91
Tot. (g) Trans.(rev)									
Tot. (g)Cap. A/C of Trans.(cap)	463560139	573931065	1146875328	1227433925	1420844099	1850872595	2093812020	2068310259	2247338544
Trans.(Tot.)	532369892	742692666	863654895	1053904253	992693343	1374275593	1898529921	2503224144	2407842768
Trans.(Tot.)/Eco. Serv.	995930031	1316623731	2010530223	2281338178	2413537442	3225148188	3992341941	4571534403	4655181312
Trans.(Tot.)/ Tot. Exp.	23.63	23.91	22.18	29.02	27.83	26.25	29.54	35.23	32.44
	7.37	8.38	9.54	10.20	9.66	9.95	10.19	10.45	9.54
Tot. C.Eco. Serv.(rev)									
Tot. C.Cap. A/C OF Eco. Serv.(cap)	3064489700	4041227884	5151955537	5664842447	6492962075	8520372803	9666836032	9784609993	11336668271
Eco. Serv. Tot.	1149493564	1465786753	3910864045	2195156983	2179862266	3766141836	3846188267	3191517752	3013844530
Eco. Serv. Tot./ Tot. Exp.	4213983264	5507014637	9062819582	7859999430	8672824341	12286514639	13513024299	12976127745	14350512801
	31.19	35.03	42.98	35.16	34.71	37.92	34.49	29.66	29.42
Tot. Exp.	13508869460	15718666807	21083984731	22356301713	24986720826	32398708938	39177925806	43754181079	48774540978

Table A : Expenditure as a Percentage of Revenue Receipts

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Edu, Sports, Arts & Cul.	22.05	17.67	21.98	20.16	20.58	23.73	29.57	22.10	28.89
Hlth. & Fam. Wel.	8.41	6.74	8.91	7.34	7.86	8.08	10.22	6.67	8.64
Water Ss., Santh., Housng. & Urb. Dev	6.04	3.99	7.14	6.95	6.37	7.93	9.37	4.42	7.76
Inform. & Broadcasting	0.31	0.24	0.30	0.36	0.31	0.30	0.30	0.23	0.28
Wel. of SCs, STs & OBCs	0.59	0.52	0.43	0.49	0.34	0.36	0.47	0.24	0.47
AgriCul. & Allied Activities	15.09	12.98	16.15	12.93	12.71	13.66	16.89	10.87	14.58
Rural Dev.	4.23	3.32	3.44	2.94	2.84	3.64	3.53	2.28	4.56
Irrigation & Flood Control	1.65	1.08	2.00	1.60	1.49	1.74	2.04	1.31	1.80
Industry & Minerals	1.21	2.66	1.61	1.15	2.60	2.79	2.62	1.87	2.24
Transport	4.40	3.92	8.78	7.00	7.13	8.53	9.06	5.57	7.38
Others	36.01	46.87	29.28	39.08	37.77	29.25	15.94	44.44	23.40
Tot.	100	100	100	100	100	100	100	100	100
Tot. rev. Receipts	10524892000	14651253000	13063592000	17540242000	19920172000	21704474000	23119322000	37152879000	30455787000

Table B : Expenditure on Various Services at Constant 1993-94 Prices

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
GDP at factor cost							
At Constant prices(Rs crore)	4683.98	5132.35	5452.35	5827.86	6199.81	6644.36	7048.61
At Current prices (Rs crore)	4683.98	5696.26	6487.24	7486.64	8510.69	9920.01	11302.73
Po/Pi	1.00	0.90	0.84	0.78	0.73	0.67	0.62
Education, sports,arts and culture(total)	2692655821	3042234579	3668808229	4212384666	5351220584	7011285416	8370903876
Education, sports,arts and culture(total) const. Price	2692655821	2741063898	3083534222	3279066190	3898221048	4696114658	5220264199
Health and Family welfare(total)	1052620540	1255025836	1364071333	1671922737	1900216034	2575360084	2478283537
Health and Family welfare(total) const. Price	1052620540	1130782627	1146465112	1301482593	1384256549	1724959907	1545507512
Water Supply, Sanitation and Urban Development(total)	1077484539	1568206309	1935024862	2187866631	1746655937	2209201947	3208743308
Water Supply, Sanitation and Urban Development(total) const. Price	1077484539	1412959319	1626336132	1703111199	1272392126	1479709501	2001036933
Information and broadcasting(total)	37165128	40893390	65465978	61683224	69920938	71284547	84669119
Information and broadcasting(total) const. Price	37165128	36845086.1	55022386.28	48016358.98	50935532.91	47745939.04	52801367.36
Welfare of SCs, STs and OBCs(total)	84934479	61124286	96324535	82752464	102791950	122565011	97039670
Welfare of SCs, STs and OBCs(total) const. Price	84934479	55073193.51	80958169.95	64417385.48	74881185.84	82093269.71	60515892.03
Social Services (Total)	5511783688	6620086423	8060442934	9066527339	11380048032	14424577593	15772923703
Social Services (Total) const. Price	5511783688	5964720809	6774584574	7057699050	8290060570	9661490903	9836312797
Agriculture and allied activities total	2007116445	2219934315	2343714402	2608761878	3069083584	4001677132	4161538910
Agriculture and allied activities total const. Price	2007116445	2000168511	1969828651	2030750644	2235745292	2680298051	2595219454
Rural Development	487451340	450524806	516601771	572300214	790244945	816980976	848119687
Rural Development at const. Price	487451340	405924411.5	434189835.1	445498317.7	575672303	547208694.1	528904513.1
Irrigation and Flood Control	2695663803	402894410	460027102	618020456	795980236	899077654	972091823
Irrigation and Flood Control at const. Price	2695663803	363009259.6	386640353.9	481088538.3	579850309.1	602196530.2	606216033.2
Industry and Minerals	456684485	257830787	242381028	557486537	623638462	612802989	699036620
Industry and Minerals at const. Price	456684485	232306432.6	203714707.3	433966838.2	454303936.9	410451568.9	435933310.8
Transport(total)	1316623731	2010530223	2281338178	2413537442	3225148188	3992341941	4571534403
Transport (total) const. Price	1316623731	1811494698	1917403120	1878781178	2349434181	2674045399	2850900898
ECONOMIC SERVICES TOTAL	5507014637	9062819582	7859999430	8672824341	12286514639	13513024299	12976127745

ECONOMIC SERVICES TOTAL	5507014637	8165631850	6606117223	6751226994	8950397244	9050938268	8092174526
const. Price							
Grand Total Expenditure	15718666807	21083984731	22356301713	24986720826	32398708938	39177925806	43754181079
Grand Total Expenditure	15718666807	18996743308	18789867747	19450529321	23601592780	26241127086	27285988279
const. Price							

Table C : Real Growth Rates Over Previous Years

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
Education, sports,arts and culture		1.80	12.49	6.34	18.88	20.47	11.16
Health & Family welfare		7.43	1.39	13.52	6.36	24.61	-10.40
Water Ss, Sanitation and Urban Devp.		31.13	15.10	4.72	-25.29	16.29	35.23
Information & broadcasting		-0.86	49.33	-12.73	6.08	-6.26	10.59
Welfare of SCs, STs and OBCs		-35.16	47.00	-20.43	16.24	9.63	-26.28
Agriculture & allied act.		-0.35	-1.52	3.09	10.09	19.88	-3.17
Rural Development		-16.73	6.96	2.60	29.22	-4.94	-3.35
Irrigation and Flood Control		-86.53	6.51	24.43	20.53	3.85	0.67
Industry and Minerals		-49.13	-12.31	113.03	4.69	-9.65	6.21
Transport(total)		37.59	5.85	-2.01	25.05	13.82	6.61
ECONOMIC SERVICES		48.28	-19.10	2.20	32.57	1.12	-10.59
SOCIAL SERVICES		8.22	13.58	4.18	17.46	16.54	1.81
TOTAL EXPENDITURE		20.85	-1.09	3.52	21.34	11.18	3.98

Expenditure on Different Sectors at 1993-94 prices(in crore)

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
Edu, sports,arts and Culture	269.27	274.11	308.35	327.91	389.82	469.61	522.03
Health & Family welfare	105.26	113.08	114.65	130.15	138.43	172.50	154.55
Water Ss, Sanitation and Urban Devp.	107.75	141.30	162.63	170.31	127.24	147.97	200.10
Information & broadcasting	3.72	3.68	5.50	4.80	5.09	4.77	5.28
Welfare of SCs, STs and OBCs	8.49	5.51	8.10	6.44	7.49	8.21	6.05
Agriculture & allied act.	200.71	200.02	196.98	203.08	223.57	268.03	259.52
Rural Development	48.75	40.59	43.42	44.55	57.57	54.72	52.89
Irrigation and Flood Control	269.57	36.30	38.66	48.11	57.99	60.22	60.62
Industry and Minerals	45.67	23.23	20.37	43.40	45.43	41.05	43.59
Transport(total)	131.66	181.15	191.74	187.88	234.94	267.40	285.09

Table D : Share of Expenditure on Social and Economic Services**Share of Total Expenditure on Total Economic Services and Social Services**

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
SOCIAL SERVICES	38.58	35.07	31.4	36.05	36.29	35.13	36.82	36.05	36.68
ECONOMIC SERVICES	31.19	35.03	42.98	35.16	34.71	37.92	34.49	29.66	29.42

Share of Total Non-Plan Expenditure on Non-Plan Economic Services and Social Services

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
SOCIAL SERVICES	36.87	34.12	32.78	33.78	32.54	31.62	32.61	28.29	27.48
ECONOMIC SERVICES	16.16	17.93	23.72	21.04	21.58	23.93	21.74	19.98	20.47

Share of Total Plan Expenditure on Plan Economic Services and Social Services

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
SOCIAL SERVICES	35.12	35.41	26.4	36.88	39.71	37.14	41.27	47.63	52.39
ECONOMIC SERVICES	59.77	61.27	70.83	59.14	56.46	59.28	54.73	47.01	43.23

Share of Centrally Sponsored Expenditure on Centrally Spons. Economic Services and Social Services

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
SOCIAL SERVICES	65.46	40.76	57.32	58.99	54.75	63.37	58.73	58.32	49.27
ECONOMIC SERVICES	32.08	57.22	37.68	36.78	41.15	33.55	38.87	37.48	48.26

Table E : Specifically Targeted Programme for Women (1999-2000) in Rs. '000

	Concerned Ministry/ Department	Actual 1999-2000 Total
Protective and Welfare Services		
State Homes	Social Security and Welfare	3442
Children's Home	Social Security and Welfare	15582
Upliftment of Women	Social Security and Welfare	2090
Indira Mahila Yojana	Social Security and Welfare	0
Widow Pension under Social Security Scheme	Social Security and Welfare	73683
Assistance to HBCMWFCC	Social Security and Welfare	0
Investment in Himachal BC, Minorities & MFDC	Social Security and Welfare	5000
Women's Development Corporation	Social security and Welfare	500
Upliftment of Children	Social Security and Welfare	2390
Integrated Child Care Services	Social Security and Welfare	147058
Assistance to Families Killed/Disabled Defence Personnels	General Administration	24077
Assistance for Marriage of Daughters/ Grand Daughters of Freedom Fighter	General Administration	45
Expenditure on Milk Feeding Centres	Tribal Development	100
Total of Protective and Welfare Services	**	273967
Share of Protective and Welfare Services in Specifically Targeted Programme (in Percent)	**	92.39
Social Services		
Interest Free Loans to Children of IRDP Families for Higher Studies	Social Security and Welfare	0
Training of ANMs, DAIS/LHVs, etc.	Health and Family Welfare	10674
Expenditure on Girls Education in Primary Schools	Tribal Development	500
Total of Social Services	**	11174
Share of Social Services in Specifically Targeted Programme (in percent)	**	3.77

Economic Services

DWCRA	Rural Development	0
Composite Programming, Feeding, Demonstration Incentive, Awards to Mahila Mandal and Training Associate Women	Rural Development	1650
Matching Incentive Grants to Mahila Mandal	Rural Development	8002
Smokeless Chulhas	Rural Development	130
Total of Economic Services	**	9782
Share of Economic Services in Specifically Targeted Programme (in percent)	**	3.30

Regulatory Services and Awareness Generation

State Women Commission	Social Security and Welfare	1612
Total of Regulatory Services and Awareness Generation	**	1612
Share of Regulatory Services and Awareness Generation in Specifically Targeted Programme (in percent)	**	0.54
Total Expenditure on Specifically Targeted Programmes/Schemes for Women	**	296535
Total Expenditure (Actual)		43754181.08
Share of Total Expenditure on Women Specific Programmes/Schemes (in percent)		0.68

Table F : Specifically Targeted Programme for Women (1997-98) in Rs. '000

	Concerned Department/ Ministry	Actual 1997-98 Total
Protective and Welfare Services		
Children Home at Tissa	Social Security and Welfare (including Nutrition)	400
Children's Home	Social Security and Welfare (including Nutrition)	2092
State Homes	Social Security and Welfare (including Nutrition)	1848
State Homes at Tissa	Social Security and Welfare (including Nutrition)	225
Indira Mahila Yojana	Social Security and Welfare (including Nutrition)	180
Widow Pension under Social Security Scheme	Social Security and Welfare (including Nutrition)	48980
Women's development Corporation	Social Security and Welfare (including Nutrition)	4293
Welfare of Handicapped Children	Social Security and Welfare (including Nutrition)	1592
Upliftment of Children	Social Security and Welfare (including Nutrition)	491
Upliftment of Women	Social Security and Welfare (including Nutrition)	1268
Integrated Child Care Services	Social Security and Welfare (including Nutrition)/Tribal Development	108667
Maternity and Child health	Health and Family Welfare	40233
Expenditure on milk Feeding Centers	Tribal Development	133
Expenditure on Welfare Committee Constituted for Women Welfare	Social Security and welfare (including nutrition)	223
Community Child Welfare Centres	Social Security and welfare (including nutrition)	900
Assistance for Marriage of Daughters and Grand daughters of Freedom Fighters	Social Security and welfare (including nutrition)	60
Assistance to the Families of Killed/Disabled Defence Personnel	General Administration	171
Ex-Gratia Payment to Families of Govt. Servants	Social Security and welfare (including nutrition)	10356
Total of Protective and Welfare Services	**	222112
Share of Protective and Welfare Services in Specifically Targeted programme (in%)	**	93.86
Social Services		
Interest Free Loans to Children of IRDP Families for Higher Studies	Social Security and welfare (including nutrition)	100
Training of ANMs, Dais/LHVs etc.	Health and Family Welfare	5491
Total of Social Services	**	5591

Share of Social Services in Specifically Targeted Programme (in%)	**	2.36
Economic Services		
DWCRA	Rural Development	4059
Composite Programme Feeding	Rural Development	1650
Demonstration Incentives, Awards to Mahila Mandals and Training Associate Women		
Matching Incentive Grant to Mahila Mandals	Rural Development	800
Smokeless Chulhas	Rural Development	1519
Expenditure on Government Industrial Training Institutes for Girls	Tribal Development	220
Total of Economic Services	**	8248
Share of Economic Services in Specifically Targeted Programme(in%)	**	3.49
Regulatory Services and Awareness Generation		
State Women Commission	Social Security and Welfare (including Nutrition)	691
Total of Regulatory Services and Awareness Generation	**	691
Share of Regulatory Services and Awareness Generation in Specifically Targeted Programme (in%)	**	0.29
Share of Specifically Targeted Programme in Total Expenditure (in%)	**	0.73
Total of Specifically Targeted Programme	**	236642
Total Expenditure	**	32398708.94

Table G : Pro-Women Allocation (1999-2000) in Rs. '000

Name of the Programme	Concerned Department/Ministry	Actual 1999-2000
Applied Nutrition Programme	Social Security and Welfare	42030
Bal Vidya Sankalpa Yojana	Tribal Development	4125
Construction of Tenements for Homeless Poor under Gandhi Kutir Yojana/Indira Awas Yojana	Tribal Development	885
Employment Promotion Programme	Supplies, Industries and Minerals	1803
Training Schemes for Edu. unemployed		
Food Programme	Tribal Development	5054
Food Subsidy	Food and Warehousing	30212
Indira Awas Yojana	Rural Development	21296
Installation of Gobar Gas Plant	Agriculture	13495
Integrated Rural Energy Planning Programme	General Administration; Tribal Development	20423
Interest Subsidy to Co-operative Societies Relating to Loans Given to IRDP Families/GIA Enrolled to IRD Families	Co-operation	304
Jawahar Samridhhi Yojana	Rural Development	74159
Local Development under IADP	Agriculture	716
Mid-Day Meals (Total)	Education	5900
National Discipline Scheme (Central)	Education	20706
National Scholarship Scheme(Total)	Education	50
Operation Black Board	Education	223817
Other Adult Education Programmes	Education	6111
Rural Family Welfare Services	Health and Family Welfare	120190
Rural Functional Literacy Programmes	Education	3829
Rural Health services-Allopathy	Health and Family Welfare	705833
Rural Health Services-Other	Health and Family Welfare	114738
System of Medicine		
Sanjhi Van Yojana	Tribal Development	7361
Saraswati Bal Vidya Sankalpa Yojna	Education	299100
School Health Scheme	Health and Family Welfare	1076
Secondary Education Pre-matric	Education	42
Scholarship (State), SC		
Secondary Education Pre-matric	Education	26
Scholarship, ST		
Special Employment Assurance Scheme	Tribal Development	14269
Special Nutrition Schemes for SCs	Social Security and Welfare	48500
Special Subsidy Scheme for Antodaya Families	Agriculture	2440
Subsidy to IRDP Family	Rural Development	7500
Swaran Jayanti Kunj Scheme	Forest and Wildlife	302

Swarna Jayanti Shahri Rojgar Yojana	Water Supply, Sanitation, Housing and Urban Development	410
Targeted PDS-a part of Food Subsidy(MNP)	Food and Warehousing	14878
Urban Family Welfare Services	Health and Family Welfare	54748
Urban Health Services-Allopathy	Health and Family Welfare	537954
Urban Health Services-Other	Health and Family Welfare	207477
Systems of Medicines		
Youth Hostels	Miscellaneous general Services	2232
Total		2613991
30% of Total Expenditure which Goes to Women		784197.3
Total Expenditure on Women		1080732.30
Expenditure on Women as a Percentage of Total Government Spending		2.47

Table H : Pro-Women Allocation (1997-98) in Rs. '000

Name of the Programme	Concerned Department/Ministry	Actual 1997-98
Special Subsidy Scheme for IRDP Families	Agriculture	559
GIA to Co-operative Societies Acquiring Shares and Entry Fee of IRDP Families	Co-operation	180
Interest Subsidy to Co-operative Societies Relating to Loans Given to IRDP	Co-operation	448
Expenditure on Adult Education under MNP	Education, Sports, Art and Culture	6097
Mid Day Meal	Education, Sports, Art and Culture	5000
National Discipline Scheme	Education, Sports, Art and Culture	19199
National Scholarship Scheme	Education, Sports, Art and Culture	40
Operation Black Board	Education, Sports, Art and Culture	170570
Physical Education Schemes	Education, Sports, Art and Culture	3390
Rural Functional Literacy Programmes	Education, Sports, Art and Culture	2817
Grant of Sanjay Gandhi Scholarships	Education, Sports, Art and Culture/Forest and Wild life	0
Food Subsidy	Food and Warehousing	133980
Van Lagao Roji Kamao Yojana	Forest and Wild Life	0
Rural Health Services	General Administration	3689
Rural Health Services-Other	General Administration/Health and family Welfare	159428
Systems of Medicine		
Rural Family Welfare Services	Health and Family Welfare	120190
School health Scheme	Health and Family Welfare	3024
Urban Family Welfare Services	Health and Family Welfare	6765
Urban Health Services-Allopathy	Health and Family Welfare	693108
Urban Health Services--Other	Health and Family Welfare	34776
Systems of Medicine		
Jawahar Rojgar Yojana	Rural development	103153
Smokeless Chulhas	Rural development	1519
Subsidy to IRDP	Rural development	4400
TRYSEM Infrastructure	Rural development	4298
Applied Nutrition Programme	Social Security and Welfare (including Nutrition)	36646
Bal Balika Ashram at Mashobra and Tuti Kandi	Social Security and Welfare (including Nutrition)	1849
Old Age Home at Tissa	Social Security and Welfare (including Nutrition)	225
Special Nutrition Schemes for SCs	Social Security and Welfare (including Nutrition)	19000
Employment Promotion Programme	Supplies, Industries and Minerals	575
Training Schemes for Educated Unemployed		
Construction of Tentaments for Homeless Poor under gandhi Kutir Yojana	Tribal Development	5677
Expenditure on Family Welfare Programme	Tribal Development	591
Expenditure on Food Programme	Tribal Development	5115

Expenditure on National Rural Employment Programme (JRY)	Tribal Development	3282
Expenditure on Special Employment Assurance Scheme	Tribal Development	3990
Integrated Rural Energy Planning Programme	Tribal Development/General Administration	24802
Rural health Services-Allopathy	Tribal Development/General Administration/ Health and Family Welfare	528007
Implementation of Nehru Rozgar Yojana	Water Supply, Sanitation, Housing and urban Development	1876
Swarn Jayanti Sahari Rozgar Yojana	Water Supply, Sanitation, Housing and urban Development	99077
Total Expenditure		2207342
30% of Total Expenditure which goes to Women		662202.6
Total Expenditure on Women		898844.6
Expenditure on Women as a percentage of Total Govt. Spending		2.77

Annexure – III

Gender and Health in Himachal Pradesh

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EXECUTIVE SUMMARY

World Health Organization (WHO) defines health as a "complete state of physical, mental and social well-being" [WHO, 1984]. Health cannot be seen in isolation from its social, cultural and economic context. The state of health of the individual, or of the community, is a function of the socio-economic environment within which it is embedded and is therefore critically dependent on the social and economic policies of the state. As a part of the Gender Budget Project, this Report intends to look into the status of health in Himachal Pradesh with a special focus on gender. Only, secondary level data sources have been used for the purpose. But in this regard, the most important point to be mentioned is that still today in the beginning of the third millennium, gender specific data regarding health is very much lacking both at the central government as well as at the state government level. Hence a very limited data was available to carry an extensive study of health in HP from a gender perspective. The most important data sources are National Family Health Survey-I (NFHS-I, 1992-93) and National Family Health Survey-II (NFHS-II, 1998-99); apart from these two, several other sources of data are available which are listed in the appendix of this Report. In this context, one should be very careful of the fact that very often discrepancies in the data could be observed regarding various data sources. The possible reasons for this lies in the fact that some sources are based on sample survey and some are based on complete enumeration and the time of collection of the data might not be the same. Hence, the sources of the data should be carefully taken into account.

At the very beginning, in **Section-1**, there is an introduction to clearly specify the objectives for preparing this report; which underlies the need to analyze the subject from a gender perspective. Along with this a brief socioeconomic and demographic account of the state of Himachal Pradesh has also been presented to understand the background of the state more clearly.

A proper assessment of the status of health in a region should be done in terms of some indicators; not only because it helps to understand the situation clearly, but also it helps to study the trends over time and facilitates comparison. Mostly, demographic indicators are used for this purpose because they generally provide a reflection of health status in general. Along with these, one should take into account some indicators which might have the potential to influence the condition of health indirectly, e.g. indicators relating to economic situation, level of literacy etc. **Section-2** of this report deals with some important health indicators of Himachal Pradesh. such as Life Expectancy at Birth, Crude Death Rate, Infant Mortality Rate, Crude Birth Rate, General Fertility Rate; Population Below Poverty Line, Literacy Rate and Sex Ratio. Available data regarding these indicators clearly shows that health for both males and females has already achieved a better status than neighbouring states and also with respect to the performance of the whole of India. Again, females are significantly better of as

compared to males in terms of the indicators such as Life Expectancy at Birth (LEB), Crude Death Rate (CDR) and Infant Mortality Rate (IMR). Wherever, time series data are available, it is clearly observed that there has been a gradual improvement in terms of the performance of all the indicators over time. Performance regarding some other health related indices namely. a) *Human Development Index (HDI)*, b) *Gender Related Health Index (GHI)* and c) *Reproductive Health Index (RHI)* have been discussed at the end.

Assessment of women's health status should take into account their fertility levels and reproductive behaviour. In this context, **Section-3** deals with fertility and reproductive preferences and **Section-4** deals with different aspects of family planning in Himachal Pradesh. The findings show that, fertility continues to decline in HP, according to the National Family Health (NFHS) survey results and results from other data sources as well. The TFR declined from 2.97 children per woman at the time of NFHS-I (1992-93) to 2.14 children during NFHS-II (1998-99), which is very close to the replacement level of fertility (approximately 2.1 children per woman) and happens to be one of the lowest among other states in India (except Goa, Kerala and Karnataka). Apart from the TFR, other indicators of fertility like Total Marital Fertility Rates (TMFR), Gross Reproduction Rate (GRR), birth order, birth interval etc. also substantiates the lower level of fertility in HP. Efforts to encourage the trend towards lower fertility might usefully focus on groups within the population that have higher fertility levels than average; e.g. illiterate women, women from households with a low standard of living etc.

Women may have large families because they want many children or they may prefer small families but, for a variety of reasons may have more children than they actually want. For 8.9% of births over the three years preceding the NFHS-II survey, mothers did not want the pregnancy at all. If unwanted births could be eliminated, the fertility level in HP would have come below the replacement level of fertility. Although, 87.5% women want at least one son and 79.4% want at least one daughter; a strong preference for sons is indicated by the fact that 62% of women who have no daughters want no more children, whereas only 20% of women who have no sons want no more children. Interestingly, according to NFHS-II, the incidence of spontaneous abortions in HP (4.5%) is slightly higher than that of India (4.4%) and the incidence of induced abortions is slightly lower in HP (1.6%) than in India (1.7%).

Regarding family planning, findings show that if women in HP are not using family planning, it is not due to lack of knowledge. Knowledge of contraception is universal. But, still there remains a sizeable gap between knowledge and use. According to NFHS-II, 67.7% of currently married women are using some method of contraception compared to the national average of 48.2%. It is also the fact that, the contraceptive prevalence rate is higher in HP than in any other state. Female sterilization is by far the most popular method (45.1%), which is six times more than the current use of male sterilization (7.3%) and it has been increasing substantially over the years. Nonetheless it is notable that HP has the higher rate

of male sterilization than any state in the country. There are notable variations in contraceptive prevalence among various socioeconomic groups. It is much higher for urban women, less-educated women and women with at least two children who have one or more sons.

Currently married women who are not using any method of contraception but who do not want any more children or want to wait two or more years before having another child are defined as having an unmet need for family planning. In HP, unmet need is highest for young women, who have a strong interest in spacing their births. Notably, women with one living child also have a high unmet need, primarily due to the need for spacing. According to NFHS-II, in HP current family planning programmes are meeting 88.8% of the family planning need, which is quite high as compared to other states of the country but still the findings underscore the need for strategies that provide spacing as well as terminal contraceptive methods in order to meet the changing needs of women over their lifestyle.

Television, wall paintings or hoardings and the radio are the primary sources of family planning messages. Again, 92% of women who use modern contraception use the public medical facility and only 6% use the private medical facility. Public medical facilities are more commonly used both in urban and rural areas. Again, regarding the findings of the quality of family planning services provided by the Government of HP, it can be observed that the success rate to motivate people for using different methods of contraception and also informing them about various side-effects regarding each method is not at all satisfactory.

Section-5 deals with health problems in HP. In most countries, male death rates are higher than female death rates at nearly all ages. South Asia generally has been an exception in this respect, with higher death rates for females over much of the age span. In Himachal Pradesh, however, according to NFHS-II, death rates are higher for males than for females in all age groups. In contrast, according to the SRS data males and females have similar death rates from age 0-49. Regarding the morbidity profile of the state, it can be observed that the prevalence of malaria, asthma, jaundice, Tuberculosis etc is quite low and relatively more males are affected by these diseases than females. NSSO, 52nd Round data shows that both in urban and rural areas, females suffer more due to short-term ailments than males, whereas, males suffer more from long-term ailments. Although declining significantly over time, overall prevalence of RTI/STD is quite high in HP and the prevalence is more on women; which calls for intensive efforts in managing the diseases through syndromic management at all levels. Again, less than two-thirds (60.9%) of women in HP have even heard of HIV/AIDS. Although government efforts to promote HIV/AIDS awareness generation through electronic and other mass media has achieved a little success, but lot more is to be done in this area, especially through increasing emphasis on promotional activities by the government health workers. Children generally suffer from Acute Respiratory Infections, fever and diarrhoea, where no

significant gender difference can be observed. Interestingly, among mothers in HP, knowledge of Diarrhoea care is quite high; but only a low proportion of them can actually diagnose the occurrence of diarrhoea.

In the same section we can see that, although HP has not yet achieved full immunization coverage for children, it has made tremendous strides over the previous years. The coverage of all vaccinations has improved considerably; however one reason why full immunization coverage is not as high as it might be is that dropout rates for the series of DPT and polio vaccinations remain a problem. However, in HP 83% of children of age 12-23 months are fully vaccinated. Here, gender bias is clearly visible by the fact that more of the male children (87%) get all vaccinations than that of the female children (79%). At the end of the same section some other sources causing health problems are discussed; such as, environmental health problems, occupational health problems etc, where gender disaggregated data are not available. Here, we must mention one important finding that, according to NFHS-II, almost one-fourth of ever-married women in HP believe that the beating of wives by husbands is justified under some circumstances and 5.8% has been beaten or physically mistreated since age 15.

Poor nutrition remains a serious problem in HP. **Section-6** deals with nutrition and prevalence of anaemia in HP. Here, we can observe that, undernutrition is much higher in rural areas than in urban areas and is particularly high among women and children from disadvantaged socioeconomic groups. According to NFHS-II, as high as 29.7% of women in HP is chronic energy deficient (whose Body Mass Index is less than 18.5) which indicates an alarming extent of malnutrition and the problem is particularly serious for younger women. Children are more likely to be undernourished if their mothers are also undernourished. In HP 43.6% of children are *underweight*, 41.3% are *stunted* and 16.9% are *wasted*. The incidence of wasting is higher in HP with respect to India. Interestingly, boys are more likely to be malnourished than girls regarding these three types of measures of nutritional deficiency. Iron and Vitamin-A deficiency is prevalent in the entire population, especially among women and children. Overall, 40.5% of women and 69.9% of children of age 6-35 months are anaemic. Prevalence of both undernutrition and anaemia in children is visibly affected by the prevalence of the same in their mothers.

Promotion of maternal and child health has been one of the most important components of the reproductive and child health programme of the government of India. **Section-7** deals with maternal and reproductive health in HP. One of the goals is that for each pregnant woman to receive at least three ante-natal check-ups, plus two tetanus toxoid injections and a full course of iron and folic acid supplementation. Mothers of 86.8% of the children born in the three years preceding the NFHS-II survey received at least one ante-natal check-up and 60.9% received the recommended number of at least three check-ups. Again, 66.2% of women received at least two tetanus toxoid injections 85.6% received

full course of iron and folic acid supplementation. These rates are quite high with respect to the corresponding rates of India. Women in the disadvantaged socioeconomic groups, in particular, illiterate women, and women with a low standard of living are generally observed to be less covered by each of the three recommended types of ante-natal care as compared to other groups.

The reproductive and child health programme encourages women to deliver in a medical facility or if at home with assistant from a trained health professional and to receive at least three check-ups after delivery. According to NFHS-II only 28.9% of births in HP were delivered in a medical facility irrespective of it being public or private. Post-partum check-ups are not common for non-institutional births in HP. Only 21% of births that took place outside a medical facility were followed by a post-partum check-up within two months of delivery. Overall the findings show that health services during pregnancy are reaching a large majority of women in HP; however most women are not receiving health services during delivery and in the post-partum period. Prevalence of reproductive health problems (including abnormal vaginal discharge, symptoms of a urinary tract infection and pain and bleeding associated to intercourse) among currently married women in HP is quite high (33.7%). Among them, only 53.5% have sought any proper advice or treatment. These results suggest a need to expand reproductive health services, as well as information programmes that encourage women to discuss their problems with a health care provider.

Provision of basic health care facilities is universally acknowledged to be a state responsibility. **Section-8** deals with the health infrastructure prevailing in the state of HP. This section deals with the matter of delivery of health services from different angles; such as, availability of health facilities both in the public sector and in the private sector, situations for modern system of medicine and Indian system of medicine, infrastructure for training of medical personnel, distance from nearest health facility, staff position in medical facilities, buildings for medical facilities, state finance for medical and public health, some important government policies to eradicate certain diseases, rates of utilization of the medical resources by the people, some limiting factors to provide a proper health delivery system etc. Almost the entire section does not have any gender specific data. This section substantiates the fact, that the government of HP has been unable to fulfill the national norms regarding the coverage of medical institution, especially in the rural areas. The overall picture demonstrates that people of the state of HP heavily depend on the health care provisions provided by the state government and presence of private agencies still remains quite low.

Finally, in **Section-9**, we conclude by saying that, although there are differences of opinion on what should be the nature and extent of state provision of health care for all, and significant variations in the public-private division of costs and responsibilities exist across nations, there is hardly any difference of opinion on the issue that primary health care is a public good and that there should be public provision for it. It is a well-known fact that in India, especially in rural areas,

health delivery systems are far from adequate. But, in spite of difficult hilly terrain and limited resources the state of HP has been attempting to solve the problem of accessibility by establishing and locating health institutions as close to the people as possible. Nevertheless there is much scope for improvements. Experts believe that a structural re-orientation may be necessary to make the system more responsive to the needs of vulnerable sections of society, especially women and children.

II. Facts for Himachal Pradesh & India at a Glance, 1998-99

Facts		Himachal Pradesh	India
Percent of females	<i>Literates</i> (age 6+)	68.7	51.4
	<i>Attending school</i> (age 6-14)	97.3	73.7
Percent of ever married women age 15-49 who are <i>regularly exposed to any media</i>		83.7	59.7
Percent of households	<i>With electricity</i>	97.2	60.1
	<i>With Drinking water piped or from hand pump</i>	77.4	77.9
	<i>With toilet/latrine facility</i>	27.0	36.0
	<i>Using adequately iodized salt</i> ¹	90.5	49.3
Percent of women <i>involved in decisions about own health care</i>		80.8	51.6
Percent of women age 20-24 <i>married by exact age 18</i>		10.7	50.0
<i>Total fertility rate</i> ²		2.14	2.85
<i>Wanted total fertility rate</i> ³		1.50	2.13
<i>Difference between total fertility rate and wanted total fertility rate</i>		0.64	0.72
Percent of currently married woman using	<i>Any contraceptive method</i>	67.7	48.2
	<i>Sterilization</i> ⁴	52.4	36.0
<i>Unmet need for family planning</i> ⁵	<i>For spacing</i>	3.6	8.3
	<i>For limiting</i>	4.9	7.5
	<i>Total</i>	8.5	15.8
Percent of users of modern contraceptive methods who were told about side effects or other problems with method ⁶	<i>Sterilization</i>	35.8	21.9
	<i>Other modern method</i>	23.0	20.6
Percent of currently married women who received follow-up ⁷ for	<i>Sterilization</i>	97.8	74.6
	<i>Other modern method</i>	25.2	39.9

(continued)

Facts		Himachal Pradesh	India
Infant mortality rate ⁸		34.4	67.6
Under five mortality rate ⁸		42.4	94.9
For births in the three years preceding the NFHS-II survey ⁹ , percent of	Mothers receiving at least one antenatal check-up	86.8	65.4
	Mothers receiving two or more tetanus toxoid injections	66.2	66.8
	Mothers receiving iron and folic acid tablets or syrup	85.6	57.6
	Deliveries in medical institutions	28.9	33.6
	Deliveries assisted by a health professional	40.2	42.3
Percent of children	Age 12-23 months who have received all vaccinations ¹⁰	83.4	42.0
	Age 12-35 months who have received at least one dose of Vitamin A	71.1	29.7
	Age 0-3 months exclusively breast-fed	17.5	55.2
Percent of children	Age 6-9 months receiving breast milk solid/mushy food	61.3	33.5
	Age 1-35 months with diarrhoea who received ORS ¹¹	45.6	26.8
	Age 6-35 months with any anaemia	69.9	74.3
Percent of children under age three years ¹²	Underweight	43.6	47.0
	Stunted	41.3	45.5
	wasted	16.9	15.5
Percent of women with BMI ¹³ below 18.5 kg/m²		29.7	35.8
Percent of women age 15-49 with any anaemia		40.5	51.8
Percent of women reporting a reproductive health problem ¹⁴		33.7	39.2
Percent of women age 15-49 who have heard of AIDS		60.9	40.3

Note : ¹ Cooking salt that has an iodine content of at least 15 parts per million (ppm)

² Based on births to women age 15-49 during the three years preceding the NFHS-II survey

- ³ Calculated in the same way as TFR, except that unwanted births are excluded from the numerators of the age-specific fertility rates on which the TFR is based.
- ⁴ Female or male sterilization
- ⁵ Among currently married women age 15-49
- ⁶ By a health or family planning worker at the time of accepting the method
- ⁷ After accepting the current method
- ⁸ Per 1000 live births for the five years preceding the survey
- ⁹ Includes only the two most recent births
- ¹⁰ BCG, measles and three doses each of DPT and polio vaccines
- ¹¹ Oral Rehydration Salt
- ¹² Underweight assessed by weight-for-age, stunting assessed by height-for-age and wasting assessed by weight-for-height; undernourished children are those who lie more than 2 standard deviations below the median of the International Reference Population, recommended by the World Health Organization
- ¹³ Body Mass Index
- ¹⁴ Currently married women with abnormal vaginal discharge, symptoms of a urinary tract infection, painful intercourse or bleeding after intercourse.

Source: NFHS-II (1998-99); Final Report for India

1. INTRODUCTION

Gender roles and behavior are generally determined by the socio-cultural environment that individuals inhabit. In traditional societies, like India, there exist inherent biases against women that lead to stereotyping of roles and imposing unreasonable restrictions on choices available to women. Patriarchal modes of social functioning here result in neglect of physical, psychological and physiological needs of women – particularly in terms of nutritional adequacies and health concerns. However, over the last two decades there has been growing international recognition that developing countries that have made remarkable social progress have done so by promoting health, literacy and economic well being of women by facilitating their participation in the decision making apparatus. Developmental literature now accepts that the social problem of gender equality can be addressed in economic-political terms as well. A significant outcome of such thinking was the world conference on women in Beijing in 1995. It endorsed a position that voluntary and parastatal agencies can contribute by carrying out affirmative action programmes within developmental policies that target vulnerable sections – particularly women and children. For example in India this target group comprises 67.7% of the population and policy analyses envision the possibility of higher social rate of return out of investment on them. Now, health indicators constitute one of the most significant parameters of human development and need for public provisioning of basic health care facilities is almost universally acknowledged – though the optimal degree of cost and responsibility sharing between private and public agencies is open to debate. Now, inadequacy of health care provisioning in developing countries only reinforces the vulnerability of women, children and the underprivileged. Therefore, developmental questions that probe into health care systems must also emphasize on what is happening to such vulnerable sections, especially women. The issues of health, gender and development are thus inextricably linked. For example, both in terms of HDI and GDI, as calculated by UNDP, India rank in the bottom third out of 140 odd countries. It is necessary therefore, that related issues of deprivation are focused on, in an integrated manner.

Over the years, India has undertaken a systematic approach to mainstreaming women in areas such as education, health and community development. Way back in 1983, the National Health Policy (NHP) which pledged 'Health for all by 2000 AD' under the Alma Ata Declaration (1978)¹ had underlined the need for establishing effective and efficient health care system for all citizens, especially vulnerable groups like women. A distinct shift away from disease and curative oriented western models to comprehensive primary health care, it argued, would get the system closer to the people and the needy vulnerable sections.

¹ A global initiative towards health-related research and action was taken at an international conference on Primary Health Care held in Alma Ata (in the erstwhile USSR) in 1978. In its declaration, the conference spelt out the goal of the signatory nations which was to ensure "Health for All by the Year 2000" with primary health care as its top priority.

However, the set target could not be achieved due to the gross underperformance of the government run health care facilities. These facilities have suffered due to inadequate equipment, drugs and other supplies and very often the necessary staff is not sanctioned, posted or present. Implementation goals therefore remained far below the target due to infeasible financial planning, inefficient organizational structure and delivery system, despite deficiencies in the actual performance of the health sector, the official shift towards centering focus on women as a key to development continued, and particularly sped up in the post-Beijing conference era. For example, the 9th five-year plan went a significant step ahead by devising the Women's Component Plan (WCP) which earmarks at least 30% of all development funds for women's schemes – and has thus been hailed as the most gender sensitive plan document. Ever since, budgetary allocations towards women-oriented schemes have increased. Then, the Economic Survey of India, 2000, for the first time since independence referred to gender inequality as an issue. Further more, India is presently one of the 6 commonwealth countries, which are analyzing the gender impact of national budgets. NIPFP's interim report on Gender Budgeting in 2000 recommended special earmarking of funds for women's development and empowerment, over and above increased budgetary allocation. Parallel to such official action, inspiring initiatives taken by the voluntary sector has also helped focus attention towards the question of gender equality. Getting back to the issue of health and gender, it is important to note the commitments made by the Govt. of India (GOI) at the Beijing conference includes inter alia, improved health care schemes for women and children. The question now is therefore, how to translate that commitment into demonstrable action. India being a vast country shows wide variations in female health attainment across the country. For example, female health data in Kerala and M.P. show marked differences. The right channels of action thus need to be examined at sub-status levels also. While demand for health care keeps rising rapidly the Government is not able to allocate enough funds to the sector because of resource constraints and revenue & fiscal deficits. India spends a lower proportion (1.3%) of its GDP on health care than Korea (2.7%), China (2.1%) and Sri Lanka (1.8%) [HDR's]. In presence of resource constraints Government had to encourage the private sector to finance and provide quality health services. However, in absence of proper regulatory mechanisms, domestic and international experience shows that private health sector grows exploitable in nature and exacerbates the marginalization of the vast economically disadvantaged majority. Thus, NGOs stress on increased social sector spending with gender disaggregated fund allocation. Within this backdrop of government's resource shortages, low spending on health care and official emphasis on women's empowerment as a primary step towards development, the question of gender and health requires a critical analysis – in terms of policy, structure of the system, field evidences, implementation gaps, fund flows and recommendatory perspectives.

1.1 A Brief Socioeconomic and Demographic Account of Himachal Pradesh

Etymologically, the word *Himachal* means the mountain of snow (*Him* = snow and *Achal* = mountain). The compact region now known, as Himachal Pradesh was in fact earlier divided into 30 odd principalities called the Punjab Hill states; which gradually gained the status of a full fledged state of the Indian Union from 25th January, 1971. The state is located on the north west of the country. The altitude of the state ranges from 350 metres to 6975 metres above main sea level. The state has an area of 55673 sq. km. It constitutes 1.69 percent of India's area and 10.54 % of the Himalayan land mass. The average rainfall varies between 500 mm in Lahaul & Spiti to more than 1800 mm in Dharamshala. Himachal Pradesh is divided into 3 zones, 12 districts, 51 sub-divisions, 72 blocks, 2922 Gram-Panchayats having 16997 villages.

Himachal Pradesh, after getting the status of a full-fledged state, started making concerted efforts to improve the economic conditions of the state. The state has made significant efforts in developing an educational and health infrastructure and transport and communication networks. These advances have had a positive impact on the socioeconomic and demographic status of the state.

Although the economy of Himachal Pradesh is dominated by a growing agricultural sector, other sectors of the economy are growing much faster. Thus, the relative contribution of the agricultural sector to the net state domestic product (NSDP) declined from 37% in 1980-81 to 28% in 1995-96. By contrast, the manufacturing sector, which contributed 5% to the state domestic product in 1980-81, increased its share substantially to 12% in 1995-96. The share of other sectors increased only marginally from 58% in 1980-81 to 60% in 1995-96 (EPW Research Foundation, 1998). At the time of 1991 Census, the agricultural sector provided livelihood to 57% of the working population of the state, as cultivators and agricultural labourers (Office of the Registrar General and Census Commissioner, 1992).

Only about 11% of the total geographical area is suitable for crop production in Himachal Pradesh. Forests and pastures account for 62% of the total geographical area of the state. Both, *kharif* and *rabi* crops are grown here and its major agricultural produce consists of maize, wheat, rice, potatoes, vegetables and fruits. Agricultural production is 16 lakh tons per year. Moreover, the small size of landholdings is becoming an increasing problem of the state. The increasing population has accelerated fragmentation of holdings, so that the average size of landholdings per household has fallen from the already low 1.5 hectares in 1970 to 1.2 hectares in 1990. Again, only one fifth of the land is irrigated. However, due to the persistent efforts of the farmers combined with technical and financial support from the government, the farm economy of the state has adapted by diversifying into activities outside the traditional production of cereals and pulses for subsistence. The main emerging sub-sector within the

agricultural sector is horticulture, which produces high value crops namely fruits, vegetables and flowers. The volume of production in horticulture sector is 4.36 lakh tons per year. Besides, the extensive forests in the state are a good source of revenue (contributing about 6% to the state domestic product) and it also provides employment to about 4% of the labour force (Economic and Statistical Department of Himachal Pradesh, 1998).

The relatively rapid development of Himachal Pradesh is attributable to three areas of comparative advantage. First, its hilly terrain with sufficient water has helped the state to become a surplus hydroelectric power generating state. The state is almost entirely electrified (98% households) with electricity provided to its villages at relatively cheaper rates. In addition, it has surplus electric power that it sells to other states. Second, the semi-temperate cool climate of the state is suitable for production of temperate fruits and off-season vegetables, which are sold at premium prices in the plains in the seasons when they are not locally available. For example, apple cultivation is of special significance for the economic emancipation of the people living in the higher hills of the state. With stone and citrus fruits growing in sub-tropical and sub-humid areas, the state is now known as *Fruit Bowl of India*. Third, because of topographical and other factors it has a relatively dust-free climate which is suitable for producing electronic industrial goods. Nonetheless, the state continues to be industrially backward with its full potential, yet to be realized. Besides, given the scenic beauty of the state, tourism is also an important sector of the economy. The total number of tourists who visited Himachal Pradesh in 1998 was 4.3 million, which includes 75000 tourists from other countries (Economic and Statistical Department of Himachal Pradesh, 1998).

Due to large population and hostile geographic and weather conditions, the state is still backward and poor in terms of economy. According to per capita income, Himachal Pradesh ranks 11th among the Indian states. The average annual per capita net domestic product in the state increased from Rs. 1704 in 1980-81 to Rs. 2518 in 1995-96 at constant 1980-81 prices or Rs. 8747 at current prices (EPW Research Foundation, 1998).

Himachal Pradesh has a population of 6,077,248 (2001 census) which is 0.59 percent of India's population. Among this 3,085,256 (50.77%) are males and 2,991,992 (49.23%) are females. Average density of population is 109 persons per sq. km and ranges from 2 in district Lahaul & Spiti and 330 in district Hamirpur. The population of the state has grown at the rate of 17.53 per cent during the decade 1991-2001 which is 3.81 per cent less than the national growth rate during the same decade and 3.26 per cent less than that of its own growth rate during the previous decade. Solan district has recorded the highest rate (+30.64) and Lahaul & Spiti, the lowest (+6.17). The relatively low population

density in the state has implications for suitably locating health centres accessible to the people.

Except for a few towns, Himachal Pradesh is not particularly urbanized, although the share of urban population has been growing slowly. The majority of population is rural (90.21%). Majority of villages is small dwellings with population less than 500 (81.5%). Only 5 villages have population more than 5000 persons. Again, Himachal Pradesh has a large area under tribal belt, which covers two districts of Lahaul & Spiti and Kinnaur, and Bharmaur and Pangi Development Blocks of Chamba Districts. Geographically, about half the area of the state is covered under tribal belt whereas the tribal population is 4.2 % of the total population of the state (1991 Census).

Box 1: Some More Interesting Information about Himachal Pradesh

- *Out of 16997 villages in the state, only 7522 (44.5%) are directly linked with the all weather roads. Total motorable road in the state is 20270 kms out of which 7394 kms is metalled. About 9000 villages have connectivity. Road length, in absolute terms, is 34 kms per100 sq.kms. Rail communication is restricted to a few kms only. The telecommunication system in the state is good and has eased the problem of communication to a large extent. (Department of Health and Family Welfare, Himachal Health Vision 2020)*
- *In HP only 28.7% of households are living in a pucca house (compared to 32% in India), only 26.7% have a toilet or latrine facility (compared to 35.9% in India) and 64% are using biomass fuel (NFHS-II).*
- *Out of total 45367 habitations, 26730 (58.92%) are fully and 14047 (30.96%) are partly covered with drinking water supply. The position of rural water supply has further improved with the installation of a large number of hand pumps on the road heads. (Department of Health and Family Welfare, Himachal Health Vision 2020)*
- *Villages with railway station within 5 kms are 6.4%. Villages with bus stop within 5 kms are 45.6%. Villages with post office within 2 kms are 52.5%. Villages with primary school within 2 kms are 83.7%. Villages with basic health services within 2 kms are 6.7%. (Status of RCH in HP, A report prepared by R.N. Mahanta, State Programme Officer, Dept. of H and FW, HP, May 2000)*
- *83.7% of ever married women age 15-49 in HP is regularly exposed to any of the media (television. Radio, newspaper, magazines, cinema/theatre etc) as compared to only 59.7% in India (NFHS-II).*
- *At the household level, 80.1% of ever married women in HP have access to money and 80.8% is involved in decision-making on their own health care (NFHS-II).*

Source: NFHS-II

2. STATUS OF HEALTH IN HIMACHAL PRADESH AT A GLANCE

Available data from different sources clearly shows that, regarding health for both males and females, Himachal Pradesh has already achieved a better status among other states and also with respect to the performance of the whole of India. Nevertheless, there is much scope for improvements. Significant gaps in several health status indicators between urban and rural areas in many districts of the state suggest persistence of strong regional imbalances. Difficult terrain and poor infrastructure, high rates of migration, shortages of specialist medical personnel etc. are some of the factors that aggravate the problem. The following sub-sections provide a comparative picture of some of the standard health indicators and the morbidity patterns in the state as compared to those in the country as a whole.

2.1 Some Important Health Indicators of the State

A proper assessment of the status of health in a region should be done in terms of some indicators; not only because it helps to understand the situation clearly, but also it helps to study the trends over time and facilitates comparison. Mostly, demographic indicators are used for this purpose because they generally provide a reflection of health status in general. Along with these, one should take into account some indicators which might have the potential to influence the condition of health indirectly, e.g. indicators relating to economic situation, level of literacy etc. This sub-section presents some such indicators for HP, such as *Life Expectancy at Birth, Crude Death Rate, Infant Mortality Rate, Crude Birth Rate, General Fertility Rate; Population Below Sex Ratio, Poverty Line and Literacy Rate*

Life Expectancy at Birth (LEB), one of the most important indicators of health has been 65.1 years in Himachal Pradesh for the period of 1993-97, which is higher than the national average of 61.1 years. In Himachal Pradesh LEB for both males and females have risen steadily from 1970 onwards and is always been much higher as compared to that of the whole country. LEB for the females is steadily being more than the males from 1981 onwards, which can be seen from the following Table-2.1.1.

Table 2.1.1: Life Expectancy at Birth: HP & India by sex, over time

Period	Himachal Pradesh		India	
	Male	Female	Male	Female
1970-75	54.8	50.9	50.5	49.0
1976-80	58.1	54.9	52.5	52.1
1981-85	58.5	62.9	55.9	55.9
1986-90	62.4	62.8	57.7	58.1
1991-95	N.A	N.A	62.4	62.8
1993-97	64.6	65.2	60.4	61.8

Source: Family Welfare Programme Year Book, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Crude Death Rate (CDR), has been declining gradually since 1971. It was 15.6 in 1971 and has declined to 13.2 in 1975, 10.4 in 1980, 8.5 in 1990 and 7.3 in 1999 (SRS rates), which has always been lesser than that of the rates for India. From the same source, for the year 1999, CDR for both males and females in HP (8.2 and 6.5 respectively) are lower than the respective figures for India (9.0 and 8.3 respectively). At the same time, it can be clearly seen that females have much lower CDR, both in HP and India, but in HP females are in a relatively better situation than in India (Table-A.1). In Table-2.1.2 below it can be clearly seen that the rural-urban differences of CDR for HP has also gradually declined over time.

Table 2.1.2: CDR in HP & India (Rural, Urban and combined) over time

Years	Himachal Pradesh			India		
	Rural	Urban	Combined	Rural	Urban	Combined
1971	16.2	7.3	15.6	16.4	9.7	14.8
1975	13.6	7.4	13.2	17.3	10.2	15.9
1980	10.6	6.1	10.4	13.7	7.9	12.6
1990	8.6	7.0	8.5	10.5	6.8	9.7
1999	7.5	5.2	7.3	9.4	6.3	8.7

Source: Family Welfare Programme Year Book 1999-2000; Demographic and Evaluation Cell; Health and Family Welfare Dept. HP

Infant Mortality Rate (IMR), of the state, which was 118 in 1971 as against 129 of the country, has declined to 54.1 in 1998 (SRS). This figure is again below the national average of 70. In HP IMR for females (51.1) is significantly lower than the IMR of the males (56.9), whereas, for the country as a whole IMR for females (70.8) is higher than the IMR for males (69.8), as could be seen from Table-A.1. Regarding the rural-urban scene, both for HP & India, IMR is significantly higher in the rural areas than in the urban areas for both, males and females. It is

interesting to note that, IMR for females is lower than males, in both rural and urban areas, for both, HP & India in the disaggregated SRS data (Table-2.1.3).

Table 2.1.3: IMR by sex for HP & India: Rural-Urban Distribution (1999)

	Rural			Urban		
	Total	Male	Female	Total	Male	Female
HP	55.0	58.0	51.9	37.0	38.8	34.9
India	75.4	75.6	75.2	43.8	47.4	39.7

Note: In the same publication of SRS, in pp-1 we get that total rural IMR is 63 and total urban IMR is 38, which is contradictory to the data provided in pp-5, which we have taken because of the male-female break-up

Source: SRS Bulletin, April 2001, pp-5 (the data is for the year 1999)

In Himachal Pradesh, at the district level (Table-A.2), IMR and CMR (Child Mortality Rates) of males as well as females are highest at Kinnaur and IMR for both males and females are lowest in Lahaul & Spiti district. CMR of males is lowest in Bilaspur district whereas the same for females is lowest at Hamirpur and overall the CMR is lowest in Hamirpur district (*Census, 1991*).

Crude Birth Rate (CBR), has considerably declined in HP from 37.3 in 1971 as against 36.9 of the country to 23.8, which is interestingly much lower than the CBR for India (26.1), as per the SRS data for 1999. In both HP and India, it is evident from Table-2.1.4 below that; CBR in the rural areas is much higher than the same in the urban areas and slightly higher than the same for the combined figures. This clearly indicates the lack of family planning in the rural areas of both HP & India.

Table 2.1.4: CBR over time for HP & India; Rural-Urban Distribution (SRS figures)

Years	Himachal Pradesh			India		
	Rural	Urban	Combined	Rural	Urban	Combined
1971	38.2	23.9	37.3	38.9	30.1	36.9
1981	32.4	17.3	31.5	35.6	27.0	33.9
1991	29.2	18.6	28.5	30.9	24.3	29.5
1999	24.3	16.8	23.8	27.6	20.8	26.1

Source: Family Welfare Programme Yearbook 1999-2000; Demographic and Evaluation Cell; Health and Family Welfare Dept. HP

According to Census-1991 CBR is highest at Chamba (35.18) and lowest at Hamirpur (25.36), as could be seen in Table-A.3

The recorded rural-urban differences for both CDR and CBR noted above might appear somewhat strange, but this could very well be a reflection of the fact that

urban birth and death rates are computed mostly on the basis of hospital records, and hence are much better estimates than those in rural areas. In rural Himachal, because of very low incidence of hospitalization, rural rates are almost entirely estimated on the basis of reported incidence of births and deaths, generally done by the *Gram Panchayat Avam Vikas Adhikari*, who is the Local Registrar under the Block Development Officer. There is every likelihood of being serious downward bias in these estimates (*Health in Himachal Pradesh: A Component of Human Development, ISST, August, 2000*).

General Fertility Rate (GFR), were 129.2 in 1981 in HP as against 140.9 for India. Since then it gradually declined to 110.9 in 1991 and finally 81.3 in 1997. The corresponding figures for India are 119.2 and 109.9 respectively. For both HP and India rural GFR has been consistently much higher than urban GFR as well as the combined GFR, as shown in Table-2.1.5.

Table 2.1.5: General Fertility Rates, HP & India (SRS)

Year	Himachal Pradesh			India		
	Rural	Urban	Combined	Rural	Urban	Combined
1981	133.3	69.5	129.2	149.4	107.2	140.9
1991	114.0	70.8	110.9	127.2	93.3	119.2
1997	82.9	61.4	81.3	119.5	80.7	109.9

Source: *Family Welfare Programme Year Book 1999-2000; Demographic and Evaluation Cell; Health and Family Welfare Dept. HP*

Sex Ratio in HP, as per 2001 census is 970 females per 1000 males, as against 976 females per 1000 males in 1991 census. But it is still better than the sex ratio of the country, which is 933 females per 1000 males for 2001 census (Table-A.4). At the district level Hamirpur district has the highest sex ratio (1102females/1000 males) and Lahaul & Spiti district has the lowest sex ratio (804 females/1000 males), as per 2001 census (Table-A.5). NFHS-II has estimated the sex ratio for the state at 1013 in 1998-99. In contrast to the country scenario, the sex ratio in the state shows a steady increasing trend over time (excepting a few fluctuations in some years).

Despite the relatively high sex ratio of the total population in HP, the sex ratio of the 0-6 age group population is relatively low; 897 according to Census 2001 and 919 according to NFHS-II. Again, strikingly the sex ratio in this age group has observed a 54-point fall from 951 since the previous census (1991). Given that the population in this age group is unlikely to be affected by sex-selective migration; other possible reasons for the low sex ratio in this age group need exploration. The possible reasons include excess female mortality and sex selective abortions. While the former affects the relative probability of survival once born, the later affects the sex ratio at birth. NFHS-II has tried to prove (although on the basis of a small number of observation) that sex selective

abortion is more likely to be the cause of such low sex ratio of the 0-6 year's population.

Population below Poverty Line: A survey conducted by the Economic & Statistics Department HP found in 1981 that 12.1 percent of urban households were below poverty line. The poverty line was calculated at Rs. 1200 per annum. The two surveys conducted in 1994 and 1998-99 by Rural Development Department, HP revealed that the percentages of rural households that are below poverty line (BPL) are 26.09 and 27.59 respectively. This shows that rural poverty has increased in HP in the 1990s. On the basis of survey for poverty (1998-99), of the total 1036996 households in the rural areas of the state, 286112 are below the poverty line, which is 27.59% of the total (Table-2.1.6). Again, as per the estimates provided by the Planning Commission for 1993-94, 30% of the rural population and 9% of the urban population in Himachal Pradesh was living below the poverty line (*Central Statistical Organization, 1999*).

Table 2.1.6: Rural Poverty Situation of HP

Year	Total Households	BPL Households	% Households, BPL
1994	969980	258859	26.69
1998-99	1036996	286112	27.59

Source: Rural Development Department (Health Division)

Literacy Rates: The literacy rate for HP, according to 2001 census is 77.13 percent (86.02% for males and 68.08% for females) which has increased by 13.27 percent since 1991 census and is above the national level by 11.75 percent as per 2001 census. The census data (see Table-A.6) also shows that both male and female literacy rates in HP are significantly higher than those of the national level. At the same time it is clear that both in HP and in India female literacy rates are not only significantly lower than male literacy rates, but also significantly lower than the respective total literacy rates. At the district level, Hamirpur district has the highest literacy rate (83.16 %) and Chamba district has the lowest literacy rate (63.73%) for both males and females, as per 2001 census.

The gap between male and female literacy rates for both HP & India has declined over the previous census (1991) and the decline in this gap is much lower in HP than that of in India, as could be observed from Teble-2.1.7. Again, the decadal difference in literacy rates is much higher for females in HP than for India and also higher than the rates for males of both HP & India. These differences can be observed in the following Table-2.1.8.

Table 2.1.7: Gap between male and female literacy rates over the previous census in HP & India

State	Per cent difference between male and female literacy rates over the years	
	1991	2001
Himachal Pradesh	23.16	17.94
India	24.85	21.68

Source: Census 2001 and Census 1991

Table 2.1.8: Decadal difference in literacy rates by sex in HP and India

	Himachal Pradesh	India
Male	10.61	11.83
Female	15.82	15.00

Source: Census 2001

2.2 Other Health Related Indices for Himachal Pradesh

Now, it will be interesting to observe some other alternative health indices for Himachal Pradesh, namely, Human Development Index, Gender related Health Index and Reproductive Health Index, which are used all over the world. Available data for these indices (although a bit old) can be observed as follows:

Human Development Index (HDI): Human Development Index measures a country's or an area's achievement in the enhancement of the capabilities of human beings. Three indicators i.e. life expectancy at birth, educational attainment (literacy) and purchasing power capacity are used to construct HDI, and the magnitude of HDI ranges from 0- 100. According to UNFPA data for 1993, the HDI for HP is 50.63, which is quite higher than that of India (42.79), as could be seen from Table-2.2.1.

Table 2.2.1: Human Development index - India and HP , 1993

State	Life Expectancy (yrs)	Adult Literacy (%)	Middle school Enrolment (%)	Per capita SDP (Rs)	HDI
HP	63.6	50.9	100.0	5979	50.63
India	59.3	48.7	59.1	6255	42.79

Source: Towards Population and Development goals – UNFPA (as cited in, Health Vision 2020, Dept. Of Health and Family Welfare, Hp, Shimla)

Gender Related Health Index (GHI): GHI is a measure of the gender equality in a state in selected health and educational parameters (Life expectancy, IMR and educational attainments). According to UNFPA data for 1993, GHI for HP is 60.01, which is much higher than that of India (49.87), as could be seen from Table-2.2.2.

Table 2.2.2: Gender related Health Index - India and HP- 1993

State	Life Expectancy (yrs)		Adult Literacy %		Middle school Enrolment (%)		IMR		GHI
	M	F	M	F	M	F	M	F	
HP	63.6	63.6	64.4	35.5	15.9	85.6	72	53	60.01
India	59	59.7	62.4	33.9	69.6	47.9	73	75	49.87

Source: *Towards Population and Development Goals – UNFPA (as cited in, Health Vision 2020, Dept. Of Health and Family Welfare, Hp, Shimla)*

Reproductive Health Index (RHI): RHI includes 6 parameters relevant to maternal health. According to UNFPA data for 1993, RHI for HP is 50.94, which is again higher than that of India (42.21). Regarding RHI, Himachal Pradesh is the leading state in Northern India but it is far behind than Kerala with, RHI at 84.6, followed by Tamil Nadu with RHI at 63.6, as could be seen from Table-2.2.3.

Table 2.2.3: Reproductive Health Index - India and HP– 1993

State	TFR	IMR	% Birth of higher order (4+)	%Birth interval (36+)	% Medical attention at birth	Female Literacy %	RHI
HP	2.8	63	13.1	21	24.70	52.19	50.94
India	3.4	74	23.5	32	24.45	38.57	42.21

Source: *Towards Population and Development Goals – UNFPA (as cited in, Health Vision 2020, Dept. Of Health and Family Welfare, Hp, Shimla)*

3. FERTILITY AND REPRODUCTIVE PREFERENCES

The level of fertility in Himachal Pradesh happens to be one of the lowest among most of the states in India (except Goa, Kerala and Karnataka) and it is also significantly lower than that of the national average. Moreover, it continues to decline over time. In the first sub-section we try to substantiate this fact with the help of some fertility related indicators; such as, Age Specific Fertility Rate (ASFR), Total Fertility Rate (TFR), Age Specific Marital Fertility Rate (ASMFR),

Total Marital Fertility Rate (TMFR), Gross Reproduction Rate (GRR), Birth Order, Birth Intervals etc. In the next sub-section, we discuss some limiting factors of fertility and, in the last sub-section, the nature of reproductive preferences prevailing in HP is presented from different angles; such as, fertility preferences, ideal number of children, sex preference for children and fertility planning.

3.1 Some Important Indicators of Fertility

Age Specific Fertility Rate (ASFR) & Total Fertility Rate (TFR): The age specific fertility rates of Himachal Pradesh vary in different age groups. It is comparatively low in the age group of 15-19 years rises sharply in the age group of 20-24 years (in both rural and urban areas), where the fertility among women is at its peak. After 29 years of age the fertility among women comes down sharply and is almost negligible after 44 years of age. Although the ASFRs in rural areas are consistently higher than the corresponding rates below age 30, the contribution by older women particularly aged 35 years or older is marginal even in the rural areas. The corresponding ASFRs for India are higher than HP for all age groups, but the difference is most significant in the age group 15-19 years, as can be seen in the following Table-3.1.1.

Table 3.1.1: Current Fertility Age specific and total fertility rates (TFR) for HP & India according to NFHS-I and NFHS-II

			Age								
			15-19	20-24	25-29	30-34	35-39	40-44	45-49	TFR (15-49)	TFR (15-44)
NFHS-I	Total	HP	0.075	0.259	0.172	0.046	0.034	0.007	0.000	2.97	2.97
		India	0.116	0.231	0.170	0.097	0.044	0.01	0.005	3.39	3.36
NFHS-II	Total	HP	0.029	0.203	0.129	0.045	0.015	0.006	0.000	2.14	2.14
		India	0.107	0.210	0.143	0.069	0.028	0.008	0.003	2.85	2.84
	Rural	HP	0.030	0.210	0.131	0.044	0.014	0.006	0.000	2.18	2.18
		India	0.121	0.222	0.150	0.075	0.033	0.011	0.004	3.07	3.06
	Urban	HP	0.025	0.132	0.116	0.052	0.019	0.003	0.000	1.74	1.74
		India	0.068	0.179	0.127	0.057	0.018	0.003	0.001	2.27	2.27

Source: NFHS-I and NFHS-II

We also find from the same table that the NFHS-II estimate of the TFR for the state as a whole is 2.14 children per woman, which is the average number of children that would be born to a woman if she experienced current age-specific

fertility rates (for the 3 year period before the NFHS-II survey) as she lived through her reproductive years, age 15-49. The level of fertility is close to the replacement level. The NFHS-II estimate of TFR in HP is slightly lower than the SRS estimate for about the same period. The level of TFR estimated from the SRS was 2.4 in 1997, the mid-point of the 3 yr. period for the NFHS-II's TFR estimate. Under the age schedule of fertility estimated from the NFHS-II in HP, a rural woman would have on an average, 0.4 children more in her childbearing years than an urban woman. The level of fertility in urban areas is well below the replacement level (TFR-1.74) over the 6-year period, between NFHS-I and NFHS-II, the TFR decreased from 2.97 to 2.14, a decrease of 28 %. The fertility decline in rural areas (29%) is much steeper than the decline in urban areas (14%).

Census data reveals that the TFR of HP has reduced from 4.7 in 1981 to 3.6 in 1991. At the district level, the TFR is highest for 2 districts i.e. Chamba and Sirmour (4.5) and lowest in Hamirpur (3.0) as per Census 1991 (Table-A.7).

NFHS-II fertility estimates can also be compared with estimates from the Sample Registration System (SRS), which is maintained by the Office of the Registrar General, India. Since the NFHS-II rates refer to 1996-98, it is appropriate to compare them with the SRS estimates for the year 1997. For HP the NFHS-II estimate of TFR (2.14) is 0.25 children lower than the SRS estimate of 2.39 (Narasimhan et al. (1997)² compared NFHS-I and SRS estimates of fertility and concluded that both are probably underestimates. However, the SRS estimates are likely to be closer to the true level of fertility than the NFHS estimates (Ratherford et al., 2001)³.

Age Specific Marital Fertility Rate (ASMFR): The measures of fertility computed for married women of different age groups in HP shows that the fertility is at the maximum in the age groups 15-19 and 20-24 years for the years 1992, 1994, 1995 and 1996 (see Table-3.1.2). Thereafter fertility declines considerably with the increase in the age of married women. The estimated ASMFRs of HP for the years 1992, 1994, 1995 and 1996, and ASMFR of India for 1996 are as shown below. According to NFHS-II, in HP ASMFRs are always higher in urban areas than in rural areas, which is common in populations in which age at first cohabitation with husband is higher in urban areas than in rural areas, as is the in HP.

² Narasimhan, R.L., Robert D. Ratherford, Vinod Misra, Fred Arnold and T.K. Roy, 1997; Comparison of fertility estimates from India's Sample Registration System and Nation Family Health Survey. *National Family Health Survey Subject Reports No. 4*, Mumbai: International Institute for Population Sciences; and Honolulu: East-West Corner (as cited in NFHS-II)

³ Ratherford Robert D., and Vinod K. Misra . 2001. *Comparison of fertility trends estimated from India's Sample Registration System and India's first and second National Family Health Surveys*. Paper presented at the annual meeting of the population association of America, Washington D.C. , March 29-31 (as cited in NFHS-II)

Table 3.1.2: ASMFRs for HP & India

Age group of wife	1992	1994	1995	1996	
	HP	HP	HP	HP	India
15-19	359.0	276.1	333.3	263.0	208.5
20-24	362.1	368.9	350.9	339.2	300.1
25-29	192.5	200.0	192.2	180.6	204.0
30-34	63.7	69.3	62.2	47.6	119.0
35-39	29.0	22.9	21.9	20.2	60.9
40-44	7.5	7.4	7.6	5.5	31.4
45-49	3.8	0.0	1.6	0.0	11.9

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Total Marital Fertility Rate (TMFR): This is the cumulative value of ASMFRs at the end of reproductive period of women. It indicates the average number of children expected to be born per married women during the entire span of her reproductive period, if there is no change in the ASFRs and mortality rates. The combined TMFR has shown a decline from 5.7 in 1989 to 4.3 in 1996 for HP and it declined from 5.3 in 1989 to 4.7 in 1996 for India, as shown in the table-3.1.3. Except for 1996, TMFR for rural HP was always higher than urban HP. For India it is always higher in the rural areas than in the urban areas.

Table 3.1.3: TMFR of Himachal Pradesh and India

Year	Himachal Pradesh			India		
	Rural	Urban	Combined	Rural	Urban	Combined
1989	5.8	4.5	5.7	5.4	4.8	5.3
1991	5.2	4.6	5.2	5.2	4.7	5.1
1993	4.9	3.8	4.9	5.1	4.3	4.9
1994	5.2	4.0	4.7	5.1	4.3	4.9
1996	4.3	4.7	4.3	4.9	4.1	4.7

Source: Family Welfare Programme Year Book, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Gross Reproduction Rate (GRR): The cumulative value of ASFRs calculated on the basis of female births only at the end of reproductive period gives the Gross Reproduction Rate. This rate indicates the average number of female children that would have been born to a woman if she experiences her reproductive span of 15-49 years. The GRR of the state of HP has always been comparatively lower than that of India—for rural, urban and combined as shown in the Table-3.1.4.

Table 3.1.4: Gross Reproduction Rates of HP and India since 1981 (SRS)

Year	Himachal Pradesh			India		
	Rural	Urban	Combined	Rural	Urban	Combined
1981	2.1	1	2	2.3	1.6	2.2
1991	1.5	1	1.4	1.9	1.3	1.7
1997	1.2	0.8	1.1	1.7	1.1	1.6

Source: Family Welfare Programme Year Book, 1999-2000(Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Birth Order: The distribution of births by birth order is yet another way to view fertility. In Himachal Pradesh 35.8% of all births are first order births, 30.9% are second order births 19.3% are third order births and 14% are fourth order births according to NFHS-II. Compared to the all-India level in the HP the figures are higher for the 1st, 2nd and 3rd birth and not for the 4th birth, as shown in the Table-3.1.5. This again indicates a lower level of fertility in HP than in India.

Table 3.1.5: Percentage distribution of births during the 3 years preceding the NFHS-II survey by birth order in HP & India

State	Birth order			
	1	2	3	4
HP	35.8	30.9	19.3	14.0
India	29.0	25.8	17.7	27.5

Source: NFHS-II

Birth Intervals : A birth interval, defined as the length of time between two successive live births, indicates the pace of childbearing. Short birth intervals may adversely affect a mother's health & her children's chances of survival. Past research has shown that children born too close to a previous birth are at increased risk of dying, especially if the interval between the births is less than 24 months (Pandey et al, 1998;Govindasamy., 1993)⁴. According to NFHS-II, in Himachal Pradesh, 14.7% of births occur within 18 months of a previous birth and 31.9% of births occur after an interval of three years or more. The median closed birth interval in HP is 29.4 months which is lower than that of India (30.8 months), as can be seen from the following Table-3.1.6.

⁴ a)Pandey, Arvind, Minja Kim Choe, Norman Y. Luther, Damodar Sahu and Jagdish Chand, 1998. Infant and child mortality in India. *National Family Health Survey Subject Reports No. 11*, Mumbai: International Institute for Population Sciences; and Honolulu: East-West Corner, b) Govindasamy, Pavalavalli, M. Kathryn Stewart, Shea O, Rustein, J. Ties Boerma, and A. Elisabeth Sommerfelt, 1993. High risk births and maternity care. *DHS Comparative Studies No. 8*. Columbia, Maryland:Macro International. (as cited in NFHS-II)

Table 3.1.6: Percent distribution of births during the 5 years preceding the NFHS-II surveys by interval since previous birth in HP. & India

State	Months since previous birth						Median open birth interval	Median closed birth interval
	<12	12-17	18-23	24-35	36-47	48+		
HP	1.3	13.4	17.3	36.0	16.6	15.3	24.4	29.4
India	2.5	10.1	15.7	34.2	19.6	17.9	22.9	30.8

Source: NFHS-II, India.

Age at first and last birth: The ages at which women start and stop childbearing are important demographic determinants of fertility. A higher median age at first birth and a lower median age at last birth are indicators of lower fertility. With respect to India, HP has a higher median age at first birth and lower median age at last birth for women with at least one birth, which clearly indicates a lower level of fertility. Again, the difference between the median age at first birth and the median age at last birth provides a rough estimate of the typical reproductive age span. Clearly this difference for HP (8.2 years) is lower than the difference for the whole country (9.9 years), which is consistent with the lower level of fertility in HP (see Table-3.1.7)

Table 3.1.7: Median age at first birth and median age at last birth for women age 40-49 who have had at least one birth in HP & India, 1998-99

State	Median age at first birth for women with at least one birth (X)	Median age at last birth for women with at least one birth (Y)	Absolute Difference (X-Y)
HP	20.0	28.2	8.2
India	19.2	29.1	9.9

Note: In the table, the median age at first birth for any group is defined as the age by which half of all women in the group have had a first birth, rather than the age by which half of all mothers in the group have had a first birth.

Source; NFHS-II (India)

3.2 Some Limiting Factors of Fertility

Postpartum Amenorrhea, Abstinence, Insusceptibility and Menopause: Among the factors that influence the risk of pregnancy following a birth are breast-feeding and sexual abstinence. Breast-feeding prolongs postpartum protection from conception through its effect on the period of amenorrhoea (the period to the return of menses) following a birth. Delaying the resumption of sexual relations following a birth also prolongs the period of postpartum

protection. Women are defined as unsusceptible to pregnancy following a birth if they are not at risk of conception because they are amenorrhoeic, are abstaining from sexual relations or both. According to NFHS-II, in Himachal Pradesh, when amenorrhea and abstinence are considered together, the majority of women remain unsusceptible to pregnancy upto 6-7 months after giving birth; where postpartum amenorrhea is more likely to be the cause.

Menopause is a primary limiting factor of fertility. It is a gradual decline in fecundity with increasing age. After age 30, the risk of pregnancy declines with age, as an increasing proportion becomes infecund. NFHS-II has defined menopause as the absence of menstruation for six or more months preceding their survey among currently married women. Women who report that they are menopausal or that they have had a hysterectomy are also included in this category. Women who are pregnant or postpartum amenorrhoeic are assumed not to be menopausal. According to their findings in Himachal Pradesh, menopause is not common among women in their thirties, but its incidence increases rapidly after the age of 41. By age 42-43 22.4% of women are menopausal. This proportion rises to 46% by age 46-47 and to 72% by age 48-49. Compared to the all-India level, in HP the percentage of women in the different menopausal age classes are low, except for 48-49 years as shown in the Table-3.2.1.

Table 3.2.1: Percentage of currently women age 30-49 years who are in menopause by age in HP. & India

State	Age							Total
	30-34	35-39	40-41	42-43	44-45	46-47	48-49	
HP	0.9	5.0	9.6	22.4	32.1	46.0	72.0	15.0
India	3.1	8.0	19.0	26.5	39.3	53.9	66.6	17.7

Source: NFHS-II

3.3 Reproductive Preferences

Fertility Preferences: This factor is motivated by the desire for more children. In Himachal Pradesh, 26.2% of the currently married women want no more children, 52.4% cannot have another child because the wife or the husband has been sterilized and 0.8% cannot get pregnant because they are declared infecund. 19.9.5% of women want to have another child, of which, 10.9% want another child within 2 years, 8.9% want another after waiting for 2 years and less than 1% are undecided about the time. In contrast, 30.3% of currently married women in India want to have another child; among them, 14.8% wants within 2 years, 13.3% wants after 2 years and 2.2% are undecided about the time (Table-3.3.1). The proportion who is sterilized or who want no more children is higher in urban areas (83%) than in rural areas (78%).

Table 3.3.1: Percent distribution of currently married women by desire for children in HP & India, 1998-99

State	Wants another within 2 years	Wants another after 2 years or more	Wants another undecided when	undecided	Up to god	Wants no more	Sterilized	Declared infecund
HP	10.9	8.9	0.1	0.6	0.0	26.2	52.4	0.8
India	14.8	13.3	2.2	0.9	1.5	27.5	36.1	3.5

Source: NFHS-II

The desire to have a child within 2 years drops rapidly with the number of living children, from 86.2% of women with no living children to 3.3% or less for women having at least 2 living children (Table-A-8). For women with one living child, 49.4% want to wait at least 2 years before having the next child.

According to NFHS-II, in HP almost half (47.5%) of women who want another child say that they want the next child to be a boy, only 11.6% say that they want a girl and the rest say that the sex of the child either does not matter (27.1%) or is up to God (13.9%). The proportion of women expressing a desire for son increases substantially with the number of living children: 17.6% of women with no living children desire a son, compared to 92.3% of women with three living children. The proportion of children expressing a desire for a daughter initially increases from 2.6% among women with no living child to 18.5% among women with one living child and declines thereafter.

The proportion that wants no more children is higher among urban women (83.2%) than among rural women (78.2%). Interestingly, the proportion wanting no more children decreases with increasing education, from 86.7% for illiterate women to 64.3% for women who completed at least high school. Again the same proportion is higher among women with low standard of living (83.1%) than among women with medium or high standard of living (78%). The background characteristic with strongest effect on women's to limit family size is number of living sons. Only 19.6% of women with no living sons want no more children compared with at least 98.6% of women with two or more living sons. Differences with the number of living daughters are also large but not nearly as large as differences associated with the number of living sons, indicating a strong preference for sons.

Ideal Number of Children: According to NFHS-II, in Himachal Pradesh, 90.8% of ever-married women consider 2 or 3 to be the ideal number of children. Table-3.3.2 below shows that there is very little variation in the mean ideal number of children. The mean ideal number of children increases gradually from 2.0 for

women age 15-19 to 2.4 for women age 45-49. Overall, for HP, the mean ideal number of children is 2.2 and the same for that of India is 2.7.

Table 3.3.2: Mean ideal number of children reported by ever-married women according to current age for HP.

State	Current age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
HP	2.0	2.1	2.1	2.1	2.2	2.3	2.4	2.2
India	2.5	2.5	2.6	2.7	2.7	2.8	2.9	2.7

Source: NFHS-II

Urban women have a slightly lower mean ideal number of children (2.0) than rural women (2.2). The mean ideal number of children is half a child higher for illiterate women (2.4) than women who have completed at least a high school education (1.9). The pattern is the same according to the education level of the husband. Again the same is slightly higher for women with a low standard of living (2.4) than women with a high standard of living (2.0).

Sex Preference for Children: A strong preference for sons has been found to be pervasive in Indian society, affecting both attitudes and behavior with respect to children (Arnold et al, 1998; Arnold, 1996; Basu, 1989; Das Gupta, 1987; Kishor, 1995; Koenig and Foo, 1992; Murthi et al, 1995; Nag, 1991; Parasuraman et al, 1994)⁵. In Himachal Pradesh, overall, (for ever married women) a mean ideal number of children 2.2 consists of 1.1 sons, 0.8 daughters and 0.3 children of either sex, compared with 1.4 sons, 1.0 daughters and 0.3 children of either sex for India with a mean ideal number of children of 2.7. Again in HP 25.9% wants more sons than daughters (33.2% for India), 0.6% wants more daughters than sons (2.2% for India), 87.5% want at least one son

⁵ a) Arnold, Fred, Minja Kim Choe, and T.K.Roy, 1998. Son preference, the family building process and child mortality in India. *Population Studies* 52(3): 301-315; b) Arnold, Fred. 1996. *Son preference in South Asia*. Paper presented at the seminar on Comparative Perspectives on Fertility Transition in South Asia, International Union for the Scientific Study of Population, Rawalpindi, 17-20 December; c) Basu, Ataka Malwade. 1989. Is discrimination in food really necessary for explaining sex differentials in childhood mortality? *Population Studies* 43(2): 193-210; d) Das Gupta, Monica. 1987. Selective discrimination against female children in rural Punjab, India. *Population and Development Review* 13(1): 77-100; e) Kishor, Sunita. 1995. Gender Differentials in Child Mortality: A Review of Evidence. In Monica Das Gupta, Lincoln C. Chen, and T.N.Krishnan (eds.), *Women's Health in India: Risk and Vulnerability*, Bombay, Oxford University Press f) Koenig, Michael A and Gillian H.C. Foo. 1992. Patriarchy, women's status and reproductive behaviour in rural North India. *Demography India* 21(2): 145-166; g) Murthi, M., A.C. Guio and J. Dreze, 1995. Mortality fertility and gender bias in India. *Population and Development Review* 21(4): 745-782; h) Nag, Moni. 1991 Sex preference in Bangladesh, India and Pakistan and its effect on fertility. *Demography India* 20(2): 163-185; i) Parasuraman, Sulabha, T.K.Roy, and S. Surender. 1994. Sex Composition of Children and Feertility Behaviour in Rural Maharashtra. In K.B.Pathak, U.P. Sinha and Arvind Pandey (eds.), *Dynamica of Population and Family Welfare*, Bombay: Himalaya Publishing House (as cited in NFHS-II)

(85.1%for India) and 79.4% want at least one daughter (80.1%for India), as can be seen from the following Table-3.3.3.

Table 3.3.3: Indicators of Sex Preferences of Ever married women in HP & India, 1998-99

State	Mean ideal number of			Percentage who want more sons than daughters	Percentage who want more daughters than sons	Percentage who want at least one son	Percentage who want at least one daughter
	Sons	Daughters	Either sex				
HP	1.1	0.8	0.3	25.9	0.6	87.5	79.4
India	1.4	1.0	0.3	33.2	2.2	85.1	80.1

Source: NFHS-II

The indicator that shows the percentage of women who want at least one son and at least one daughter exhibits a weak son preference. One reason that a substantial proportion of women want to have at least one daughter is to fulfill the Hindu religious obligation of *kanyadan* (giving a daughter away at the time of her marriage), which is one of the acts that enable the parents to acquire the highest level of merit (*punya*). There is some evidence that daughters are also perceived by women as a greater source of emotional security (Jejeebhoy and Kulkarni, 1989)⁶

Fertility Planning: For each child born, the information that whether the pregnancy was wanted at that time (*planned*), wanted at a later time (*mistimed*) or not wanted at all (*unwanted*), provides a powerful indicator of the degree to which couples successfully control childbearing. It should be noted that the proportion unplanned is influenced not only by whether and how effectively couples use contraception, but also by the couple's ideal family size.

The impact of unwanted fertility can be measured by comparing the total wanted fertility rate with TFR. The total wanted fertility rate represents the level of fertility that theoretically would result if all unwanted births were prevented. A comparison of the TFR with the total wanted fertility rate indicates the potential demographic impact of the elimination of all unwanted births.

⁶ Jejeebhoy, Shireen J. and Sumati B. Kulkarni. 1989. Reproductive motivation: A comparison of wives and husbands in Maharashtra, India. *Studies in Family Planning* 20(5); 264-272 (as cited in NFHS-II)

Table 3.3.4: Wanted Fertility rates in HP & India, 1998-99

	Total wanted fertility rate	TFR	Absolute difference between TFR & total wanted fertility rate
HP	1.50	2.14	0.64
India	2.13	2.85	0.72

Source: NFHS-II

The above Table-3.3.4 shows the wanted fertility rates in HP and India, 1998-99. Although the prevailing TFR in HP (2.14) is almost equal to the replacement level of fertility (approximately 2.1 children), it is quite interesting to note that still the total wanted fertility rate for HP (1.50) is lower by 0.64 child (i.e. by approximately 29.91%) than its TFR. This means that if unwanted births could be eliminated the TFR would drop significantly below the replacement level of fertility. In contrast although the prevailing TFR for India (2.85) is much higher than the replacement level, the total wanted fertility rate (2.13) is lower by 0.72 child (i.e. by 25%) than its TFR, which implies that if unwanted births could be eliminated the TFR would drop to the replacement level of fertility.

Box 2: Some more information on fertility and reproductive preferences in HP

- *TFR is nearly one child higher among illiterate women than among women who have completed at least high school.*
- *The mean ideal number of children ever born is 2 for all women and 2.7 for currently married women.*
- *Median birth interval among women age 15-49 is more than two and a half months shorter if the previous birth was a boy than if it was a girl, it is more than six months shorter if the previous child died than if it survived and it is four months longer for births to urban women than to rural women.*
- *Overall, almost 8 out of 10 currently married women do not want any more children, including women who are sterilized or whose husbands are sterilized*
- *79.8% of women with no living children say that the sex of the child is either up to God or does not matter; in contrast among women with two or more living children at least 79.2% of women want their next child to be a son but only 12.3% or less want the next child to be a daughter.*
- *62% of women who have no daughters want no more children, whereas, 20% of women who have no sons want no more children.*
- *Son preference is relatively weak among women of urban areas, who have completed middle school, whose husbands have completed at least higher secondary school and who live in households with a high standard of living.*
- *For 8.9% of births over the three years preceding the NFHS-II survey mothers did not want the pregnancy at all.*
- *The incidence of spontaneous abortions in HP (4.5%) is slightly higher than that of India (4.4%) and the incidence of induced abortions is slightly lower in HP (1.6%) than in India (1.7%).*

Source: NFHS-II

4. FAMILY PLANNING

The National Family Welfare Programme in India has traditionally sought 'to promote responsible and planned parenthood through voluntary and free choice of family planning methods best suited to individual acceptors' (*Ministry of Health and Family Welfare, 1998*). In April 1996 the programme was renamed as the Reproductive and Child Health Programme and given a new orientation to meet the health needs of women and children more completely. The programme now aims to cover all aspects of women's reproductive health throughout their lives. With regard to family planning the new approach emphasizes the target-free promotion of contraceptive use among eligible couples, the provision to couples of a choice of contraceptive methods (including condoms, oral pills, IUDs and male and female sterilization) and the assurance of high quality care. An important component of the programme is the encouragement of adequate spacing of births, with at least three years between births.

The New Population Policy, 2000, adopted by the Govt. of India has set as its immediate objective the task of addressing unmet need for contraception in order to achieve the medium-term objective of bringing the TFR down to replacement level by the year 2010. One of the 14 national socio-demographic goals identified for this purpose is to achieve universal access to information/counseling and services for fertility regulation and contraception with a wide range of choices (*Ministry of Health and Family Welfare, 2000*).

In this section, at the very outset we discuss about the knowledge and use of different family planning methods prevalent in Himachal Pradesh from different angles including problems associated with different methods, source of methods, future intention regarding use etc. In the next sub-section, we deal with the exposure of women to family planning, need for family planning and the quality of family planning services available in the state.

4.1 Knowledge and Use of Different Family Planning Methods

Knowledge of Family Planning Methods : Lack of knowledge of contraceptive methods can be a major obstacle to their use, hence an obstacle to proper family planning. According to NFHS-II, knowledge of contraception is universal in HP. Male and female sterilization are the most widely known methods of contraception in Himachal Pradesh; virtually all currently married women know about these methods. Knowledge of the officially sponsored spacing methods (pill, IUD and condom), is also quite high. Regarding modern spacing methods, urban and rural women differ with respect to knowledge: 92-93 percent of rural women know about the pill, IUD and condom, compared with 98-99 per cent of urban women. Although knowledge of spacing methods remain lower than knowledge of sterilization, knowledge of the former has increased substantially since the NFHS-I survey, when only 70 per cent of the currently married women knew about pills and 74 per cent knew about condoms and IUDs. Again a large

majority of currently married women know at least one traditional method (90.9%) from 61% in NFHS-I. The rhythm/safe-period method is known more widely (87.9%) than withdrawal (68.3%). Knowledge of traditional methods is slightly higher in urban areas (93.7%) than in rural areas (90.6%). Moreover, knowledge of contraception in HP is significantly higher than that of India, at every level, both rural and urban (Table-A.9).

Ever Use of Family Planning Methods: According to NFHS-II, despite, almost full knowledge of contraception, a much lower proportion (77.3%) of the currently married women of HP. have ever used a method. The rate of ever use of any method has increased substantially since the time of NFHS-I, when it was 68%. According to the same source, 68% of currently married women have ever used a modern method and 24.2% have ever used a traditional method. The most commonly used methods are female sterilization (45.1%), followed by the rhythm or the safe-period method (18.6%), the condom (14.3%) and withdrawal (9%). Only 7% have adopted male sterilization, 7.5% have ever used the IUD and 6.6% have ever used the pill. Ever use of any method is higher in urban areas (85.6%) than in rural areas (76.5%). With the exception of the rhythm method and female and male sterilization, urban areas have higher rates of ever use of each specific method than rural areas. Ever use of male sterilization is generally low, but the rate in rural areas (7.7%) is almost twice the rate in urban areas (4.1%). Again it is interesting to note that, ever use of different contraceptive methods in HP. is much higher than that of India in both rural and urban areas (Table-A.10).

Current Use of Family Planning: According to the findings of NFHS-II, current contraceptive prevalence in Himachal Pradesh is quite high, with 67.7% of currently married women using some method of contraception compared with the national average of 48.2%. The contraceptive prevalence rate is higher in HP than in any other state. 88% of ever users of contraception are current users. 90% of current contraceptive users are using a modern method. In HP as in most of the states in India, sterilization dominates the contraceptive method mix. According to NFHS-II, among currently married women, current use of female sterilization (45.1%) is more than six times than the current use of male sterilization (7.3%). Nonetheless, it is notable that HP has the highest rate of male sterilization in the country. For India the scene is much worse with 34.2% of currently married women using female sterilization against only 1.9% using male sterilization. The three officially sponsored spacing methods are used only by 8% of currently married women in HP. Except for pills, usage of other modern spacing methods are higher in HP with respect to India. Current use of any contraceptive method is 74.3% in urban areas (as against 58.2% in India), and 67% in rural areas (as against 44.7% in India). Current use of any modern method is 63.9% in urban areas (as against 51.2% in India) and 60.5% in rural areas (as against 39.9% in India). The differential by residence is most pronounced for condoms, with 17.8% of urban women reporting condom use, compared with only 3.7% of rural women. Again female sterilization is less

prominent in the mix of methods used by women in urban areas than women in rural areas (Table-A.11).

The NFHS-II estimate of current use of modern contraceptive methods in HP is slightly lower than the estimate obtained by the Rapid Household Survey (RHS) under the Reproductive and Child Health Project, which was carried out at about the same time as NFHS-II (International Institute for Population Sciences, 2000). The use of modern methods for currently married women of age 15-44 was reported to be 60.8% in NFHS-II and 62% in the RHS. With respect to current use of traditional methods, the NFHS-II estimate (6.8%) is higher than the RHS estimate (2%).

By age, current contraceptive use increases from 6% for women age 15-19 to 88% for women age 35-39 and decreases for older women. For the age group 15-19 of the currently married women, the current usage of contraception of any method is lower in HP compared to that of India. For the age groups 20-24, 25-29, 30-34, 35-39, 40-44 and 45-49, the current usage of contraception of any method is higher in HP compared to that of India (Table-A.12). This is evident from the fact that the singulate mean age at marriage for females in HP (22.1 years) is higher than that of India (19.7 years).

Various studies based on NFHS-I data have shown that even after controlling the effects of other factors, education is a key factor influencing contraceptive use in India (Ratherford and Ramesh, 1996; Ramesh et al., 1996; Parasuraman et al, 1999)⁷. According to NFHS-II, however, current contraceptive use in Himachal Pradesh decreases steadily with education, ranging from 73.5% among illiterate women to 57.5% among women who have completed at least high school. This is in part the result of the combination of two factors: the predominance of sterilization in the contraceptive mix and the fact that the more educated women are, in general younger women. Younger women are less likely than older women to have adopted sterilization because they are still in the process of achieving their desired family size goals. In keeping with this argument, the use of sterilization decreases sharply with education even as the use of modern spacing methods as well as the traditional methods increases with education. However, contraceptive prevalence for India show an opposite trend with the prevalence of 42.9% among illiterate women and 57% among the women who have completed at least the High School; although for modern spacing methods

⁷ a) Ratherford, Robert D and B.M.Ramesh.1996. Fertility and contraceptive use in Tamil Nadu, Andhra Pradesh and Uttar Pradesh. *National Family Health Survey Subject Reports No.3*, Mumbai: International Institute for Population Sciences; and Honolulu: East-West Corner; b) Ramesh, B.M., S.C.Gulati and Robert D. Ratherford. 1996. Contraceptive use in India *National Family Health Survey Subject Reports No. 2*, Mumbai: International Institute for Population Sciences; and Honolulu: East-West Corner; c) Parasuraman, Sulabha, T.K.Roy, D. Radha Devi, Balram Paswam, P. Arokiasamy and Sayeed Unisa. 1999. *Role of Women's Education in Shaping Fertility*, Mumbai, : Himalaya Publishing House (as cited in NFHS-II)

and traditional methods we can observe a similar trend (Table-A.13). In HP since NFHS-I, contraceptive use has increased substantially among women in every educational category except those who have completed at least high school (60% in NFHS-I and 57.5% in NFHS-II). The increase has been most rapid among illiterate women, increasing from 58% in NFHS-I to 73.5% in NFHS-II.

NFHS-II data shows that contraceptive prevalence in Himachal Pradesh increases steadily with increase in number of living children, for women with no children (2.8%) to women with three children (86.3%) and decreases slightly for women with four or more children (82.4%). The trend is very much similar to that of India (Table-A.14). The reason may be like that, the prevalence of contraception is likely to increase for women gradually with the achievement of desired family size goals. After a woman has four or more children, it is very much likely to be the case that by that time she may be declared infecund, given the TFR for both HP and India are very much less than four. NFHS-II has also shown that the contraceptive prevalence rates by sex composition of living children indicate the existence of considerable son preference. For each number of living children, women with no sons are much less likely than women with one or more sons to be using contraception.

The NFHS-II contraceptive prevalence rate of 67.7% is higher than the NFHS-I rate of 58%. During this period, the use of modern methods increased from 54% to 60.8%. In addition, traditional method use increased from 4% to 6.8%. In NFHS-I modern method use accounted for 93% of current contraceptive prevalence, whereas, in NFHS-II, modern methods account for 90% of current contraceptive use. Current use of female sterilization has risen from 33% in NFHS-I to 45.1% in NFHS-II. Current use of the three officially sponsored spacing methods has not changed much between the two surveys. The use of male sterilization declined from 13% to 7.3% between the two surveys. These results suggest that despite the increased emphasis on contraceptive choice and on modern spacing methods in the Reproductive and Child Health Programme, and despite women's increasing knowledge of modern spacing methods, female sterilization continues to dominate the method mix in HP and modern spacing methods still account for only a small percentage of total contraceptive use, particularly in rural areas.

Problems Regarding Contraceptive Use: In Himachal Pradesh, according to NFHS-II data, 82.3% of the current users of contraception report having no problems with their method. This may be an underestimation of the extent of problems, however, because women who have experienced problems with spacing methods may have stopped using contraception altogether. The most common problems experienced by sterilized women are headache, body ache or backache (15%), abdominal pain (5%) and weakness or tiredness (5%). Among women whose husbands are sterilized, and who have reported problems with the method, the most common complaint was headache, body ache or backache.

Regarding spacing methods, 9% had problems using the IUD, 4% had problems using condoms and 18% of women had problems with pills. The most common problems for pill and IUD users are headache, body ache or backache. These results point to a continuing need to strengthen post-operative care for sterilization acceptors and counseling and support for all contraceptive acceptors.

Methods used before sterilization: Since sterilization is a terminal method, it is important to know whether couples use any temporary methods before they finally adopt sterilization. NFHS-II data reveals that in Himachal Pradesh 70.7% of the persons who are sterilized, did not use any temporary method of contraception, whereas the corresponding figure for India is much higher at 81.9%. Again it is observed that, in HP, rhythm/safe-period method is most prevalent (14.8%) before sterilization (Table-4.1.1)

Table 4.1.1: Methods used before sterilization in HP & India, 1998-99
(percentage of sterilized persons who used specific contraceptive methods before sterilization)

State	Method used before sterilization						
	None	Pill	IUD	Condom	Rhythm/ Safe period	Withdra wal	Other method
HP	70.7	4.2	5.4	7.4	14.8	4.4	0.2
India	81.9	5.8	5.1	4.7	5.5	3.1	0.6

Note: "other method" includes modern and traditional methods that are not listed separately

Source: NFHS-II

Again, in Himachal Pradesh, according to NFHS-II, the median age of women at the time they or their husbands were sterilized was 26.2 years, half a year older than the median of 25.7 years for India as a whole. 80% of sterilized couples underwent sterilization before the wife was 30 years old. 97% of sterilizations took place before the wife's age was 35.

Sources of Contraceptive Methods: Family planning methods and services in India are provided primarily through a network of government hospitals and urban family welfare centres in urban areas and Primary Health Centres (PHC) and sub-centres in rural areas. Private hospitals and clinics, as well as non-governmental organizations (NGO) also provide family planning services. Sterilization and IUD insertions are carried out mostly in government hospitals and PHCs. Sterilization camps, organized from time to time, also provide sterilization services. Modern spacing methods such as the IUD, pill and condom are available through both the government and private sectors. It is expected that since levels of urbanization and education in India are rapidly increasing, reliance on private sector family planning services is likely to expand in future (Nair et al, 1999).

In Himachal Pradesh, according to NFHS-II, the public medical sector, consisting of government/municipal hospitals, government dispensaries, PHCs and components of governmental health infrastructure, is the source of contraception for 91.7% of current users of modern methods, almost the same as in NFHS-I, when it was 91%. The private medical sector, including private hospitals or clinics, private doctors, private mobile clinics, private paramedics, pharmacies or drugstores, and traditional birth attendants, is the source for only 6.2% of current users, up from 3% in NFHS-I. 1% of current users obtain their methods from other sources such as shops, friends and relatives. Government / Municipal hospitals are the main source (40%) for female sterilization, followed by sterilization camps (30%) and CHCs, rural hospitals or PHCs (27%). Similar sources are used for male sterilization. By contrast, private pharmacies or drugstores are the main source for condoms (39%). 53.1% of current pill users and 29.2% of current condom users obtain their supply from the public medical sector. More than three-fourths (77.2%) of IUD users receive their method from the public medical sector (Table-A.15).

In Himachal Pradesh, 94.2% of rural users obtain their contraceptives from the public medical sector, compared with 68.4% of urban users. The public medical sector is the main source for female sterilization in both urban and rural areas. In urban areas more than two-thirds of condom users get their method from the private medical sector. In rural areas, only 40.4% of condom users rely on the private medical sector.

Future Intentions Regarding Contraception Use: This type of information can help managers of family planning programmes to identify potential groups of users and to provide the types of contraception that are likely to be in demand. Among several factors, interestingly, the expressed timing of future use varies by number of living children (including current pregnancy).

Table 4.1.2: Future use of contraception in HP & India, 1998-99 (percentage of currently married women not currently using contraception who intend to use any time in future, by number of living children)

State	Number of living children					Total
	0	1	2	3	4+	
HP	89.7	94.5	88.1	82.8	59.9	85.6
India	60.2	70.7	67.4	59.8	43.3	60.2

Source: NFHS-II

The Table-4.1.2 above shows that, 85.6% of currently married women in HP who are not currently using contraception intend to use any time in future, whereas the corresponding figure for India is only 60.2%. Again, according to number of living children, the percentages are 94.5% for those who have only one child, 88.1% for those who have 2 children, 82.8% who have 3 children and 59.9% who

have 4 or more children. The corresponding figures for India are lower than that of HP. From the table, we can see that, for both HP and India, the intention is highest for the currently married women who have one child.

4.2 Some Other Aspects of Family Planning

Exposure to Family Planning Messages: For many years, the family programme has been using electronic and other mass media to promote family planning. Studies have confirmed that even after controlling the effect of residence and education the exposure to electronic mass media has a substantial effect on contraceptive use (Ramesh et al, 1996)⁸. It is also found to strengthen women's motivation to prevent unwanted fertility (Kulkarni and Choe, 1998)⁹. In Himachal Pradesh, according to NFHS-II data, 88.4% of ever-married women are exposed to family planning messages and 44.4% discussed family planning with their husbands. The corresponding figures for India are significantly lower than that of HP, as can be seen from Table-4.2.1 below.

Table 4.2.1: Exposure to messages and discussion of family planning for ever married women in HP & India, 1998-99

State	Exposed to family planning message	Discussed family planning with husband	Discussed family planning with anyone
HP	88.4	44.4	54.5
India	59.9	17.8	24.6

Source: NFHS-II

According to NFHS-II, the most common sources of recent exposure to family planning messages are television, wall paintings or hoardings and radio. Other important sources of family planning messages are newspapers or magazines and cinema or film shows. Exposure to a family planning message through a drama, folk dance or street play is rare. Again, overall exposure to mass media messages on family planning is much higher in urban areas than in rural areas. Basically, differential exposure is likely to reflect some combination of the greater access to broadcast signals in urban areas, the greater ownership of radios and television sets among higher-income households and variations in attentiveness to media messages associated with differing levels of education, leisure and interest.

⁸ Ramesh, B.M., S.C.Gulati and Robert D. Ratherford. 1996. Contraceptive use in India *National Family Health Survey Subject Reports No. 2*, Mumbai: International Institute for Population Sciences; and Honolulu: East-West Corner; (ascited in NFHS-II)

⁹ Kulkarni, Sumati and Minja Kim Choe. 1998. Wanted and unwanted fertility in selected cases in India. *National Family Health Survey Subject Reports No. 6*, Mumbai: International Institute for Population Sciences; and Honolulu: East-West Corner;

Need for Family Planning: Currently married women who are not using any method of contraception but who do not want any more children or want to wait two or more years before having another child are defined as having an unmet need for family planning. Current contraceptive users are said to have a met need for family planning. The total demand for family planning is the sum of the met need and the unmet need.

Table 4.2.2: Need for Family Planning Services in HP & India, 1998-99

State	Unmet need for FP ¹			Met need (currently using) ²			Total demand for FP			Percentage of demand satisfied
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	
HP	3.6	4.9	8.6	3.5	64.2	67.7	7.1	69.2	76.3	88.8
India	8.3	7.5	15.8	3.5	44.7	48.2	11.8	52.2	64.0	75.3

Note: ¹ Unmet need for spacing includes pregnant women whose pregnancy was mistimed, amenorrhoeic women whose last birth was mistimed and women who are neither pregnant nor amenorrhoeic and who are not using any method of family planning and who say that they want to wait for two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. Unmet need for limiting refers to pregnant women whose pregnancy are unwanted, amenorrhoeic women whose last child was unwanted and women who are neither pregnant nor amenorrhoeic who are not using any method of family planning and who want no more children.

² Met need for spacing refers to women who are using some method of family planning and say that they want to have another child or are undecided whether to have another. Met need for limiting refers to women who are using some method and who want no more children.

Source: NFHS-II (India)

Table-4.2.2 above, shows that 8.6% of currently married women in Himachal Pradesh have an unmet need for family planning. The level of unmet need in HP is lower than the all India average of 15.8%. Unmet need in HP is almost equally divided between unmet need for spacing births (3.6%) and for limiting births (4.9%). In HP current family planning programmes are meeting 88.8% of the family planning need, whereas in India the corresponding figure for India is 75.3%.

Among other states HP has achieved a considerable decline in the unmet need since the survey of NFHS-I (1992). The findings underscore the need for appropriate state-specific strategies with emphasis on universal education,

imaginative use of electronic mass media for IEC programmes, and intensified promotion of temporary methods and improvement in the quality of services.

Quality of Family Planning Services: One of the most important factors influencing family planning use is the quality of family planning services, which has been receiving emphasis in the government of Himachal Pradesh in its efforts in the area of Reproductive and Child Health.

Table 4.2.3: Quality of family planning services in HP, 1998-99 (Percentage of current users of modern contraceptive methods who were told about other methods, who were told about side effects or other problems and who received follow-up services, by residence)

Residence	Percentage who were told about other methods by motivator ¹	Percentage who were told about side effects or other problems with current method ²	Percentage who received follow up after acceptance of current method
Urban	42.3	31.2	67.2
Rural	38.3	34.3	89.9
Total	38.6	34.0	87.7

Note: ¹ Excludes women who were self motivated

² by a health and family planning worker at the time of accepting the current method

Source: NFHS-II

From the Table-4.2.3 we get that the percentage of current users who were told about other methods by motivator is 42.3% in urban areas and 38.3% in rural areas. The percentage of current users who were told about the side effects or other problems with the current method is 31.2% in rural areas and 34.3% in urban areas in HP.

Table 4.2.4: Couple Protection Rate (CPR) of HP and India since 1976-77

Years	Percentage of couples protected by FW methods					Total (%CPR) For India
	Sterilization	IUD	Himachal Pradesh			
			CC Users	OP Users	Total (%CPR)	
1976-77	24.9	2.2	2.8	0.0	29.9	23.5
1980-81	22.1	1.6	1.1	0.0	24.8	22.8
1990-91	37.5	8.7	4.4	1.5	52.1	44.1
1999-2000	38.1	7.8	3.2	2.4	51.6	NA

Source: Family Welfare Programme Year book, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

From the Table-4.2.4, we get that the Couple Protection Rate for HP increased significantly in the 1980s; from less than 30% before 1980-81 to more than 50% after 1990-91. Again, the percentage of couples protected by FW methods in HP is higher than that of India in the years 1976-77 (29.9%), 1980-81 (24.8%) and 1990-91 (52.1%). Sterilization holds the major method in couple protection for HP for the years 1976-77 (24.9%), 1980-81 (22.1%), 1990-91 (37.5%) and 1999-2000 (38.1%). At the district level, Bilashpur and Hamirpur have recorded the best CPR from 1991 onwards. In 1999-2000, other districts with CPR more than the state average are Sirmaur, Mandi, Simla and Kulu (Table A.16).

Box 3: Family Planning in Himachal Pradesh in a Nutshell

- *Knowledge of family planning is universal*
- *High prevalence of current contraceptive use (67.7%)*
- *Male sterilization is highest in the country (7.3%)*
- *Female sterilization is more than six times prevalent(45.1%) than male sterilization*
- *HP Govt. is currently meeting 88.8% of the total demand for family planning*

Source: NFHS-II

5. CURRENT HEALTH PROBLEMS IN HIMACHAL PRADESH

Being in good health is a positive statement of well being. But, this does not necessarily mean absence of diseases. Here, in the first sub-section we discuss about the mortality profile in Himachal Pradesh in various age groups. In the next sub-section we discuss about the prevalence of different diseases in the state, including diseases of the children. In the next sub-section, we consider some other types of health problems, such as, trauma and road accidents, environmental health problems, occupational health problems and domestic violence on women; and finally we provide a brief account on child immunization.

5.1 Mortality Profile in Himachal Pradesh

Age-Specific Mortality: In most countries, male death rates are higher than female death rates at nearly all ages. South Asia generally has been an exception in this respect, with higher death rates for females over much of the age span (Tabutin and Willems, 1995; Preston, 1989; Ghosh, 1987)¹⁰. In Himachal Pradesh, however, death rates according to NFHS-II are higher for males than for females in all age groups. The SRS provides evidence to the

¹⁰ a) Tabutin, Dominique and Michel Willems. 1995. Excess female child mortality in the developing world in the 1970s and 1980s. *Population Bulletin of the United Nations* 39: 45-78; b) Preston, Samuel H. 1989. Mortality in India. In International Union for the Scientific Study of Population (IUSSP), *International Population Conference, New Delhi, 1989*, Vol. 4. Liege: IUSSP; and c) Ghosh, Shanti. 1987. The female child in India: A struggle for survival. *Bulletin of the Nutrition Foundation of India* 8(4) (as cited in NFHS-II)

contrary. According to the SRS, males and females have similar death rates from age 0-49, but females have much higher death rates at the older ages (age 50 and above).

Infant and Child Mortality: The level of infant and child mortality is a basic indicator of the quality of life in a society. According to NFHS-II, infant mortality in HP declined from 42.6 deaths per 1000 live births during 1984-88 (10-14 years before the survey) to 34.4 deaths per 1000 live births during 1994-98 (0-4 years before the survey), an average rate of decline of less than 1 infant death per 1000 live births per year. A comparison of the infant mortality rate for the period 0-4 years before NFHS-II (34.4) with the infant mortality rate 0-4 years before NFHS-I (56) suggests a much faster decline of about 3-4 infant deaths per 1000 live births in the period of over six years between the two surveys. The infant mortality rate in HP is not only much lower than the corresponding all-India rate (67.6), as can be seen from Table-5.1.1, but is also lower than for any other Indian state except Kerala.

Table 5.1.1: Infant and Child Mortality in HP. & India, 1998-99 (Infant and Child Mortality Rates for the three five-year periods preceding the survey)

Years before survey	Neonatal mortality (NN)		Post-neonatal mortality (PNN)		Infant mortality		Child mortality		Under-five mortality	
	HP	India	HP	India	HP	India	HP	India	HP	India
0-4	22.1	43.4	12.3	24.2	34.4	67.6	8.3	29.3	42.4	94.9
5-9	27.4	51.7	17.1	26.4	44.5	78.0	9.9	31.9	53.9	107.4
10-14	26.4	54.5	16.2	31.4	42.6	85.9	18.7	39.3	60.5	121.9

Source: NFHS-II.

All other measures of infant and child mortality in HP, as presented in Table-30 above, have also declined during the past 15 years. Neonatal, post-neonatal, infant and under five mortality rates declined by 16-30 percent, and the child mortality rate declined by 56%. Despite the overall decline in the infant and child mortality rates, however, more than 1 in every 29 children born during the 5 years before NFHS-II survey died within the 1st year of life, and 1 in every 24 children died before reaching age 5.

Table-5.1.2 shows that mortality rates are generally higher for boys than for girls. The neonatal mortality rate (which largely reflects mortality due to congenital conditions) is slightly higher for boys (27.9 deaths per 1000 live births) than for girls (21.4 deaths per 1000 live births). Boys also experience higher rates of post-neonatal and infant mortality. However, there is virtually no sex differential in the child mortality rate (according to NFHS-II), which is roughly 9 deaths per 1000 live births for both boys and girls. This neutralization of sex differentials in mortality after the first year of life might reflect differential treatment of boys and

girls, whereby girls lose their survival advantage. This would be consistent with a reversal of the sex differential in mortality in favour of boys, which is thought to reflect the relative medical and nutritional neglect of the girl child (Das Gupta, 1987; Basu, 1989)¹¹. Nevertheless, the disadvantage of boys compared with girls during the first year of life in HP is still visible in the under-five mortality rate.

Table 5.1.2 : Infant and Child Mortality by sex in HP. & India, 1998-99 (Infant and Child Mortality Rates for the ten-year period preceding the NFHS-II survey)

Sex of Child	Neonatal mortality (NN)		Post-neonatal mortality (PNN)		Infant mortality		Child mortality		Under-five mortality	
	HP	India	HP	India	HP	India	HP	India	HP	India
Male	27.9	50.7	16.9	24.2	44.8	74.8	9.0	24.9	53.4	97.9
Female	21.4	44.6	12.4	26.6	33.8	71.1	9.3	36.7	42.8	105.2

Source: NFHS-II.

For both social and biological reasons, infant mortality rates and child mortality rates often exhibit a U-shaped pattern with respect to the mother's age at childbirth, with children of the youngest and oldest mothers experiencing higher mortality rates than children whose mothers are in their prime reproductive ages. Children born to young mothers are more likely to be of low birth weight, which is an important factor contributing to their higher neonatal mortality rate. Similarly, children born to mothers above age 30 are at relatively high risk of experiencing congenital problems. According to NFHS-II, due to a small number of births to women in the youngest and oldest age groups in HP, it is not possible to discuss the relationship between infant and child mortality and mother's age at birth with any certainty.

Box 4: Definitions of Different Types of Mortality

Neonatal mortality: The probability of dying within the first month of life.
Post-neonatal mortality: The probability of dying after the first month of life but before the first birthday.
Infant mortality: The probability of dying before the first birthday.
Child mortality: The probability of dying between the first and fifth birth dates.
Under-five mortality: The probability of dying before the fifth birthday.

Source: NFHS-II

¹¹ a) Das Gupta, Monica. 1987. Selective discrimination against female children in rural Punjab, India. *Population and Development Review* 13(1):77-100; and b) Basu, Alaka Malwade. 1989. Is discrimination in food really necessary for explaining sex differentials in childhood mortality? *Population Studies* 43(2): 193-210 (as cited in NFHS-II)

Maternal Mortality: Maternal Mortality Rate (MMR) is defined as the number of maternal deaths to women of age 15-49 per 100000 live births. Worldwide, about 500000 women die every year from pregnancy and childbirth-related causes and most of these cases occur in developing countries (*World Health Organization, 1999*). Although, reliable national estimates of maternal mortality are not available for most countries, South Asia is thought to have among the highest maternal mortality rates in the world. Most demographic surveys do not have samples that are large enough to produce reliable direct estimates of maternal mortality. According to '*The Working of the Registration of Births and Deaths Act 1969*', for the year 2000 for HP, only 5 maternal deaths has been registered and that too in the rural areas. This data cannot be accepted as a very authentic one. According to NFHS-I, MMR in HP was 456, which was higher than that of India (453).

5.2 Morbidity Profile in Himachal Pradesh

HP has not witnessed a major epidemic of communicable diseases since 1991, when only a few districts were affected by Cholera epidemic, which took a toll of more than 100 lives. However the state is more prone to diseases due to its geographical features and its location in the seismic zone for earthquakes. At the very outset we can take the data on morbidity profile for the year 1998 for 10 leading health problems. As seen from the Table-A.17 that in Himachal Pradesh the disease that has affected more lives are Acute Bronchitis (17.18%) and Anaemia (15.81%). Now, we will discuss the prevalence of some communicable and non-communicable diseases in the state (Table-A.18).

Malaria: Malaria is characterized by recurrent high fever with shivering. National Family Health Survey 1992 (NFHS-I) showed that the prevalence of malaria during the last three months of the survey was 11.41 per 1000 population in Himachal Pradesh as against 33.24 for India. The prevalence of malaria in HP, according to NFHS-II, is higher for males than for females in both urban and rural areas. Under the National Malaria Eradication Programme, 2026 fever treatment depots, 2883 drug distribution centres and 216 malaria clinics are functioning in the state. The surveillance data showed that number of deaths due to malaria was high in the eighties, with figures on deaths reaching the highest at 790 deaths in 1984. During 1998, 5,65,611 blood slides were collected and about 1400 cases were found positive. No death due to malaria was reported in that year. This suggests that malaria could be controlled in the state.

Asthma: Asthma is a chronic respiratory disease characterized by sudden attacks of laboured breathing, chest constriction and coughing. There has been a rapid increase in asthma cases in recent years in many parts of the world. In HP, 1% of the population was reported to be suffering from asthma at the time of NFHS-II. The reported level of asthma (1339 per 100000 population) is substantially lower than the level reported for India as a whole (2468 per 100000

population). In HP, the prevalence of asthma is considerably higher in rural areas (1389 per 100000 population) than in urban areas (841 per 100000 population). It is also slightly higher among males (1608 per 100000) than among females (1075 per 100000).

Tuberculosis: Tuberculosis, which is also resurgent worldwide, is an infectious disease that affects the lungs and other body tissues. Tuberculosis of the lungs, the most commonly known form, is characterized by coughing up mucus and sputum, fever, weight loss and chest pain. NFHS-I, 1992 estimates the prevalence of tuberculosis at 2.42 per 1000 population in Himachal Pradesh, as against 4.67 in India; whereas according to NFHS-II, the overall prevalence of TB in HP 2.59 per 1000 population less than half the national estimate of 5.44. The National Family Health Survey report shows that as in the case of leprosy and malaria, the incidence of TB in rural areas is higher (2.6) than in urban area (0.9). In Himachal it has been noted that the occurrence of TB is higher among rural males (3.3) than rural females (1.9); whereas, the figure is very close for both urban males and females. The TB control programme is implemented through 2 Sanatorium, 13 clinics, 6 sub-clinics and 1 survey-centre. Most of them (64%) are located in urban areas. Total 751 beds are available for TB patients in the state. Probable reasons for higher prevalence of TB among males than females are that men are more likely than women to come in contact with people who suffer from active TB and that men in HP smoke more than women.

Medically treated tuberculosis is expected to give a more reliable measure of the prevalence of active tuberculosis than the measure based on all reported cases considered in the preceding paragraph. Interestingly, the prevalence of medically treated tuberculosis is not much lower (234 per 100000) than the prevalence based on all reported cases (259 per 100000). Differentials in the prevalence of medically treated tuberculosis by residence, age and sex are similar to differentials in the prevalence of all reported cases.

Jaundice: Jaundice is characterized by yellowish discoloration of the eyes and skin, fever, liver enlargement and abdominal pain. In HP 450 persons per 1 lakh population were reported to have suffered from jaundice during the 12 months preceding the NFHS-II survey, considerably lower than the rate of 1361 for India as a whole. People living in urban areas are slightly more likely to have suffered from jaundice (575 per 1 lakh) than those living in rural areas (437 per 1 lakh). There is only a small difference between males and females in the prevalence of jaundice, with males being 3% more likely to have suffered from jaundice than females.

Leprosy: Leprosy is as low as 0.56 per 1000 population in Himachal Pradesh, as reported in NFHS-I. It is lower than the national rate of (1.2). In Himachal, the prevalence of leprosy has come down from 8.8 per thousand population during 1981 to 0.47 in March 2000. National Leprosy Control Programme has now been converted to the *Leprosy Elimination Programme*. At present there are 82

treatment centres with 212 beds in the state. Of these, 71 percent are located in rural areas where the incidence has continued to be higher.

According to NFHS-I, the prevalence of partial and complete blindness in Himachal Pradesh (9.29 and 4.55 respectively per 1000 persons) is higher than in the neighbouring states. The prevalence of complete blindness is higher than the all-India average (4.16 per 1000 population). District blindness control societies have been constituted in all the districts except in Kinnaur. There are very few Eye and ENT Clinics in the state, all of which are located in urban centres. There are no such clinics in Lahaul & Spiti or in Kinnaur.

Box 5: Partial and Complete Blindness in HP

The prevalence of partial and complete blindness is very high in Himachal Pradesh. No specific reasons for this high incidence of blindness has been cited. However, Vitamin A deficiency is reported to be extremely high in the state. Deficiency of Vitamin A may cause diseases like Keratomalacia and Xeroradiography which may lead to blindness. According to some doctors in the state, the radiation of Ultra-violet Ray is high in Himachal Pradesh, which may also be a contributory factor.

Source: Health in Himachal Pradesh: a Component of Human Development (a Report prepared by Institute of Social Studies Trust, August, 2000)

NSSO, 52nd Round data show that both in urban and rural areas, females suffer more due short-term ailments than the males, whereas, males suffer more from long-term ailments. As compared to other states, the incidence of hospitalization is very low in the state. A major factor for this low incidence could be the problem of accessibility due to the difficult terrain. With only 1.7 beds per thousand populations in the government institutions in the state, availability of beds may also be a constraining factor.

RTI/STD: The problem of RTI/STD is quite high in HP. A community based study carried out in district Hamirpur revealed STDs prevalence through syndromic diagnosis as 23.9% and by etiological approach as 3%. The prevalence is higher in women. However, sero-positivity for syphilis, which was 37.04% in 1952, has declined to 0.73% in 1999¹². Overall prevalence of RTI/STD is quite high which calls for intensive efforts in managing the diseases through syndromic management at all levels.

Acquired Immune Deficiency Syndrome (AIDS) is an illness caused by HIV virus, which weakens the immune system and leads to death through secondary infections such as tuberculosis or pneumonia. The virus is transmitted through sexual contact or through contact with contaminated needles (injection) or blood. It is also transmitted through the placenta of HIV-infected women to their unborn children. The prevalence of HIV/AIDS in India have been on the rise for more than a decade and reached alarming proportions in recent years. The

¹² as cited in *Health Vision 2020*. Dept. of Health & Family Welfare, HP.

Government of India established a National AIDS Control Organization (NACO) under the Ministry of Health and Family Welfare in 1989 to fight with the epidemic. Since then there have been various efforts to prevent HIV transmission, such as public health education through the media and the activities of many non-governmental organizations (NGOs).

In 1992, the first positive case of HIV/AIDS was detected in Himachal Pradesh. As on 30 September 2000, out of 25933 persons screened, 254 were found as HIV positive which includes 82 AIDS cases. Over 83% of these cases are from district Hamirpur, Kangra, Shimla, Bilaspur and Mandi. On the basis of HIV Sentinel Surveillance data collected in 1999, it is estimated that there might be around 3500-4000 HIV positive cases in the state.

As part of the AIDS prevention programme, the Government of India has been using mass media, especially electronic media, extensively to create awareness among the general public about AIDS and its prevention. Overall results show that in this regard the government is a little more successful in HP as compared to India; which can be seen as follows.

Table 5.2.1: Knowledge about AIDS in HP. & India, 1998-99 (Percentage of ever-married women who have heard about AIDS and among them the percentage who received information from specific Sources)

State	Percentage who have heard about AIDS	Among those who have heard about AIDS, percentage who received information from									
		Radio	Television	Cinema	Newspaper/magazine	Poster/Hoarding	HealthWorker	Adult Education Programme	Friend/Relative	School/Teacher	Other Source
HP	60.9	33.3	89.8	2.7	28.0	31.9	10.4	0.5	21.7	0.8	3.7
India	40.3	41.5	78.8	8.1	26.8	12.5	3.6	0.5	30.9	1.0	6.4

Source: NFHS-II

Percentage of ever-married women who have heard about AIDS is 60.9% in HP which is significantly higher than that of India (40.3%) as can be seen from the Table-5.2.1. Among ever-married women in HP who have heard about AIDS, a huge 89.8% of them received the information from the television. Again, percentage of ever-married women who have heard about AIDS from radio is 33.3% in HP which is quite smaller than that of India.

The *knowledge of different ways to avoid AIDS* indicates the extent of success of the various awareness programmes launched by the government and other organizations. The following Table-5.2.2 shows this interesting data:

Table 5.2.2: Knowledge about Avoidance of AIDS in HP & India, 1998-99
(Among ever-married women who have heard about AIDS, the percentage that believes AIDS can be avoided in specific ways)

State	Percentage who believe AIDS can be avoided by									Knows no ways to avoid AIDS
	Abstain ing from sex	Using condo ms	Havi ng only one sex partn er	Avoidi ng sex with comm ercial sex work ers	Avoid ing sex with homo - sexua ls	Avoidin g blood transfus ions	Avoidin g injection s/usin g clean needles	Avoidin g IV drug use	Oth er way s	
HP.	21.9	39.8	44.9	11.4	0.9	15.3	30.1	0.9	2.4	26.7
India	6.7	19.8	40.1	25.3	3.1	18.9	29.7	1.5	6.2	32.8

Source: NFHS-II

As seen from the above Table-5.2.2, among ever-married women who have heard of AIDS, the percentage that believe AIDS can be avoided by having only one sex partner is 44.9% in HP but 40.1% in India. Among ever-married women who have heard of AIDS, the percentage that knows no ways to avoid AIDS is 26.7% in HP, which is less than that of India (32.8%).

The lack of knowledge of AIDS, its modes of transmission and ways to avoid infection among women in India as well as Himachal Pradesh is a major challenge to the efforts to the spread of AIDS. A significant proportion of ever-married women in their childbearing years have never heard of AIDS and many of those who have heard of it do not know even one way to avoid infection. It is clear that AIDS prevention organizations need to strengthen the educational components of their programmes, in addition to trying to reduce high-risk behaviour, since even basic information about AIDS is seriously deficient among women in our country.

Child Morbidity: Mainly, there are three types of child morbidity in HP; *acute respiratory infection (ARI)*, *fever and diarrhea* (see Table-A.19). Now, we will provide a brief account of the prevalence of these diseases in the following paragraphs.

Acute Respiratory Infection (ARI), primarily pneumonia, is a major cause of illness among infants and children and the leading cause of childhood mortality throughout the world (Murray and Lopez, 1996)¹³. Early diagnosis and treatment with antibiotics can prevent a large proportion of ARI/pneumonia deaths. NFHS-II found that 10.8% of children under age three years in HP suffered from ARI (cough accompanied by short, rapid breathing) at some time during the two-week period before the survey; whereas the prevalence in India was almost twice (19.3%). Again, ARI was somewhat more common among boys (12.1%) than

¹³ Murreay, Christopher J.L. and Alan D.Lopez. 1996. *The Global Burden of Disease*. Cambridge, Massachusetts: Harvard University Press.

girls (9.2%) and among children living in rural areas (11.0%) than in urban areas (8.5%). For India, however, similar trend is exhibited. There is no clear age pattern in ARI prevalence. In HP, there is however, an inverse U-shaped pattern by mother's education with children of illiterate women (7.5%) and children of women who have completed at least high school (9.3%) being less likely to have suffered from ARI than children of women with moderate levels of education (12-17 percent). According to NFHS-II, in HP, ARI is more prevalent among children whose households get drinking water from hand pumps. Surprisingly, ARI prevalence increases with household standard of living and is also higher for children whose households use water filters to purify their drinking water than for other children. Despite the prevalence of ARI, the most positive thing to note is that, the rate of care-seeking for ARI in HP (95.6%) is substantially higher than the rate for India as a whole (64%) and there is virtually no sex differential in this regard in the state of HP (Table-5.2.4).

According to NFHS-II, in HP, 29.9% of children under age three suffered from **fever** during the two weeks preceding the survey; as compared to 29.5% in India. The prevalence of fever is higher among children age 6-23 months (35-36%) than among younger and older children (23-24%). There is almost no difference in the percentage of children who suffered from fever by sex of the child (with the prevalence of 29.8% for males and 29.9% for females) or place of residence.

Diarrhoea is a major killer of children under five years of age in India. It is considered as the second most important killer of children of the same age group worldwide, following acute respiratory infection. Deaths from acute diarrhoea are most often caused by dehydration due to loss of water and electrolytes. Nearly, all dehydration-related deaths can be prevented by prompt administration of rehydration solutions. Because deaths from diarrhoea are a significant proportion of all child deaths, the Government of India has launched the Oral Rehydration Therapy (ORT) Programme as one of its priority activities for child survival, more than a decade ago. One major goal of this programme is to increase awareness among mothers and communities about causes and treatment of diarrhoea. Oral Rehydration Salt (ORS) packets are made widely available and mothers are taught how to use them. According to NFHS-II data, in HP, virtually there is no sex differential in the prevalence of diarrhea; with 31.4% of males and 31.3% of females below age three suffering from it in the past two weeks of the survey. In India for males it is 19.4% and for females it is 18.9%. But, in case of diarrhea with blood the prevalence is more for males (5%) than for females (3.7%). Percentage of children aged 6-11 months suffering from diarrhoea in past 2 weeks according to NFHS-II is 43.4%, which is higher than that of children aged less than 6 months (31.6%), 12-23 months (33.4%) and 24-35 months (21.2%). Again, irrespective of the sex of the child the rate of care-seeking for diarrhea in HP (91.6%) is considerably higher than the rate for India as a whole (63.4%) as could be seen from Table-5.2.4.

Table 5.2.3: Knowledge of Diarrhoea among Mothers (diagnosis & care); HP & India, 1999 (percentage who know the oral rehydration salt (ORS) packets, percentage distribution by quantity to given to drink during diarrhoea, and percentage who know two or more signs of diarrhoea that indicate the need for medical treatment)

State	Percentage who know about ORS	Reported quantity to be given to drink			Percentage who know 2 or more signs for medical treatment of diarrhoea ¹
		less	same	more	
India	62.4	34.2	29.0	29.4	37.1
HP	92.7	18.8	29.5	49.1	26.8

Note : ¹ percentage who know two or more signs of illness that indicate that a child should be taken to a health facility or a health worker

Source: NFHS-II

The Table-5.2.3 shows that percentage of mothers with births during the 3 years preceding the survey who know about ORS packets is 92.7% in HP (up sharply from 68% among women who gave birth during the three years before NFHS-I) which is much higher than that of India (62.4%). But percentage of mothers with births during the 3 years preceding the survey who know 2 or more signs for medical treatment of diarrhoea is 26.8% in case of HP which is lower than that of India (37.1%). This, indicates that, among mothers in HP, knowledge of Diarrhoea care is quite high; but only a low proportion of them can actually diagnose the occurrence of diarrhoea.

Table 5.2.4: Treatment of ARI and Diarrhoea by Sex, in HP & India, 1999 (Among children under age 3 who had ARI or diarrhea in the past two weeks, percentage taken to a health facility or provider)

	Percentage of children taken to a health facility, who were suffering from					
	ARI			Diarrhoea		
	Male	Female	Total	Male	Female	Total
HP	95.7	(95.6)	95.6	91.8	91.3	91.6
India	66.5	60.8	64.0	64.8	61.9	63.4

Note: () based on 25-49 unweighted cases

Source: NFHS-II

5.3 Some Other Types of Health Problems

Trauma and Road Accidents: The State is prone to road accidents due to its terrain and poor road conditions. Every year a large number of persons gets killed and crippled due to the accidents. Accidents in hilly terrain take higher toll of life and limbs. Morbidity and mortality resulting from road accidents since 1988

is given in Table-A.20; which show that the number of road accidents in HP is on a rise and the number of persons dying in road accidents has shown a secular rise except 379 in 1992. Number of deaths due to road accidents reported in 1999-2000 is 704. Facilities for trauma care are limited to District / Zonal Hospitals only as the diagnostic and management facilities exist only at these levels, resulting in delayed treatment of the injured.

Environmental Health Problems: Environmental pollution can also cause health problems. Again, proper forest cover helps to check such pollution in a natural way. Now, we will discuss in brief about some of the environmental pollution, such as, *water pollution, air pollution* etc and the extent of *forest cover* in the state of Himachal Pradesh, in the following paragraphs.

a) Water Pollution: The State government although has provided drinking water supply to approximately 90 percent villages and all urban areas, yet the quality of water is not up to the desired standards even in urban areas. According to *Water Survey Report* (1992), where better quality standards are ensured, 21-39 percent water samples from household and community taps were found to be contaminated, as revealed by figures from Water Survey BP, 1992 shown below.

Table 5.3.1: Water Pollution in HP

Sources of water samples	Coliform MPN/100 ml		E.Coli MPN 100 ml	
	NIL (%)	> 1 MPN (%)	Nil (%)	> MPN (%)
Household Tap's (383)	62.1	37.9	78.6	21.4
Community Taps (130)	59.2	40.8	60.8	39.2
Household Storage vessels (514)	45.7	54.3	66.7	33.3

Source: *Water Survey, HP, 1992 (as cited in, Health Vision 2020; Dept. of Health and Family Welfare, HP)*

b) Liquid Waste Disposal: There is no proper system of liquid waste disposal in rural areas

c) Excreta Disposal: In villages, most of people practices open air defecation. The same habit is prevalent in over 19 percent households in urban areas.

d) Solid Waste Disposal: Solid waste is mostly disposed indiscriminately in rural areas. Nearly one-third households in urban areas practice the same method.

e) Hospital Waste Management: Hospital waste is generally dumped in the open, leading to grave environmental degradation, particularly air, soil and water pollution. Such openly dumped waste is a constant Source of all types of health hazards to rag pickers and the public at large. In summary, waste

management requires providing basic facilities and intensive education of people, both in rural and urban areas.

f) Air Pollution: By and large, air pollution is not much of a problem of the state. However increased vehicle density and over-crowding in urban areas is leading to some problem of air pollution. According to survey conducted by State Pollution Control Board in March 1996 at Una, 56.7 percent of diesel driven vehicle and 35.6 percent of petrol driven vehicles monitored were found to emit more than the prescribed limit of emission. The situation may be equally bad in other towns also, which call for strict implementation of provision under Motor Vehicle Act 1988 for maintaining better quality of air. With the coming up of a number of cement plants, the danger of air pollution looms large over the State.

g) Forest cover: HP has 33 percent of real forest with a density of 2.5 trees only, whereas the required density for hilly states is 10. The area under reserved forest cover has not undergone any change for the last 10 years. It stands at 1,89,613 hectares. (*Statistical Outline 1998*)

Occupation Health Problems: Agriculture and horticulture being major activities in the State, use of insecticides and pesticides has increased tremendously. Findings of certain surveys have revealed that farmers are using these chemicals indiscriminately and they are not aware of the safety precautions. Sometimes even banned chemicals are used. Improper use of such insecticides usually results into various disorders relating to gastro-intestinal tract, skin, eyes and central nervous system. It has also increased the incidence of poisoning.

The State being on the path of industrialization, with industrial projects like cement plants and hydel power projects and other industries, it is facing various occupational health problems among industrial workers and local population.

In order to ensure better environmental safety and health along with industrial growth in Himachal Pradesh, implementation of various provisions under *ESI Act 1948* and *Factories Act 1948* shall have to be ensured. There is also a need for periodical surveys and studies among industrial workers for estimating the prevalence of various health hazards and ensuring preventive measures. There is also a greater need for regular and strict monitoring of physical environment like air, water and soil etc. in the industrial area to check for any pollution responsible for health hazards.

Domestic Violence: In recent years, there has been increasing concern for violence against women in general, and domestic violence in particular, in both developed and developing countries (*United Nations General Assembly, 1991*)¹⁴. Not only has domestic violence been acknowledged worldwide as a violation of

¹⁴ United Nations General Assembly. 1991. Advancement of women: Convention on the elimination of all forms of discrimination against women, Report of the Secretary-General. New York: United Nations (as cited in NFHS-II)

the basic human rights of women, but an increasing amount of research highlights the health burdens, intergenerational effects and demographic consequences of such violence (Heise et. al., 1998, 1994; Jejeebhoy, 1998; Ramasubban and Singh, 1998; Rao and Bloch, 1993)¹⁵. In patriarchal societies such as India, women are not only socialized into being silent about their experience of violence but traditional norms teach them to accept, tolerate and even rationalize domestic violence (Jaisingh, 1995; Hedge, 1996; Prasad, 1999)¹⁶. Both tolerance of and experience of domestic violence are significant barriers to the empowerment of women, with consequences for women's health, their health-seeking behaviour, their adoption of a small family norm and the health of their children. In NFHS-II, an attempt was made to assess whether women view wife beating as justified and to measure the prevalence of violence against women including, but not limited to, violence committed by a woman's husband. Himachal Pradesh is the only state where the proportion of ever-married women who have been physically mistreated since age 15 is 5.8%, which is 21% for the case of India, as can be seen from Table-5.3.2. Interestingly, according to NFHS-II, almost one-fourth of ever-married women in HP believe that the beating of wives by husbands is justified under some circumstances

¹⁵ a) Heise, Lory, Mary Elisberg and Megan Gottemoeller. 1998. Ending violence against women. *Population Reports, Series I, No. 11*. Baltimore: Population Information Programme, Johns Hopkins University School of Public Health.; b) Heise, Lori, Jacqueline Pitanguy and Adrienne Gemain. 1994. *Violence against women: The hidden health burden*. Washington D.C. : The World Bank; c) Jejeebhoy, Shireen J. 1998. Associations between wife-beating and fetal and infant death: Impressions from a survey in rural India. *Studies in Family Planning* 29(3): 300-308; d) Ramasubban, Radhika and Bhanwar Singh. 1998. 'Ashaktapana' (weakness) and Reproductive Health in a Slum Population in Mumbai, India. In Carla M. Obermeyer (ed.), *Cultural Perspectives in Reproductive Health*. Oxford: Oxford University Press; and e) Rao, Vijayendra and Francis Bloch. 1993. Wife-beating, Its Causes and Its Implications for Nutrition Allocations to Children: An Economic and Anthropological Case Study of a Rural South Indian Community. Washington D.C.: Policy Research Department, Poverty and Human Resources Division, World Bank. (as cited in NFHS-II)

¹⁶ a) Jaisingh, I. 1995. Violence Against Women: The Indian Perspective. In J.Peters and A. Wolper (eds.), *Women's Rights, Human Rights*. New York: Routledge; b) Hedge, Radha S. 1996. Narratives of silence: Rethinking gender, agency and power from the communication experiences of battered women in south India. *Communication Studies* 47: 303-317; and c) Prasad, Shally. 1999. Medicolegal response to violence against women in India. *Violence Against Women* 5(5): 478-506. (as cited in NFHS-II)

Table 5.3.2: Domestic Violence against Women in HP & India, 1998-99
 (Percentage of ever-married women who have been beaten or physically mistreated by their husband, in-laws or other persons since age 15 and percentage beaten or physically mistreated in the past 12 months)

	Percentage beaten or physically mistreated since age 15	Percentage beaten or physically mistreated since age 15 by			Percentage beaten or physically mistreated in the past 12 months
		Husband	In-laws	Other person	
HP	5.8	3.9	1.2	1.5	2.1
India	21.0	18.8	1.8	3.1	11.0

Source: NFHS-II

5.4 Immunization of Children

The vaccination of children against six serious but preventable diseases (*tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles*) has been a cornerstone of the child care system in India. As part of the National Health Policy, the *National Immunization Programme* is being implemented on a priority basis. The Expanded Programme on Immunization (*EPI*) was initiated by the Government of India in 1978 with the objective of reducing morbidity, mortality and disabilities from these six diseases by making free vaccination services easily available to all eligible children. Immunization against poliomyelitis was introduced in 1979-80 and tetanus toxoid for school children was added in 1980-81. Immunization against tuberculosis (*BCG*) was brought under the *EPI* in 1981-82. The latest addition to the programme was vaccination against measles in 1985-86 (*Ministry of Health and Family Welfare, 1991*).

The Universal Immunization Programme (*UIP*) was introduced in 1985-86 with the following objectives: to cover at least 85 percent of all infants against the six vaccine- preventable diseases by 1990 and to achieve self sufficiency in vaccine production and the manufacture of cold-chain equipment (*Ministry of Health and Family Welfare, 1991*). This scheme has been introduced in every district of the country and the target now is to achieve 100 percent immunization coverage. Pulse Polio Immunization Coverage has been introduced in December 1995 as part of a major national effort to eliminate polio.

Table 5.4.1: Percentage of children age 12-23 months who received specific vaccinations at any time before the interview (according to the vaccination card or the mother) and percentage with a vaccination card to the interviewer by state, India, 1998-99

State	Percentage vaccinated											Percentage showing vaccination card
	BCG	Polio 0	DPT			Polio			Measles	All	None	
			1	2	3	1	2	3				
HP	94.6	4.2	96.7	96.1	88.8	97.2	97.2	89.8	89.1	93.4	2.8	54.6
India	71.6	13.1	71.4	65	55.1	83.6	78.2	62.8	50.7	42.0	14.4	33.7

Source: NFHS-II

The Table-5.4.1 shows that, a much higher, 93.4% of children of age 12-23 months in HP received all vaccinations before the NFHS-II survey as compared to only 42.0% in India. The percentage of children aged 12-23 months who received BCG vaccine is 94.6% in HP, which is much higher than the corresponding figure for India (71.6%). Other vaccines like DPT and Polio are much highly covered in HP than in India. Percentage showing vaccination card in HP is 54.6% which is much higher than that of India (33.7%).

Table 5.4.2: Vaccination level for children aged 12-23 months in HP

Percentage of children age 12-23 months who have received all vaccinations; by sex, residence and mother's education of the child	
Background characteristics	Percentage
Sex of Child	
Male	87
Female	79
Residence	
Urban	80
Rural	84
Mother's education	
Illiterate	67
Literate. <Middle school complete	78
Middle school complete	93
High school completed and above	91

Source: NFHS-II

From the Table-5.4.2 we get that among children in HP age 12-23 months who have received all vaccinations, percentage of males (87%) is much higher compared to that of females (79%). Again, percentage of rural children (84%) who have got all vaccinations is higher compared to that of urban children (80%). We can also see that as the educational qualification of the mother increases, the

percentage of children between 12-23 months who have received all vaccinations also increases except that of the case of high school completed and above. Now, in the following paragraphs we will observe the performance of the HP Govt. in terms of immunization coverage through different vaccinations, over the years.

Table 5.4.3: Achievements of targets in terms of immunization Coverage for DPT (infants) and POLIO (infants) by the Govt. of HP, since 1980-81

Year	Percentage of target achieved by the govt. of HP for DPT & POLIO vaccination	
	DPT	Polio
1980-81	31.95	63.07
1991-91	85.12	85.34
1999-2000	98.48	98.20

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

The Table-5.4.3 shows that DPT and Polio vaccination coverage for infants in HP has shown a steady increasing trend in terms of percentage of targets achieved by the government in different years. For DPT it was 31.95% in 1980-81, which significantly rose to 98.48% in 1999-2000. Again, for polio percentage achieved also rose from 63.07% in 1980-81 to 98.20% in 1999-2000.

Table 5.4.4: Achievements of targets in terms of immunization coverage for DT by the Govt. of HP, since 1975-76

Year	Percentage of target achieved by the govt. of HP for DT vaccination
	DT
1975-76	7.19
1980-81	65.65
1990-91	101.61
1996-97	106.20

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

The Table-5.4.4 shows that DT vaccination coverage in HP has shown a steady increasing trend in terms of percentage of targets achieved by the government in different years. Visibly, it has shown a rise from 7.19% in 1975-76 to 106.20% in 1996-97.

Table 5.4.5: Achievements of targets in terms of immunization coverage for BCG and MEASLES by the Govt. of HP , since 1986-87

Years	Percentage of target achieved by the govt. of HP for BCG and Measles vaccination	
	BCG	Measles
1986-87	91.22	48.82
1990-91	98.28	80.03
1999-2000	103.35	93.74

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

The Table-5.4.5 shows that BCG and Measles vaccination coverage for infants in HP has shown a steady increasing trend in terms of percentage of targets achieved by the government in different years. For BCG it was 91.22% in 1986-87, which significantly rose to 98.48% in 1999-2000. Again, for Measles percentage achieved also rose from 48.82% in 1986-87 to 93.74% in 1999-2000.

Table 5.4.6: Achievements of targets in terms of immunization coverage for TT (10 years) and TT (16 years) by the Govt. of HP, since 1997-98

Years	Percentage of target achieved by the govt. of HP for TT (10 years) and TT (16 years) vaccination	
	TT (10 years)	TT (16 years)
1983-84	123.01	231.98
1990-91	96.45	69.10
1996-97	89.47	74.62

Note: TT refers to Tetanus Toxoid

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

The Table-5.4.6 shows that TT (for children aged 10 years) and TT (for children aged 16 years) vaccination coverage in HP has shown a steady decreasing trend in terms of percentage of targets achieved by the government in different years. For TT (10 years) it was 123.01% in 1983-84, which significantly declined to 89.47% in 1996-97. Again, for TT (16 years) percentage achieved also decreased from a very high 231.98% in 1983-84 to 74.62% in 1996-97.

Vitamin A Supplementation: Vitamin A deficiency is one of the most important nutritional deficiency disorders in the world, affecting more than 250 million

children in the worldwide (Bloem et al, 1997)¹⁷. The *National Programme on Prevention of Blindness* targets children under-age five years and administers oral doses of Vitamin A every six months starting at the age of nine months.

Table 5.4.7: Achievements of targets in terms of Supplementation of Vitamin-A to children by the Govt. of HP, since 1976-77

Years	Percentage of target achieved by the govt. of HP for supplementation of Vitamin-A to children
	Vitamin A to Children
1976-77	24.04
1980-81	69.11
1990-91	117.27
1999-2000	91.09

Source: *Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)*

The Table-5.4.7 shows that supplementation of Vitamin A for children in HP has shown more or less a steady increasing trend in terms of percentage of targets achieved by the government in different years. It has increased from only 24.04% in 1976-77 to a high 117.27% in 1990-91 and decreased to 91.09% in 1999-2000.

6. NUTRITION AND PREVALENCE OF ANAEMIA IN HIMACHAL PRADESH

In early adolescence, because of a growth spurt associated with puberty and onset of menstruation, the nutritional needs of girls increase, especially of iron, vitamin A, calcium and iodine. Denial of adequate food to girls, partly due to non-availability and partly due to discrimination, continues to be a major problem. An inadequate diet has life-long consequences for girls, as their growth and development is jeopardized. In this section, at first we look into the nature of food and nutrient intake in Himachal Pradesh in a gender disaggregated manner as far as possible. Then as an outcome the intakes, we probe into the nutritional status of women and children. In the next sub-section we briefly discuss the infant feeding practices prevalent in the state and finally we assess the prevalence of Anaemia in women and children in HP.

6.1 Food and Nutrient Intake in Himachal Pradesh

The consumption of a wide variety of nutritious foods is important for women's health. Adequate amounts of protein, fat, carbohydrates, vitamins and minerals

¹⁷ Bloem, Martin W., Sasika de Pee and Ian Darnton-Hill. 1997. Vitamin A Deficiency in India, Bangladesh and Nepal. In Stuart Gillespie (ed.), *Malnutrition in South Asia: A Regional Profile*. Kathmandu: Regional Office for South Asia, UNICEF. (as cited in NFHS-II)

are required for a well balanced diet. Meat, fish, eggs and milk well as pulses and nuts are rich in protein. Green leafy vegetables are a rich source of iron, folic acid, vitamin C, carotene, riboflavin and calcium. Many fruits are also good source of vitamin C. Banana is rich in carbohydrates. Papayas, mangoes and other yellow fruits contain carotene, which is converted to vitamin A. Vitamin A is also present in milk and milk products, as well as egg yolks (Gopulan et al. 1996)¹⁸.

Food Intake in Himachal Pradesh: According to India Nutritional Profile, 1998, diet survey on food consumption, compiled for HP in terms of grains per consumption unit showed that the average cereal consumption (470g/cu/day) in the state was above the recommended allowances. The average consumption of pulses, green leafy vegetables, roots and tubers, milk and its products and fats and oils was above the respective Required Dietary Allowances (RDA) in the state, while intake of other vegetables and sugar was below their RDAs. The deficiencies were 28% for other vegetables and 20 percent for sugar. Flesh food was not consumed in most of the districts except in Kinnaur (25g/cu/day) and Kullu (11g/cu/day) districts. Similarly, except Kinnaur (25g/cu/day) and Solan (18g/cu/day) districts fruit consumption was almost absent. In this context we must mention that NFHS-II (India) data shows that the consumption of fruits by women is considerably higher than that of the national average (Table-6.1.1). There was wide difference in the average intake of foodstuff from one district to another according to India Nutrition Profile, 1998. Except Lahul & Spiti, all other districts have inadequate intake regarding several types of food (Table-A27).

According to India Nutrition Profile, 1998, that average consumption of cereal, pulses, roots and tubers, fruits and flesh food by girls are higher compared to boys in the age group 1-3 years. The differences in consumption of various foodstuffs by boys and girls in the age group of 4-6 years were not marked. The average consumption of cereal, leafy vegetables, and fruits by girls are higher compared to boys in this age group. The average cereals, roots and tubers and other vegetables intake was by and large in accordance with suggested balanced diet in all the age group, while the intake was substantially lower than this norm for other foodstuff. The average consumption of pulses by girls is higher compared the boys in the age-group 18 and above, showing that as discrimination towards girls rises as they grow up (Table-A28).

According to NFHS-II, the diet of women in Himachal Pradesh (age 15.49) is rich in vegetables (including green, leafy vegetables), pulses or beans and milk or curd. Women consume pulses or beans most often, followed by vegetables (other than green, leafy vegetables). Almost all women (99.1%) eat pulses or beans at least once a week, including 93.5% who eat them daily. 81.2% of women consume vegetables (other than green, leafy vegetables) every day, 69.6% consume milk or curd daily and 62.4% consume green, leafy vegetables daily. 94.3% of women in HP consume green, leafy vegetables at least once a

¹⁸ Gopulan, C., B.V. Rama Sastri and S.C. Balasubramanian. 1996. *Nutritive Value of Indian Foods*. Hyderabad: National Institute of Nutrition. (as cited in NFHS-II)

week, much higher than the rate for India as a whole (85. %). 71.7% of women in HP consume fruits at least once a week, (as compared to only 33% in India) and 29.1% consume it daily. Notably, almost one-half of the ever married women in HP (48%) never eat eggs, chicken, meat or fish.. The majority of women who do eat these foods only do so occasionally and the consumption of these foods in HP is visibly lower than the average consumption of these foods for the whole country (Table 6.1.1).

Table 6.1.1: Women's food consumption in HP & India (Percentage of ever-married women consuming specific foods daily and at least once a week, 1998-99)

State	Type of food						
	Milk or curd	Pulses or beans	Green leafy vegetables	Other vegetables	Fruits	Eggs	Chicken, meat or fish
Consumption of different food items daily							
HP	69.6	93.5	62.4	81.2	29.1	1.3	0.2
India	37.5	46.9	41.8	65.1	8.1	2.8	5.8
Consumption of different food items at least once a week							
HP	87.0	99.1	94.3	98.8	71.7	14.7	6.2
India	55.0	87.8	85.2	93.1	33.0	27.8	31.9

Source: NFHS-II

In Himachal Pradesh, according to NFHS-II, women in urban areas are more likely than women in rural areas to include each type of food in their diet, particularly fruits, eggs, chicken, meat or fish. The weekly consumption of each specific food increases with education. The relationship is particularly strong in terms of fruit consumption, with 61% of illiterate women, compared with 89.2% of women who have completed at least high school, eating fruits at least once a week. Notably the weekly consumption of pulses, beans and vegetables (excluding green, leafy vegetables) does not vary much by standard of living.

Nutrient Intake in Himachal Pradesh: At the district level, average energy (per cu) intake was adequate in Kangra, Kullu, Mandi and Sirmaur districts and marginally below RDA in Solan district. In Bilaspur, Hamirpur, Kangra, Shimla and Una districts, energy intake was much below their respective RDAs. Protein, calcium, thiamin and vitamin C intake was in excess of RDA in all the districts as reflected in the State averages. Average niacin intake was lower than RDA in Bilaspur, Hamirpur Shimla and Una districts. On an average iron and vitamin A intake was adequate in Kangra, Mandi and Sirmaur districts. In other districts vitamin A intake was highly inadequate. The districts with inadequate intake of nutrients can be seen from the figures given by the *India's Nutrition Profile-1998* (Table-A29).

According to India Nutrition Profile, 1998, the average intake of energy, protein, fat, iron, thiamin, riboflavin, niacin and vitamin-C was higher among girls

compared to boys in the age group 1-3 years. Average intake of protein, calcium and thiamin was above the RDA while it was below the RDA for other nutrients in the age group 1-6 years. In the age group of 4-6 years, fat intake was also higher and was above the RDA. In HP, except for iron and riboflavin, the average intake of energy, protein, fat, calcium, thiamin, niacin and Vitamin C is above the respective RDAs for boys in the age group 18 years and above. In HP, except for iron and riboflavin, the average intake of energy, protein, fat, calcium, thiamin, niacin and Vitamin C is above the respective RDAs for girls in the age group 18 years and above (Table-A30).

Box 6: Nutrient intake by age and sex in HP

Children (1-6 years): Average intake of protein, calcium and thiamin was above the RDA while it was below the RDA for other nutrients in the age group 1-6 years. In the age group of 4-6 years, fat intake was also higher and was above the RDA.

School age children (7-12 years): Compared to the RDAs, intake of all nutrients except protein, fat, calcium, vitamin c and thiamin was inadequate among both boys and girls in the age group of 7-9 years as well as in 10-12 years.

Adolescents (13-17 years): The average intake of all nutrients except fat and thiamin among both boys and girls and vitamin C among boys was inadequate in the age group of 13-15 years. However nutrients intake was slightly in better state in the age group of 16-17 years, being above the RDA for protein and niacin among girls, calcium, thiamin and vitamin C among both boys and girls.

Adults (<+18 years): The energy intake, which was inadequate in all the age groups, however much above the RDA by the adults. Except for iron, riboflavin and vitamin A, Intake of other nutrients by adults was quite adequate.

Source: India Nutrition Profile, 1998

6.2 Nutritional Status of Women and Children in Himachal Pradesh

Nutritional Status of Women: The height of an adult is an outcome of several factors including nutrition during childhood and adolescence. A woman's height can be used to identify women at risk of having a difficult delivery, since a stature is related to a small pelvic size. The risk of having a baby with a low birth weight is also higher for mothers who are short. The cutoff point for height, below which a woman can be identified as nutritionally at risk, varies among population, but it is considered to be in the range of 140-150 cms. NFHS-II found a mean height for women in HP of 152.7 cms, which is a little, more than the national average (151.2 cms).

The Table-6.2.1 below shows several measures of an index that relates a woman's weight to her height. The Body Mass Index (BMI) can be used to assess both thinness and obesity. The BMI is defined as the weight in kilograms divided by the height in metres squared (kg/m^2). This index excludes women who

were pregnant at the time of NFHS-II survey. The mean BMI for Himachal Pradesh is 20.8, which is a little higher than that of the BMI for India (20.3).

Table 6.2.1: Nutritional status of women in HP & India, 1999 (except pregnant women)

State	Height		Weight for height			
	Mean height (cms)	Percentage below 145 cms.	Mean BMI	Percentage with BMI less than 18.5 kg/m ²	Percentage with BMI of 25 kg/m ² or more	Percentage with BMI of 30.0 kg/m ² or more
HP	152.7	6.1	20.8	29.7	13.1	2.3
India	151.2	13.2	20.3	35.8	10.6	2.2

Source: NFHS-II (India)

Chronic Energy Deficiency (CED) is usually indicated by a BMI less than 18.5. As high as 29.7 percent of women in Himachal Pradesh have a BMI below 18.5, indicating a high prevalence of nutritional deficiency. The same indicator shows a worse percentage of 35.8 for the whole country. Rural women (31%) are almost twice as likely as urban women (17.3%) to have a BMI of less than 18.5. Women in the youngest age group and women from households with a low standard of living have the highest percentage of chronic energy deficiency in HP according to NFHS-II.

Nutritional Status of Children: Nutritional status is a major determinant of the health and well being of children. Inadequate or unbalanced diets and chronic illness are associated with poor nutrition among children. The nutritional status of children is generally calculated with 3 measures a) *weight-for-age* (which takes into account both chronic and acute undernutrition), b) *height-for-age* (measures linear growth retardation) and c) *weight-for height* (indicates the prevalence of acute undernutrition). The nutritional status of children calculated according to these three measures is compared with the nutritional status of an international reference population recommended by the World Health Organization. The use of this reference population is based on the empirical finding that well nourished children in all population groups for which data exist follow very similar growth patterns (Martorell and Habicht, 1986)¹⁹. A scientific report from the nutrition foundation of India (Agarwal et al., 1991)²⁰ has concluded that the WHO standard is generally applicable to Indian children.

¹⁹ Martorell, R. and J.P.Habicht. 1986. Growth in Early Childhood in Developing Countries. In Frank Falkner and J.M.Tanner (eds.), *Human Growth: A Comprehensive Treatise*, Vol. 3. New York: Plenum Press. (as cited in NFHS-II)

²⁰ Agarwal, K.N., D.K.Agarwal, D.G.Benkappa, S.M.Gupta, P.C.Khandaja, S.P.Khatua, K.Ramachandran, P.M.Udani and C.Gopulan. 1991. *Growth Performance of Affluent Indian Children (Under-fives): Growth Standard for India Children*. New Delhi: Nutrition Foundation of India. (as cited in NFHS-II)

The three indices of nutritional status are expressed in standard deviation units (z-scores) from the median for the international reference population. Children who are more than 2 standard deviations below the reference median on any of the indices are considered to be *undernourished* (underweight, stunted or wasted; if measured in terms of weight-for-age, height-for-age or weight-for-height respectively) and children who fall more than three standard deviations below the reference median are considered to be *severely undernourished*.

Table 6.2.2: Nutritional status of children: HP & India, 1998-99 (percentage of children under three years of age classified on three anthropometric indices of nutritional status)

State	Weight-for age		Height-for-age		Weight-for-eight	
	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage below -3 SD	Percentage below -2 SD ¹	Percentage below -3 SD	Percentage below -2 SD ¹
HP	12.1	43.6	18.1	41.3	3.3	16.9
Male	12.4	45.2	20.1	46.2	3.3	17.0
Female	11.7	41.7	15.7	35.7	3.3	16.9
India	18.0	47.0	23.0	45.5	2.8	15.5
Male	16.9	45.3	21.8	44.1	2.9	15.7
Female	19.1	48.9	24.4	47.0	2.7	15.2

Source: NFHS-II (India)

Note : ¹ includes children who are below -3 SD from the international reference population median

From the Table-6.2.2, 43.6% of children under age three are underweight, and 41.3% are stunted. The proportion of children who are severely stunted (18.1%) is higher than the proportion of children who are severely underweight (12.1%). Wasting is less common than stunting or underweight, although, incidence of wasting is in higher proportion in HP than that of India. 16.9% of children under age three are wasted and 3.3% are severely wasted in HP. The proportion of underweight has not declined since NFHS-I. In Himachal Pradesh, among the children who are underweight, 45.2% are male and 41.7% are female and among the children, who are stunted, 46.2% are male and 35.7% are female. Again, among children who are wasted, 17% are males and 16.9% are females. According to sex, the differentials are not so pronounced, even for the indices regarding severe undernourishment. According to the estimates of India Nutrition Profile, 1998, in HP, 56.8% of children of age 1-5 are underweight (among which 57.6% are males and 55.9% are females), 68% are stunted (among which 67.3% are males and 68.8% are females) and 7.7% are wasted (among which 7.8% are males and 7.4% are females).

In Himachal Pradesh, according to NFHS-II, the proportion of children who are undernourished increases with the child's age. According to all three nutritional measures, undernutrition is substantially higher in rural areas than in urban areas. Nevertheless, under nutrition is still a problem in urban areas, where 28.7% are

underweight, 30.5% are stunted and 9.9% are wasted. In general under nutrition is expected to decrease as mother's education increases. In HP, children whose mothers are illiterate are at least one and a half times likely to be stunted and underweight, and almost twice as likely to be wasted as children whose mother's have completed at least high school. Again the nutritional status of children is strongly related to maternal nutritional status. For example, under nutrition is more common for children whose mothers have a BMI below 18.5 than for other children. All three nutritional measures have a strong negative association with the households' standard of living. Although children in households with a low standard of living have exceptionally high levels of under nutrition (57.7% are underweight, 57.8% are stunted and 21.7% are wasted), a large proportion of children from households with a high standard of living are also undernourished (33.1% are underweight, 29% are stunted and 14.9% are wasted).

Box 7: Nutritional Deficiency Signs in HP

- **Infants:** Nutritional deficiency signs of marasmus (0.5%) were seen among infants.
- **Children (1-5 years):** Marasmus and Kwashiorkor were prevalent among 0.6 and 0.1 per cent of children respectively in this age group and another 0.1 per cent each had deficiency signs of Bitot's spot and phrynoderma. Goitre had the highest prevalence of 1.1 per cent in this age group and angular stomatitis 0.7 per cent.
- **Children (5-12 years):** Angular stomatitis was observed among 0.9 per cent of the children, glossitis and Bitot's spot among 0.2 and 0.1 per cent of the children respectively. Goiter had the highest prevalence of 2.2 per cent in this age group also.
- **Adolescents (12-18 years) and Adults (>18 years):** Angular stomatitis and glossitis were detected among 0.7 and 0.1 per cent respectively in the age group of 12-18 years and among 0.4 and 0.1 per cent respectively in the age group of above 18 years. Bitot's spot could be seen only in the age group of 12-18 years and its prevalence was 0.6 per cent. Again prevalence of goiter was highest, being 3.3 and 2.7 per cent in the age groups of 12-18 years and above 18 years respectively.
- Except for goiter, prevalence of no other deficiency signs was above 1 per cent.

Note: See Table-A31

Source: India Nutrition Profile-1998

6.3 Infant Feeding Practices in Himachal Pradesh

Infant feeding practices have significant effects on both mothers and children. Mothers are affected through the influence of breast-feeding on the period of postpartum infertility, and hence, on fertility levels and the length of birth intervals. These effects vary by both the duration and intensity of breast-feeding. Proper infant feeding, starting from the time of birth, is important for the physical and mental development of the child. Breast-feeding improves the nutritional status of

young children and reduces morbidity and mortality. Breast milk not only provides important nutrients but also protects the child against infection. The timing and type of supplementary foods introduced to an infant's diet also have significant effects on the child's nutritional status.

The Baby Friendly Hospitals Initiative, launched by the United Nations Children's Fund (UNICEF), recommends initiation of breast-feeding immediately after childbirth. The World Health Organization (WHO) and UNICEF recommend that infants should be given only breast milk for about the first six months of their life. Under the Reproductive and Child Health Programme, the Government of India recommends that infants should be exclusively breast-fed from birth upto four months of age (Ministry of Health and Family Welfare). Most babies do not require any other foods or liquids during this period. By the age of seven months, adequate and complementary foods should be added to the infant's diet in order to provide sufficient nutrients for optimal growth. It is recommended that breast-feeding should continue along with complementary foods through the second year of life or beyond. It is further recommended that a feeding bottle with a nipple should not be used at any age, for reasons related mainly to sanitation and the prevention of infections.

WHO has suggested several indicators of breast-feeding practices to guide countries in gathering information for measuring and evaluating infant feeding practices. These indicators include ever breast-fed rate, the exclusive breast-feeding rate, the timely complementary rate, the continued breast-feeding rate and the *bottle feeding rate*. The *exclusive breast-feeding rate* is defined as the proportion of infants less than four months of age, who receive only breast milk. The *timely complementary feeding rate* is the proportion of infants aged from 6-9 months who receive both breast milk and solid or semi-solid food. The *continued breast-feeding rate through one year of age* is the proportion of children aged 12-15 months who are still breast-fed. The *continued breast-feeding rate until two years of age* is the proportion of children aged 20-23 months who are still breast-fed. The *bottle-feeding rate* is the proportion of infants who are fed with a bottle with a nipple.

Initiation of breast-feeding immediately after childbirth is important because it benefits both the mother and the infant. As soon as the infant starts suckling at the breast, the hormone oxytocin is released, resulting in uterine contractions that facilitate expulsion of placenta and reduce the risk of postpartum hemorrhage. It is also recommended that the first breast milk (colostrum) should be given to the child rather than squeezed from the breast and discarded, because it provides natural immunity to the child.

Table 6.3.1: Initiation of breast-feeding in HP & India, 1998-99 (Percentage of children born during the three years preceding the NFHS-II survey who started breast-feeding within one hour and one day of birth and percentage whose mother squeezed the first milk from her breast before breast-feeding)

State	Percentage started breast-feeding within one hour of birth	Percentage started breast-feeding within one day of birth ¹	Percentage whose mother squeezed first milk from breast
HP	20.7	42.3	86.2
India	15.8	37.1	62.8

Note : ¹ includes children who started breast-feeding within one hour of birth

Source: NFHS-II (India)

From Table-6.3.1, we get that in Himachal Pradesh, percentage of children who started breast-feeding within one day of birth (42.3%) and also within one hour of birth (20.7%) are higher compared to that of India. According to another estimate given by India Nutrition Profile, 1998, in HP, more than half of the mothers (51.2%) started breast feeding to their babies within 24 hours of birth, 26.3 per cent on second day and 21.5 per cent on third day. Although breastfeeding is nearly universal in HP, only a few children are put to breast immediately after birth. The circumstances surrounding the delivery of the baby can have an important effect on the early initiation of breastfeeding. In HP, children whose deliveries were attended by health professionals were more likely to be breastfed within one hour or one day of birth than children whose deliveries were attended by a *dai* (TBA). The custom of squeezing the first milk from the breast before breastfeeding is widely practiced in HP, which is contrary to the recommendations for infant feeding. A very high 86.2% of children's mother squeezed the first milk (colostrum) from breast, as compared to 62.8% in India.

The introduction of supplementary foods before four months of age may put infants at risk of malnutrition because other liquids and solid foods are nutritionally inferior to breast milk. Consumption of liquids or solid or mushy foods at an early age also increases children's exposure to pathogens and consequently puts them into at a greater risk of getting diarrhoea. However, a recent study based on findings from NFHS-I (Anandaiah and Choe, 2000)²¹ concluded that breast-feeding with supplements is more beneficial than exclusive breast-feeding even for children at very young ages (less than four months). The report suggests that mother who is not well nourished and who are in poor health they may not be able to provide adequate breast milk for their infants.

²¹ Anandaiah, Ravilla and Minja Kim Choe. 2000. Are the WHO guidelines on breastfeeding appropriate for India? *National Family Health Survey Subject Reports No. 16*. Mumbai: International Institute for Population Sciences; and Honolulu: East-West Center. (as cited in NFHS-II)

Table 6.3.2: Recommended Feeding Indicators in HP & India, 1998-99 (for children of age 0-23 months)

State	Recommended feeding indicators				
	Percentage of children (0-3 months) who are exclusively breast-fed	Percentage of children (6-9 months) who receive breast milk and solid/mushy food	Percentage of children (12-15 months) who are breast-fed	Percentage of children (20-23 months) who are breast-fed	Percentage of children < 12 months who are bottle fed
HP	17.5	61.3	73.1	60.2	30.8
India	55.2	33.5	88.9	68.9	15.9

Source: NFHS-II (India)

From the Table-6.3.2, we observe that only 17.5% of children under four months of age are exclusively breastfed, compare to 55.2% in India. Again, percentage of children in between 20-23 months who are breast-fed is lower in HP (60.2%) compared to that of India (68.9%). Among children within 6-9 months, 61.3% starts receiving solid / mushy food in HP, compared to only 33.5% in India. According to India Nutrition Profile, 1998, in HP, majority of the mothers (69.8%) started supplements to their infants between the age of 6-12 months and only about 12.5 per cent between 3-5 months. Another 3.9 per cent started after one year (see Table-A32).

Box 8: Districtwise infant feeding practices in HP

- *In Kinnaur district 74 per cent of the mothers started breast-feeding within 24 hours as against 14 per cent in Una district. Colostrum was discarded by about 48 per cent of the mothers. It was highest in Una district (86%) and lowest in Kullu district (18%). Majority of the mothers (82%) in all the districts opined that they would prefer to continue breast-feeding after one-year age of their children.*
- *There was no wide variation between the districts in the practice of introducing supplements and substitutes. Exceptions were very less. Thirteen per cent did not start supplement at the time of survey. About 59 per cent of the mothers gave roti and supplement, 19 per cent gave milk and around 10 per cent biscuit or commercial milk. In Shimla, Bilaspur, Hamirpur, Kangra and Una districts 57,33,32,44 and 25 per cent of the mothers introduced supplement with milk while in the other five districts 2 to 6 per cent of mothers introduced milk as supplement. Biscuit and commercial baby food had the highest use (29%) only in Solan district. Otherwise, their use ranged between 1 and 9 per cent.*

Source : India Nutrition Profile, 1998

6.4 Anaemia among Women and Children in Himachal Pradesh

A low level of hemoglobin in the blood characterizes anaemia. Hemoglobin is necessary for transporting oxygen from the lungs to other tissues and organs of the body. Anaemia usually results from a nutritional deficiency of iron, folate, vitamin B₁₂ or some other nutrients. This type of anaemia is commonly referred to as iron-deficiency anaemia. Iron deficiency is the most widespread form of malnutrition in the world, affecting more than two billion people (Stolzfus and Dreyfuss, 1998)²². In India, anaemia affects an estimated 50 percent of the population (Seshadri, 1998)²³.

Anaemia may have detrimental effects on the health of women and children and may become an underlying cause of maternal mortality and Peri-natal mortality. Anaemia also results in an increased risk of premature delivery and low birth weight. Especially for children, it is a serious concern because, it can result in impaired cognitive performance, behavioral and motor development, coordination, language development and scholastic achievement, as well as increased morbidity from infectious diseases (Seshadri, 1997)²⁴. One of the most vulnerable groups is of children in the age-group 6-24 months (Stolzfus and Dreyfuss, 1998)²⁵. Early detection of anaemia can help to prevent complications related to pregnancy and delivery, as well as child development problems.

Information on the prevalence of anaemia can be useful for the development of health-intervention programmes designed to prevent anaemia, such as iron fortification programmes; like in India, under the Reproductive and Child Health programme, iron and folic acid tablets and syrup are provided to pregnant women in order to prevent during pregnancy.

According to NFHS-II; overall, 40.5 percent of women in HP have some degree of anaemia, 31.4 percent are mildly anemic, 8.4 percent are moderately anemic and 0.7 percent are severely anemic. In India, prevalence of anaemia is much

²² Stolzfus, Rebecca J. and Michele L. Dreyfuss. 1998. *Guidelines for the Use of Iron Supplements to Prevent and Treat Iron Deficiency Anemia*. International Nutritional Anemia Consultative Group. Washington D.C.: International Life Sciences Institute Press. (as cited in NFHS-II)

²³ Seshadri, Subadra. 1998. *A Data Base for Iron Deficiency Anemia (IDA) in India: Prevalence, Causes, Consequences and Strategies for Prevention*. Vadodara: The Maharaja Sayajirao University of Baroda. (as cited in NFHS-II)

²⁴ Seshadri, Subadra. 1997. *Nutritional Anaemia in South Asia*. In Stuart Gillespie (ed.), *Malnutrition in South Asia: A Regional Profile*. Kathmandu: Regional Office for South Asia, UNICEF. (as cited in NFHS-II)

²⁵ Stolzfus, Rebecca J. and Michele L. Dreyfuss. 1998. *Guidelines for the Use of Iron Supplements to Prevent and Treat Iron Deficiency Anemia*. International Nutritional Anemia Consultative Group. Washington D.C.: International Life Sciences Institute Press. (as cited in NFHS-II)

higher with 51.8% of women having some degree of anaemia. The prevalence of anaemia in HP does not vary considerably by women's age, place of residence, education or work status. Surprisingly, its prevalence increases with an increasing standard of living. 34% of women from households with a low standard of living are anaemic, compared with 41% of women from households with a medium or high standard of living. Women with no living children are less likely to be anemic than women who have one or more children. Pregnant women are less likely to be anemic than non-pregnant women, especially non-pregnant women who are breast-feeding (Table-A33). The lower prevalence of anaemia among pregnant women may occur due to the success of the IFA distribution programme. But prevalence of moderate anaemia is higher among pregnant women (12.8%) than among other women (8-10 %). For this reason anaemia remains a serious problem among pregnant women and there is a continuing need to promote iron and folic acid supplementation for pregnant women.

Surprisingly, shorter women are less likely to be anaemic than taller women. Women with a low BMI have a higher prevalence of anaemia (43%) than other women (39.5%). The diet of women also plays a role in the likelihood that they have anaemia. Consumption of iron rich foods can reduce the prevalence of severity of anaemia, and the absorption of iron from the diet can be enhanced (for example, by Vitamin C) or inhibited (for example, by tea or coffee) if particular items are consumed around the time that a meal is eaten. In HP women who regularly include fruits and/or vegetables in their diet are surprisingly more likely to be anaemic than women who consume neither of these foods on a regular basis (NFHS-II)

NFHS-II data shows that, in Himachal Pradesh, overall 69.9% percent of children age 6-35 months have some level of anaemia (compared to 74.3% in India), 28.7 percent are mildly anemic, 39% are moderately anemic and 2.2% are severely anemic. A much higher proportion of children (69.9%) than woman (40.5%) is found to anemic. For moderate anaemia, this difference is the highest. Even that more children is found to moderately anaemic than that of India. Although anaemia among children is high in every population sub-group, it is higher than average among children aged 12-23 months (71.3%), males (70.8%), children of birth order 4-5 (73.2%), and children of literate mothers with less than a high school education (72-73%). There is a strong positive relationship between the anaemia status of mothers and their children. 91.8% of children whose mothers are moderately anemic have anaemia compared with 62.2% of children whose mothers are not anemic. The strong relationship between the anaemia status of mothers and their children may reflect the effect of poor maternal health on the health of children as well as the effect of poor diet on both mothers and children (Table-A34).

Box 9: Four levels of anaemia

- **no anaemia**—hemoglobin concentration of 11.0 grams/deciliter (g/dl) or higher for children or pregnant women and 12.0 g/dl or higher for non-pregnant women
- **mild anaemia**—10.0-10.9 g/dl for children or pregnant women and 10.0-11.9 g/dl for non-pregnant women
- **moderate anaemia**—7.0-9.9 g/dl
- **severe anaemia**—less than 7.0 g/dl

Iodization of Salt: Iodine is an important micronutrient. A lack of iodine in the diet can lead to Iodine Deficiency Disorders (IDD), which, according to the World Health Organization, can cause miscarriages, brain disorders, cretinism and retarded psychomotor development. Iodine deficiency is the single most important and preventable cause of mental retardation worldwide. It has been estimated that 200 million people in India are exposed to the risk of iodine deficiency and 70 million suffer from goitre and other IDDs (*IDD & Nutrition Cell, 1998*). In addition, about one fifth of pregnant women are at considerable risk of giving birth to children who will not reach their optimum physical and mental potential because of maternal iodine deficiency (Vir, 1995)²⁶.

Iodine deficiency can be avoided by using salt that has been fortified with iodine. In 1983-84, the Government of India adopted a policy to achieve universal iodization of edible salt by 1992. In 1998, the Prevention of Food Adulteration Act was amended to fix the minimum iodine content of salt at 30 parts per million (ppm) at the manufacturing level and 15ppm at the consumer level (*Ministry of Health and Family Welfare, 1994*). The Government of India has advised all states and union territories to issue notification banning the sale of edible salt that is not iodized. However, the ban on non-iodized salt was lifted on September, 2000.

In India, the use of iodized salt varies significantly from one state to another. The variations are due to a number of factors, including the scale of salt production, transportation requirements, enforcement efforts, and pricing structure and storage pattern. Salt iodization is likely to be more common in states where salt is transported exclusively by railways, at least partly because the Salt Department monitors the iodine content of salt shipped by railways. The use of adequately iodized salt is uniformly high throughout the Northeastern Region and in most states in the Northern Region. Himachal Pradesh is one of the highest iodized salt users of the country and 90.5% of households in HP use cooking salt that is iodised at the recommended level of 15 ppm or more, which is visibly much more than that of the whole country (49.4%), as can be clearly seen from the following Table-6.4.1. Thus HP is not far from achieving the national goal of universal iodization of cooking salt. Only 3.2% of households in HP use salt that is not iodized, and 6.2% use salt that is inadequately iodized (less than 15 ppm).

²⁶ Vir, Sheila. 1995. Iodine deficiency in India. *Indian Journal of Public Health* 39(4): 132-134 (as cited in NFHS-II)

Table 6.4.1: The percentage distribution of by degree of iodization of Salt in HP & India, 1999

State	Not iodized	7ppm	15ppm	30ppm
HP	3.2	6.2	14.9	75.6
India	28.4	21.6	16.8	32.6

Source: NFHS-II (India)

7. MATERNAL AND REPRODUCTIVE HEALTH IN HIMACHAL PRADESH

Promotion of maternal and child health has been one of the most important objectives of the Family Welfare Programme in India. The Government of India took steps to strengthen maternal and child health services as early as in the First and Second Five-Year Plans (1951-56 and 1956-61). As a part of the Minimum Needs Programme initiated during the Fifth Five-Year Plan (1974-79), maternal health, child health and nutrition services were integrated with family planning services. The primary aim at that time was to provide at least a minimum level of public health services to pregnant women, lactating mothers and preschool children (Kanitkar, 1979)²⁷.

In 1992-93, the Child Survival and Safe Motherhood Programme continued the process of integration by bringing together several interventions with safe motherhood and family planning activities (*Ministry of Health and Family Welfare, 1992*). In 1996, safe motherhood and child health services were incorporated into the Reproductive and Child Health Programme. This new programme seeks to integrate maternal health, child health and fertility regulation interventions with reproductive health programmes for both women and men. With regard to maternal and reproductive health (*Ministry of Health and Family Welfare, 1997; 1998*), the important elements of the programme include:

- ◆ *Provision of antenatal care, including at least three antenatal care visits, iron prophylaxis for pregnant and lactating mothers, two doses of tetanus toxoid vaccine, detection and treatment of anaemia in mothers and management and referral of high-risk pregnancies.*
- ◆ *Encouragement of institutional deliveries or home deliveries assisted by trained health personnel.*
- ◆ *Provision of postnatal care, including at least three postnatal visits.*
- ◆ *Identification and management of reproductive tract and sexually transmitted infections.*

In the rural areas, the government delivers reproductive and other health services through its network of Primary Health Centres (PHCs), sub-centres and other government health facilities. In addition, pregnant women and children can

²⁷ Kanitkar, Tara. 1979. Development of Maternal and Child Health Services in India. In K.Srinivasan, P.C.Saxena and Tara Kanitkar (eds.), *Child in India*. Bombay: Himalaya Publishing House. (as cited in NFHS-II)

obtain services from private maternity homes, hospitals, and private practitioners and in some cases, non-governmental organizations (NGOs). In urban areas, reproductive health services are available mainly through government or municipal hospitals, urban health posts, hospitals and nursing homes operated by NGOs and private nursing and maternity homes.

In rural areas a female paramedical worker, called an *auxiliary nurse midwife* (ANM), is posted at a sub-centre to provide basic maternal health, child health and family welfare services to women and children either in their homes or in the health clinic. Her work is overseen by the *lady health visitor* (LHV) posted at the PHC. With regard to safe motherhood, the ANM is responsible for registering pregnant women, motivating them to obtain antenatal and postnatal care, assessing their health throughout pregnancy and in the postpartum period, and referring women with high-risk pregnancies. The ANM is assisted by a male health worker whose duties include motivating men to participate in the family welfare programme and educating them about reproductive tract and sexually transmitted infections. The ANM and LHV also assist the medical officer at the PHC where health services including antenatal and postnatal care are provided (*Ministry of Health and Family Welfare, 1997, 1998*).

The National Population Policy adopted by the Govt. of India in 2000 (*Ministry of Health and Family Welfare, 2000*) reiterates the government's commitment to the safe motherhood programmes within the wider context of reproductive health. Among the national socio-demographic goals for 2010 specified by the policy, several goals pertain to safe motherhood, namely that 80 percent of all deliveries should take place in institutions by 2010, 100 percent of all deliveries should be attended by trained personnel and the maternal mortality ratio should be reduced to a level below 100 per 100,000 live births. Empowering women for improved health and nutrition is one of the twelve strategic themes identified in the policy to be pursued in stand alone or intersectoral programmes.

In this section, at the very beginning we discuss various aspects of antenatal problems and care experienced by the women in HP. In the next sub-section we briefly look into different aspects relating to delivery and finally we provide a brief account of the prevalence of various reproductive tract infections in women of HP.

7.1 Antenatal Problems and Care in Himachal Pradesh

Antenatal care (ANC) refers to pregnancy-related health care provided by a doctor or a health worker in a medical facility or at home. The Safe Motherhood Initiative proclaims that all pregnant women must receive basic, professional

antenatal care (Harrison, 1990)²⁸. Ideally, antenatal care should monitor a pregnancy for signs of complications, detect and treat pre-existing and concurrent problems of pregnancy, and provide advice and counseling on preventive care, diet during pregnancy, delivery care, postnatal care and related issues. The Reproductive and Child Health Programme recommends that as a part of antenatal care, women receive two doses of tetanus toxoid vaccine, adequate amount of iron and folic acid tablets or syrup to prevent and treat anaemia and at least three antenatal check-ups that include blood pressure checks and other procedures to detect pregnancy complications (*Ministry of Health and Family Welfare, 1997, 1998*).

There are various **pregnancy related problems**; night blindness, blurred vision, convulsions (not from fever), swelling (of the legs, body and face, excessive fatigue, anaemia and vaginal bleeding. Night blindness, or difficulty seeing at dusk, is the result of chronic vitamin-A deficiency and is often seen in pregnant women in areas where vitamin A deficiency is endemic. Convulsions accompanied by signs of hypertension can be symptomatic of eclampsia., a potentially fatal condition. The potential health risk posed by vaginal bleeding during pregnancy varies by when in the pregnancy the bleeding takes place.

Problems most commonly reported in Himachal Pradesh are excessive fatigue (45.5%), anaemia (29.4%), blurred vision (20.6%) and swelling of legs, body or face (20.6%). Urban rural differentials in the prevalence of pregnancy complications are generally small (see Table-A35). The difference is particularly striking for the category for the category, convulsions not from fever (urban 2.8% and rural 7.8%). Compared to India, HP's situation is worse for excessive fatigue (especially for rural areas) and anaemia (especially for urban areas).

Antenatal Check-ups: A pregnant woman can have an antenatal check up by visiting a doctor or another health professional in a medical facility, receiving a home visit from a health worker or both. In HP, mothers received antenatal check-ups for 86.8% of births during the three years preceding the NFHS-II survey (compared to 76% in NFHS-I). In other words, almost 9 out of 10 women in HP received an antenatal check up, whereas in India more than one out of every three women did not receive an antenatal check up during the same period. The NFHS estimate is the same as the estimate from the Rapid Household Survey conducted under the Reproductive and Child Health Programme during 1998-99 (*International Institute for Population Sciences, 2001*). NFHS results show that, 58.1% received check ups from doctors (48.6% in India), 28.4% from other health professionals outside the home (10.9% in India) and only 0.3% received check ups only at home from a health worker (5.6% in India). Women not receiving antenatal check ups tended to be older than age 34, of high parity, illiterate and from households with a low standard of living, both in HP and India

²⁸ Harrison, Kelsey A. 1990. The political challenge of maternal mortality in the Third World. *Maternal Mortality and Morbidity-A Call to Women for Action*. Special Issue, May 28, 1990. (as cited in NFHS-II)

(see Table-A36). This suggests that improving the coverage of antenatal programmes requires special efforts to reach older and high parity women and women who are socioeconomically disadvantaged.

Although regarding NFHS-II data, most of the women in Himachal Pradesh received antenatal Check ups, but still it will be interesting to take into account -, the reasons for not receiving antenatal check ups. Among births whose mothers did not receive any antenatal check up , for 64.1% of births it was not necessary. for 6.3% , the cost was too much, for 4.4% family did not allow and for 3.1% there was lack of knowledge. Strikingly, for 18.9% of births women in HP did not receive any antenatal check up because either they had to travel too far for that or no form of transport was available, whereas in India it was the case for only 3.7% of births (Table-A37). These results suggest the need to inform women and families about the availability and benefits of antenatal check ups, as well as the need to address hurdles that limit the access to health services, especially transport. Utilization of antenatal check up could also be increased by lowering direct and indirect costs, improving the quality of services and most importantly making the services more accessible.

Number and timing of antenatal check up: The number of antenatal check ups and the timing of the first check up are important for the health of the mother and the outcome of pregnancy. The conventional recommendation for normal pregnancies is that once pregnancy is confirmed, antenatal check ups should be scheduled at four-week intervals during the first seven months, then every two weeks until the last month and weekly thereafter (MacDonald and Prichard, 1980)²⁹. Four antenatal check ups—one each during the third, sixth, eighth and ninth months of pregnancy—have been recommended as the minimum necessary (Park and Park, 1989)³⁰. The conventional recommendation is to schedule the first check up within six weeks of a woman's last menstrual period. Studies on Timing of the initial antenatal check up, however show that even when antenatal care is initiated as late as the third trimester, there is a substantial reduction in perinatal mortality (Ramachandran, 1992)³¹.

In India, the Reproductive and Child Health Programme includes the provision of at least three antenatal care visits for pregnant women. Guidelines for the programme require that each pregnancy be registered in the first 12-16 weeks (*Ministry of Health and Family Welfare, 1998*). Accordingly, the first antenatal check up should take place at the latest during the second trimester of pregnancy.

²⁹ MacDonald, Paul C.. and Jack A. Pritchard. 1980 *Williams Obstetrics*. Sixteenth Edition. New York: Appleton-Century-Crofts. (as cited in NFHS-II)

³⁰ Park, J.E. and K.Park. 1989. *Textbook of Preventive and Social Medicine*. Twelfth Edition. Jabalpur: M/S Banarasidas Bhanot Publishers. (as cited in NFHS-II)

³¹ Ramachandran, Prema. 1992. Need of organization of antenatal and intrapartum care in India. *Demography India* 21(2): 179-193. (as cited in NFHS-II)

In Himachal Pradesh, according to NFHS-II, mothers of 60.9% of births received at least three antenatal check ups, up from 41% in NFHS-I. For 35.4% of births, mothers received at least four antenatal check ups. Receiving at least three antenatal check ups is far more common in HP than in India as whole (43.8%). At least three antenatal check ups were received for 84% of births to mothers living in urban areas and only 58.9% of births to mothers living in rural areas. The shorter distances to places providing antenatal care services and the comparative ease of traveling in urban areas, as well as the higher educational attainment of mothers, could be important factors for the higher number of check ups received by mothers in urban areas than in rural areas. Again for 48.2% of births preceding the NFHS-II survey, mothers received their first antenatal check up in the first trimester of their pregnancy. (up substantially from 26% in NFHS-I), and another 34.5% were to mothers who received their first check up in the second trimester. Check ups during first trimester were much more common in urban areas (72.2%) than in rural areas (46.2%). The median timing of the first antenatal check up was 3.4 months in rural areas, 2.7 months in urban areas and 3.3 for the state as a whole.

Components of Antenatal Check-up: The effectiveness of antenatal check-ups in ensuring safe motherhood depends in part on the tests and measurements done and the advice given during the check-ups. The measurements/tests consist of height & weight measurement, checking up of blood pressure, testing of blood & urine, abdomen and other internal examination, and X-ray, sonography or ultrasound, Amniocentesis etc. (which are not recommended as a standard component of antenatal care). The kinds of antenatal advice, which are given, are about diet, danger signs of pregnancy, delivery care, newborn care and family planning.

In Himachal Pradesh, according to NFHS-II, among all births for which mothers received antenatal check ups, mothers had an abdominal examination in 87.9% of cases (75.3% in India) and had their blood tested in 75.1% of cases (59.2% in India). Other common components of antenatal check ups were urine tests (62.5%), checking blood pressure (61.8%) and weight measurement (61.8%). Mothers of only 15.5% of births had their height measured and mothers of 15.1% of births had a sonogram or ultrasound performed. Both in HP and India, X-ray examinations and amniocentesis were rarely performed. Again for both HP and India, all of these measurements or tests were performed more often for women living in urban areas than for women living in rural areas. In HP the differences by residence are most pronounced for weight measurement (87.8% in urban areas and 59.4% in rural areas) and sonography or ultrasound (40.7% for urban areas and 12.7% for rural areas). The rural urban differential follows almost similar trend for sonography or ultrasound for the whole country. Regarding the type of advice received by mothers who had antenatal check ups for births during the three years preceding the NFHS-II survey, in HP dietary advice was given in most of the cases (73.5%). Mothers were much less likely to receive advice on delivery care (29.5%), on newborn care (29.7%), on the danger signs of

pregnancy (28%) and on family planning (25.4%). The trends for India are similar, but except for advice regarding diet, the percentage of women receiving advice for all other things are significantly higher for India than that of HP. With the exception of family planning, the proportion receiving advice on each of these topics is higher in urban areas than in rural areas, in HP; whereas in India it is higher for women in urban areas than women in rural areas for each kind of advice.

Tetanus Toxoid Vaccination (TT): In India, an important cause of death in infancy is neonatal tetanus, which is caused by newborn infants becoming infected by tetanus organisms, usually at the umbilical stump. Neonatal tetanus is most common among children who are delivered in unhygienic environments and when unsterilized instruments are used to cut the umbilical cord. Tetanus typically develops during the first or second week of life and is fatal in 70-90 percent cases (Foster, 1984)³². If neonatal tetanus occurs where expert medical help is not available, as is common in many rural areas in India, death is almost certain. Neonatal tetanus, however, is a preventable disease. Two doses of tetanus toxoid vaccine given one month apart during early pregnancy are nearly 100 percent effective in preventing tetanus in both newborn infants and their mothers. Immunity against tetanus is transferred to the foetus through the placenta when the mother is vaccinated.

In India, the tetanus toxoid immunization programme for expectant mothers was initiated in 1975-76 and was integrated with the *Expanded Programme on Immunization* (EPI) in 1978 (*Ministry of Health and Family Welfare, 1991*). To step up the pace of immunization programme, the Government of India initiated the *Universal Immunization Programme* (UIP) in 1985-86. An important objective of the UIP was to vaccinate all pregnant women against tetanus by 1990. In 1992-93 the UIP was integrated into the *Child Survival and Safe Motherhood Programme*, which in turn has been integrated into the *Reproductive and Child Health Programme*. According to the *National Immunization Schedule*, a pregnant woman should receive two doses of tetanus toxoid injection, the first when she is 16 weeks pregnant and the second when she is 20 weeks pregnant (*Central Bureau of Health Intelligence, 1991*). Reinoculation is recommended every three years. If two doses were received less than three years earlier, a single booster injection is recommended.

Tetanus toxoid injections coverage in Himachal Pradesh is far from complete, according to NFHS-II data. But, it has increased substantially in recent years. For the births in the three years preceding the NFHS-II survey, 66.2% of mothers received at least two tetanus toxoid injections during pregnancy (up significantly from 47% in NFHS-I), compared to 66.8% in India (see Table-A38). Another 23.2% received one injection (8.2% in India). According to Government of HP,

³² Foster, Stanley. 1984. Immunizable and Respiratory Diseases and Child Mortality. In W. Henry Mosley and Lincoln C. Chen (eds.), *Child Survival: Strategies for Research, Population and Development Review* 10 (Suppl.): 119-140. (as cited in NFHS-II)

achievement of target regarding this injection was 92.83% in 1980-81, which declined to 72.68% in 1990-91 and again increased to 92.92% in 1999-2000 (Table-7.1.1). At the district level, in 1999-2000, Una has the highest level of achievement (100.94%). Achievement in Shimla (98.25%), Sirmaur (98.2%), Solan (99.8%) and Kangra (96.03%) is also very high. Consistently low achievers of the state are Lahul & Spiti (72.22%) and Chamba (72.58%), as can be seen from Table-A39.

Table 7.1.1: Achievements of targets in terms of immunization coverage for TT (PW) and IFA to mothers by the government of HP, since 1980-81 in HP

Years	Percent achieved in terms of immunisation coverage for mothers, by the Govt. of HP	
	TT(PW)	IFA to mothers
1980-81	92.83	68.99
1990-91	72.68	169.27
1999-2000	92.92	97.05

Note: TT (PW) refers to Tetanus Toxoid (Pregnant Women)

Source: Family Welfare Programme YearBook, 1999-2000(Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

According to NFHS-II, tetanus toxoid injections are more common in urban areas than in rural areas, like that of the whole country. Coverage varies inversely by age and birth order, both in HP and India. Again, both in HP and India the coverage is strongly related to level of education and standard of living. For example, in HP the coverage ranges from 47.9% for births to illiterate women (54.7% in India) to 74.9% for births to women who have completed at least high school (91.2% in India) and from 39% for births to women living in households with a low standard of living (55.4% in India) to 76.2% for births to women living in households with a high standard of living (87.5% in India). These results suggest that despite generally improving coverage of tetanus toxoid vaccinations, the coverage for socio-economically disadvantaged women lags far behind the optimal level, for HP as well as India. In HP for 39% of births to women from households with a low standard of living (34.1%in India) and for 29.2% of births to illiterate women (35.3%in India), mothers did not receive any tetanus toxoid injections.

Iron and Folic Acid Supplementation (IFA): Nutritional deficiencies in women are often exacerbated during pregnancy because of the additional nutrient requirements of foetal growth. Iron deficiency anaemia is the most common micronutrient deficiency in the world. It is a threat to safe motherhood and to the health and survival of infants because it contributes to low birth weight, lowered resistance to infections, impaired cognitive development and decreased work capacity. Studies in different part of India have estimated that the proportion of

births with a low birth weight (less than 2500 grams) ranges from 15 percent in Trivandrum to 46 percent in Baroda (*Nutrition Foundation of India, 1993*). Overall, about one-third of newborn children in India are of low birth weight, indicating that many pregnant women in India suffer from nutritional deficiencies. Improvement in a women's nutritional status, coupled with proper health care during pregnancy, can substantially increase her child's birth weight (Ramachandran, 1992)³³. To this end, the provision of iron and folic acid (IFA) tablets to pregnant women to prevent nutritional anaemia, forms an integral part of the safe motherhood services offered as part of the MCH activities of the Family Welfare Programme (*Ministry of Health and Family Welfare, 1991*), and now offered as part of the Reproductive and Child Health Programme. The programme recommendation is that pregnant women should consume 100 tablets of iron and folic acid during pregnancy.

According to NFHS-II, mothers in Himachal Pradesh received IFA supplements for 85.6% of births, which is much higher than the national average of 57.6% (see Table-A38). According to Government of HP data, achievement of target regarding IFA strikingly rose from 68.99% in 1980-81 to 169.27% in 1990-91 and then again declined to 97.05% in 1999-2000 (see Table-7.1.1). At the district level, there is no consistency of performance over the years 1997-98 to 1999-2000, excepting Hamirpur with very good performance and Chamba and Lahul & Spiti with a very bad performance. For the year 1999-2000, other districts with good performance are Kullu, Mandi, Shimla, Sirmour and Solan (Table-A40).

As with TT coverage, IFA coverage in HP is well below the average for births to women who are older, of high parity, illiterate and living in households with a low standard of living. IFA coverage is also lower in rural areas (84.9%) than in urban areas (94.8%). Again, not all mothers who received IFA received the three-month supply of tablets or syrup. Among births to women who received IFA during pregnancy, 82.8% received at least a three months supply and 85.4% consumed all the supplements given to them (Table-A38).

Thus, the distribution of IFA supplements is quite large in Himachal Pradesh and many women who receive IFA consume an adequate amount of IFA during their pregnancies. Nevertheless, one out of every seven women in HP still does not receive IFA during pregnancy. This suggests that the Reproductive and Child Health Programme needs to strengthen its efforts to inform pregnant women about the advantages of IFA and try to understand why some women do not consume all the IFA they receive, in order to better overcome resistance to the consumption of IFA.

³³ Ramachandran, Prema. 1992. Need of organization of antenatal and intrapartum care in India. *Demography India* 21(2): 179-193. (as cited in NFHS-II)

7.2 Delivery Care in Himachal Pradesh

An important thrust of the Reproductive and Child Health Programme is to encourage deliveries under proper hygienic conditions under the supervision of trained health professionals.

In Himachal Pradesh, according to NFHS-II, only 28.9 % of the deliveries occurred in health facilities/institutions such as government operated district, tehsil, town and municipal hospitals, PHCs, Private Hospitals and Private Nursing Homes (up from 16% in NFHS-I) compared to 33.6% in India (Table-A41). Institutional deliveries were four times likely to take place in government operated facilities, where 86% was attended by doctors a 14% by other health professionals. Doctors, in 83% of cases conducted deliveries in private Facilities. Non-institutional deliveries constituted 71.1% of all deliveries, where 60.7% took place in their own homes, 9.8% took place in their parents home and 0.6% in other places. A doctor or other health professional attended only 16% of non-institutional deliveries. Traditional birth attendants (TBA) attended a large majority of non-institutional deliveries. According to NFHS-II, in HP, 8 out of 10 deliveries that occurred in the mothers parents' home were attended by a TBA. Other persons including relatives and friends attended 4% of non-institutional deliveries (Table-A42). Examination of the data on assistance at delivery in HP reveal, as expected, that delivery in institutions is more prevalent among urban woman, more educated woman and woman having lower order birth NFHS-II.

7.3 Prevalence of Reproductive Health Problems in Himachal Pradesh

Absence of reproductive tract infections (RTIs) is essential for the reproductive health of both women and men and is critical for their ability to meet their reproductive goals. There are three different types of RTIs for women: endogenous infections that are caused by the multiplying of organisms normally present in the vagina; iatrogenic infections caused by the introduction of bacteria or other infection-causing micro-organisms through medical procedures such as an IUD insertion; and sexually transmitted infections (STIs). Endogenous infections and several of the iatrogenic and STIs are often easily cured if detected early and given proper treatment. If left untreated, RTIs can cause pregnancy-related complications, congenital infections, infertility and chronic pain. They are also a risk factor for pelvic inflammatory disease and HIV (*Population Council, 1999*).

A number of studies (Bang et al, 1989; Bang and Bang, 1991; Pachauri and Gittlesohn, 1994; Jeejeebhoy and Rama Rao, 1992)³⁴ have shown that many

³⁴ a) Bang, R.A., A.T.Bang, M.Baitule, Y. Chaudhury, S. Samikaddam and O. Tale. 1989. High prevalence of gynaecological diseases in rural Indian women. *Lancet* 1(8629):85-88; b) Bang, R.A. and A. Bang. 1991. Why women hide them: Rural women's viewpoints on reproductive tract infections. *Manushi* 69: 27-30; c) Pachauri, S. and J. Gittlesohn. 1994. Summary of Research Studies and Implications for Health Policy and Programmes. In J. Gittlesohn,

Indian Women suffer from RTIs. Several researchers have also shown that women in India often bear the symptoms of RTIs silently without seeking health care. RTIs and their sequelae are an important component of programmes for family planning, child survival, women's health, safe motherhood and HIV prevention. RTIs have profound implications for the success of each of these initiatives, and conversely, these initiatives provide a critical opportunity for the prevention and control of RTIs (Germain et al, 1992)³⁵. Studies have demonstrated that RTIs are an important reason for the poor acceptance and low continuation rates of contraceptive methods such as the IUD. Bhatia and Cleland (1995)³⁶ found a higher incidence of gynecological symptoms among women who had undergone a tubectomy than among other women. The Government of India recognized the importance of RTIs and STIs in undermining the health and welfare of individuals and couples in a policy statement on The Reproductive and Child Health Programme, which states that couples should be 'able to have sexual relations free of fear of pregnancy and contracting diseases' (*Ministry of Health and Family Welfare, 1997*). The Reproductive and Child Health Programme includes the following relevant interventions: establishment of RTI/STI clinics at district hospitals (where not already available), provision of techniques for laboratory diagnosis of RTIs/STIs, and in selected districts, screening and treatment of RTIs/STIs (*Ministry of Health and Family Welfare, 1997*).

We can obtain some data of the extent of reproductive health problems, prevalent in Himachal Pradesh from NFHS-II. In this survey report, one should be careful of the fact, which women are much more likely to report problems with vaginal discharge than to report symptoms of a urinary tract infection or problems related to intercourse.

M.E.Bentley, P.J.Pelto, M.Nag, S.Pachauri, A.D.Harrison and L.T.Landman (eds.), *Listening to Women Talk about Their Health Issues and Evidence from India*. New Delhi: Ford Foundation and Har-Anand Publications; and d) Jejeebhoy, Shireen J. and S. Rama Rao. 1992. *Unsafe motherhood: A review of reproductive health in India*. Paper presented at the workshop on Health and Development in India, sponsored by the National Council of Applied Economic Research and Harvard University, Center for Population and Development Studies, New Delhi, 2-4 January. (as cited in NFHS-II)

³⁵ Germain, Adrienne, King K. Holmes, Peter Piot and Judith N. Wasserheit. 1992. *Reproductive Tract Infections: Global Impact and Priorities for Women's Reproductive Health*. New York: Plenum Press (as cited in NFHS-II)

³⁶ Bhatia J.C. and John Cleland. 1995. On self-reported symptoms of gynaecological morbidity and their treatment in South India. *Studies in Family Planning* 26(4):203-216 (as cited in NFHS-II)

Table 7.3.1: Symptoms of RTIs in HP & India (Percentage of currently married women reporting about carious symptoms of RTIs, 1998-99)

State	Percentage with any abnormal vaginal discharge	Persons with symptoms of a urinary tract infection ¹	Percentage with any abnormal vaginal discharge or symptoms of urinary tract infection ¹	Percentage with painful intercourse (often)	Percentage with bleeding after intercourse (ever) ²	Percentage with any reproductive health problem
HP	26.5	14.3	30.8	8.6	0.7	33.7
India	30.0	17.8	35.9	12.5	2.3	39.2

Note : ¹ includes pain or burning while urinating or more frequent or difficult urination

² not related to menstruation

Source: NFHS-II (India), 1998-99

Table-7.3.1 above shows that 26.5% of currently married woman had at least one type of problem related to abnormal vaginal discharge (30% in India) and 14.3% had symptoms of a urinary tract infection. 30.8% of currently married women in Himachal Pradesh either had any abnormal vaginal discharge or urinary tract infections (compared to 30.9% in India). 8.6% of women often had a painful intercourse (12.5% in India) and 0.7% had bleeding after intercourse (2.3% in India). Overall in Himachal Pradesh 33.7% of women had at least some kind of reproductive health problem, which is lower than the national average of 39.2%.

In Himachal Pradesh, among women who report any reproductive health problems, 46.5% have not seen anyone for advice or treatment compared to 65.5% in India. The proportion of women who have not obtained advice or treatment is higher in rural areas (47%) than in urban areas (39.6%). In Himachal Pradesh more percentage of women sought advice or treatment from the public medical sector than the private medical sector; wherein contrast more people sought advice from the private medical sector for the whole country. NFHS-II results for Himachal Pradesh show that although one in every three currently married woman report at least one reproductive health problem that could be symptomatic of a more serious reproductive tract infection, about half of them bear the problem silently without seeking advice or treatment. These findings highlight the need to educate women regarding the symptoms and consequences of reproductive health problems and the urgent need to expand counseling and reproductive health services in both rural and urban areas.

Box 10: Reasons behind poor maternal health in Himachal Pradesh

- *Poor diet and nutritional deficiency*
- *Heavy workloads during pregnancy*
- *Mostly non-institutional deliveries.*
- *Deliveries attended by untrained dai's*
- *Deliveries under unhygienic conditions*
- *Taboos associated with child birth*

8. STATE OF HEALTH SERVICES IN HIMACHAL PRADESH

In spite of difficult hilly terrain and limited resources, the state has been attempting to solve the problem of accessibility of health services by establishing and locating health institutions as close to the people as possible. The ministry of Health and Family Welfare is at the apex of all the departments and directorates of health and family welfare services in the state. The Directorate of Health Services is responsible for providing preventive, curative, promotive and rehabilitative services to the community, including the rural, backward and tribal areas, through a network of Sub-Centres, Primary Health Centres, Community Health Centres, Rural Hospitals and Civil Dispensaries. It may be mentioned here that Himachal Pradesh has achieved better health indicators in comparison with some of the neighboring North Indian states in India. Part of this success lies in the growth and expansion of coverage of health institutions in the state. Considering the hilly and inaccessible terrain of the state, the health department concentrated on establishing the sub-centres at the panchayat level, so that basic health service can easily reach to the people living in remote areas. Between 1973-74 and 1983-84, 1014 new sub-centres were established in the state. In next ten years, the department gave more emphasis on establishing primary health centres and community health centres to provide relatively advanced health services to more people.

HEALTH INFRASTRUCTURE

I. Public Sector:

The state has a fairly extensive network of health institutions. This maybe attributable to the growth of medical institutions under different categories. The growth of allopathic medical institutions in the state between 1996 and 2000 has been provided in Table-8.1.

Table 8.1: District-wise Growth of Allopathic Medical Institutions in Himachal Pradesh between 1996 and 2000

Districts	General Hospital		CHC/Rural Hospital		Primary Health Centre		Sub-Centre		Civil Dispensary	
	1996	2000	1996	2000	1996	2000	1996	2000	1996	2000
Bilaspur	1	2	4	5	11	17	108	118	11	11
Chamba	3	4	5	7	24	28	159	169	11	11
Hamirpur	1	2	4	5	14	17	146	153	6	6
Kangra	7	8	9	12	35	47	407	434	35	34
Kinnaur	2	2	3	3	9	17	35	32	1	0
Kullu	1	2	3	5	14	12	97	100	5	5
L&S	1	1	2	3	7	9	32	35	6	5
Mandi	3	6	7	9	36	44	296	312	15	13
Shimla	11	11	5	6	42	55	238	259	30	31
Sirmaur	4	5	1	3	20	24	143	148	16	13
Solan	4	5	2	3	18	20	169	178	20	17
Una	1	2	2	4	14	12	124	131	9	9
HP.	39	50	47	65	244	302	1954	2069	165	155

Source: Directorate of Health Services, HP.

The Table-8.1 shows that there has been an expansion of healthcare network in the state in these years. For e.g. General Hospitals have increased from 39 to 50, and the number of primary health centres have risen by an impressive number of 58. However, numbers of civil dispensaries have fallen from 165 to 155. A district-wise disaggregated analysis shows that while there has been a general trend of expansion of network in most of the districts, Kinnaur has done particularly badly where there has been an actual contraction of the allopathic healthcare network, and the only civil dispensary in the district has closed down. However there is a serious shortage of medical personnel to run the units which are even running.

In Himachal Pradesh, a high proportions of delivery take place at home, and attended by poorly trained 'dai's. One of the main reasons behind this is distance of nearest health care facility, beside other taboos regarding childbirth. The following table (Table: 8.2) shows that nearly 40 percent women unable to access any health care facility within the village, and more than 32 percent women travel at least than five kilometers for any health services. Median distances from particular health facilities are 6.4 kms from a PHC, 1.5 kms from a sub-centre, 9.9 kms from a hospital and 2.3 kms from a dispensary or a clinic.

Table 8.2: Percentage distribution of ever-married rural women aged 15-49 by distance from the nearest health facility, HP in 1999.

	Sub-centre	PHC	PHC or Sub-centre	Hospital	Dispensary /Clinic	Any Health Facility
Within Village	46.3	13.1	47.7	7.1	40.7	60.2
< 5 kms.	37.1	25.2	39.1	17.4	34.7	32.2
5-9 kms.	9.8	29.5	11.2	25.8	13.2	7.5
10 kms.	6.8	32.2	2.0	49.7	11.4	0.0

Source: NFHS-II

Himachal Pradesh is basically a rural state with 92 percent of the population living in rural areas. Therefore it maybe useful to probe into the level of coverage of the healthcare network in the rural areas of the state. Coverage norms for opening primary health care institutions fixed by govt. of India and the level of achievement for the Governments HP & India to fulfil the norms is shown in the following Table 8.3.

Table 8.3: Rural health infrastructure: norms and levels of achievement in HP & India

Indicator	National Norms		Achievements of HP as on 30.06.2000	Achievements at National level as on 31.12.1998
	General Areas	Tribal Hilly Areas		
Rural population covered by a				
a) Sub-centre	5000	3000	2698	4595
b) Primary health centre	30000	20000	18485	27345
c) Community health centre	120000	80000	85883	232000
Number of sub-centres per PHC	6	6	6.85	5.96
Number of PHC per CHC	4	4	4.65	8.48
Rural population covered by a :				
a) MPW (F)	5000	3000	2828	4687
b) MPW (M)	5000	3000	3502	8746
Ratio of HA(M) to MPW(M)	1:6.0	1:6.0	1:4.7	1:3.3
Ratio of HA(F) to MPW(F)	1:6.0	1:6.0	1:5.7	1:7.0

Rural Infrastructure

Indicator	Achievements of HP, as on 30.06.2000	Achievements at National level As on 31.12.1998
1 Average Area (sq kms) covered by a		
a) Sub-centre	26.90	22.89
b) PHC	184.30	136.39
c) CHC	856.50	1156.52
2 Average radial distance (kms) covered by a		
a) Sub-centre	2.93	2.70
b) PHC	7.66	6.59
c) CHC	16.51	19.18
3 Average number of villages covered by a		
a) Sub-centre	8.22	4.29
b) PHC	56.28	25.57
c) CHC	261.49	216.85

Source: *Family Welfare Programme Year Book, 1999-2000* (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh).

Table-8.3 shows that the norms regarding coverage of population for different health institutions and personnel has not been fulfilled in the state, especially in the rural areas. However, HP has achieved success in the average area covered, radial distances covered and average number of villages covered (for all the categories) compared to the national level. Now within the subcategories it maybe pointed out that average area covered by the Community Health Centres have lagged behind the national average while the Primary Health Centres and Sub-centres have actually done better.

Indian System of Medicine and Homeopathy play a vital role in the health care system of Himachal Pradesh. The state has a rich tradition of folk medicine and ancient Ayurvedic System of medicine. Moreover, Himachal Pradesh is a storehouse of herbal medicinal plants. The state is one of the major suppliers of raw medicinal plant products in India and abroad. More than forty species as enlisted by the state forest department are exported from the state. The actual list of products could well be much longer. The state has shown keen interest in promoting Indian system of medicines, especially Ayurveda that is widely popular, acceptable and affordable for the people of the state. There is a separate dept for ISM&H in the state. The ISM institutions as on 1.1.2000 were:

1.	<i>Ayurvedic College</i>	= 1
2.	<i>Ayurvedic Hospitals</i>	= 22
3.	<i>Ayurvedic Dispensaries</i>	= 1109
4.	<i>Unani Dispensaries</i>	= 3
5.	<i>Homeopathic Dispensaries</i>	=14
6.	<i>Panchkarma Unit</i>	=2
7.	<i>Amchi Clinic</i>	=4
	Total	=1153
	<i>Total bed capacity is 410</i>	

As we can see from the Table-8.4, we find that the number of Ayurvedic hospitals has increased from 12 in 1996 to 22 in year 2000, no. of Ayurvedic dispensaries has increased from 659 in 1996 to 1109 in 2000, no. of Unani dispensaries have not shown any increase in between 1996 and 2000, and no. of Homoeopathic dispensaries has also shown no rise in between 1996 and 2000. This has been brought about by explicit policy at the state level to accord official support to these institutions within the government health delivery structure Institutions belonging to other Indian systems of medicines like panchkarma units and amchi clinics have not progressed much. As with the allopathic medical network, even the growth of the I.S.M network in Kinnaur district seems to be lagging behind in comparison with other districts as the district-wise disaggregated analysis in Table 8.4 shows.

Table 8.4: District-wise Growth of Medical Institutions under I.S.M & Homeopathic Department in Himachal Pradesh between 1996 and 2000

Districts	Ayurvedic Hospitals		Ayurvedic Dispensaries		Unani Dispensaries		Homeopathy Dispensaries	
	1996	2000	1996	2000	1996	2000	1996	2000
Bilaspur	1	2	36	63	0	0	1	1
Chamba	1	2	58	98	0	0	1	1
Hamirpur	1	3	31	68	0	0	0	0
Kangra	2	4	128	226	1	1	0	0
Kinnaur	1	1	35	40	0	0	0	0
Kullu	1	1	38	63	0	0	0	0
L&S	0	1	14	20	0	0	0	0
Mandi	1	2	91	162	0	0	0	0
Shimla	1	2	92	145	1	1	0	0
Sirmaur	1	1	49	80	0	0	0	0
Solan	1	1	46	75	1	1	0	0
Una	1	2	41	69	0	0	0	0
HP	12	22	659	1109	3	3	2	2

Source: Directorate of Health Services, HP.

II. Private Sector :

Private health institutions

This sector is also coming up in the state now. There is a considerable number of private clinics, but the private hospitals and nursing homes, with indoor facilities, are mainly located at Shimla and other district towns. A few private hospitals have been set up at sub-divisional levels. Total bed capacity of private sector in the state is about 500 and is mainly restricted to urban locations. The overall picture demonstrates that people of the state heavily depend on the healthcare provisions provided by the state government and presence of private agencies still remains quite low.

TRAINING INFRASTRUCTURE

There are quite a few basic and in-service training institutions in HP. These include Health and Family Welfare Training Centres (in Shimla and Kangra), Para-medical Training Schools, Medical and Dental Colleges and Training Facilities in ISM&H Department. Guest faculty is invited from H&FW Directorate and other institutions and these training institutions are meant to impart in-service training to Medical Officers and Para-medical staff of the health department from time to time. A Principal, who is assisted by Epidemiologist/Medical Lecturer and other departments, heads each training centre.

There are facilities for pre-service and in-service training for all categories of staff in the health department. Given below is the detail of training facilities:

- | | |
|--|------------------------------------|
| a) General Nursing Training Schools | = 5 (Total capacity 230 per batch) |
| b) Female Health Workers Training Schools | = 7 (Total capacity 420 per batch) |
| c) Male Health Workers Training Schools | = 6 (Total capacity 360 per batch) |

Indira Gandhi Medical College, Shimla and Zonal Hospital, Dharamshala also train technical medical staff. There are two Medical Colleges and one Dental College in the government sector while there are two more Dental Colleges in the private sector. The following box presents the training facilities in ISM&H Department.

- | |
|--|
| a) Ayurvedic College at Paprola (Kangra) for course of BAMS. |
| b) Pharmacy Training School at Jogindernagar has capacity to train Ayurvedic Pharmacists and training is conducted as per needs of the Health Department. |

POSITION OF MEDICAL PERSONNEL

As mentioned earlier there is a serious shortage of medical personnel to run the health units in the state. The position of major categories of staff as it stood on 31.1.2000 is shown in the following Table-8.5;

Table 8.5 : Position of Medical Staff in Himachal Pradesh as on 31 January 2000

Category	Sanctioned	In Position	Vacancy	Percentage of Vacancy
Medical Officers	1498	1369	129	8.61
Staff Nurses	1427	1107	320	22.42
Female Health Workers	2210	1974	236	10.68
Male Health Workers	2011	1594	417	20.74
Sr. Lab. Technicians	612	457	155	25.33
Lab. Assistants	169	115	54	31.95
Pharmacists	857	684	173	20.19
Chief Pharmacists	80	73	7	8.75
Radiographers	183	143	40	21.86
Ophthalmic Assistants	145	95	50	34.48
OTAs	95	77	18	18.95
Male Health Supervisors	413	385	28	6.78
Female Health Supervisors	350	385	20	5.71

Source: H&FW Department

From the above Table-8.5, it is clear that there are still many vacancies with regard to categories like Medical Officers, Staff Nurses, Health Workers, Lab. Technicians, and Pharmacists etc. Particularly the shortage of female staff is disconcerting. Given the dependence of women in the state on female workers for the delivery of the necessary health services, there is a definitive disadvantage that woman in the state face in terms of healthcare coverage.

FINANCE

State intervention is significantly visible in the health care financing of Himachal Pradesh. Twin indicators of the degree of government interventions in health services provision are (i) the proportion of health expenditure in the Gross State Domestic Product and (ii) the share of government expenditure set apart for health. The health expenditure to GSDP ratio of Himachal Pradesh was more than 2% in most of the years, which is remarkably higher than that in the neighboring states of Punjab and Haryana and also the national average that hovers around 1.3%. Focusing on the second indicator of governmental intervention we take a look at the budget allocation to health sector between 1995-96 and 2000-2001 in the following table. (see Table: 8.6)

Table 8.6: Total and Health Budget: Himachal Pradesh

Year	Total State Budget (Rs. Crores)	Health Budget (Rs. Crores)	Percent Allocation to Health Sector
1995-96	2275.98	136.83	6.01
1996-97	2668.73	160.95	6.03
1997-98	2890.54	168.15	5.82
1998-99	4020.02	210.79	5.24
1999-2000	4465.79	237.33	5.31
2000-2001	5278.37	273.47	5.18

Source: HP Govt.

Budget allocation to health sector from 1995-96, till date, clearly shows an overall decline, as shown in the above table. It is to be noted that, during this period, in spite of the acute fiscal crisis of the states reflected in their revenue and fiscal deficits, the relative share of government expenditure in medical and public health remained constant at around 6% in Himachal Pradesh. This is quite remarkable in view of the fact that in the adjacent states of Punjab and Haryana, these figures show a clear decline. From data compiled from CAG's reports, "Combined Finance and Revenue Accounts" and "State budgets" as done by *Cehat*³⁷, Mumbai we find that public expenditure on health can be further

³⁷ Roy, Nilanjana & Ravi Duggal (2000). *Health Care Profile : Himachal Pradesh* :Cehat Research Centre of Anusandhan Trust, Mumbai.

desegregated for studying changes in the pattern of allocation of health expenditure under different categories. Although 'hospitals and dispensaries' has continued to contribute the highest percentage share in health expenditure over the years, a declining trend in this share is visible over the last several years. The share of national disease control programmes has also shown a sharp decline over this period, while there is a significant rise in the share of expenditure on family welfare programmes. The proportion of health expenditure on revenue account on maternal and child health has shown a marginal rise as against a marginal decline in the share of expenditure on medical education and training.

In addition, State also receives funds directly under various like Reproductive and Child Health, Leprosy, Tuberculosis, Prevention of Blindness, Pulse-Polio Campaign, HIV and AIDS through recently established mechanisms of autonomous societies at state and district level.

The utilization of health care services depends on a plethora of factors, such as accessibility, availability, quality and cost of services. The NSSO 42nd and 52nd rounds reveal that more than 85% of people in the rural areas of Himachal Pradesh utilize public health care facilities for hospitalization. Even in the urban areas, an increasing trend is noted in the utilization of the public health care facilities for hospital treatment. (see Table-8.7)

Table 8.7: Utilization of Health Care Service: Public-Private Differentials in Himachal Pradesh

Utilisation by type of treatment [%]	Rural		Urban	
	Public	Private	Public	Private
Hospitalisation cases				
NSSO 42 nd round [1986-87]	87.93	10.09	80.98	19.02
NSSO 52 nd round [1995-96]	86.50	11.50	91.30	8.00
Non-hospitalisation cases				
NSSO 42 nd round [1986-87]	60.67	38.33	47.71	50.22
NSSO 52 nd round [1995-96]	61.00	39.00	48.00	52.00

Source: NSSO rounds compiled by Cehat.

A significant utilisation of health services of private sector is noted in the most of the states of India as revealed by the different rounds of NSSO. Himachal Pradesh is an exception in this regard. NSSO 52nd round revealed that 76% of treatments were availed from public population, which is significantly high in terms of national average. A distinct trend is visible in the utilisation of public hospitals in both rural and urban areas of Himachal Pradesh (see Table-8.8).

Table 8.8: Source of treatment: Public-Private Differentials in Himachal Pradesh

	Public Hospital	Primary Health	Public Dispensary	Private hospital	Nursing Home	Charitable Institutions	Others	Total
Rural	76.1	4.3	0.8	13	1.5	2.3	0.5	100
Urban	86.9	1.9	0.0	7.5	1.9	0.9	0.0	100

Source : NSSO 52nd round

HEALTH CARE PROBLEMS IN HIMACHAL PRADESH

Department of Health and Family Welfare (2000), Himachal Pradesh has identified several health care problems in the state. The major problems among those are the followings:

1) Uneven distribution of Primary Health Care facilities : Out of 3000 odd Gram Panchayats, about 400 are still without primary healthy care facilities, whereas a number of them have the facilities of more than 2 primary health care institutions including a Ayurvedic Health Centre etc.

2) Absence of Urban Primary Health Care Services : There is no urban primary health care setup in the state resulting in over - crowding in zonal, district and sub-district hospitals.

3) Uneven distribution of health manpower : Primary Health Centres and CHCs remain without prescribed number of Medical Officers and supporting staff. Institutions located in comfortable areas are better staffed than those in rural and remote areas.

There are 115 sub-centers without health worker (1998) and are manned by workers either on deputation or deployment.

4) Lack of well-defined Service norms and standards : Service and staffing norms for health institutions are neither properly defined nor followed. This results in undue referrals and delayed treatment. Absence of Hospital manual is another shortcoming.

5) Human Resource Development (HRD) : HRD is the most important component in the present day health care. The technology and science is developing so fast that a Medical Officer or a nurse is required to be kept abreast with the latest. There are no specified trainers for the purpose. Staff engaged in other vocations takes up the training work too. The training institutions are also without the latest gadgets required for modern day scientific training.

6) Referral system : The available primary health care facilities are under-utilized because of ill-defined referral system. The secondary and tertiary care centers, as a result, are overcrowded, thereby diluting their effectiveness as they have to perform the dual role of primary, and secondary or tertiary health care level.

7) Poor maintenance of buildings : There is a dearth of proper buildings for health institutions in the State. And lack of maintenance of the government buildings is a grave problem. Residential accommodation is short. It frequently results in non-availability of staff for emergency duties.

8) Information Education and Communication (IEC) : The thrust of IEC so far has been patchy, with emphasis on population control and immunization only. Promotion of positive health has rarely been conceived. There has been a lukewarm effort to make a health communication strategy, which ultimately caters to the comprehensive needs of the people.

9) Health Management Information System (HMIS) : Health Management Information System has stayed in rudimentary stage primarily because of primitive mechanism of data collection. Information technology is not being used and computerization is limited to state level only, that too partially.

10) Private Sector : The absence of proper regulatory mechanism in the state has led to unethical health practices followed by a few private practitioners, which need to be checked. There is also a need to establish a dialogue between the private and public health sector so that duplication of efforts and wastage of resources is reduced.

11) Indigenous System of Medicines (ISM) and Other Systems : Large numbers of ISM&H practitioners in the State both in government and private sectors are providing the curative services. Their services are not being utilized. This requires good coordination.

12) Community Participation and PRI : The community, for whom the health services are meant, is rarely involved in health planning and monitoring. Its participation is restricted to adoption of certain measures related to communicable diseases. Client oriented participation is lacking. Panchayati Raj institutions (PRI) are not aware of their role in health sector. And so their response has been lukewarm so far.

13) NGO and Voluntary Sector : NGO and voluntary sector is still in infancy in the state. One confederation of NGOs is involved in health sector at the state level. The recently constituted Co-ordination Committee for NGOs may show greater involvement of NGOs in the coming times.

9. CONCLUDING REMARKS

Gender is one important dimension of the many pervasive social inequalities in our society, which threatens peoples' health and well being. Other important inequalities include the gap between the rich and the poor, low and high caste, and the rural-urban divide. Those on the wrong side of these divides suffer from poorer conditions of health and poorer effective access to services which are supposed to be universally available. What distinguishes gender from these other forms of inequalities, though, is that it is an *intra-household* inequality; whereas the others are *between-household* inequalities. The disadvantage that women suffer is *superimposed* on the other disadvantages that the household as a whole suffers. Thus, for example, females in rural households suffer the combined disadvantages of the rural-urban divide as well as the gender divide.

It is recognized that the initiative and efforts taken to address women's issues have been inadequate, distorted, vertical, top-down and have rarely emerged out of women's priority concerns. A very low prevalence of institutional deliveries and various taboos associated with childbirth, the declining sex ratio over the previous decade especially in the age group of 0-6 years population, the increasing number of infant and maternal mortality which is not even documented properly, consistent deficit of iron and vitamin A in the diet across almost all the age groups resulting in high prevalence of partial and complete blindness and anaemia among women and children, significantly increasing trend of STDs/RTIs etc. are some of the major issues which need focused interventions. Again, rarely have women's experiences, views, concerns and local health practices received the priority they deserve. For example, the universal package of 'iron folic acid and tetanus toxoid' has been presented as the only solution for improved maternal health. Women's access to adequate food or calorie deficit, due to her continued hard physical labour till the end of pregnancy, remains a non-issue. Even when it is women in the child-bearing age that have received attention, the focus has been on fertility control. Again, even if the question is family planning, almost the entire responsibility has to be borne by women only which is reflected from the fact that the prevalence of female sterilization is more than six times as compared to the prevalence of male sterilization in the state. The problems of girls, especially adolescents, women who are unmarried, childless, older, disabled, deserted etc., have also been neglected.

Probably in no other country are women spoken as '*devis*' and yet denied their rights to personhood and discriminated against because of their gender. This phenomenon is worst in the northern states of India, where low female literacy, combined with low social status of women, has resulted in keeping them oppressed in the name of community, culture, tradition, family honour and religion. In areas where women and girls are neglected, their health status is obviously negatively affected. Here we must mention that female literacy is relative higher in HP than in many other states in India, especially the north

Indian states, but it still remains at a much lower level when compared with the male literacy rate of the same state.

However, it is not only the case that Himachal Pradesh has not achieved anything regarding health matters. The address by Shri Prem Kumar Dhumal, Chief Minister of Himachal Pradesh delivered on the occasion of the First Meeting of the National Population Commission on July 2, 2000 rightly emphasised the commendable advances made by the State of Himachal Pradesh in the area of health. The significant decline in the incidence of communicable diseases such as malaria, tuberculosis and leprosy in the state, decently high rate of various vaccination coverage in different child immunization programmes as well as the high commitment of the state government to provide quality health care to the population reflected in the high percentage of state budget allocated to health needs, bear out these claims. Moreover, the Health and Family Welfare Department of the Government of HP has constituted a Task Force on 31st May, 1999 for developing *Himachal Health Vision 2020*, as a part of the visionary approach towards overall development of the state, namely *Vision 2020*; the concept laid by Prof. Prem Kumar Dhumal, Hon'ble Chief Minister of Himachal Pradesh when he delivered an address at "The Partnership Summit-1999" on 7-9 January, 1999 at Confederation of Indian Industries (CII) organized at Jaipur. This has been constituted to identify the existing status of health in the state, locate the problems regarding formulation and successful implementation of various health programmes and focus on the requisite strategies for meaningful interventions. But, even in the document of the *Himachal Health vision 2020* the failure to address the socio-economic and political roots of the continued poor health of our women has been visibly clear and the 'misdiagnosis' of women's health problems, the 'misprioritisation' and propagation of demographically driven technological fixes, has been viewed as the ultimate solution to women's health problems.

The support being given by the state government to the promotion of ayurvedic and Indian system of medicines is laudable, especially the attempt to tie it up with the public health delivery system. However, without adequate investments in road transport and other infrastructural facilities, and in the provision of specialist medical services in the state, these problems might continue to persist.

Again, it has been noted above that the presence of NGOs and the private sector in the area of health is far less pervasive in Himachal Pradesh than in many other states in the country. It would be advisable to involve NGOs and the private sector on a much wider scale than is currently the case in the state if the challenge of ensuring health for all is to be met in the near future.

However, there may be hope for the government seems to have adopted a planned initiative to promote health consciousness through Panchayats. Panchayats are institutions of local governance and elected Panchayats have become mandatory all over India after the constitutional amendments. In HP the

Panchayati Raj Act of 1968 has provided for women representation. The government of HP is thus trying to empower women through the Panchayats so that they are themselves able to address various women's health issues like reproductive health, intra-household relationships etc., interact with *mahila mandals* and forward their resolutions to the government and discuss problems and find solutions.

When gender discrimination has been socialized and internalized, it is no longer visible to the gender insensitive majority; which includes both men and women. Unfortunately, religion, health care, education, the legal system, employment and the media reflect and promote gender discrimination. Efforts at building a gender perspective and gender sensitization in health care and development has repeatedly met with resistance from patriarchal structures. Men continue to control decision making, limited family resources, women's sexuality, freedom of movement, access to the world outside the home etc. Under these circumstances, women remain totally dependent and powerless, unless they find strength within or support from the outside. Women need a supportive environment to ensure that they are fed adequately, are educated and can make decisions regarding their life and their children.

APPENDIX - I: Statistical Tables

Table A.1: Strategic indicators on health status: Himachal Pradesh and India

	Himachal Pradesh	India
Population (Total) ¹	6077248	1027015247
Male	3085256	531277078
Female	2991992	495738169
Population Density / Sq.k.m ¹	109	324
Crude Birth Rate ²	23.8	26.1
Crude Death Rate (Total) ²	7.3	8.7
Male	8.2	9.0
Female	6.5	8.3
Infant Mortality Rate (Total) ²	54.1	70.0
Male	56.9	69.8
Female	51.1	70.8
Life Expectancy at Birth (Total) ³	65.1	61.1
Male	64.6	60.4
Female	65.2	61.8
Sex Ratio ¹	970	933
Maternal Mortality Rate ⁴	N.A	540
Total Fertility Rate ⁴	2.14	2.85
Couple Protection Rate ³	51.57	N.A
Literacy Rate (Total) ¹	77.13	65.38
Male	86.02	75.85
Female	68.08	54.16
Mean Age at Marriage (Male) ⁴	26.7	24.9
Mean Age at Marriage (Female) ⁴	22.1	19.7

Source: ¹ Census of India, 2001

² SRS Bulletin-April, 2001 (estimates for 1999; (Note: In the same publication we get different estimates of IMR, e.g. Total IMR is 62 when rural-urban break-up is provided in pp-1 and the same is 54.1 when male-female break-up is given in pp-5; but here we have taken the data with the male-female break-up. Again, there is a huge difference in IMR with the data of NFHS-II, where total IMR is only 34.4 for the five years preceding the survey (1994-98))

³ Family Welfare Programme Year Book 1999-2000; Demographic and Evaluation Cell; Health and Family Welfare Dept. HP

⁴ NFHS-II, 1998-99, India & HP

Table A.2: District-wise Distribution of Infant Mortality Rate and Child Mortality Rate in Himachal Pradesh with Gender break-ups, 1991

State / Districts	Infant Mortality Rate			Child Mortality Rate		
	Male	Female	Total	Male	Female	Total
Bilaspur	70	71	71	80	84	82
Chamba	109	93	104	113	114	113
Hamirpur	65	65	65	82	79	81
Kangra	79	74	77	100	99	100
Kinnaur	124	122	123	159	145	152
Kullu	101	102	102	115	116	116
L & Spiti	61	56	59	124	118	122
Mandi	69	69	69	92	87	90
Shimla	112	77	104	133	119	126
Sirmaur	94	93	94	124	111	118
Solan	87	81	84	105	99	101
Una	70	74	72	92	97	96
H P	84	81	82	98	92	95

Source: Himachal Pradesh District Profile 1991, Census of India 1991.

Table A.3: Estimated Crude Birth Rate by Districts in HP, 1998 and 1991

State / District	CBR, Census 1991
Bilaspur	27.89
Chamba	35.18
Hamirpur	25.36
Kangra	28.21
Kinnaur	30.52
Kullu	32.63
Lahaul & Spiti	28.14
Mandi	30.12
Shimla	28.92
Sirmaur	34.25
Solan	29.81
Una	27.82
Himachal Pradesh	29.37

Source: Census of India, 1991.

Table A.4: Sex Ratio in Himachal Pradesh & India (1901-2001)

Census Year	Himachal Pradesh	India
1901	884	972
1911	889	964
1921	890	955
1931	897	950
1941	890	945
1951	912	946
1961	938	941
1971	958	930
1981	973	934
1991	976	927
2001	970	933

Source: Census of India 2001

Table A.5: Sex Ratio in HP across Districts in 1991 & 2001

State/Districts	Sex Ratio in the Years		Sex Ratio for (0-6)years, in
	1991	2001	2001
Bilaspur	1002	992	884
Chamba	949	961	962
Hamirpur	1105	1102	864
Kangra	1024	1027	836
Kinnaur	856	851	NA
Kullu	920	928	960
L&Spiti	817	804	986
Mandi	1013	1014	916
Shimla	894	898	930
Sirmaur	897	901	940
Solan	909	853	900
Una	1017	997	839
HP.	976	970	897

Source: Provisional Census Results 1991 and 2001 (State and District Level)

Table A.6: Literacy rates by Sex in HP

State /district	Literacy rates (%)					
	1991			2001		
	Total	Males	Females	Total	Males	Females
Bilaspur	67.17	77.97	56.55	78.80	87.13	70.53
Chamba	44.70	59.96	28.57	63.73	77.22	49.70
Hamirpur	74.88	85.11	65.90	83.16	90.86	76.41
Kangra	70.57	80.12	61.39	80.68	88.19	73.57
Kinnaur	58.36	72.04	42.04	NA	NA	NA
Kullu	54.82	69.64	38.53	73.36	84.55	61.24
L&Spiti	56.82	71.78	38.05	73.17	82.76	60.94
Mandi	62.74	76.65	49.12	75.86	86.67	65.36
Shimla	64.61	75.96	51.75	79.68	87.72	70.68
Sirmaur	51.62	63.20	38.45	70.85	79.73	60.93
Solan	63.30	74.67	50.69	77.16	85.35	67.48
Una	70.91	81.15	61.01	81.09	88.49	73.85
HP.	63.86	75.36	52.13	77.13	86.02	68.08

Source: Provisional Census Results 1991 and 2001 (State and District Level)

Table A.7: District-wise Total Fertility Rate in Himachal Pradesh, 1981 and 1991

State / Districts	TFR 1981	TFR 1991
Bilaspur	4.5	3.3
Chamba	4.9	4.5
Hamirpur	4.3	3.0
Kangra	4.8	3.4
Kinnaur	4.9	4.0
Kullu	4.9	4.0
Lahaul and Spiti	4.2	3.8
Mandi	4.6	3.5
Shimla	4.1	3.5
Sirmaur	4.9	4.5
Solan	4.6	3.5
Una	4.9	3.5
Himachal Pradesh	4.7	3.6

Source: Census of India 1981 and 1991

Table A.8: Percentage distribution of currently married women by desire for children according to number of living children for HP, 1998-99

Desire for children	Number of living children				
	None	One	Two	Three	Four or more
Want another within 2 years	61.8	28.2	3.5	2.6	1.3
Want another after 2 years	30.2	35.4	4.1	1.6	0.4
Want another undecided when	0.7	0.3	--	0.2	--
Undecided	1.1	1.6	0.4	0.5	0.4
Up to god	--	--	--	--	--
Want no more	1.8	28.4	38.4	21.1	24.0
Sterilized	--	5.6	53.1	73.6	73.4
Declared infecund	4.5	0.5	0.4	0.4	0.6

Note: (—) implies less than 0.05 percent

Source: NFHS-II

Table A.9: Knowledge of contraceptive methods by residence, HP & India, 1998-99 (percentage of currently married women who know any contraceptive method by specific method and residence)

	Urban		Rural		Total	
	HP	India	HP	India	HP	India
Any method	100.0	99.7	100.0	98.7	100.0	99.0
Any modern method	100.0	99.7	100.0	98.6	100.0	98.9
Pill	99.1	91.5	93.4	75.2	93.9	79.5
IUD	98.4	87.8	91.7	64.6	92.3	70.6
Condom	98.7	88.0	93.1	64.9	93.6	71.0
Female sterilization	100.0	99.3	100.0	97.8	100.0	98.2
Male sterilization	99.9	93.6	99.8	87.8	99.8	89.3
Any traditional method	93.7	60.3	90.6	44.9	90.9	48.9
Rhythm/safe period	91.8	56.7	87.5	41.0	87.9	45.1
Withdrawal	75.4	41.1	67.6	27.7	68.3	31.2
Other method	2.0	3.1	1.4	2.6	1.4	2.7

Note: 'Other method' includes modern and traditional methods that are not listed separately

Source: NFHS-II

Table A.10: Ever use of contraception by residence, HP & India, 1998-99
(percent distribution of currently married women by contraceptive methods ever used by specific methods and residence)

	Urban		Rural		Total	
	HP	India	HP	India	HP	India
Any method	85.6	67.2	76.5	50.8	77.3	55.1
Any modern method	77.4	61.0	67.1	45.2	68.0	49.3
Pill	7.3	11.4	6.5	7.4	6.6	8.4
IUD	19.4	11.4	6.3	3.5	7.5	5.6
Condom	34.5	16.8	12.3	4.8	14.3	7.9
Female sterilization	34.1	36.0	46.1	33.5	45.1	34.2
Male sterilization	4.1	1.9	7.7	2.1	7.4	2.0
Any traditional method	25.1	15.1	24.2	10.6	24.2	11.8
Rhythm/safe period	17.8	10.9	18.7	7.9	18.6	8.7
withdrawal	11.4	8.0	8.8	5.1	9.0	5.9
Other method	0.2	1.2	0.5	1.0	0.5	1.0

Note: 'other method' includes modern and traditional methods that are not listed separately

Source: NFHS-II

Table A.11: Current use of contraception in HP & India, 1998-99 (percent distribution of currently married women by contraceptive methods currently used by specific methods and residence).

	Urban		Rural		Total	
	HP	India	HP	India	HP	India
Any method	74.3	58.2	67.0	44.7	67.7	48.2
Any modern method	63.9	51.2	60.5	39.9	60.8	42.8
Pill	1.5	2.7	1.3	1.9	1.3	2.1
IUD	6.3	3.5	1.6	1.0	2.1	1.6
Condom	17.8	7.2	3.7	1.6	5.0	2.1
Female sterilization	34.1	36.0	46.1	33.5	45.1	34.2
Male sterilization	4.1	1.8	7.6	1.9	7.3	1.9
Any traditional method	10.4	6.7	6.4	4.4	6.8	5.0
Rhythm/safe period	5.6	3.9	4.2	2.7	4.4	3.0
withdrawal	4.8	2.8	2.2	1.7	2.4	2.0
Other method	0.0	0.3	0.2	0.4	0.2	0.4

Note: 'other method' includes modern and traditional methods that are not listed separately.

Source: NFHS-II

Table A.12: Current use of family planning by age in HP & India, 1998-99

	Age of currently married women													
	15-19		20-24		25-29		30-34		35-39		40-44		45-49	
	HP	India	HP	India	HP	India	HP	India	HP	India	HP	India	HP	India
Any method	6.0	8.0	27.2	26.0	62.2	49.3	81.0	62.7	88.4	67.4	85.7	64.9	78.7	57.2
Any modern method	4.0	4.7	21.7	21.2	53.6	43.8	75.7	56.2	79.5	60.8	76.7	59.1	74.6	53.5
Pill	2.0	1.3	2.9	2.8	1.2	2.9	1.0	2.5	1.5	1.9	0.6	1.0	--	0.3
IUD	2.0	0.5	0.8	1.8	2.7	2.5	2.9	2.3	2.9	1.6	1.7	0.8	0.5	0.4
Condom	0.0	1.4	6.5	3.2	6.7	4.3	6.7	4.4	4.8	3.2	2.7	1.7	0.3	0.7
Female sterilization	0.0	1.5	10.4	13.3	40.4	33.5	58.4	46.1	63.9	51.6	58.4	50.8	50.0	44.1
Male sterilization	0.0	0.0	1.0	0.2	2.5	0.6	6.7	1.0	6.4	2.6	13.4	4.8	23.8	8.0
Any traditional method	2.0	3.3	5.6	4.6	8.7	5.1	5.1	6.0	8.6	6.1	8.6	5.4	3.6	3.3
Rhythm/safe period	2.0	1.7	3.1	2.7	5.9	3.2	2.9	3.6	5.9	3.7	5.5	3.4	2.6	2.1
withdrawal	0.0	1.7	2.4	1.9	2.8	1.9	2.2	2.4	2.7	2.3	3.2	2.0	1.1	1.2
Other method	0.0	0.0	0.0	0.2	0.0	0.4	0.2	0.5	0.3	0.5	0.3	0.4	0.4	0.4

Note: 'other method' includes modern and traditional methods that are not listed separately.

Source: NFHS-II

Table A.13: Current use of family planning by level of education: HP & India, 1998-99

	Level of education of current married women							
	Illiterate		Literate < middle school complete		Middle school complete		High school complete & above	
	HP	India	HP	India	HP	India	HP	India
Any method	73.5	42.9	71.1	55.5	63.2	52.2	57.5	57.0
Any modern method	68.1	39.2	66.6	49.7	55.3	44.6	45.9	47.1
Pill	0.7	1.2	1.0	3.3	1.3	3.7	2.7	3.0
IUD	0.4	0.5	0.8	1.5	2.0	2.9	6.0	5.7
Condom	1.3	0.9	2.2	2.3	5.6	5.0	13.5	11.2
Female sterilization	53.8	34.4	55.4	40.8	41.6	32.1	21.7	25.8
Male sterilization	11.9	2.2	7.3	1.8	4.8	0.9	2.0	1.4
Any traditional method	5.0	3.3	4.3	5.4	7.9	7.4	11.7	9.6
Rhythm/safe period	3.4	2.1	3.2	3.1	5.3	4.0	6.7	5.9
Withdrawal	1.7	1.2	1.0	2.4	2.6	3.4	5.0	3.7
Other method	0.4	0.4	0.2	0.3	0.0	0.2	0.0	0.3

Note: 'Other method' includes modern and traditional methods that are not listed separately

Source: NFHS-II

Table A.14: Current use of contraception by number of living children in HP & India, 1998-99

	Number of living children of currently married women									
	None		1		2		3		4+	
	HP	India	HP	India	HP	India	HP	India	HP	India
<i>Any method</i>	2.8	4.6	32.0	23.7	74.2	58.1	86.3	67.5	82.4	57.4
<i>Any modern method</i>	1.1	2.1	22.8	15.8	65.4	51.9	80.2	63.1	76.4	52.2
Pill	0.0	0.4	2.4	3.1	1.6	2.7	1.5	1.7	0.6	1.9
IUD	0.0	0.0	4.2	2.9	3.3	3.0	1.0	1.2	1.1	0.7
Condom	1.1	1.0	10.6	4.9	7.4	4.7	4.0	2.5	1.2	1.8
Female sterilization	0.0	0.4	4.7	4.2	45.1	39.4	64.0	54.8	63.1	45.3
Male sterilization	0.0	0.3	0.9	0.7	8.0	2.1	9.6	2.8	10.2	2.4
<i>Any traditional method</i>	1.8	2.5	9.2	7.7	8.5	5.9	6.1	4.1	5.6	4.5
Rhythm/safe period	1.1	1.3	5.5	4.5	5.1	3.4	4.7	2.5	3.6	3.0
Withdrawal	0.7	1.2	3.7	3.2	3.5	2.5	1.4	1.6	2.0	1.5
Other method	0.0	0.0	0.0	0.2	0.3	0.3	0.0	0.4	0.4	0.7

Note: 'other method' includes modern and traditional methods that are not listed separately. (—) implies less than 0.05 percent

Source: NFHS-II

Table A.15: Percentage distribution of current users of modern contraceptive methods by *source of methods* according to specific method and by residence; HP & India, 1998-99

Source of method	Contraceptive method										All modern methods ¹	
	Pill		IUD		Condom		Female sterilization		Male sterilization			
	HP	India	HP	India	HP	India	HP	India	HP	India	HP	India
Urban												
Public medical sector	*	13.1	56.0	44.8	14.8	8.7	97.8	74.5	(100)	78.2	68.4	60.1
Private medical centre	*	45.0	44.0	52.2	67.0	43.0	1.8	23.2	(0.0)	19.9	25.6	29.0
Shop	*	37.8	0.0	0.0	10.5	39.8	0.0	0.0	(0.0)	0.0	3.5	7.6
Other	*	0.5	0.0	0.6	0.7	0.5	0.0	0.3	(0.0)	0.9	0.2	0.4
Rural												
Public medical sector	(59.3)	24.4	(85.3)	65.9	36.1	23.2	99.2	89.4	100.0	92.1	94.2	83.2
Private medical centre	(33.4)	38.4	(14.7)	31.5	40.4	33.3	0.7	9.3	0.0	5.3	4.2	12.0
Shop	(3.6)	32.6	(0.0)	0.0	7.8	32.7	0.0	0.0	0.0	0.0	0.6	2.8
Other	(0.0)	0.9	(0.0)	1.5	0.0	0.9	0.0	0.1	0.0	1.4	0.0	0.3
Total												
Public medical sector	(53.1)	20.6	77.2	54.1	29.2	13.9	99.1	85.3	100.0	88.6	91.7	76.0
Private medical centre	(36.8)	40.6	22.8	43.1	49.0	39.3	0.8	13.1	0.0	8.9	6.2	17.3
Shop	(5.8)	34.3	0.0	0.0	8.7	37.0	0.0	0.0	0.0	0.0	0.8	4.3
Other	(0.0)	0.7	0.0	1.0	0.2	0.7	0.0	0.1	0.0	1.3	0.0	0.3

Note: () based on 25-49 unweighted cases

* percentage not shown; based on fewer than 25 unweighted cases

(—) less than 0.05 percent

¹ All modern methods' refer to the 5 modern methods indicated

² for pill and condom includes women who say their husband or a friend or other relative obtained the method, but they do not know the original Source of supply

Source: NFHS-II

Table A.16: District wise couple protection rates of HP since 1983 (as on 31st March)

Districts	Year		
	1983	1991	2000
Bilaspur	35.6	59.6	68.2
Chamba	23.5	36.8	38.5
Hamirpur	28.3	60.1	60.1
Kangra	25.2	51.6	46.1
Kinnaur	29.1	42.9	45.3
Kullu	34.4	49.8	56.5
L & Spiti	30.2	40.4	50.2
Mandi	32.3	57.0	57.7
Shimla	34.0	57.6	54.6
Sirmaur	25.1	46.8	45.0
Solan	27.9	54.1	56.5
Una	21.0	44.1	42.8
HP.	28.5	52.1	51.6
India	25.9	44.1	NA

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Table A.17: Morbidity profile of 10 major diseases in HP.

Disease	Number of patients in OPD	Number of Patients in IPD	Total (%)
Acute Bronchitis	337915	5118	343033 (17.18)
Anaemia	312070	3695	314765 (15.81)
Chronic Bronchitis	230620	6345	236965 (11.86)
Dental Diseases	223139	119	223258 (11.18)
Gastroenteritis	183301	11361	194662 (9.75)
Skin Diseases	188610	1901	190511 (9.54)
Tonsil, Adenoids	129536	13788	143224 (7.17)
Wound, Injuries	130153	2581	132734 (6.64)
Ill defined intestinal infections	102504	2976	110480 (5.53)
Amoebiasis	102785	3180	105965 (5.25)
TOTAL	1945633	51064	1996697 (100)

Source: MIS H&FW Department (as cited in Health Vision 2020, Dept. of H & FW, Govt. of HP)

Table A.18: Number of Persons per 10000 Usual Household Residents Suffering From Asthma, Tuberculosis, Jaundice or Malaria by Age, Sex And Residence; HP & India, 1999

	Number of persons per 10000 suffering from									
	Asthma		Tuberculosis ¹		Medically treated Tuberculosis		Jaundice during the past 12 months		Malaria during the past 3 months	
	HP.	India	HP.	India	HP.	India	HP.	India	HP.	India
Urban										
Age										
<15	162	829	80	144	80	106	1131	1555	0	2112
15-59	620	1795	208	426	173	338	415	1132	241	2207
60+	4708	8304	523	1141	523	913	0	583	259	1923
Sex										
Male	969	1955	296	446	253	350	675	1354	209	2133
Female	700	1978	94	330	94	262	465	1085	140	2180
Total	841	1966	200	390	177	307	575	1225	177	2156
Rural										
Age										
<15	157	986	105	155	105	106	473	1503	473	3990
15-59	900	2517	330	776	285	630	480	1423	330	4343
60+	8052	11036	417	1448	417	1141	84	903	503	4858
Sex										
Male	1677	2784	313	690	278	558	434	1675	435	4320
Female	1110	2508	219	507	202	391	440	1134	355	4184
Total	1389	2649	265	600	240	476	437	1410	394	4254
Total										
Age										
<15	157	950	103	153	103	106	524	1515	436	3552
15-59	871	2309	318	675	274	545	473	1339	321	3725
60+	7795	10375	425	1374	425	1086	77	826	484	4146
Sex										
Male	1608	2561	311	624	276	502	457	1589	413	3734
Female	1075	2369	208	460	193	357	442	1121	337	3658
Total	1339	2468	259	544	234	432	450	1361	374	3697

Note: ¹ includes medically treated Tuberculosis

Source: NFHS-II

Table A.19: Prevalence of ARI, Fever and Diarrhoea among Children in Hp & India; 1999 (Percentage of children under age 3 who were ill with a cough accompanied by fast breathing; i.e., ARI, fever or diarrhea, by select background characteristics)

	Percentage of Children Suffering in Past two weeks from							
	Cough accompanied by fast breathing (ARI)		Fever		Diarrhoea			
					Any diarrhoea ¹		Diarrhoea with blood	
	HP.	India	HP.	India	HP.	India	HP.	India
Age of Child (months)								
1-5	13.7	17.4	24.3	20.9	31.6	16.9	2.7	0.9
6-11	9.3	23.7	34.9	33.6	43.4	25.1	5.5	2.8
12-23	13.3	20.0	36.1	33.4	33.4	21.3	4.8	2.9
24-35	7.5	17.5	22.7	27.8	21.2	15.1	4.4	3.0
Sex of Child								
Male	12.1	20.7	29.8	30.3	31.4	19.4	5.0	2.5
Female	9.2	17.9	29.9	28.5	31.3	18.9	3.7	2.6
Residence								
Urban	8.5	16.2	30.3	28.8	18.9	19.6	3.5	1.6
Rural	11.0	20.3	29.8	29.7	32.4	19.0	4.5	2.9
Mother's Education								
Illiterate	7.5	20.6	27.7	29.5	28.9	20.1	5.3	3.3
Literate < Middle School Complete	12.4	20.3	31.8	31.5	29.3	19.8	4.8	2.0
Middle School Complete	16.6	18.8	39.6	28.9	39.4	18.6	4.4	2.0
High School Complete and Above	9.3	13.8	25.6	27.2	30.8	15.0	3.6	0.9
Total	10.8	19.3	29.9	29.5	31.3	19.2	4.5	2.6

Note: ¹ includes diarrhea with blood
Source: NFHS-II

Table A.20: Persons injured and died in road accidents in Himachal Pradesh (1988-96)

Year	No. of road Accidents	Persons died	Persons injured	Vehicles meeting accidents
1988	909	386	1427	1004
1989	942	430	1778	963
1990	1123	465	2225	1135
1991	1360	480	2396	1390
1992	1331	379	2079	1416
1993	1360	470	2788	1393
1994	1564	559	2906	1724
1995	1818	651	3501	1897
1996	1918	748	3758	2133

Source: Statistical Outline, HP

Table A22: District-wise achievements of targets in terms of immunization coverage for DPT (infants) by the Govt. of HP, since 1997-98

District	Percentage of target achieved by the Govt. of HP for DPT (infants)		
	1997-98	1998-99	1999-2000
Bilaspur	99.59	101.59	101.81
Chamba	101.96	94.94	87.02
Hamirpur	94.77	91.11	95.82
Kangra	94.50	90.98	97.88
Kinnaur	100.30	100.51	91.19
Kullu	100.49	96.29	94.95
L&Spiti	72.82	73.76	60.63
Mandi	93.59	94.09	100.35
Shimla	92.06	89.36	103.11
Sirmaur	100.01	100.08	103.57
Solan	100.16	102.42	110.00
Una	102.32	91.69	102.37
HP.	96.42	94.34	98.48

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Table A23: District-wise achievements of targets in terms of immunization coverage for POLIO (infants) by the Govt. of HP , since 1997-98

District	Percentage of target achieved by the Govt, of HP for POLIO (infants)		
	1997-98	1998-99	1999-2000
Bilaspur	100.00	99.80	100.13
Chamba	101.61	94.44	88.35
Hamirpur	97.42	90.44	95.72
Kangra	94.95	91.11	98.12
Kinnaur	100.30	100.10	93.95
Kullu	99.69	95.86	94.18
L&Spiti	72.82	75.29	60.00
Mandi	93.37	94.08	100.09
Shimla	92.15	88.83	102.75
Sirmaur	96.23	100.08	104.58
Solan	100.20	102.52	108.33
Una	100.21	89.99	101.33
HP.	96.65	93.99	98.20

Source: Family Welfare Programme YearBook, 1999-2000(Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Table A24: District-wise achievements of targets in terms of immunization coverage for BCG (infants) by the Govt. of HP , since 1997-98

District	Percentage of target achieved by the Govt, of HP for BCG (infants)		
	1997-98	1998-99	1999-2000
Bilaspur	100.16	100.11	101.49
Chamba	103.78	95.87	99.44
Hamirpur	101.16	95.65	100.88
Kangra	104.44	93.25	99.40
Kinnaur	100.96	98.08	93.35
Kullu	98.97	97.76	99.18
L&Spiti	52.24	86.94	60.00
Mandi	96.76	97.04	106.12
Shimla	109.82	100.47	115.56
Sirmaur	97.53	99.91	107.00
Solan	99.39	98.56	116.42
Una	104.83	97.71	106.09
HP.	101.76	96.82	103.35

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Table A25 : District-wise achievements of targets in terms of immunization coverage for MEASLES (infants) by the Govt. of HP , since 1997-98

District	Percentage of target achieved by the Govt, of HP for MEASLES (infants)		
	1997-98	1998-99	1999-2000
Bilaspur	99.77	99.18	97.14
Chamba	80.06	84.90	75.71
Hamirpur	94.58	85.30	92.54
Kangra	89.08	87.28	93.96
Kinnaur	100.15	97.98	82.70
Kullu	95.69	89.70	93.70
L&Spiti	56.12	70.12	65.25
Mandi	92.90	90.98	96.46
Shimla	90.97	87.40	99.95
Sirmaur	81.96	92.23	100.20
Solan	95.27	98.50	102.31
Una	101.53	87.16	93.69
HP.	91.57	89.84	93.74

Source: Family Welfare Programme YearBook, 1999-2000(Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Table A26 : District-wise achievements of targets in terms of Supplementation of Vitamin-A to children by the Govt. of HP, since 1997-98

District	Percentage of target achieved by the Govt, of HP for (Prophylaxis against Blindness) Vitamin-A to Children		
	1997-98	1998-99	1999-2000
Bilaspur	104.43	89.82	107.55
Chamba	60.79	79.38	76.71
Hamirpur	92.53	84.25	88.49
Kangra	87.01	85.78	94.41
Kinnaur	100.25	87.88	86.16
Kullu	89.67	91.22	93.19
L&Spiti	80.71	55.41	56.88
Mandi	92.00	88.80	93.27
Shimla	20.82	67.55	92.16
Sirmaur	64.20	92.35	91.72
Solan	89.21	91.95	95.31
Una	95.51	86.29	87.46
HP.	79.65	85.22	91.09

Source: Family Welfare Programme YearBook, 1999-2000(Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Table A27 : Inadequate intake of foodstuff at the district level (foodstuff in g/cu/day) in HP

District with consumption level below RDA	Cereals	Pulses	Green leafy vegetables	Root & Tubers	Other vegetables	Milk and its products	Fats & Oils	Sugar
Bilaspur	✓		✓					
Chamba								
Hamirpur	✓	✓	✓*	✓			✓	✓*
Kangra					✓			✓
Kinnaur	✓*				✓	✓		✓
Kullu			✓		✓			✓
L& Spiti								
Mandi					✓	✓	✓	✓
Shimla	✓		✓					
Sirmaur		✓*			✓	✓	✓	✓*
Solan			✓				✓	✓
Una	✓	✓					✓	✓*

Note: ✓ indicates that the corresponding district has inadequate intake of the corresponding food item with respect to RDA ; *indicates, Marginally below the RDA

Source: Government of India (1998) *India's Nutrition Profile 1998*, Dept. of Women and Child Development, New Delhi.

Table A28 : Average food consumption (grams/day) according to age and sex

Age Group (years)		Cereals	Pulses	Leafy Vegetables	Roots & Tubers	Other Vegetables	Fruits	Spices	Flesh Food	Milk & Milk products	Fats & Oils	Sugar
1-3	Boys	139	21	16	24	23	3	1	1	175	8	17
	Girls	169	26	15	29	19	6	1	2	162	9	20
	Pooled	154	24	16	27	21	4	1	2	168	8	19
4-6	Boys	257	30	30	42	21	4	1	4	141	17	20
	Girls	258	30	38	41	19	5	1	3	132	12	21
	Pooled	258	30	34	42	20	4	1	4	136	14	21
7-9	Boys	332	39	26	60	32	5	1	5	132	19	22
	Girls	328	35	41	47	31	4	1	4	125	14	21
	Pooled	331	37	33	54	31	5	1	5	129	17	24
10-12	Boys	370	37	45	57	26	4	1	4	148	14	22
	Girls	362	39	39	58	26	5	1	5	130	19	22
13-15	Boys	441	45	60	62	34	4	1	2	147	17	24
	Girls	408	41	36	63	30	5	1	5	131	16	21
16-17	Boys	504	49	59	75	33	6	2	1	177	19	24
	Girls	430	49	46	65	36	2	2	2	147	19	23
above 18	Boys	516	51	48	76	41	7	2	6	161	20	23
	Girls	453	58	44	68	38	5	1	4	157	19	23

Source : Government of India (1998) *India's Nutrition Profile 1998*, Dept. of Women and Child Development, New Delhi

Table A29 : Inadequate intake of nutrients at the district level (nutrients: cu/day)

District with nutrients intake below RDA	Energy (k cal)	Iron (mg)	Niacin (mg)	Riboflavin (mg)	Vitamin C (mg)	Vitamin A (mg)
Bilaspur	+	+	+	+	+	+
Chamba		+		+		+
Hamirpur	+	+	+	+		+
Kangra				+		
Kinnaur	+	+		+		+
Kullu		+		+		+
L& Spiti		+		+		+
Mandi				+		
Shimla	+	+	+	+		+
Sirmaur		+	+	+	+	+
Solan	+	+		+		+
Una	+	+	+	+		+

*Note: + indicates that the corresponding district has inadequate intake of the corresponding nutrient with respect to RDA; * indicates, close to RDA; k. cal—kilo calorie and mg--milligram*

Source: Government of India (1998), India's Nutrition Profile 1998, Dept. of Women and Child Development, New Delhi

Table A30: Average intake of nutrients according to age and sex (per day)

Age Group (year)		Energy (k.cal)	Protein (gm)	Fat (gm)	Calcium (gm)	Iron (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vitamin-C (mg)	Vitamin-A (mg)
1-3	Boys	908	28.3	21.8	450.0	8.0	0.7	0.4	5.2	24.4	214.0
	Girls	1027	31.8	22.1	432.0	8.6	0.8	0.4	6.1	26.7	254.0
	Pooled	968	30.0	22.0	441.0	8.3	0.8	0.4	5.7	25.6	234.0
	RDA	1240	22.0	25.0	400.0	12.0	0.6	0.7	8.0	40.0	400.0
4-6	Boys	1397	42.2	29.9	442.0	13.8	1.2	0.5	8.9	31.2	378.0
	Girls	1353	42.1	25.5	422.0	14.1	1.2	0.5	8.6	41.8	324.0
	Pooled	1376	42.2	27.8	432.0	13.9	1.2	0.5	8.8	36.3	352.0
	RDA	1690	30.0	25.0	400.0	18.0	0.8	1.0	11.0	40.0	400.0
7-9	Boys	133	53.0	34.9	475.0	16.4	1.5	0.6	11.4	37.3	309.0
	Girls	1637	51.4	28.4	457.0	18.0	1.5	0.6	11.2	45.1	395.0
	Pooled	1688	52.3	31.9	467.0	17.1	1.5	0.6	11.3	40.9	349.0
	RDA	1950	41.0	25.0	400.0	26.0	1.0	1.2	13.0	40.0	600.0
10-12	Boys	1817	57.3	31.7	498.0	19.1	1.7	0.7	12.2	40.9	449.0
	RDA	2190	54.0	22.0	600.0	34.0	1.1	1.3	15.0	40.0	600.0
	Girls	1831	56.6	35.6	469.0	18.6	1.7	0.7	12.3	42.2	425.0
	RDA	1970	57.0	22.0	600.0	19.0	1.0	1.2	13.0	40.0	600.0
13-15	Boys	2134	66.3	36.9	535.0	22.0	2.0	0.8	13.9	52.9	562.0
	RDA	2450	70.0	22.0	600.0	41.0	1.2	1.5	16.0	40.0	600.0
	Girls	1957	61.7	33.4	478.0	19.5	1.9	0.8	13.5	37.1	402.0
	RDA	2060	65.0	22.0	600.0	28.0	1.0	1.2	14.0	40.0	600.0
16-17	Boys	2426	74.4	41.3	618.0	23.7	2.2	0.9	16.2	61.8	433.0
	RDA	2640	78.0	22.0	500.0	50.0	1.3	1.6	17.0	40.0	600.0
	Girls	2108	66.0	37.1	526.0	21.8	2.0	0.8	14.3	47.2	543.0
	RDA	2060	63.0	22.0	500.0	30.0	1.0	1.2	14.0	40.0	600.0
> 18	Boys	2448	77.0	41.3	585.0	25.3	2.3	0.9	17.3	55.8	481.0
	RDA	2425	60.0	20.0	400.0	28.0	1.2	1.4	16.0	40.0	600.0
	Girls	2201	68.6	38.2	552.0	22.3	2.0	0.8	15.2	50.7	461.0
	RDA	1875	50.0	20.0	400.0	30.0	0.9	1.1	12.0	40.0	600.0

Note: RDA is Required Dietary Allowances; K. cal is kilo calorie; gm is gram and mg is milligram

Source: Government of India (1998) *India's Nutrition Profile 1998*, Dept. of Women and Child Development, New Delhi.

Table A31 : Percentage prevalence of nutritional deficiency signs

Age Groups (years)	Sex	Marasmus	Kwashiorkor	Angular Stomatitis	Goitre	Phrynoderma	Bitot Spots	Glossitis
< 1	Male	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Female	1.07	0.00	0.00	0.00	0.00	0.00	0.00
	Pooled	0.50	0.00	0.00	0.00	0.00	0.00	0.00
1-5	Boys	0.55	0.11	0.78	1.22	0.00	0.00	0.00
	Girls	0.72	0.00	0.60	1.08	0.12	0.12	0.00
	Pooled	0.64	0.05	0.68	1.15	0.06	0.06	0.00
5-12	Boys	0.00	0.00	1.12	1.69	0.00	0.12	0.26
	Girls	0.00	0.00	0.66	2.57	0.00	0.20	0.00
	Pooled	0.00	0.00	0.86	2.16	0.00	0.17	0.12
12-18	Boys	0.00	0.00	1.00	2.84	0.00	0.50	0.16
	Girls	0.00	0.00	0.33	3.79	0.00	0.59	0.00
	Pooled	0.00	0.00	0.65	3.31	0.00	0.58	0.09
> 18	Boys	0.00	0.00	0.50	1.89	0.00	0.03	0.07
	Girls	0.00	0.00	0.34	3.24	0.00	0.00	0.15
	Pooled	0.00	0.00	0.44	2.69	0.00	0.08	0.13

Source: Government of India (1998) *India's Nutrition Profile 1998*, Dept. of Women and Child Development, New Delhi

Table A32 : The knowledge, attitude and practices of mother (in terms of percentage) is given by the data of *India's Nutrition Profile-1998*

<u>Items</u>	<u>Mother (%)</u>	<u>Items</u>	<u>Mother (%)</u>
(I) Breast feeding		(II) Supplements	
a. Start of breast feeding		a. Time of start	
<i>With in 24 hours</i>	51.2	<i>3-5 months</i>	12.5
<i>Second day</i>	26.3	<i>6-12 months</i>	69.8
<i>Third day</i>	21.5	<i>13-18 months</i>	2.5
		<i>19-24 months</i>	1.4
		<i>Not yet started</i>	12.5
b. Discard of colostrum		b. Type of supplements	
<i>Yes</i>	47.7	<i>Milk</i>	19.3
		<i>Roti /Rice</i>	58.8
		<i>Bread & Biscuit</i>	5.1
		<i>Commercial baby food</i>	4.3
		<i>Not yet started</i>	12.2
c. Reason for discarding		c. Reason for starting supplements	
<i>Not good for child health</i>	7.0	<i>Child demand</i>	3.5
<i>Elders advice</i>	33.7	<i>Required for growth</i>	32.1
<i>Inability of child to such</i>	3.0	<i>Mother's milk inadequate</i>	39.7
		<i>Don't know</i>	0.0
		<i>N. A.</i>	12.5
d. Age upto which child should be breast fed			
<i>4-9 months</i>	1.2		
<i>10-12 months</i>	14.9		
<i>13-24 months</i>	77.2		
<i>Above 24 months</i>	4.7		

Source: Government of India (1998) *India's Nutrition Profile 1998*, Dept. of Women and Child Development, New Delhi.

Table A33 : Anaemia among women in HP & India, 1998-99 (Percentage of ever-married women classified as having iron deficiency anaemia by degree of anaemia, according to selected background characteristics)

Background characteristics	Percentage of women with any anaemia		Percentage of women with							
			No anaemia		Mild anaemia		Moderate anaemia		Severe anaemia	
	HP	India	HP	India	HP	India	HP	India	HP	India
Age (years)										
15-19	43.2	56.0	56.8	44.0	30.4	36.2	12.2	17.9	0.6	1.9
20-24	40.4	53.8	59.6	46.2	30.3	34.8	9.6	17.0	0.5	2.0
25-29	40.3	51.4	59.7	48.6	31.7	34.8	7.8	14.7	0.8	1.9
30-34	40.1	50.5	59.9	49.5	31.2	34.8	8.7	13.7	0.2	1.9
35-49	40.6	50.5	59.4	49.5	31.9	35.1	7.8	13.6	0.9	1.9
Residence										
Urban	38.4	45.7	61.6	54.3	28.7	32.0	9.1	12.2	0.6	1.5
Rural	40.7	53.9	59.3	46.1	31.7	36.1	8.3	15.8	0.7	2.0
Education										
Illiterate	40.9	55.8	59.1	44.2	30.9	36.7	8.8	16.8	1.2	2.3
Literate < middle school complete	40.6	50.1	59.4	49.9	29.7	34.4	10.2	13.8	0.7	1.9
Middle school complete	40.0	48.0	60.0	52.0	31.2	34.0	8.8	12.6	..	1.3
High school complete and above	39.9	40.3	60.1	59.7	34.5	29.7	5.3	9.7	0.2	0.9
Employment status										
Working in farm/business	39.6	53.1	60.4	46.9	30.5	35.7	7.7	15.2	1.4	2.2
Employed by someone else	41.1	54.9	58.9	55.1	32.3	35.8	7.0	16.2	1.8	3.0
Not worked in last 12 months	40.6	50.4	59.4	49.6	31.5	34.6	8.6	14.3	0.5	1.5
Pregnancy/breast-feeding status										
Pregnant	31.8	49.7	68.2	50.3	18.3	21.8	12.9	25.4	0.7	2.5
Breast-feeding (not pregnant)	47.6	56.4	52.4	43.6	36.0	38.9	9.7	15.8	1.0	1.6
Non-pregnant/non-breast-feeding	39.6	50.4	60.4	49.6	31.4	35.1	7.7	13.4	0.6	1.9
Height										
< 145 cm	35.3	56.2	64.7	43.8	27.1	36.5	6.9	17.2	1.4	2.5
≥ 145 cm	40.8	51.1	59.2	48.9	31.7	34.8	8.4	14.5	0.6	1.8
Body Mass Index										
< 18.5 kg/gm ²	43.0	56.8	57.0	43.2	32.3	37.0	9.6	17.1	1.1	2.7
≥ 18.5 kg/gm ²	39.5	49.1	60.5	50.9	31.1	34.0	7.9	13.7	0.5	1.5
Total	40.5	51.8	59.5	48.2	31.4	35.0	8.4	14.8	0.7	1.9

Source: NFHS-II (India & HP)

Table A34: Anaemia among children in HP & India, 1998-99 (percentage distribution of children under three years of age by degree of iron-deficiency anaemia according to background characteristics)

Background characteristics	Percentage of children with any anaemia		Percentage of children with							
			No anaemia		Mild anaemia		Moderate anaemia		Severe anaemia	
	HP	India	HP	India	HP	India	HP	India	HP	India
Age of child (months)										
< 12	71.1	71.7	28.9	28.3	28.5	27.0	40.0	41.5	2.6	3.2
12-23	71.3	77.7	28.7	22.3	27.3	22.0	40.9	49.4	3.2	6.3
24-35	67.7	72.0	32.3	28.0	30.4	21.9	36.3	44.5	1.0	5.6
Residence										
Urban	68.0	70.8	32.0	29.2	28.2	23.7	34.3	42.0	3.5	5.1
Rural	70.3	75.3	29.7	24.7	28.8	22.7	39.4	47.1	2.1	5.5
Sex of child										
Male	70.8	75.1	29.2	24.9	27.5	22.2	40.5	47.0	2.8	5.9
Female	68.8	73.3	31.2	26.7	30.3	23.7	27.0	44.8	1.5	4.8
Birth order										
1	67.1	70.7	32.9	29.3	31.0	23.6	34.6	42.5	1.5	4.6
2-3	71.3	74.9	28.7	25.1	27.7	22.7	40.7	46.4	3.0	5.8
4-5	73.2	76.4	26.8	23.6	28.6	22.7	42.8	48.0	1.8	5.7
Mother's education										
Illiterate	66.7	78.2	33.3	21.8	24.0	21.7	41.9	50.0	0.8	6.4
Literate<middle school complete	72.4	74.6	27.3	25.4	28.6	24.4	40.3	45.1	3.5	5.1
Middle school complete	72.8	69.7	27.2	30.3	25.0	25.2	44.3	40.2	3.5	4.2
High school complete and above	69.1	61.9	30.9	38.1	33.6	24.0	33.7	35.1	1.8	2.8
Mother's anaemia status										
Not anemic	62.2	67.8	37.8	32.2	28.3	23.2	32.2	40.7	1.7	3.9
Mildly anemic	74.7	76.8	25.3	23.2	31.1	23.4	41.5	48.4	2.2	5.1
Moderately anemic	91.8	85.6	8.2	14.4	23.1	21.6	63.4	55.5	5.2	8.5
Total	69.9	74.3	30.1	25.7	28.7	22.9	39.0	45.9	2.2	5.4

Source: NFHS-II (Final Report for India & for HP)

Table A35: Health problems during pregnancy by residence, in HP & India, 1999 (Among births during the three years preceding the survey, percentage of mothers experiencing specific health problems during pregnancy)

Problem during pregnancy	Urban		Rural		Total	
	H.P.	India	H.P.	India	H.P.	India
Night blindness	2.3	6.4	3.9	13.7	3.8	12.1
Blurred vision	18.8	17	20.7	23.2	20.8	21.8
Convulsions not from fever	2.8	11	7.2	15.2	6.8	14.3
Swelling of the legs, body, or face	23.7	28.2	20.3	25.8	20.6	26.3
Excessive fatigue	42.4	43.6	45.8	43.3	45.5	43.4
Anaemia	31.1	27.1	29.3	26.3	29.4	26.5
Vaginal bleeding	2.8	3.1	0.9	3.6	1	3.5

Note: Table includes only the two most recent births in the three years preceding the survey

Source: NFHS-II

Table A36: Source of Antenatal Check-ups in HP & India, 1999 (Percent distribution of births during the three years preceding the survey by source of antenatal check-up, according to selected background characteristics)

Background characteristics	Antenatal check-up only at home from health worker		Antenatal check-up outside home ¹ from				No antenatal check-up	
			Doctor		Other health professional			
	H.P	India	H.P	India	H.P	India	H.P	India
Mother's age at birth (years)								
<20	0	6.3	54.4	48.7	28.3	12.4	17.3	31.7
20-34	0.3	5.3	59	49.5	28.7	10.7	12	33.6
35-49	(0)	5.7	(44.9)	32.1	(21.0)	6.1	(34.1)	54.9
Birth order								
1	0.4	3.8	63.9	63.1	26.5	10.4	9.2	21.7
2-3	0.3	5.9	57.2	51.4	30.6	12	12	30
4-5	0	7.1	54.8	32.7	28.8	11.2	16.4	48.2
6+	(0)	6.8	(25.1)	22.9	(15.7)	7.3	(59.3)	62
Residence								
Urban	0	2	83	74.8	14.2	8.8	2.8	13.6
Rural	0.3	6.6	56.1	41.2	29.5	11.5	14.1	39.8
Mother's education								
Illiterate	0	7.3	39.4	32.1	27.5	11.2	33	48.4
Literate, <middle school complete	1.2	4.8	54.3	62.1	31.2	12.9	13.3	19.3
Middle school complete	0	3	57.3	71.8	38.2	11.2	4.5	13.5
High school complete and above	0	1.2	74.7	85.4	22.5	7.2	2.8	5.8
Standard of living index								
Low	3	7.3	28.4	35.8	28.2	11	40.4	45.1
Medium	0	5.1	55.1	50.1	31.2	11.1	13.8	32.8
High	0	2.8	74.7	73.1	22.4	10.5	3	12.4
Total	0.3	5.6	58.1	48.6	28.4	10.9	13.2	34

Note: Table includes only the two most recent births in the three years preceding the survey

() Based on 25-49 unweighted cases

¹ Includes all births for which the mothers received an antenatal check-up outside the home, even if they also received a check-up at home from a health worker. If more than one Source was mentioned, only the provider with the highest qualification is considered.

Source: NFHS-II

Table A37 : Reason for not receiving an antenatal check-up in HP & India, 1999 (Percent distribution of births during the three years preceding the survey to mothers who did not receive an antenatal check-up by the main reason for not receiving an antenatal check-up)

Reason for not receiving an antenatal check-up	H.P.	India
Not necessary	64.1	59.5
Costs too much	6.3	14.7
Too far/no transport	18.9	3.7
Poor quality service	1.1	0.8
No time to go	1.0	1.8
Family did not allow	4.4	8.5
Lack of knowledge	3.1	4.1
No health worker visited	1.1	1.5

Note : Table includes only the two most recent births in the three years preceding the survey

Source: NFHS-II

Table A38 : Tetanus Toxoid injections and Iron and Folic Acid Supplementation in HP & India, 1999 (Percentage of births whose mothers received various types of antenatal services among births in the three years preceding the NFHS-II survey, by background characteristics)

Background characteristics	% received 2 or more tetanus toxoid injections		% received iron and folic acid tablets or syrup		% who received supply for 3+ months		% who consumed all the supply *	
	HP	India	HP	India	HP	India	HP	India
Mother's age at birth (years)								
<20	73.8	67.6	81.5	58.8	81.5	79.9	83.2	78.5
20-34	65.8	67.6	87.0	58.4	82.9	83.5	85.6	81.1
35-49	(54.2)	47.0	(60.5)	36.6	*	77.6	*	80.6
Birth order								
1	88.7	77.7	91.6	68.7	83.9	84.8	87.7	82.8
2-3	55.6	69.7	84.8	61.4	82.5	83.1	84.8	80.3
4-5	55.5	55.8	82.2	45.8	81.8	78.4	81.9	77.8
6+	(24.2)	42.2	(48.0)	29.9	*	73.8	*	74.3
Residence								
Urban	75.3	81.9	94.8	75.7	92.0	87.5	86.5	83.2
Rural	65.4	62.5	84.9	52.5	81.9	80.5	85.2	79.4
Mother's education								
Illiterate	47.9	54.7	68.0	43.6	77.7	77.4	83.9	76.3
Literate, <middle school complete	68.4	78.4	83.3	70.4	78.8	83.0	79.4	80.7
Middle school complete	72.8	84.2	93.7	78.5	82.1	86.4	87.9	81.5
High school complete and above	74.9	91.2	96.2	86.5	88.1	90.4	88.5	88.7
Standard of living index								
Low	39.0	9.5	53.1	46.0	(77.6)	79.1	(80.5)	77.1
Medium	65.9	8.2	85.2	59.4	78.6	81.8	84.1	80.2
High	76.2	5.6	97.3	79.2	92.7	88.4	88.3	86.1
Total	66.2	8.2	85.6	57.6	82.8	82.5	85.4	80.5

Note: Table includes only the two most recent births in the three years preceding the survey

() Based on 25-49 unweighted cases

* percentage not shown, based on fewer than 25 unweighted cases

Source: NFHS-II

Table A39 : District-wise achievements of targets in terms of immunization coverage For Tetanus Toxoid or TT (pregnant women) by the Govt. of HP, since 1997-98

District	TT (PREGNANT WOMEN)		
	1997-98	1998-99	1999-2000
Bilaspur	100.25	97.15	98.96
Chamba	75.37	74.60	72.58
Hamirpur	93.48	89.04	93.72
Kangra	84.86	85.23	96.03
Kinnaur	98.81	81.61	84.17
Kullu	86.31	79.25	85.71
L&Spiti	45.91	53.66	72.22
Mandi	86.99	89.34	93.60
Shimla	98.91	82.42	98.25
Sirmaur	88.18	98.59	98.20
Solan	93.40	95.95	99.80
Una	107.03	99.93	100.94
HP.	89.82	87.88	93.12

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Table A40 : District-wise achievements of targets in terms of supplementation of Iron and Folic Acid to mothers, by the Govt. of HP, since 1997-98

Districts	Iron and Folic Acid to mothers (Prophylactic)		
	1997-98	1998-99	1999-2000
Bilaspur	73.98	28.26	91.23
Chamba	69.48	81.68	50.29
Hamirpur	214.98	99.24	156.99
Kangra	79.94	50.08	88.04
Kinnaur	105.92	80.28	48.92
Kullu	161.78	71.63	98.73
L&Spiti	59.78	4.30	57.89
Mandi	112.54	56.20	112.96
Shimla	1.57	31.61	101.04
Sirmaur	8.86	49.77	100.93
Solan	144.21	124.83	123.14
Una	149.69	111.96	69.47
HP.	93.59	64.42	97.05

Source: Family Welfare Programme YearBook, 1999-2000 (Demographic and Evaluation Cell, Health and Family Welfare Department, Himachal Pradesh)

Table A41: Place of Delivery in HP & India, 1999 (Percent distribution of births during the 3 years preceding the survey by place of delivery according to different background characteristics)

Background Characteristics	Place of Delivery									
	Health facility/Instution				Home				Other ¹	
	Public		Private		Own home		Parents' home			
	HP	India	HP	India	HP	India	HP	India	HP	India
Mother's age at birth (years)										
<20	26.1	16.7	5.3	14.4	57.5	46.0	10.7	21.0	0.4	1.1
20-34	23.4	16.4	5.7	17.8	60.6	54.2	9.7	9.8	0.6	1.0
35-49	(10.8)	9.5	(6.5)	9.9	(73.4)	75.3	(9.4)	3.1	(0.0)	1.7
Birth order										
1	35.2	23.2	9.5	26.4	45.4	32.6	9.0	15.8	0.9	1.0
2-3	18.0	16.4	4.0	16.7	66.3	51.5	11.2	13.6	0.5	1.1
4-5	12.1	9.6	1.4	7.3	77.2	73.7	9.3	7.9	0.0	1.0
6+	(10.2)	6.4	(3.7)	5.1	(86.1)	83.7	(0.0)	3.2	(0.0)	1.2
Residence										
Urban	55.6	29.1	16.4	34.5	23.2	27.6	4.3	6.3	0.5	1.0
Rural	20.6	12.5	4.8	11.6	63.8	60.5	10.3	13.8	0.6	1.0
Mother's education										
Illiterate	7.5	10.2	1.5	6.8	84.2	68.1	6.7	13.4	0.0	1.1
Literate, <middle school complete	17.0	23.3	3.1	19.0	68.0	42.3	10.1	13.4	1.7	0.9
Middle school complete	23.4	28.5	5.6	25.6	53.5	32.8	16.3	11.1	1.1	1.1
High school complete and above	38.7	24.2	10.5	49.3	42.0	17.9	8.8	6.4	0.0	0.7
Standard of living index										
Low	12.6	11.9	1.5	6.2	80.0	66.1	6.0	14.2	0.0	1.2
Medium	18.1	18.1	3.5	16.0	68.0	51.8	9.4	12.3	0.9	1.0
High	39.0	20.3	12.0	43.2	37.9	27.6	11.1	7.0	0.0	0.7
Total	23.2	16.2	5.7	16.7	60.7	83.2	9.8	12.2	0.6	1.0

Note: Table includes only the two most recent births in the three years preceding the survey

() Based on 25-49 unweighted cases

¹ Includes missing

Source: NFHS-II

Table A42 : Assistance during delivery, in HP & India, 1999 (Percent distribution of births during the three years preceding the survey by attendant assisting during delivery, according to selected background characteristics)

Background characteristic	Doctor		Attendant assisting during delivery ¹							
			ANM/nurse/ midwife/ LHV		Other health professional		Dai (TBA)		Other	
	H.P.	India	H.P.	India	H.P.	India	H.P.	India	H.P.	India
Mother's age at birth (years)										
<20	27.9	28.2	14.2	12.6	0	0.8	50.4	34.7	7.5	23.4
20-34	31.7	31.5	8.5	11.3	0.3	0.6	56.5	34.6	2.9	21.7
35-49	(17.3)	19.7	(8.4)	6.7	(0)	1.0	(74.4)	42.5	(0)	29.5
Birth order										
1	42.9	46.1	12.4	13.7	0.4	0.7	42.7	25.2	1.6	14
2-3	27.5	30.1	7.4	11.9	0.3	0.6	61.5	35	3.4	22
4-5	12.1	15.9	7.4	9	0	0.7	75.1	44.3	5.4	29.8
6+	(13.9)	10.5	(3.7)	6.8	(0)	0.6	(71.3)	46.7	(11.1)	35
Residence										
Urban	67.8	55.8	10.4	17.2	0	0.3	21.3	18.8	0.5	7.6
Rural	27.9	23	8.9	9.8	0.3	0.7	59.4	39.6	3.4	26.6
Mother's education										
Illiterate	11.2	15.6	4.1	9	0	0.8	79	44.7	5.6	29.6
Literate, <middle school complete	25.1	37.3	8.7	15.4	0.6	0.4	59.8	28.4	5.8	18.1
Middle school complete	37.5	49.5	11	17.1	0	0.3	50.6	21	0.9	11.7
High school complete and above	46.1	70.3	11.9	12.9	0.4	0.2	40.7	11.8	0.8	4.7
Standard of living index										
Low	11.1	15.8	4.4	8.5	0	1.1	80	43.5	4.5	30.7
Medium	25.2	31.1	7.5	12.8	0.4	0.4	63.2	34.3	3.7	21.1
High	51.2	60.9	14.3	14.5	0	0.3	33.1	17.5	1.5	6.8
Total	30.9	30.3	9.0	11.4	0.3	0.6	56.6	35.0	3.2	22.4

Note: Table includes only the two most recent births in the three years preceding the survey

() Based on 25-49 unweighted cases

¹ if the respondent mentioned more than one attendant, only the most qualified is taken into account

Source: NFHS-II

Table A43 : Characteristics of births by residence in HP and India 1999
(Percentage of births during the three years preceding the survey that were delivered by caesarian section and percent distribution of births by birth weight and by the mother's estimate of the baby's size at birth)

Characteristic of births	Urban		Rural		Total	
	H.P.	India	H.P.	India	H.P.	India
Percentage delivered by caesarian section	14.7	14.7	4.3	4.9	5.1	7.1
Birth weight						
<2.5 kg	18.8	10.8	8.2	4.2	9	5.7
2.5 kg or more	40.5	40.3	14.7	13.4	16.6	19.4
Not weighed	30.7	40.2	70.6	78.6	67.6	70.1
Size at birth						
Large	7.1	16	3.6	13.3	3.8	13.9
Average	70.8	61.2	72.3	61.4	72.1	61.4
Small	16.9	17.6	17.5	19.9	17.4	19.4
Very small	5.1	4.9	6.7	5	6.6	5

Note: Table includes only the two most recent births in the three years preceding the survey

Source: NFHS-II

Table A44: District-wise Distribution of Medical Institutions with Rural-Urban Breakups in HP. as in 31-03-2000

District	General Hospitals		Community Health Centres		Primary Health Centres		Civil Dispensaries	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Bilaspur	0	2	5	0	16	1	10	1
Chamba	1	3	7	0	28	0	11	0
Hamirpur	1	1	3	2	16	1	6	0
Kangra	3	5	10	2	47	0	32	2
Kinnaur	2	0	3	0	17	0	0	0
Kullu	0	2	4	1	11	1	5	0
L& Spiti	1	0	3	0	9	0	5	0
Mandi	2	4	9	0	43	1	13	0
Shimla	3	8	4	2	54	1	23	8
Sirmaur	1	4	3	0	24	0	12	1
Solan	2	3	2	1	20	0	15	2
Una	1	1	2	2	12	0	7	2
H. P.	17	33	55	10	297	5	139	16

Table A45: District-wise Distribution of Beds with Rural-Urban breakup in Himachal Pradesh, as on 31-03-2000

Districts	Beds Available (Sanctioned)	
	Rural	Urban
Bilaspur	143 (32.8%)	293 (67.2%)
Chamba	325 (48.9%)	340 (51.1%)
Hamirpur	193 (43.2%)	254 (56.8%)
Kangra	782 (52.5%)	708 (47.5%)
Kinnaur	249 (100%)	0 (0.00%)
Kullu	121 (28.8%)	300 (71.2%)
L& Spiti	143 (100%)	0 (0.00%)
Mandi	479 (39.6%)	731 (60.4%)
Shimla	498 (22.6%)	1708 (77.4%)
Sirmaur	225 (32.8%)	460 (67.2%)
Solan	525 (55.9%)	415 (44.1%)
Una	143 (36.8%)	246 (63.2%)
H. P.	3826 (41.2%)	5455 (58.8%)

Note: Beds available in Mission Hospitals, State Special Hospitals and Other Private Hospitals are not included.

Source: Directorate of Health Services, HP.

APPENDIX - II: Women's Perceptions on the Quality of Health Service Delivery in Himachal Pradesh: Some Notes Based on Field Experiences

Over the last several years, starting from the early 1990s, the *Institute of Social Studies Trust*, through various focus group discussions and personal interviews in different projects, has been able to come across the experiences of the rural women in different states of India in general and Himachal Pradesh in particular regarding the quality of health service delivery; in terms of both availability and accessibility¹. The reflections that came out from these interactions clearly suggest that an individual's entitlement and access to health goods and services vary; not only for gender discrimination, but also according to several structural factors, such as, socio-economic, cultural and political factors. It would be obvious to mention that since the gender discrimination is an intra-household phenomenon and other structural factors are primarily between household phenomena; the gender deprivation factor is superimposed into all the other structural factors and hence has a double effect in terms of deprivation. In the light of this overview, now, let us discuss some specific issues regarding the quality of health service delivery for rural women in Himachal Pradesh, which again reflects the position of rural women for the whole country.

First and foremost, as we know that in most remote and rural areas in most parts of India, basic health facilities are conspicuous by their absence and HP is no exception. Various studies, as well as the government data substantiate this fact, that the government of HP has been unable to fulfill the national norms regarding the coverage of medical institution, especially in the rural areas. A very few of rural women in HP has a Primary Health Centre (PHC) within their village or a hospital within 5 kilometres of their residence. This, by natural logic means that both men and the women of rural HP, who constitute more than 90 percent of the total population of the state, face major problems regarding health care and are unable to access proper medical facilities.

Secondly, since HP is naturally a hilly state with much mountainous terrain, its intra-state network of roads and railways is not very well developed. The natural topography provides a barrier to easy transport and conveyance. As a result, men and our concern the women find it extremely difficult to reach proper centres

¹ a) *Evolving a Women Sensitive Population Policy and Programme*. (1993-95) A study conducted by ISST and sponsored by *The United Nations Fund for Population Activities*; b) *Reproductive Health Through Panchayats* (1997-98): A study conducted by ISST and sponsored by *MacArthur Foundation*; c) *Herbal Medicinal Plants*. 1999. A study conducted by ISST and sponsored by *National Council of Applied Economic Research/Ford Foundation*; d) *Health in Himachal Pradesh: A component of Human Development*. 2000. A study conducted by ISST and sponsored by *UNDP, NewDelhi*; also see: Mukhopadhyay, Swapna and Surekha Garimella. 1997. *The Countours of Reproductive Choice for Poor Women: Findings from a Micro Survey* (In Swapna Mukhopadhyay (ed.) *Women's Health, Public Policy and Community Action*; Manohar 1998)

of health care in times of need, especially in emergency situations; e.g. it may be very well a reason (apart from various taboos related to childbirth) for a massive amount of non-institutional delivery prevalent in the state.

Even in those places in rural HP where health centres are present, they are poorly stocked and lack basic facilities and proper technology. This to a large extent neutralizes their effectiveness often making it impossible for them to serve the purpose for which they have been set up. Again, there is a dearth of proper buildings for health institutions in the state. Lack of maintenance of the government buildings is also a grave problem. Residential accommodation is short and hence it results in non-availability of staff for emergency duties.

Of course, one should not overlook the fact that mere facilities are not everything. For even if all basic health needs are provided for the issue of the paucity of properly trained medical personnel would still need to be addressed. Frankly, there is an alarming number of posts for medical and para-medical staff (including female health workers who are directly related to women's needs, e.g. family planning, reproductive and child health etc.) in the rural health facilities lying vacant. Here we must mention that, it is not simply a case of unfilled posts; in Himachal, as elsewhere in the country, ensuring accountability of existing staff within the health department is also a persistent problem. Often what cannot be achieved by the dictat of official rule book can be ensured through community participation and monitoring of government programmes. For example, in a project on Reproductive Health through the Panchayats designed and initiated by the Institute of Social Studies Trust (ISST), SUTRA, the partnering organization in Himachal Pradesh, came across persistent complaints against a particular Auxiliary Nurse Midwife (ANM) leveled by the village women in a study site under one of the Gram Panchayats in Solan district. Apparently the said ANM was never to be found at her job. Every time she was accosted by the women, she would say that she was absent in a particular village on a particular date because she had been visiting some other village on that day and time. It soon transpired that this was a ploy to visit no place at all. After intensive discussions within the group on possible solutions to the problem of truancy, the group on its own decided on an ingenious solution. The very next day, boards went up on the walls of the Gram Panchayat building clearly demarcating the schedule of visits by location and time of the lady. The women explained to the ANM that this was the best thing that could be done to save her good name from being smeared by unnecessary gossips about shirking her work. The ANM knew she had lost out to the women and decided to show up for duty more regularly².

Since medical facilities are not abundant in rural HP and since rural areas in any state are much larger than urban centres alternative means for health care of women need to exist. Unfortunately, HP had a solution to the problem but over

² *Field Notes of 'Reproductive Health Through Panchayats' (1997-98) A study conducted by ISST (as cited in, Health in Himachal Pradesh: A Component of Human Development, ISST, August, 2000, pp-25)*

the years it has been wasted. The state had a long and ancient tradition of herbal medicine that was practiced in a large scale with much beneficial effect. Moreover, Himachal Pradesh is a storehouse of herbal medicinal plants. A harm free and easily available natural source of health care, the Indian Govt. took it upon itself to promote this tradition throughout the nation. As a result, herbal medicine got popularized and a demand was created for the herbal products. Even in HP, a significant portion of the population relies on the Ayurvedic System of Medicines³. Demand means inflow of money and consequently today most of HP's herbal medicinal plants (more than forty species as enlisted by the state forest department; may be the actual list of products could well be much longer) are exported outside the state in the form of raw materials only, because of the high cost of extracting and processing⁴. Alarming within the state a marked tendency has been noticed among the people to gravitate towards Allopathic treatment, a comparatively fast acting but harmful substitute for a dying tradition⁵.

However, the temptation of money cannot be ignored for like most other states HP cannot really boast of a well developed rural infrastructure and hence a self supporting rural economy. The problem is that it is not possible for a funds-strapped state government to provide infrastructure to all corners of the state and the private sector refuses to go to the remote and underdeveloped areas as there is not much prospect of profit there. As long as, a viable solution is not found the overall facilities will not improve and that means neither will the medical facilities and consequently the health of women.

However, there may be hope for the government seems to have adopted a planned initiative to promote health consciousness through Panchayats. Panchayats are institutions of local governance and elected Panchayats have become mandatory all over India after the constitutional amendments. In HP the Panchayati Raj Act of 1968 has provided for women representation. The government of HP is thus trying to empower women through the Panchayats so that they are themselves able to address various women's health issues like reproductive health, intra-household relationships etc., interact with *mahila mandals* and forward their resolutions to the government and discuss problems and find solutions. However, the women also feels that various awareness generation camps conducted by different NGOs also help especially teenage girls to understand about their health. Since the NGO activity level is still in infancy in the state regarding women related health issues, at least; there should be more interventions through local NGOs in this regard.

³ Health in Himachal Pradesh: A Component of Human Development (a report prepared by ISST, August, 2000, pp-35)

⁴ Herbal Medicinal Plants in Himachal Pradesh: An Analysis of Income and Employment Potential (prepared by ISST, June, 1999)

⁵ Reflections: Women Talk on Changing Scenario in Himachal Pradesh (a compilation of several focus group discussions in HP, Coordinated by SUTRA, Jagjit Nagar, Himachal Pradesh)

APPENDIX - III: Basic Demographic And Statistical Concepts

1. CRUDE BIRTH RATE (CBR)

$$\text{CBR} = \frac{\text{Total Number of live births which occurred among the population of a given geographic area during a year}}{\text{Mid year population of the given area during the same year}} \times 1000$$

2. GENERAL FERTILITY RATE (GFR)

Number of live births per 1000 women in the reproductive age group (15-49 Yrs.)

$$\text{GFR} = \frac{\text{Total Number of live births in a given population during a particular year}}{\text{Total number of females of child bearing ages (15-49) during the same year}} \times 1000$$

3. GENERAL MARITAL FERTILITY RATE (GMFR)

Number of live births per 1000 Married women in the reproductive age group (15-49 Yrs)

$$\text{GMFR} = \frac{\text{Total Number of live births in a given population during a particular year}}{\text{Total number of Married females of child bearing ages (15-49) during the same year}} \times 1000$$

4. AGE SPECIFIC FERTILITY RATES (ASFR)

Number of live births in a year to 1000 women in any specified age group

$$\text{ASFR} = \frac{\text{Total Number of live births to mothers of a specified age group of the population of a given geographic area during a year}}{\text{Mid year female population of the specified age group of the given area during the same year}} \times 1000$$

5. AGE SPECIFIC MARITAL FERTILITY RATES (ASMFR)

Number of live births in a year to 1000 Married women in any specified age group

$$\text{ASMFR} = \frac{\text{Total Number of live births to mothers of a specified age group of the population of a given geographic area during a year}}{\text{Mid year Married female population of the specified age group of the given area during the same year}} \times 1000$$

6. TOTAL FERTILITY RATE (TFR)

Average Number of children that would be born to a woman if she experiences the current fertility pattern throughout her reproductive span (15-49 Yrs.)

$$\text{TFR} = \frac{\text{The Sum Total of ASFR's} \times 5}{1000}$$

7. TOTAL MARITAL FERTILITY RATE (TMFR)

Average Number of children that would be born to a married woman if she experiences the current fertility pattern throughout her reproductive span (15-49 Yrs.)

$$\text{TMFR} = \frac{\text{The Sum Total of ASMFR's} \times 5}{1000}$$

8. GROSS REPRODUCTION RATE (GRR)

Average Number of daughters that would be born to a woman if she experiences the current fertility pattern throughout her reproductive span (15-49 Years)

$$\text{GRR} = \frac{\text{TFR} \times \text{Number of Female births}}{\text{Total Number of Births}}$$

9. NET REPRODUCTION RATE (NRR)

Average Number of daughters that would be born to a woman if she experiences the current fertility and mortality patterns throughout her reproductive span (15-49 Yrs.)

10. CRUDE DEATH RATE (CDR)

$$\text{CDR} = \frac{\text{Total Number of Deaths which occurred among the population of a given geographic area during a year}}{\text{Mid year female population of the given area during the same year}} \times 1000$$

11. AGE SPECIFIC MORTALITY RATE (A.S.M.R.)

$$\text{ASMR} = \frac{\text{Total Number of Deaths in a given age group which occurred among the population of a given geographic area during a year}}{\text{Total population in the same age group of the given area during the same year}} \times 1000$$

12. SEX SPECIFIC MORTALITY RATE (S.S.M.R.)

$$\text{SSMR} = \frac{\text{Total Number of Deaths in a given Sex which occurred among the population of a given geographic area during a year}}{\text{Mid year female population of the same Sex of the given area during the same year}} \times 1000$$

13. CAUSE SPECIFIC MORTALITY RATE (C.S.M.R.)

$$\text{CSMR} = \frac{\text{Total Number of Deaths due to specified cause occurred among the population of a given geographic area during a year}}{\text{Mid year population of the given area during the same year}} \times 1000$$

14. INFANT MORTALITY RATE (I.M.R.)

$$\text{IMR} = \frac{\text{Number of infant deaths under one year of age in a given area during a calendar year}}{\text{Number of live Births in the same area during the same year}} \times 1000$$

15. NEO NATAL DEATHS (N.N.M.R.)

Infant Deaths occurring under 28 days of age

$$\text{NNMR} = \frac{\text{Number of infant deaths under 28 days of age in a given area during a calendar year}}{\text{Number of live Births in the same area during the same year}} \times 1000$$

16. POST NEO NATAL MORTALITY RATE

Post

$$\text{NNMR} = \frac{\text{Number of infant deaths after 28 days of age in a given area during a calendar year}}{\text{Number of live Births in the same area during the same year}} \times 1000$$

17. PERI NATAL MORTALITY RATE

Number of late foetal deaths (of 28 weeks or more Gestation) plus Neonatal deaths below the age of 7 days.

Peri

$$\text{NNMR} = \frac{\text{Number of late foetal deaths (of 28 weeks or more Gestation) plus Neonatal deaths below the age of 7 days in a given area during a given year}}{\text{Number of live Births in the same area during the same year plus number of foetal deaths of 28 or more weeks of gestation}} \times 1000$$

18. STILL BIRTH RATE

Foetal death occurring after 28 completed weeks of gestation or more

$$\text{SBR} = \frac{\text{Number of late foetal deaths of 28 weeks or more completed Weeks of Gestation in a given area during a given year}}{\text{Number of live Births in the same area during the same year plus number of foetal deaths of 28 or more weeks of gestation}} \times 1000$$

19. MATERNAL MORTILITY RATE (MMR)

$$\text{MMR} = \frac{\text{Number of deaths from deliveries or complications of Pregnancy, child-birth and puerperium which occurred among female population in a given area during a year}}{\text{Number of live Births in the same area during the same year}} \times 1000$$

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EXECUTIVE SUMMARY

The issue of food security has become not only pertinent to the economists, but also to the environmentalists, social activists and most importantly to the common man. The 3 main aspects of food security (can also be termed as *food vulnerability*) i.e. physical availability of food (through production or imports of foodgrains), distribution of food grain (i.e. a proper delivery system, for e.g. the public distribution system in India) and the economic accessibility of food (i.e. purchasing power in the hands of people), are discussed in our Report.

Food security should be looked at from both macro and micro point of view. Food security does not mean increased production and consumption of food. Food security does not end by delivering the food at the doorstep of the household since there exists intrahousehold disproportionality in the distribution of food which can arise out of gender discrimination. Gender relations play a major role in the intrahousehold allocation of resources including food. However, it is difficult to measure gender discrimination in terms of intrahousehold distribution of food and nutrition. In Section 6, we did a review of existing literature, to understand the gender aspect of food security. We started with how the economists and nutrition experts differ among themselves regarding various measures and methodologies which are adopted to show gender discrimination. We came to know that tools which are used to measure gender discrimination can't be applied universally but are time and location-specific. Due to differences in the various methodologies adopted, we found contradictory results from the existing literature. However, gender discrimination is strongly prevalent particularly in South Asia. There is high prevalence of malnutrition among women leading to diseases like anaemia, stunting etc. and also low female to male ratio (in South Asia- India and China particularly). From the review of literature, we came to know that data-collection too is a problematic issue, which can create obstacle to understanding gender-discrimination at the household level. The inclusion of alternative techniques like coping up strategies adopted by the family members during adverse situation/s, food calendar etc. could lead to measuring the food security at the household level in a more holistic manner. Moreover, during data-collection, projects should include anthropologists, sociologists and psychologists, apart from economists and statisticians. This would help to adopt a methodology which is more holistic and broad since a lot of socio-economic and psychological factors affect intrahousehold allocation of resources like culture, education, proximity of the mother towards the child, financial security of the woman etc.

To understand the food security from a macro point of view, one may refer to Section 1, Section 2 and Section 4. In Section 1, we showed how India emerged from a food-deficit country to a food surplus country. The history of State's involvement in food security is given in brief. The importance of green revolution in the post-Independence era to combat shortfall in food production too is discussed.

In Section 2, we have discussed how the PDS (Public Distribution System) evolved since the mid-1960s and how the objectives of PDS changed over time. The inefficiencies in the PDS led to burgeoning food-subsidy, which ultimately induced the government to targeting the below poverty line population.

In Section 4, we did a literature survey regarding the problems which are associated with the PDS and how the PDS should be revamped. Great amounts of writings are available from which we could identify the different standpoints taken by different economists. There are three different viewpoints regarding the question of dismantling our Public Distribution System. These three viewpoints are—

- I. Since a number of studies show that PDS could not reach the poor and the rural areas, and since the food subsidy constitute a major part of the revenue expenditure of the Central government, institutions like FCI should be dismantled and government should encourage the growth of food market etc. so that price distortion by government intervention is reduced. Exports of foodgrain by the farmers would help them get better prices which will encourage private investment in irrigation and infrastructure.
- II. There is a need for restructuring the existing system by targeting the population who live below the poverty line. The main reason behind such an argument is that in this way on one hand government can arrest the rising fiscal deficit and on the other hand, the government could provide a *safety net* to the vulnerable sections of the society in the backdrop of globalization which in the short-run can adversely affect this section.
- III. The PDS should continue as it is but it should enlarge its area of operation encompassing more vulnerable sections. The reason behind such an argument is that a large chunk of our population suffers from malnutrition irrespective of the income group they belong to. Targeting the PDS would only create more problems by excluding those who suffer from malnutrition. Moreover there are doubts regarding the methodology states adopt to identify the BPL households.

In Section 3, we gave a brief account of the employment generation programmes adopted by the government to raise the purchasing power of the people and to create rural assets.

In Section 5, we presented the grim situation of Delhi slums which are deprived of the basis amenities like proper sanitation, water supply etc. We also tried to provide some statistics (from different sources) regarding PDS usage in Delhi.

"Food security is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active life".

--Rome Declaration on World Food Security
World Food Summit 1996

OBJECTIVE

The objective of our Report is to broadly understand the concept of food security and management. We have tried to find how the Indian State's policy of food security changed from time to time to provide food to the urban consumers and the distressed. The clear demarcation of the Government of India's policy of food security in the 1990s from its earlier policies, have also been probed. The gender aspect of food security has been looked into to understand the intrahousehold distribution of food.

METHODOLOGY

The Report used data from various government documents and works of different economists who are reputed in their own areas. The debates surrounding the Public Distribution System (PDS) is presented in this Report, looking into the writings of many economists and Reports prepared by government and semi-government organizations during the past two decades. The gender aspect of PDS is also discussed in this Report, with a special focus on Delhi.

INTRODUCTION

Hunger is the most deplorable manifestation of poverty. This can manifest itself in the form of starvation, chronic undernutrition or specific nutrient deficiencies. A staggering 5 per cent of rural and 2 per cent of urban population of India do not get adequate food throughout the year. Moreover, the indicators on nutrition are awesome and classing us quite low in terms of Human Development Index.

India was a famine-ridden country during the British times. The process of *faminisation* has been discussed by a whole gamut of social scientists, political leaders and social workers. Even the British government took the task of knowing the reasons behind famines. The early debate surrounding the measures to combat famines was *construction of railways verses investment in irrigation*. After Independence, the Foodgrain Procurement Commission (1950) suggested rationing. Foodgrain Inquiry Committee (1957) suggested maintenance of *Buffer Stock* to combat sudden fluctuation in food supply.

During the '60s and '70s, India started importing foodgrain from USA under PL-480 agreement. War with Pakistan and growing incidence of crop failures led

India to think about self-sufficiency in food. The Second and Third Year Plans which gave over-emphasis on industrialization, faced a lot of criticisms. The government became more aware about shortage in food production. IADP and IAAP programmes were adopted in the early 1960s to combat the evil of food shortage. Later **green revolution technology** was adopted to increase domestic food production.

In 1965, *Food Corporation of India* and *Agricultural Price Commission* (later its name was changed to *Commission of Agricultural Costs and Prices*) were established. Public Distribution System (PDS) became a part of our food policy whose main objective was to provide food supply at cheaper rates to urban consumers through ration shops and fair price shops. Creation of buffer stock through levy, and offering MSP (Minimum Support Price) to avoid distress sales by farmers were also the objectives of PDS.

Scenario in 1990s was completely different with the end of Nehruvian socialism and the adoption of liberalization, privatization and globalization policies. The difference in the meaning between MSP, procurement price and levy price got blurred after the economic reforms. After much criticism of the PDS for its lower accessibility by the poor, by the BIMARU states and by the vulnerable sections of the society, the PDS was revamped into RPDS, the system that ran in between 1992 and 1997. But the RPDS could not help the situation leading to the adoption of Targeted PDS in 1997, after the recommendation made by the Working Group on National Policy on Public Distribution System. The entire population was divided into below poverty line (BPL) population and above poverty line (APL) population, so that the benefits of PDS could reach only the poor. In principle, the government planned to give zero subsidies to APL population and positive subsidy to BPL population. But in the year 2000, the government raised the issue price for both BPL and APL population, which affected the offtake from PDS leading to rising foodstocks in the FCI godowns. The state procurement of foodgrains led to assuring farmer a quick and reasonable return. For the six-year period between 1993 and 1999, the support prices increased by 85% for wheat and 65% for rice. The relative price movements are as follows:

	% Price change annually
Wholesale prices	7.11
Food grain prices	8.15
<i>Rice</i>	
(1) Market price	9.35
(2) Procurement price	10.39
<i>Wheat</i>	
(1) Market price	9.67
(2) Procurement price	12.25

Source: Report of the Comptroller and Auditor General of India on PDS, Rural Employment Generation Programmes, ICDS scheme and Nutritional Support to Primary Education

We can see from the above table that procurement price for rice and wheat has increased more than that of market price during the period 1992-99. These price movements show a tilt towards the producers vis-à-vis the consumers. The inevitable increase in subsidies in the short run and in central issue prices thereafter reduced the margins between PDS prices and market prices to such an extent that offtake of foodgrains declined in some years.

The orientations of policies towards food security have changed from time to time leading to the creation of institutions like Food Corporation of India, Commission for Agricultural Costs and Prices etc. But, today in the era of globalization, the State is stepping back from its role of providing basic amenities to its citizens including food. After many debates surrounding the PDS, some economists have come to the conclusion that PDS should be dismantled. However, when malnutrition and mortality due to undernourishment of the lower income groups and the vulnerable sections of the society is all prevailing, when people are forced to take *mango kernels* under extreme poverty—in such a situation the government should continue its policy of food security via the PDS.

The basic question of hunger, poverty, malnutrition, food security—none of which can be seen in isolation—generated discussions, debate and follow up action all over the world, as a sequel to which the first World Food Conference was organized in 1974. In between, several serious debates were organized by various respected and well-informed fora; viz. World Bank, UNICEF, WHO, FAO, IFPRI etc. World Food Conference (1974) resolved that, '*every man, woman and child has a right to be free from hunger and malnutrition*'.

1. FOOD SECURITY IN INDIA

1.1 A Brief History (Pre-Independence)

The history of intervention by the State to ensure food security to the needy in times of distress, broadly in terms of famines, crop failures and scarcity of food due to other natural calamities has been dated far back but institutionalized arrangement to supply essential commodities started since the Bengal Famine of 1943.

One of the very first treatises on governance, written more than 2,000 years ago by Kautilya pronounces that during the times of famine, a good king should '*institute the building of forts or water-works with the grant of food, or share [his] provisions [with the people], or entrust the country [to another king]*'¹. During the British era, the administrators believed that it was the duty of the State to provide work in times of famine to all able-bodied people who offer themselves for work. Their basic policy was to give famine relief in the shape of employment on public work (a precursor of Keynesian Economics), in the hope that the wages earned by the people would be sufficient to sustain them during the crisis. Amongst the public works, priority was given to works which in future years would promote agriculture and secure the area from famines. Water conservation schemes, canals, tanks and wells were promoted; works relating to the spreading of the network of railways were generally encouraged.

Rationing system was first introduced in 1939 as a wartime measure to combat inflation in food grain prices arising out of shortages, in Bombay. This was later extended to six other cities and a few regions due to the shock of Bengal famine of 1943. The famine of 1943 led to the appointment of first Foodgrains Policy Committee, which recommended procurement of foodgrains from surplus areas, rationing for equitable distribution and statutory price control for checking the price rise. The Department of Food under the Government of India was created in 1942, which helped in food matters getting the serious attention of the government.

1.2 Grain Reserve

The concept of a 'grain reserve' for meeting the distress in lean years is noticeable in the British policy from the very beginning; as is evident right from the Mauryan period to the Moghul period. The Famine Commission of 1880 seriously examined the proposal of 'grain reserve' by the government. But government intervention in the food market was restricted, thus, giving more emphasis on private trade of foodgrain, except those cases where government intervention was necessary.

¹ Jean Dreze, '*Famine Prevention in India*' in *The Political Economy of Hunger*, ed.-Sen, Dreze and Hussain, Clarendon Press, Oxford, 1995.

1.3 Food Management in Modern India (Post Independence)

After Independence, Foodgrains Procurement Commission of 1950 besides making other recommendations suggested the rationing in all the towns with a population of more than fifty thousand, with informal rationing in other towns and some regulated supply of grains in rural areas. The Foodgrain Inquiry Committee of 1957 suggested maintenance of food buffer stocks and amongst other measures recommended setting up of a foodgrains stabilization organization to undertake purchase and sale operations of foodgrains. In order to tackle mass discontent on account of food scarcity, the government entered into the PL-480 agreement with the USA for the import of 31 lakh tonnes of rice in April 1956. Imports under PL-480 became a regular feature for a long period that did not help the government to build up buffer stock. India's concern for food security led the policy makers to adopt measures for food availability—both physical and economic. For increasing the physical availability of foodgrain, India had to resort for the adoption of new technology. India adopted the **high yielding varieties programmes** during the mid-sixties. The government introduced an intensive development programme in 7 districts selected from 7 states in 1960 and this programme was named **Intensive Area Development Programme**. This programme was later extended to the remaining states by selecting one district from each state for intensive development. In October 1965, the net was extended and 114 districts out of 325 were selected for intensive development and the programme was labeled as **Intensive Agricultural Areas Programme**.

In the face of skyrocketing food prices from the early 1960s the Congress government started a system of public procurement and distribution of foodgrains from 1965 aka Public Distribution System (PDS), and at the same time it pushed the **HYV fertilizer technology** in irrigated areas. The main agency providing foodgrains to the PDS is the Food Corporation of India (FCI) set up in 1965.

2. EVOLUTION OF PUBLIC DISTRIBUTION SYSTEM IN INDIA

2.1 Objectives of PDS

The objectives of PDS have changed from time to time. During the period 1945-1970s the main objective of PDS was to protect the urban consumer, ensure food availability through rationing in major urban centres, and thereby, to prevent speculation and undue rise in prices. From the 1970s onwards, the objectives have become rather ambiguous. From its inception, the main objectives of the PDS have included the following:

- *Rationing during the situations of scarcity*
- *Maintaining price stability*
- *Keeping a check on private trade*

- *Raising the welfare of the vulnerable section of the population by linking PDS with poverty alleviation programmes / rural employment generation programmes*
- *To maintain buffer stock to cope up with sudden shortfall in foodgrain production and to maintain stability of inter-seasonal prices*
- *To achieve regional equity in production and distribution of foodgrains*
- *To increase food production by giving incentives to farmers in the form of minimum support prices*
- *To eliminate situations of famine by effective transportation and distribution of foodgrains from the food surplus zone to the food deficit zone*

To run the PDS, the government in the past and even now, resorts to levy purchases of a part of the marketable surplus with traders / millers and producers at procurement. The grain (mainly wheat and rice) thus procured is used for distribution to the consumers through a network of ration / fair price shop (FPS) and / or for building up buffer stocks. In addition to foodgrains PDS is also being used for the distribution of edible oils, sugar, coal, kerosene and cloth. Rice, wheat, sugar and kerosene constitute more than 80 per cent of the total PDS sales. Pulses, which constitute an important source of protein for the poor have a share of less than 0.2 per cent in the total PDS sales. The number of FPS has increased over the years from 0.47 lakhs at the end of 1960 to 4.52 lakhs in 1999. On an average one FPS is envisaged to cover a population of 2000.

2.2 State Intervention in the Food Market (Pre – 1990s)

Food Corporation of India was set up in 1965 with the objective to undertake the purchase, storage, movement, transport, distribution and sale of foodgrains. The Agricultural Prices Commission, later known as Commission for Agricultural Cost and Prices, was set up to determine the prices at which the major foodgrains—wheat, rice, coarse cereals—would be purchased from farmers with the understanding that the state would buy all that was offered at the announced prices. There were two tiers of procurement—by the central government through the FCI, and by the state governments under various schemes some of which used traders and millers of grains as procuring agents. A chain of FPSs distributed the procured grain to the final consumers at issue prices which were lower than the sum of purchase price plus storage, transport and handling costs, the difference between the two being met through a central food subsidy which on average was about 10-12 per cent of the final price through most of the next 25 years.

The droughts of 1965-66 and 1966-67 provided a strong impetus for the expansion of PDS. During the period 1965-68, PDS depended largely on imports of food (imports reached a peak of 10 million tonnes in 1966). Gradually, as food production rose, imports dropped and purchases from PDS also fell, but after the drought of 1972-73, the distribution of foodgrain in PDS picked up again. Throughout the 1970s the quantities remained around 10 million tonnes.

During the period 1978-1991, we find the growth of comfortable buffer stocks, and this provided the basis for the large-scale expansion of PDS as well as *food-for-work* type employment programmes. From 1978 onwards, there was a steady rise in the quantity of foodgrain distributed through PDS, with a peak provision of 20.8 million tonnes in 1991. During the late 1970s and the 1980s, PDS was viewed as a component of the strategy to alleviate poverty. The network of FPS grew in the 1970s along with the number of commodities supplied in these shops.

2.3 Some problems of PDS

Although the PDS was started to reduce interpersonal and regional inequality as one of the objectives, but after a close evaluation of the PDS during the late 1980s and early 1990s by many economists and social scientists, it was revealed that PDS had many flaws. We will briefly discuss some problems related to PDS.

◆ *Limited accessibility of PDS by the poor*

Many empirical studies based on 1986-87 NSS data on PDS purchases have shown that poor were not benefiting much from the PDS. According to a study made by Madhura Swaminathan² based on NSS data for 1986-87, in Andhra Pradesh, Kerala and Tamil Nadu, the share of foodgrain distributed to the lowest 20 per cent households was close to their population share. In U.P. and Bihar persons in the lowest 20 per cent got a disproportionately low share of cereals sold in PDS. The lowest 24 per cent of the population in terms of per capita expenditure received only 14 per cent of PDS grain in the urban areas of Bihar. Ideally speaking, the ratio of the share of the foodgrain purchases to population (belonging to a particular income class) share should be close to 1.

◆ *Regional disparities in PDS*

There are large regional gaps in the scale and operation of PDS, which can be seen in Appendix Table-1. The four southern states, Andhra Pradesh, Tamil Nadu, Kerala and Karnataka together account for 37.7 per cent of total PDS offtake of foodgrain in the country. However, the four northern states of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh (BIMARU states) account for only 18.7 per cent of the total offtake in 1998. It can be seen from the Appendix Table-2, that the share of foodgrain offtake is much higher than the share of population for the southern states and states like Assam, Himachal Pradesh, J&K and West Bengal in 1995. For most of the states, including the four BIMARU states, the share of offtake was much lower than their share in total population. *For Delhi, the share of population (1.2%) is*

² Madhura Swaminathan, *Weakening Welfare: The Public Distribution of Food in India*, pp. 46-47, chapter-4

lower than the share of Delhi in total offtake of foodgrain (1.3%) during the year 1995.

◆ **Urban Bias in PDS**

PDS has confined itself mainly to the urban areas. PS George³ estimated that urban areas accrued for 85% of the total offtake from the public distribution system. However, using the 42nd round NSS data S. Mahendra Dev and MH Suryanarayana⁴ have indicated that for most of the states the urban bias may not be present with the exception of West Bengal. "...in case of all commodities except coal, more than 50 per cent of the total quantity purchased under the PDS is in the rural areas...PDS is rural based at all-India for rice, coarse cereals, sugar and cloth. These items constitute more than 60 per cent of the total PDS purchases. Hence, it appears that PDS is not urban biased but pro-rural." (Mahendra Dev and Suryanarayana, 1991)⁵.

◆ **Inefficiencies of the PDS**

Subsidy on PDS has shown a rise due to the widening gap between the *issue price* and the *economic cost* (equals to procurement price plus the cost associated with the storage, transportation and distribution) of the FCI. From Rs.170 crores in 1972-73, the food subsidy rose to Rs.2850 crores in 1991-92. FCI has been criticized for its highly centralized and bureaucratic mode of operation.

◆ **Leakages from PDS**

Deepak Ahluwalia⁶ has shown that a little more than a third of the foodgrains and sugar and over half of the edible oil do not reach the actual users of PDS. The major part of the leakage is due to diversion of foodgrains in the open market.

2.4 State Intervention in the Food Market (Post – 1990s)

The Structural Adjustment Programme (SAP) induced the government to restructure the PDS by targeting specific areas with special reference to 'the population living in the most difficult areas of the country, such as, *drought prone areas, desert areas, tribal areas, certain designated hilly areas and urban slum areas*' (GOI, 1992). The major objectives of the **Revamped Public Distribution System (RPDS)**, introduced by the government in 1992, were:

³ PS George, 'Some Aspects of Public Distribution of Foodgrains in India' in Economic and Political Weekly, September 29, 1984, pp. A-108

⁴ S. Mahendra Dev and MH Suryanarayana, 'Is PDS Urban Biased and Pro-Rich', in Economic and Political Weekly, October 12, 1991, pp. 2365-6

⁵ S. Mahendra Dev and MH Suryanarayana (ibid.)

⁶ Deepak Ahluwalia, 'Food Security: PDS vs. EGS', Economic and Political Weekly, July 6th, 1996, pp. 1759

- to increase coverage of the population in the target areas
- to improve the access of income poor consumers to the PDS
- to increase the range of commodities supplied by FPSs, and
- to provide selected commodities at prices lower than in the general PDS

Adopting an approach, what could be termed as, *help for all the people living in poor areas*, the government short listed 1752 blocks under the RPDS to improve the food availability situation in these backward areas.

Table 1: Offtake of Foodgrain from the Central pool under RPDS (in lakh tonnes)

	92-93	93-94	94-95	95-96	96-97
Rice	19.68	23.71	25.69	31.31	32.21
Wheat	15.30	17.77	17.92	18.94	22.91

Source: Brij K. Taimni, Food Security in 21st Century

The Table 1 above clearly shows that the offtake of both rice and wheat has increased steadily from 1992-93 to 1996-97 under the RPDS. The offtake of cereals under RPDS aggregated to 3.5 million tonnes during 1993, 3.6 million tonnes during 1994 and 4.1 million tonnes in 1995, but it was considerably lower than the assessed requirement of about 8 million tonnes for these areas.

The GOI document---*Focus on the Poor (1997)*, provided guidelines for the **Targeted Public Distribution System (TPDS)**, which says:

To start with, it is proposed to issue 10 kg of foodgrain per family per month, at specially subsidized prices for all families below the poverty line as per the estimates for 1993-94 arrived at by the Planning Commission using the methodology of the Expert Group under Prof. Lakdawala. Further, as recommended by the Conference of Chief Ministers, the average lifting of foodgrain for the last 10 years by the states is proposed to be continued for the benefit of the population above the poverty line at present getting the benefit of PDS. The quantity of foodgrain out of this average lifting (offtake) which is in excess of the requirement for the population below poverty line is proposed to be allocated to states as a transitory allocation, at the central issue prices.

On the lines of the recommendations made by the Working Groups, the government introduced a TPDS with effect from 1st June 1997. Under the scheme, the states were asked to identify families below the poverty line. The strategy adopted under TPDS was---the issue price for APL families would be equal to the economic costs of grain to the government. Since the market price is generally less than the economic cost of the FCI, this effectively implies that APL families are out of the PDS net. It is also compatible with the WTO provisions to restrict food subsidy only to the targeted group. While the RPDS was based on

the principle of targeting '*all in the poorer areas*' the TPDS was based on the principle of '*poor in all areas*'.

The methodology adopted to categorize households was to identify the population below the poverty line. The percentage of households living below poverty line was estimated to be 35.97 per cent in 1993-94, on account of which the total number of BPL families come to 53 millions. Based on a 10 kg per family per month supply of foodgrains to 58.7 million BPL families, a total of 7 million tonnes of foodgrains was allotted for them during the year 1997-98. Consequent upon the adoption of TPDS in 1997-98 the issue price of wheat was cut down drastically from Rs 402 per quintal in 1996-97 to Rs 250 per quintal for BPL families while for APL families it was raised to Rs 450 per quintal. The issue price of rice was slashed from Rs 537 per quintal in 1996-97 to Rs 350 per quintal in 1997-98 for BPL families while for APL families it was raised to Rs 700 per quintal.

In the face of globalization, one of the main objectives of PDS is to work as a **safety net** for the poor by providing adequate quantities of foodgrains at affordable prices. Safety net is a very broad term encompassing all informal, family based arrangements, all social security programmes and poverty targeted interventions---thus all cash and in-kind transfers. Experiences of poor countries suggest that targeting the lowest decile of the poor would reduce the food poverty by over 20--25 per cent. The basic argument in favour of targeting is that it will not only provide food security to the poor but at the same time reduce food subsidy and hence the budgetary deficit of the central government.

3. OTHER PROGRAMMES FOR FOOD SECURITY

In order to ensure employment for the rural poor with special focus on the nutritional status of women and children, the government came up with various programmes. According to Amartya Sen (in, *Famine as Alienation*, State, Market and Development: Essays in Honour of Rehman Sobhan, ed. Abdullah and Khan), the market fails to empower the entitlements of the poor leading to fall in purchasing power and thus, inaccessibility to food. The role of the State becomes vital and the State should intervene by initiating *public work programmes*. However, the nature of the State is vital to undertake such programmes and respond to the need of the poor. Democracy ensures that the State is not getting alienated from its people. In India, some of the major programmes to reduce rural poverty, ensure employment generation (particularly during lean seasons), improve nutritional status and to create rural assets are as follows:

- ***Integrated Child Development Scheme (ICDS)***

ICDS was introduced in 1975 with special focus on malnutrition or undernutrition, prevalent among the vulnerable groups largely comprising of women and children, in developing countries. The main objectives of ICDS are: (a) to improve the nutrition and health status of children in the age group 0-6 years; (b) to reduce the incidence of mortality and malnutrition among children and; (c) to improve the capability of the mother to look after the health and nutrition needs of the child. The central government provided fund for infrastructure while the core component of supplementary nutrition was contributed by the state governments. Malnourished children, pregnant and lactating mothers get their rations under ICDS for avoiding nutritional deficiencies. However, ICDS blocks and *anganwadi* centres have been inefficient in meeting the desired objectives.

- ***Special Nutrition Programme***

This programme was launched in 1970-71 for the same target group as in ICDS i.e. the children below 6 years age and expectant and nursing mothers. This programme is confined to tribal areas and slums. Main activity under this programme is to provide supplementary feeding to the beneficiaries for 300 days in a year, although some individual initiatives were made to some states to link some other services with supplementary feeding. Under this programme, every child is to receive 300 calories and 8-15 grams of protein and every expectant and nursing mother 500 calories and 20 to 25 grams of protein per day.

- ***Balwadi Nutrition Programme***

Bal (children) wadi (home) Nutrition Programme is a contemporary of SNP and is being implemented since 1970-71 by the Central Social Welfare Board and national level non-governmental voluntary organizations, Indian Council for Child Welfare, Harijan, Sevak Sangh, Bhartiya Adimjati Sevak Sangh and Kasturba National Memorial Trust. The Balwadis not only provide supplemental nutrition but also look after the social and emotional development of children attending the Balwadis.

- ***Employment Generation Programmes***

To eradicate poverty, to create durable assets and to provide additional employment opportunities for the unemployed and underemployed, several programmes have been undertaken by the government. The *Integrated Rural Development Programme (IRDP)*, the *National Rural Employment Programme (NREP)* and the *Rural Landless Employment Guarantee Programme (RLEGP)* were conceived keeping in mind the objective of poverty alleviation. The IRDP was started in 1978-79 in 2300 development blocks. The NREP also started during the sixth five-year plan. The RLEGP

was launched on 15th August 1983. NREP and RLEGP were merged into Jawahar Rozgar Yojana since 1989. Some other programmes aiming at poverty alleviation are the Programme of Development of Women and Children in Rural Areas (DWCRA), the Employment Assurance Scheme (EAS), the National Social Assistance Programme, the Swarna Jayanti Shahari Rozgar Yojana and Prime Minister's Rozgar Yojana.

4. PRESENT DEBATE ON PDS

Madhura Swaminathan⁷ in her article has mainly represented the current debate on PDS--whether the PDS should be dismantled and why?

Madhura Swaminathan has argued that fall in the consumption of cereals is not an indicator of the diversification of diets but actually shows the growing incidence of malnutrition among people. The author has suggested that for physical access to food, India should be self sufficient in food production. This is possible if the govt. goes for massive investment in infrastructure including irrigation and breakthrough in technology. But in the backdrop of a fiscal deflationary policy adopted by the government during the 1990s, the regional inequality in agricultural production is bound to rise. She has also criticized the government policy, which has induced change in cropping pattern with a shift away from production of cereals and foodgrains.

Madhura Swaminathan has criticized some economists on the issue that inefficient procurement price policy of the government has given rise to the problem of rising stock of foodgrain in the FCI godowns. Madhura has found that the cause behind the rising stock of foodgrain in the godowns is not only the rising procurement prices but also the rising issue prices for the PDS, which has reduced the offtake of foodgrains.

To combat the problem of rising procurement prices, Madhura has suggested a dual price policy (as already been suggested by Ashok Mitra) with different prices being paid to the rich and the poor; and also public investment in infrastructure including irrigation which will reduce regional disparity in agricultural production, thus preventing the foodgrain-surplus to dictate their own terms. She has argued that in the backdrop of half a billion of people suffering from malnutrition (*with the Body Mass Index taken as an indicator of nutritional standard, in a study of 8 states in 1991-92, it was estimated that 46% of men and women adults were chronically energy deficient*), PDS can become a very important tool to eradicate malnutrition.

Madhura has criticized the Targeted PDS that is based on the narrow definition of absolute income poverty. She has cited the example of the inefficiency in survey techniques used in a village in Maharashtra to target the BPL households,

⁷ Madhura Swaminathan, 'Excluding the Needy: The Public Provisioning of Food in India' in *Social Scientist*, Vol.30, Nos. 3-4, March-April 2002

due to which, the original BPL households were excluded from the TPDS. She has discussed the major drawbacks of the use of income poverty line as an indicator of the eligibility of a family for access to PDS. *Firstly*, incomes are difficult to measure in an economy where the majority of workers do not earn regular monthly salaries. *Secondly*, a substantial proportion of households above the poverty line are likely to be vulnerable to income poverty and to food insecurity. *Thirdly*, the limited evidence on income mobility in developing countries indicates that there is significant mobility in the lower income deciles. Madhura has argued that since the adoption of TPDS by the government in 1997 the situation has changed dramatically. After the budget of 2000, APL families were to pay 100% of the economic cost of grain, which is equal to the cost of procurement, plus the cost of distribution while BPL families would pay 50% of the economic cost. The rise in issue prices for the APL and BPL consumers is much higher than the rise in real wholesale prices. The new price dispensation has in effect, removed APL families from the PDS. Millions of undernourished persons and persons vulnerable to undernutrition who have been wrongly excluded from the BPL category no longer have even the limited benefits available to them as a possible part of the APL category. That is why Targeted PDS should be converted into universal PDS so that rise in issue prices, which is greater than the rise in the wholesale prices, should be stopped and thus offtake of wheat and rice from the PDS can be increased. Madhura has strongly argued against the dismantling or privatization of the FCI, which has performed its role in an excellent fashion since the last 3 decades. She has however suggested for the decentralization of the PDS without hampering the food security of India.

The main suggestions of the author are ---

- *The government should continue with the policy of procurement but should make it targeted by offering differential procurement prices to rich and poor farmers.*
- *For procurement prices not to be dictated by a handful of foodgrain surplus states and for India's self-sufficiency, the government should go for massive public investment in infrastructure including irrigation.*
- *Targeted PDS should be replaced by universal PDS in the presence of all-pervading malnutrition.*
- *Dismantling of PDS and FCI will not help the situation since food markets in India are not integrated. However, FCI can be decentralized by devolution of more power to local bodies.*

In her article Utsa Patnaik⁸ has criticized the 'Export First' policy of the government during the era of economic reforms. The trend of agro-exports which started during the late 1980s speeded up during the 1990s as a result of which area under cereals and pulses is being replaced by oilseeds particularly oilseed processed into feed concentrate, and by other horticultural crops. The gross area

⁸ Utsa Patnaik, 'Political Economy of State Intervention in Food Economy' in Economic and Political Weekly, Vol.32, May 17-24, 1997, pp.1105-1112

under coarse cereals declined by 4.8 mn ha upto 1993-94 and recovered 1.7 mn ha of this in the next two years; but there is still a net loss of nearly a million hectares by 1995-96 compared to 1990-91. The Table 2 given below shows the area under foodgrains and oilseeds.

Table 2 : Area under Foodgrains and Oilseeds

	(million hectares)				
	Cereals	All and Rice	Wheat Grains	Coarse Pulses	Oilseeds
89-90	103.3	65.7	38.6	23.4	22.8
90-91	103.2	66.9	36.3	24.7	24.1
91-92	99.3	66.0	33.3	22.5	25.9
92-93	100.8	66.4	34.4	22.4	25.3
93-94	100.5	67.6	32.9	22.2	26.9
94-95	100.7	68.5	32.2	23.0	25.3
95-96	99.5	68.0	31.5	23.9	26.3
Percentage change etween 95-96 and 90-91	-3.5	1.64	-13.20	-3.24	9.12

Source: *Political Economy of State Intervention in Food Economy (ibid.)*

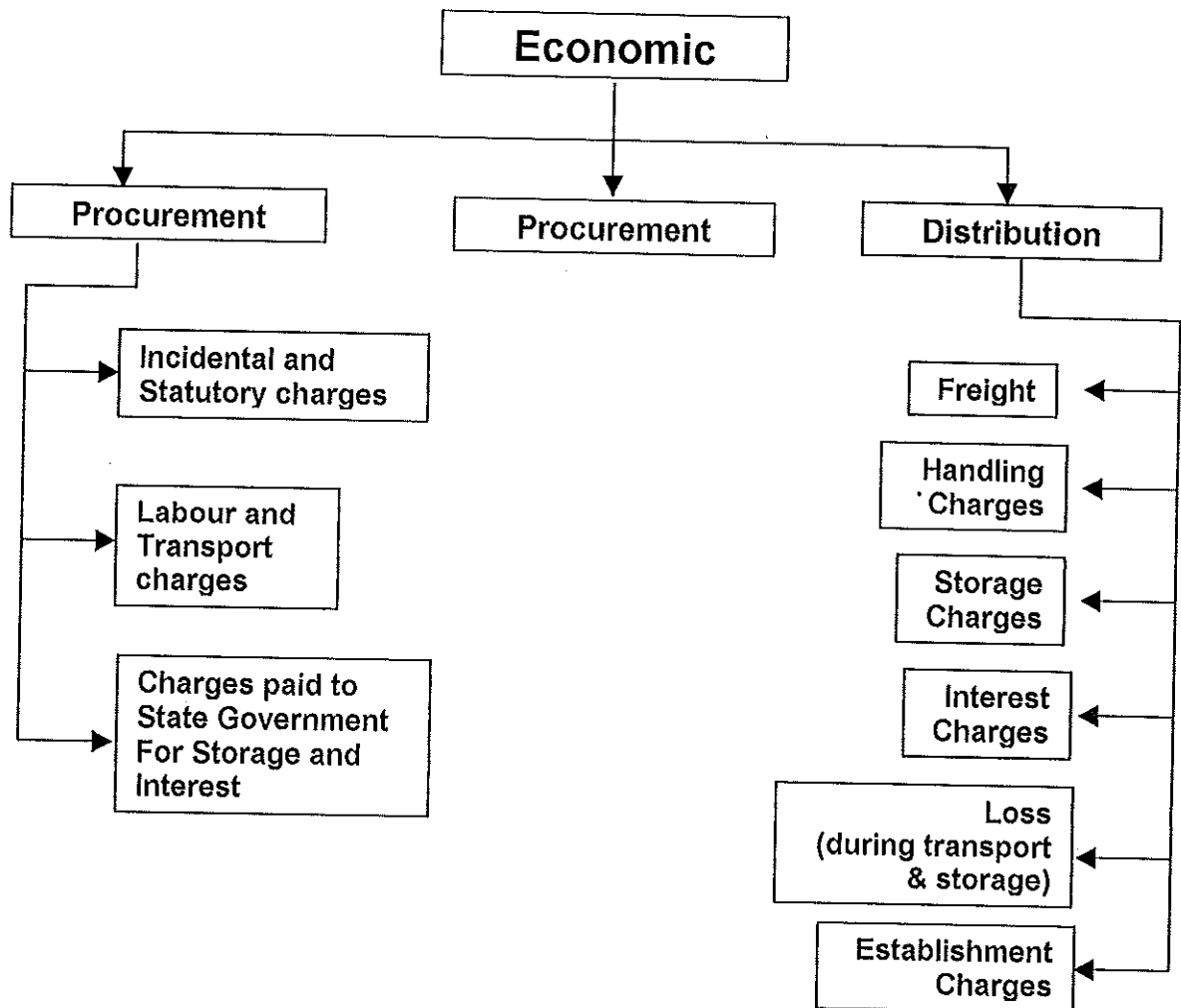
The above table shows that in between 1990-91 and 1995-96 the area under oilseeds has shown the highest growth rate (9.12%) in comparison to cereals, rice, coarse pulses and wheat. There is a marked slowing down of total foodgrains output growth rate in the 1990s compared to the 1980s because of fall in area under foodgrain under foodgrain in the 1990s. Within oilseeds the fastest growing segment has been soyabean, followed by sunflower and safflower. All these marked changes at the policy level can lead to India becoming a food-deficit country. Utsa Patnaik, thus, warned us against the forthcoming situation when physical availability of food will be hampered.

One of the suggestions, which have come, owing to the inefficiency of the PDS, is to go for *food stamps programme*. The suggestion is to dismantle the PDS and FCI and move to a system of well-targeted food stamps whereby the beneficiaries pay a part of their purchases from the market in terms of these stamps. Thus the food stamps are redeemable for the purchases of foodgrains and other essential commodities at unsubsidized prices. Such a strategy has the advantages of higher food consumption effects and lower administrative and budgetary cost of operations. Kirit Parekh⁹ in his article has advocated for the provisioning of special food stamps, which entitle the poor to purchase cereals at 50% of the price.

⁹ Kirit Parekh, 'Who Gets How Much From PDS: How Effectively Does It Reach The Poor?' in Sarvekshana, January-March, 1993

Madhura Swaminathan¹⁰ in her paper has shown that the rise in economic costs of the government is due to the rise in distribution cost and procurement cost. She has stressed that the food subsidy as a share of GDP has not changed much over the last 20 years. The food subsidy bill, in proportionate terms, is not very high when compared with expenditures in other developing countries like Sri Lanka, Mexico etc. The chart given below shows the division of economic cost borne by the FCI as shown below. In her paper, Madhura has shown that economic costs of procuring and distributing both rice and wheat have risen over the 1990s (1990-91 to 1998-99). The economic costs of procuring and distributing wheat rose from Rs. 356.50 per quintal in 1990-91 to Rs. 807.95 in 1998-99, reflecting an annual growth rate of 10%. The economic costs of procuring and distributing rice grew at 9.7% per annum over the same period, from Rs. 457.52 to Rs. 980.36. But in comparison to the rise in economic cost borne by the FCI, sales realization have not shown rise.

Chart: COMPONENTS OF ECONOMIC COST



¹⁰ Madhura Swaminathan, 'Understanding the Costs of the Food Corporation of India' in Economic and Political Weekly, December 25 1999

Of the total economic costs, procurement incidentals were around 15% for wheat and 7% for rice. Procurement costs accounted for a bigger share of total costs of wheat; they have also risen more rapidly for wheat. An important reason for lower procurement costs for rice may be that it is obtained directly from the millers. Statutory charges (which mean obligatory payments and include mandi fees, auction fees, commission paid to 'Kutchra Arhatiya's i.e. licensed farmers' agent) were the most important component of total procurement incidentals for rice and wheat. Statutory charges for rice and wheat grew at around 9% per annum. Since statutory charges are a major part of the total cost borne by the FCI, so they should be reduced. But statutory charges differ across states, and some state governments use this as a way of raising resources. So a reduction of these costs involves other policy changes such as rationalization of taxes on food across states.

Until 1993-94, the distribution cost for rice and wheat were the same; but from 1993-94 onwards distribution cost of rice became higher because quantity of rice distributed under PDS is higher compared to that of wheat. Though distribution cost grew less rapidly in comparison to procurement cost but in absolute terms it is higher (for rice and wheat). Freight charges are the most important component of distribution cost. The rise in transport cost is due to the rise in railway freights as well as rise in volume of the movement.

Madhura Swaminathan has mentioned about two indicators, which are used to identify operational efficiency of the FCI. They are the ratio of economic costs to procurement price and ratio of subsidy to procurement price. The ratio of economic cost to procurement price increased during 1970s and 1980s, particularly for wheat, but started declining after 1991-92. For rice, the ratio was more or less unchanged during 1990s. This shows that FCI has improved its operational efficiency during the 1990s.

The paper attempted a comparison of wholesale market prices and economic costs of the FCI. The price comparisons indicated that the FCI compares favorably with private traders in the distribution of rice in a large number of states. In the states of northern and central India, however, private traders had lower prices for grain. The presence of systematic rural-urban price differences indicates the imperfection of grain markets.

The paper concluded that any substantial reduction in economic costs require control over the procurement prices, a parameter determined by the central government and not the FCI. Control over statutory charges, which is an important component of procurement prices require action by the state governments and better collaboration between the FCI and state government owned corporations in procurement operations. The skyrocketing cost of transport, storage and handling should be controlled.

The *India Human Development Report* prepared by *National Council of Applied Economic Research* conducted a survey of 33,000 rural households during 1994. The Report is based on the findings of the multi-purpose survey spread over 1765 villages and 195 districts in 16 states in India. Expenditure on foodgrains is 31% at all-India level but this proportion is low in Haryana (16.9%), Punjab (15.8%) and Rajasthan (19.7%). Proportion of expenditure on basic food items is relatively high in areas or population groups with low-level low level of income. Estimated per capita expenditure as a % of total expenditure by the states is shown in the Appendix Table 3.

According to the NCAER Report, the per capita consumption of foodgrains averages 14 kgs. per month for rural India as a whole, which corresponds to 467 gram per day (see the given Appendix Table 4 to know the per capita consumption of foodgrains by states—class wise, social group wise and village development group wise). This estimate is marginally less than the nutritional norm of intake for the rural population. There are variations across the states—around 10 kg in Kerala and Gujarat. On the other hand, average consumption in Himachal Pradesh and Rajasthan is over 17 kgs. per person per month. A part of the variation is explained by the difference in food habits.

According to the NCAER Report only 33% of rural households in India reported the use of PDS on regular basis (see the given Appendix Table 5 to know the consumption of foodgrains and utilization of the PDS in states). The Appendix Table 5 indicate that the programme is working fairly efficiently in all the four southern states, two western states, and Himachal Pradesh, and modest levels in Madhya Pradesh. The proportion of households using PDS is 82% in Tamil Nadu, 78% in Kerala, 70% in Karnataka, and 66% in Andhra Pradesh. On the other hand, only about 5% of rural households have reported PDS utilization in Uttar Pradesh, Bihar, Orissa and Punjab. With the exception of Punjab, the other three states have a high level of undernutrition, according to the Report.

The major findings of the *India Human Development Report* prepared by *National Council of Applied Economic Research* are as follows:

- I. The average consumption of foodgrains in India is 14 kgs. per month which corresponds to 467 gm. per day. This varies from 9 kgs. in Gujarat to 17 kgs. in Himachal Pradesh and Rajasthan.
- II. About 31 percent of total expenditure is on food, but this proportion is relatively higher in Bihar and Orissa—about 43%. Economically well off states like Punjab and Haryana spend only 16% on food.
- III. Per capita consumption of foodgrains varies only marginally according to population group. The consumption levels are lower for landless laborers, those living in the lower segment below the poverty line and those living in larger households.

- IV. Only 33% of rural households make use of the PDS on a regular basis. The PDS is most widely used in all the four southern states and is least used in UP, Bihar, Orissa and West Bengal.
- V. About 37% of children aged 0-4 years suffer from second degree malnourishment or stunting particularly in the states of Karnataka, MP, Gujarat, Andhra Pradesh, Bihar, UP, the North-Eastern states, Haryana and West Bengal. The incidence of this type of malnutrition is comparatively less in Kerala and Tamil Nadu.
- VI. About 5% of children aged 0-14 years suffer from wasting. Boys have higher levels of wasting than girls. Wasting is high in Uttar Pradesh, Gujarat, Karnataka and Andhra Pradesh, and among children aged 5-12 years. Like stunting, wasting is also insensitive to economic, occupational, landholding and social group differences.

5. SOME FACTS RELATED TO PDS IN DELHI

The share of Delhi in the total population of India is 1.2 %, whereas the share of Delhi in the all India offtake of foodgrain is 1.3%, in the year 1995¹¹. The number of rural poor and urban poor in Delhi are 0.19 lakh and 14.64 lakh respectively, in 1993-94. The percentage of rural and urban population below the poverty line are 1.90% and 15.31% respectively, in 1993-94; and the percentage of people below the poverty line is 14.04% in 1993-94 (These poverty estimates are made by the Expert Group constituted by the Planning Commission in 1993). However, according to the Modified Expert Group Report made in 1997, the percentage of people in Delhi living below the poverty line is 14.69%, which is higher in comparison to Punjab (11.77%) and Chandigarh (11.35%). For Delhi (urban areas), 38.5% of partial purchases are made from PDS, 5.3% of all types of purchases are made from PDS and 56.2% of no purchases are made from PDS in 1986-87. This can be seen in details in the Appendix Tables 6 & 7. However the situation in 1990s is quite different.

The Department of Food and Civil Supplies, Government of Delhi, manage the PDS for regulating supply and distribution of, and trade and commerce in, essential commodities with a view to maintain or increase supplies thereof and secure their equitable distribution and availability at fair prices by enforcing the Essential Commodities Act, 1955, and various Control Orders made thereunder. According to the Department of Food and Civil Supplies there were 3165 PDS outlets in Delhi in March 2001. Of these each FPS handles 1000 ration cards. The numbers of households in Delhi that have ration cards increased from 23.62 lakh in 1990-91 to 36.89 lakh in 2000-01, but the offtake from PDS is low. The quantity of cereals and sugar allotted to Delhi and its distribution through the PDS during 2000-01 is given below. The poor offtake of grain is attributed to relatively lower prices prevailing in the open market as compared to those under PDS.

¹¹ Bulletin on Food Statistics, 1996

Item	Allotted Quantity (tonnes)	Quantity lifted for distribution (tonnes)	Percentage distributed
Rice	163320	526.5	0.32
Wheat	511680	484292	1.74
Sugar	159280	150417.2	94.44

Under the TPDS scheme, BPL families are entitled to 25 kgs. foodgrain per month per family. The scheme was announced in the year 1997 but could not be implemented in NCT Delhi immediately, mainly for 2 reasons, for want of actual identification of the BPL families and the desire of the Govt. of NCT Delhi to make the scheme more broad based by covering all the *jhuggi* ration card holders as beneficiaries of the scheme by taking up the matter with the Govt. of India. However, pending micro-level identification of target group, the government went ahead with the implementation of the scheme in the first phase to the *jhuggi* families living below the poverty line whose household income was below the Rs. 24200 per annum. For this purpose, declarations were obtained from the JRC holders to the effect that their income was upto Rs. 24200 per annum and on the basis of declarations received upto 30.6.2001 from about 3.38 lakh families, ration cards (approximately 16.47 lakh) were as stamped as TPDS and these families are being covered under the scheme. However identification of poor families is still a problem in targeting, particularly in case of Antodaya Anna Yojana and Annapurna Scheme.

In India we observe influx of rural poor to urban slums in search of livelihood, which is changing the demographic, social and economic profiles of the country. In the main cities of Delhi, Mumbai and Calcutta between 40-50% of the residents live in congested, haphazard settlements and unhealthy slums which do not have access to safe drinking water, sewerage or garbage collection. *National Capital Region (NCR) including Delhi has more than 1200 settlements with almost equally bad conditions prevailing in all of them.* Enormous increase in the population of poor in Delhi from about 1.3 million in 1990 to 2.4 million in 1994 has been noted with increased densification of older settlements, some of which have already existed for 30-40 years and the creation of new squatter colonies. The poor in Delhi can only afford to stay in slums, which do not provide a healthy condition to live. Poverty affects the health status of people. Poverty perpetuates poverty thereby forming a vicious circle around the urban poor. The vicious circle relates to lack of purchasing power, poor living conditions, lower dietary intake, malnutrition, multiple episodes of illness, reduction in work capacity and productivity among adults and enhanced mortality and morbidity among children, increased expenditure on health care leading to economic stress and further cut-back on food consumption. Due to the *structural adjustment policies (SAP)* being pursued by the government, the perils of unemployment and poverty were faced by the lower income groups particularly the women and children. An effective PDS can help to provide a safety net to these vulnerable sections of the society in terms of health and productivity. Thus the TPDS should

cover such population who require safety net. But the provisions to target the below poverty line population are not flawless which have induced the authorities to go for under-estimation of BPL population.

According to the *India Nutrition Profile-1998*¹², cereal consumption (comprising mainly of rice and wheat) in Delhi is below the recommended daily allowance (RDA) by 21%. This is one of the reasons for which PDS should become mandatory, which can offer foodgrain at cheaper rates to the people. The average intake of green leafy vegetables was substantially below its RDA, the deficiency being 56%. Average sugar consumption was marginally deficient, being 14% below its RDA. The consumption level in urban areas was more or less the same as that of the average. But in rural areas it was not so. Cereals consumption was adequate in rural areas of Delhi in contrast to the urban areas of Delhi, according to the *India Nutrition Profile-1998*. Milk and its product as well as sugar consumption were much below their RDAs in rural areas.

The main characteristics of food consumption in Delhi according to age and sex (India Nutrition Profile-1998):

- For children between 1-6 years, the average consumption of foodstuffs by boys and girls had marginal differences.
- For school children aged between 7-12 years there was no marked difference in consumption of foodstuff between boys and girls.
- For adolescents' aged between 13-17 years, generally all foodstuffs had higher consumption among adolescent boys except for flesh foods.
- For adults above 18 years of age, the men compared to women consumed almost all foodstuffs higher.

The main characteristics of nutrient intake Delhi according to age (India Nutrition Profile-1998):

- The average nutrient intake was grossly inadequate being below the RDA in the age group 1-3 years for all the nutrients except for protein and calcium. Average fat and thiamin intake exceeded the RDA levels in addition to protein and calcium in the age group of 4-6 years. Intake of other nutrients remained below the RDAs.
- The average protein, fat, calcium and thiamin intake was above the respective RDAs in the age group 7-9 years. While the average fat, thiamin and vitamin-C intake exceeded the level of RDA. Intake of all the other nutrients was below the RDA in the age group of 10-12 years.
- For adolescents of the age group 13-17 years, the average intake of fat, thiamin and vitamin-C was above the respective RDAs. Energy, protein, iron, riboflavin and vitamin-A intake was much below the RDAs, in this age group.
- For adult in the age group 18 years and above, the average intake of all nutrients was above the RDAs, except for iron, riboflavin and vitamin-A.

¹² 'India Nutrition Profile-1998', Dept. of Women and Child Development, Ministry of Human Resource Development, GOI

6. GENDER ASPECT OF FOOD SECURITY

The problem of food security does not lie entirely on per capita availability of food, but also on the economic access to food or what is termed as *entitlement*. The entitlement of a person stands for the set of different alternative commodity bundles that the person can acquire through the use of the various legal channels of acquirement open to someone in his position. In a private ownership market economy, the entitlement set of a person is determined by his original bundle of ownership (what is called *endowment*) and the various alternative bundles he can acquire starting respectively from each initial endowment, through the use of trade and production (what is called his exchange entitlement mapping)¹³. A narrow interpretation of 'entitlement thesis' would suggest that given the 'endowments' a household could access food from any place. In other words, entitlement could be equated to accessibility (VS Vyas, 2000)¹⁴. Sen argues that famines can take place without any decline in food output or availability per head for e.g. Bengal Famine of 1943 saw no significant decline in food availability per head. A decline in food output or availability can be one of the major reasons behind famines (Amartya Sen, *ibid.*)¹⁵.

Thus three things are essential for food security

- a) Production/import of foodgrain (i.e. physical availability)
- b) Distribution of foodgrain (delivery mechanism)
- c) Household-level purchase of foodgrains (i.e. economic accessibility)

The concept of food security is interpreted in a variety of ways. However, physical and economic access to food at the household level at all times, to ensure healthy and active life is the crux of food security (VS Vyas, 2000)¹⁶. There is a growing consensus among economists and social scientists to widen the connotation of food security by including the concept of nutritional security at the household level. Calorie based definition of food security has to be replaced by nutrition based definition of food security at the household level. Without an assurance of nutritional adequacy food security has very little meaning (United Nations Administrative Committee for Co-ordination: Sub-committee on Nutrition (ACC: SCN) (2000): *Fourth Report on World Nutrition Situation*, Geneva).

However, some economists have argued that the past governments gave more emphasis on food grain security instead of food security. They have argued that non-food grain items now account for over 60% of consumer expenditure. In states such as Punjab, Haryana, Maharastra, Gujarat and Tamil Nadu, and

¹³ Amartya Sen, 'Food Economics and Entitlements,' in *The Political Economy of Hunger*, pp. 52-53)

¹⁴ VS Vyas, 'Ensuring Food Security', *Notes*, in *Economic and Political Weekly*, December 9, 2000, p. 4407)

¹⁵ Amartya Sen (*ibid.*)

¹⁶ VS Vyas, (*ibid.*)

among large and middle-income group, there is declining trend in per capita expenditure on cereal. In fact, the decline in the consumption of food grain has been associated with increasing diversification of the food basket, where non-food grain items have been gaining importance. Further, the development of roads and electrification has meant greater urbanization of rural area¹⁷. A variety of urban goods and services have penetrated rural areas, changing the traditional life-style. So there is a need for changing the cropping pattern, which will not only make India self-sufficient in terms of food security (comprising of food grain as well as non-foodgrain), but also help the small and marginal farmers to raise their endowments by production of high value crops.

Household level surveys are essential to know the differential access to food and nutrition, both at the intrahousehold and inter-household level.

In his paper, Daniel G Maxwell¹⁸ has said that the definition of food security includes the related concepts of access, sufficiency, security (or vulnerability), and sustainability. The author has discussed about the pros and cons associated with collecting food security data. He has said that there are two methods, which are extensively used to measure food security. *First*, is to estimate gross household production and purchases over a period of time, estimate the growth or depletion of food stocks held over that period of time, and presume that the food that has come into the household's possession and 'disappeared' has been consumed. The *second* method is to undertake 24-hour recalls of food consumption for individual members of a household, and analyse each type of food mentioned for caloric content (and sometimes a more complete nutrient analysis). According to Maxwell, both these methods result in consumption figures but neither provides a full assessment of food security, because neither measures vulnerability or sustainability. 'Disappearance' methods take no account of intra-household distribution, but 24-hour recall often are carried out only for certain individuals within a household, and therefore may not adequately reflect food access at the household level.

Maxwell has said that there are alternative methods of knowing food-security at the household level like—food balance sheets, rainfall and marketing data, anthropometric measurement, asset ownership, household size, dependency ratio etc. Another approach has been to analyze the use of and reliance upon strategies for dealing with insufficiency of food at the household level as direct indicators. Examples of these strategies include--short-term dietary changes; reducing or rationing consumption; altering household composition; altering intrahousehold distribution of food; depletion of stores; increased use of credit for consumption purposes; increased reliance on wild food; short-term labour migration; short term alterations in crop and livestock production patterns;

¹⁷R Radhakrishna and Ravi (1992). *Effects of Growth, Relative Price and Preferences on Food grain and Nutrition*, in India Economic Review, Vol. 27, Special No., pp. 303-323.

¹⁸ Daniel G Maxwell, 'Measuring Food Security: The Frequency and Severity of Coping Strategies' in IFPRI papers, December 1995

mortgaging and sales of assets; and distress migration. Davies¹⁹ has made the distinction between 'coping strategies' (fallback mechanisms to deal with a short-term insufficiency of food) and 'adaptive strategies' (long term or permanent changes in the way in which households and individual acquire sufficient food or income).

Maxwell has discussed about 6 main short-term, food-based coping strategies. They are listed here according to how they were ranked by focus groups from least severe to most severe;

- Eating food that are less preferred
- Limiting portion size i.e. limiting the quantity of food served to an individual was practiced in the majority of households in the survey, although results indicate significant seasonal variation.
- Borrowing food or money to buy food
- Maternal buffering which is practiced by the mother by deliberately limiting her own intake in order to ensure that children-usually recently-weaned toddlers-get enough to eat
- Skipping meals i.e. eating only one or two meals per day was commonly practiced, particularly by lower income groups
- Skipping eating for whole days

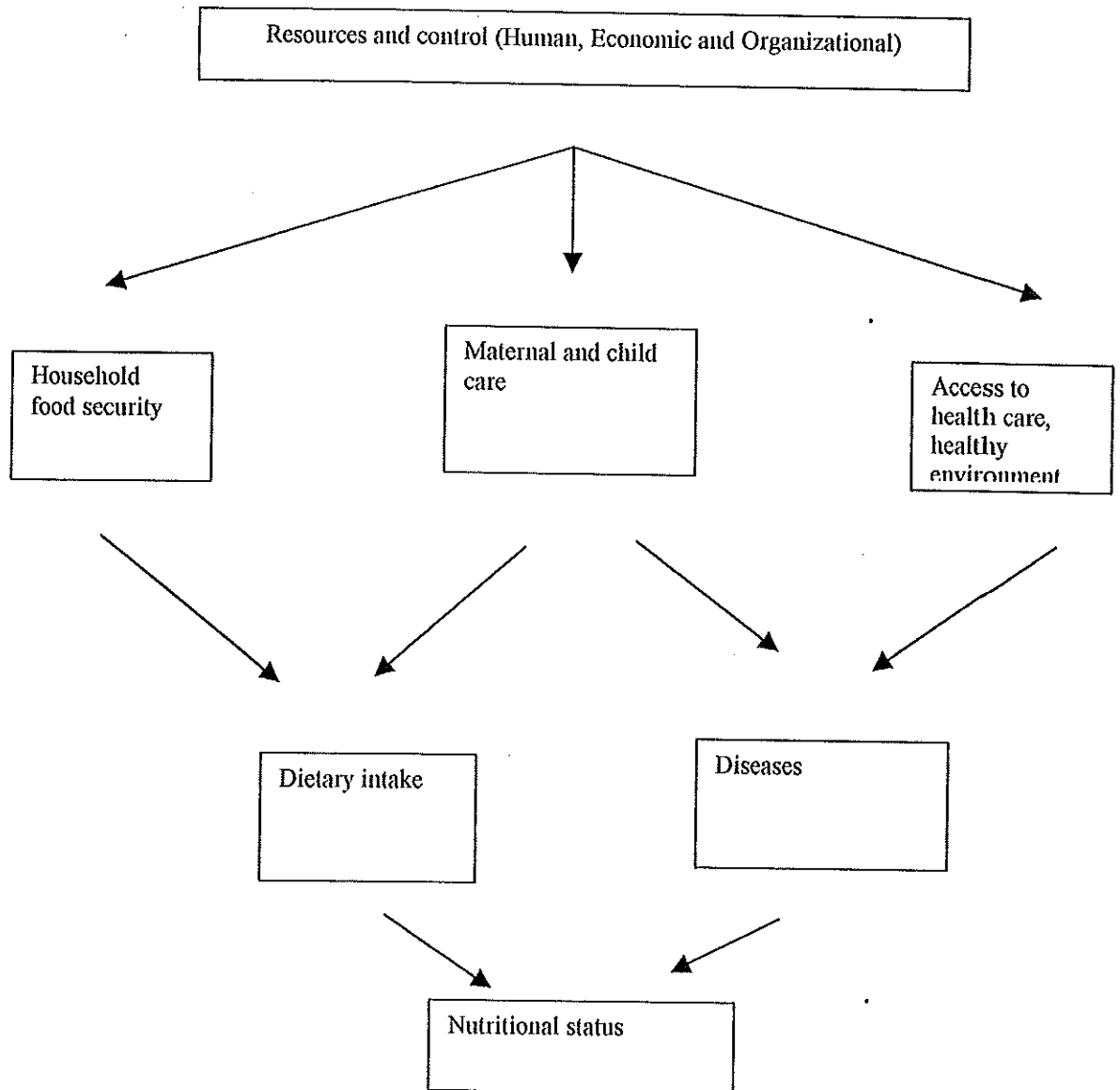
A simple scale of 1-4 has been developed by Maxwell for the frequency of each individual strategy, and multiplied by the weighting factor based on ordinal ranking assigned by focus groups. Thus discrete score for each strategy was obtained, which added together made up a cumulative food security score or index.

Since this indicator was developed to avoid the problems of collecting household food procurement data and the high data collection costs of 24-hour recalls, it is not possible to compare results of this method with either of the two methods of measuring food consumption.

From the figure given below we can get that household food security and nutritional status are not the same things (adapted from UNICEF, 1990).

¹⁹ Davies, 'Are coping strategies a cop out?' in IDS Bulletin 24(4): 60-72, 1993

Relationship of food security, dietary intake and nutritional status



According to Haddad and others²⁰ studies in Bangladesh, India and the Philippines alerted the wider development community to the potential for sex and age biases in nutrition and food intake. Despite serving as a building block for the wider study of intrahousehold resource allocation, there has not been an in-depth review of sex and gender differences in the food consumption according to the authors. The authors say that poor women are likely to be poorly nourished and this has serious implications for the nutrition status of their yet-to-be-born children. Adult female under nutrition also constrains the ability of women to earn income, which tends to impair the nutrition status of their existing children.

²⁰ Haddad and others, 'Food Security and Nutrition Implications of Intrahousehold Bias: A Review of Literature' in IFPRI papers, September 1996

Women with control over resources tend to have a large say in how the household allocated resources, and women are typically more likely to skew resources to the reproduction of nutrition. If, however, the legal, political and ideological structures in the society do not reinforce women's rights to say, own land, get access to credit and to family planning, then this control can be usurped. Education is crucial for income generation and behavior change. If girls do not receive the same educational opportunities as boys, this has important negative consequences for their total fertility rate, their labor force participation, and their ability to promote child welfare.

Food allocation is the most studied dimension of intrahousehold inequality, and yet, outside of northern India and Bangladesh, evidence of pro-male biases in food consumption is scarce. The authors have done the literature review of various works on the differential access to nutrition by men and women (both children and adult) in different parts of India, which are given below.

Study	Country	Measure of food consumption	Sample type	Main conclusion
Cowan and Dhanoa 1983 ²¹	Rural Punjab, India	Individual food consumption (based on home visits and two day recalls)	911 index children(2-3 years old)	More than 3 times as many girls as boys from privileged families are malnourished. Twice as many girls as boys from underprivileged families were reported as undernourished
Pettigrew 1986 ²²	India	Breast-feeding, weaning practices, and illness around weaning time(based on participant observation, home visits, and weighting of sample)	55 children from rich, average and poor households (breakdown of how many kids belonged to each income class was not given)	Boys were fed first in all types of households, although girls were breast fed longer. Note a comment that "the richest people have a great hatred for girls"— this is an observation by a village midwife on which Pettigrew does not comment. In weaning supplementary milk is not willingly supplied to girls, though it is more likely to be provided for boys. The level of income and ownership of land are important variables associated with child health (laborer families contained five out of

²¹ Cowan and Dhanoa, 'The Prevention of Toddler Malnutrition by Home based Nutrition Health Education' in Nutrition in the Community: A Critical Look at Nutrition Policy, Planning and Programs (ed. DS McLaren), 339-356

²² Pettigrew, 'Child Neglect in Rural Punjabi Families' in Journal of Comparative Family Studies 17(1): 63-85

				the six children suffering from 3 rd degree malnutrition and only two out 18 healthy children)
Behrman 1988a ²³	India village level studies data (VLS)	Nutrient intake from 24-hour recall	400 pairs of children < 15 years, from households with at least two kids	During the surplus season, nutrients are distributed among children within a household, regardless of individual endowments (unobserved health propensity). During the lean season, however the measurement of 'inequality aversion' is significantly reduced, rendering later-born and less well endowed children more vulnerable when availability of nutrients is at lowest level. Standardised seasonal requirements satisfied do not differ significantly between boys and girls for calories, carotene, riboflavin, vitamin-C, and calcium.
Behrman 1988b ²⁴	India VLS	Nutrient intake from 24-hour recall	Children < 13 years and from households with at least two kids (approximately 800 children)	A male child parental bias of 5% was found only during the lean season. "...for the lean season, the combination of limited inequality aversion and pro-male preferences — particularly for the lowest ranked castes— may leave those children who are less well-endowed, especially if they are low caste females, close to or even below the margin for survival" (pp.52)

²³ Behrman 1988a, 'Nutrition Health Birth Order, and Seasonality: Intra-household Allocation among Children in Rural India' in *Journal of Development Economics* 28(1): 43-62

²⁴ Behrman 1988b, *Intra-household Allocation of Nutrients in Rural India: Are Boys Favored? Do Parents Exhibit Inequality?* in *Oxford Economic Papers* 40(1): 32-54

Brahman, Sastry and Rao 1988 ²⁵	India	Food intake	1878 households in 10 states, 1975-80	This study found no sex discrimination in the intrahousehold distribution of food. Any shortfall in energy intake are attributed to ignorance on the part of the parents and not to the intentional selection of a few household members. Literacy level of the adult women had a significantly positive influence on the energy consumption of the preschool children in a household
Behrman and Deollikar 1990 ²⁶	India VLS	Food intake	---	Little or no evidence from this data that gender discrimination exists, such as a lower average nutrient consumption level for females, or greater variance in female and male nutrient consumption levels. "Of course, to the extent that the general risk of malnutrition or starvation is greatest during times of food shortage ...the relatively greater vulnerability of female members at these times could be characterized as gender discrimination" (pp.693). Also, nutrient intakes are subject to greater variability for females than males.

²⁵ Brahman, Sastry and Rao, 'Intrafamily Distribution of Dietary Energy: An Indian Experience' in Ecology of Food and Nutrition 22(2): 125-130

²⁶ Behrman and Deollikar, 'The Intrahousehold Demand for Nutrients in Rural South India' in Journal of Human Resources 25(4): 665-696

Warrier 1992 ²⁷	India	Food intake	Individuals disaggregated based on household income and ethnicity	Upper/middle caste groups favor sons more in food allocation than lower status groups and tribal groups.
Harris-White 1996 ²⁸	India VLS	Food intake	240 households from six villages	Cautionary tale on the measurement of intrahousehold food allocation. Harris-White assesses the policy recommendations that emerge from four studies of intrahousehold nutrient distribution, each of which use data collected from the same set of study households in southern India. The studies differ in their conclusions for a number of reasons: the individual classifications of data (for example, different age-group classifications), different treatments of seasonality, different nutrients studied, different aggregations of households (for example, different hectare cut-offs on what constitutes a smallholder), and finally different groups of individuals studied. Harris-White notes that the disagreement among studies are not trivial in magnitude, and that a policymaker would be "right to be very intervention-averse in consequence".

²⁷ Warrier, 'Patriarchy and Daughter Disfavour in West Bengal, India', Ph.D. Dissertation Draft, Syracuse University, NY, USA

²⁸ Harris and White, 'Gender Bias in Intrahousehold Nutrition in South India: Unpacking Households and the Policy Process' in *Intrahousehold Resource Allocation: Method, Allocation and Policy* (ed. Haddad and others), John Hopkins University Press for the International Food Policy Research Institute

According to the authors, evidence for pro-male and pro-adult biases in food intake appears to be strongest in South Asia, although with considerable variation within the region. The results in South Asia run counter to the trend of decreasing inequality as income increases, although inequality increases among the poor during the lean season (Behrman 1988a)²⁹. In India, upper-middle caste groups favor sons more in food allocation than lower status groups and tribal groups (Warrier 1992)³⁰. The evidence concerning food distribution within the household suggests that while there is some pro-male and pro-adult bias in terms of the quantity of food intake, this seems to be primarily located in South Asia, with considerable variation within that region. The differences arise due to a combination of an unequal distribution of food within the household, the unequal nature of food requirements within the household, and the unequal nature of the perceived requirements by age and sex. Thus equal distribution of food within the household can lead to unequal distribution of nutrient adequacy within the household.

Compared to food inputs into good nutrition, economic studies (including those at the International Food Policy Research Institute) have not examined the intrahousehold allocation of non-food health inputs closely for gender bias. The main problem is that economists in behavioral models routinely use self-reported measures of health and morbidity. There is however considerable evidence that self-reported measures do not accurately reflect clinical assessment of health status, according to the authors. Often, self-reported morbidity increases with household income and educational status. In India, breast-feeding duration is longer for boys, partly because there is less urgency to have another child after a boy (Miller 1981)³¹. Boys are heavier than girls of similar age and tend to be allocated more expensive foods than girls (Sabir and Ebrahim 1984³²; Das Gupta 1987³³). While the risk of dying from diarrhoea is higher among the severely malnourished, the risk of dying from severe malnutrition is more than twice as high for girls than for boys (Faveau³⁴ et al. 1990).

The evidence on food distribution within the household suggests that while there is some pro-male and pro-adult bias in terms of the quantity of food intake, it seems to be mainly located in South Asia, with considerable variation within that region. The measured extent of discrimination is sensitive to adjustments for energy expenditure and body mass. While some individuals within that

²⁹ Behrman 1988a, (ibid.)

³⁰ Warrier, (ibid.)

³¹ Miller, 'The Endangered Sex: Neglect of Female Children in Rural North India', Cornell University Press

³² Sabir and Ebrahim, 'Are Daughters More At Risk Than Sons in Some Societies?' in *Journal of Tropical Pediatrics* 30(4): 237-239

³³ Das Gupta, 'Selective Discrimination against Female Children in Rural Punjab, India' in *Population and Development Review* 13(1): 77-100

³⁴ Fauveau and others, 'The Contribution of Severe Malnutrition to Child Mortality in Rural Bangladesh: Implications for Targeting Nutritional Interventions' in *Food and Nutrition Bulletin* 12(3): 215-219

household may receive a higher allocation of food, they may be engaged in energy-intensive activities in which performance depends on nutritional input. Inequality between boys and girls also seems to decrease with higher income, although there is some evidence to the contrary in South Asia, due to higher costs associated with girls (that is dowries). Inequality may also be affected by seasonality, with lower inequality during the harvest as opposed to the lean season.

Sen and Dreze³⁵ have argued that it is wrong to draw a distinction between man-made famines and natural famines. The authors have emphasized that even when the prime mover in a famine is a natural occurrence such as flood or a drought, what its impact will be on the population would depend on how society is organized. Even when normal incomes are hit due to natural calamities, the society can make arrangements for protecting vulnerable groups from these adverse shocks. Furthermore, many deserts have been created by reckless human action, and distinction between natural and social causation is substantially blurred by the impact that society can have on the physical environment.

Sen and Dreze have then drawn our attention to the importance of social relations in determining the extent of hunger. They mention that in most forms of human interaction, there is coexistence of conflicts as well as congruence of interests. Sometimes there is extensive competition and combat between different classes or occupation groups in trying to secure a large share of a given supply of food that is fixed in the short run. For example, in the Bengal famine (1943), the rural agricultural labourers who had to buy food with their wages were hit by the rise in food prices related, at least partly, to the increase in the purchasing power of the urban population in the war economy of Bengal. There are conflicts of interests of various kinds that operate in the economy between various classes.

According to Sen and Dreze, one of the difficult fields of 'food battle' is that of intrafamily divisions. There is unequal treatment of girls in the family vis-à-vis the boys. It is not easy to observe directly who is eating how much from a shared kitchen. A natural direction in which to go is that of examining direct evidence of various nutritional and related functionings, such as clinical signs of undernourishment, morbidity rates or comparative mortality patterns. Sen and Dreze have noted that in more developed economies in Europe or North America, the female-male ratio (FMR) tends to average around 1.05, mainly reflecting certain survival advantages that women seem to have over men in the absence of serious bias in the division of such things as food and health care. In contrast, the FMR in South Asia, China, West Asia and North Africa averages only around 0.93 or 0.94. However not in all poor regions of the world like South-east Asia and sub-Saharan Africa, we find a low FMR. On the basis of a technique—how many more women there would be in India or China (given the

³⁵ Sen and Dreze, '*Society, Class and Gender*' in *Hunger and Public Action*, 1989

number of men in each) if they had the female-male ratio that obtains in sub-Saharan Africa, Sen and Dreze have calculated the number of missing women in different parts of the world; the number of 'missing women' calculated in this way work out as 37 million in India in the year 1986. The number of 'missing women' reflects an aspect of a complex and terrible problem. A higher sex differential in mortality rates is responsible for shortfall of women. Differential mortality rates are related not only with unequal treatments in the division of food but also from other inequalities such as access to health care.

There is considerable dispute as to whether the intensity of female deprivation increases in famine situation. One view is that women appear to have certain biological advantages over men in survival. Another view is that the factors that govern the distribution of food, health care and general attention among men and women may undergo changes in famine situations. This influence can act in the opposite direction to the previous one, if it takes the form of greater discrimination against women. According to Sen and Dreze the greater vulnerability of women may be partly due to biological differences (connected with reproduction, differences in physical strength etc.) and is in fact, often socially generated; these factors are influential in determining the relative shares on which women and men can respectively lay claims in the division of family resources. The traditional structure of work division inside and outside the home may particularly disfavor women vis-à-vis men.

Even though the ability to do outside work on the part of some members of the family may depend crucially on the willingness of the other members to do housework, nevertheless in the accounting of respective contributions, paid and gainful employment is given more preference. In so far as 'perceived contribution' are, an influence of importance in determining who ought to get how much in intrafamily divisions, the traditional structure of work division inside and outside the home may particularly disfavour women vis-à-vis men. While considerations of cooperative conflicts take us in one direction of analysis, those of economic calculations by the household heads take us into another track. Some studies show that neglect of female children in South Asia is due to the greater 'investment value' of the survival of boys in comparison to girls. While the cooperative conflict approach concentrates on women and men, and sees the position of girls vis-à-vis boys as related to the same basic that colour the way women's contribution and deserts are viewed, the investment approach sees the child-rearing problem in terms of relative returns to investment and does not directly address the issue of relative deprivation of adult women.

Sen and Dreze have argued that greater involvement with outside work and paid employment does tend to go with less anti-female bias in intrafamily distribution. They have emphasized on the greater involvement of women in gainful activities and they think that this should be one of the policies that should be adopted by the state.

The Women, Health and Development Country profiles (Women of South-East Asia-A Health Profile, WHO publication, 2000) serve as a comprehensive tool for advocacy and country-level planning of activities and interventions to address women's health issues. The profiles include both quantitative data and qualitative information on women's health, as well as an analysis of the social, economic, political and cultural factors influencing women's health in the respective countries.

Nutritional status of a person depends on food consumption and not solely the production and availability of food according to the Report. Protein energy malnutrition generally referred to simply as malnutrition is an imbalance between the supply of protein and energy and the body's demand for them to ensure optimal and growth and function. Inadequate intake of food or essential nutrients leads to under nutrition, resulting in physical growth and health. For women the effects of poverty combine with other factors that undermine nutritional status, such as cultural norms regarding food taboos, and food allocation within the household, which is often unfavorable to females.

The Report has also done some literature survey on the position of women in terms of nutrition. In another study based in a village in northern India (WC Edmundson and SA Edmundson, 1988)³⁶, eight non-pregnant, non-lactating women and eight men, all farmers between the ages of 25 and 40 years, were observed over a period of 32 days. While men's energy intake exceeded their energy expenditure by about 382 kilocalories per day on average, for women, there was a deficit of 433 kilocalories per day on average.

Gender discrimination against girl children in the intrafamily allocation of food has been reported by a number of studies in the South East Asian region especially those from Bangladesh, India and Nepal (TKS Ravindran, 1997³⁷; M Shiva and S Gopalan, 1999³⁸).

Data on weights and heights for India based on the National Nutritional Monitoring Bureau surveys of 1977 and 1996 showed that the average weights as well as height for girls in the age group 10-19 years were well below NCHS standards during both time points (*Indian Council of Medical Research, National Nutrition Monitoring Bureau for the year 1977; Indian Council of Medical Research, National Nutrition Monitoring Bureau for the year 1996, rural surveys*). The deficit in weight was about 10 kilogram at the age of 10 years, and this increased to a deficit of 14 kilograms by the age of 18 years. When heights were examined, it was found that there was an earlier growth spurt at 15 years in 1996.

³⁶ WC Edmundson and SA Edmundson, 'Food Intake and Work Allocation of Male and Female Farmers in an Impoverished Indian Village', in *British Journal of Nutrition*

³⁷ TKS Ravindran, *Health Implication of Sex Discrimination in Childhood: A Review of Fresh Evidence*, Geneva, WHO, 1997

³⁸ M Shiva and S Gopalan, *National Profile on Women, Health and Development: India*, New Delhi, Voluntary Health Association of India, 1999

A 1988 study on the heights of parents and adult children in Hyderabad, India found only a marginal difference between the heights of adult daughters and their mothers. This was especially evident in the lower castes, where the heights of mothers and daughters were 147.2 and 147.6 cms. respectively. Daughters were on an average two centimeters taller than their mothers among the upper caste population, their heights being 152.6 and 150.6 cms. respectively (S Veena, R Leela, T Sujatha et al, 1988)³⁹.

Stunting from childhood malnutrition was reported to be widespread in India, exposing women to the risk of obstructed labor delivery—which may result in maternal death or cause fistulae in the mother and brain damage in the infant. At the age of 20 years, rural Indian women were 151.6 cms. tall in 1996, a deficit of 12-13 cms. when compared to NCHS standards. This represented only a marginal improvement over their average height for 1977, which was 151.2 cms. (*Indian Council of Medical Research, National Nutrition Monitoring Bureau for the year 1977; Indian Council of Medical Research, National Nutrition Monitoring Bureau for the year 1996, rural surveys*).

Chronic energy deficiency (CED), measured as having a BMI below 18.5, was also very common in all countries for which data were available. In India, about 46% of rural women and 37% of urban women had a BMI below 18.5 in 1996 and 1994 respectively, according to the Report. Over the 22 years between 1974 and 1996, there was only a small increase (from 45% to 49%) in the proportion of rural women with a normal BMI.

Micronutrient deficiency—especially deficiencies in iron, iodine and vitamin-A—are even more widespread worldwide than that of protein-energy malnutrition. Besides being important causes of disability in themselves, micronutrient deficiencies often underlie other types of morbidity. Iron deficiency is the most common cause of anaemia worldwide. The consequences of iron deficiency are more serious for women. In almost one-fifth of maternal deaths (19.3%) in rural India, anaemia was reported to be an indirect cause, according to the Report.

Iodine deficiency disorder (IDDs) occur when iodine intakes are less than physiological requirements (about 150 micrograms daily per person) over a long period. In India about 200 million people are estimated to be at risk of IDD (BK Tiwari, 1997)⁴⁰.

Vitamin-A deficiency (VAD) occurs when body stores are depleted to the extent that physiological functions are impaired. Depletion occurs when the diet contains over a long time too little vitamin-A to replace the amount used by

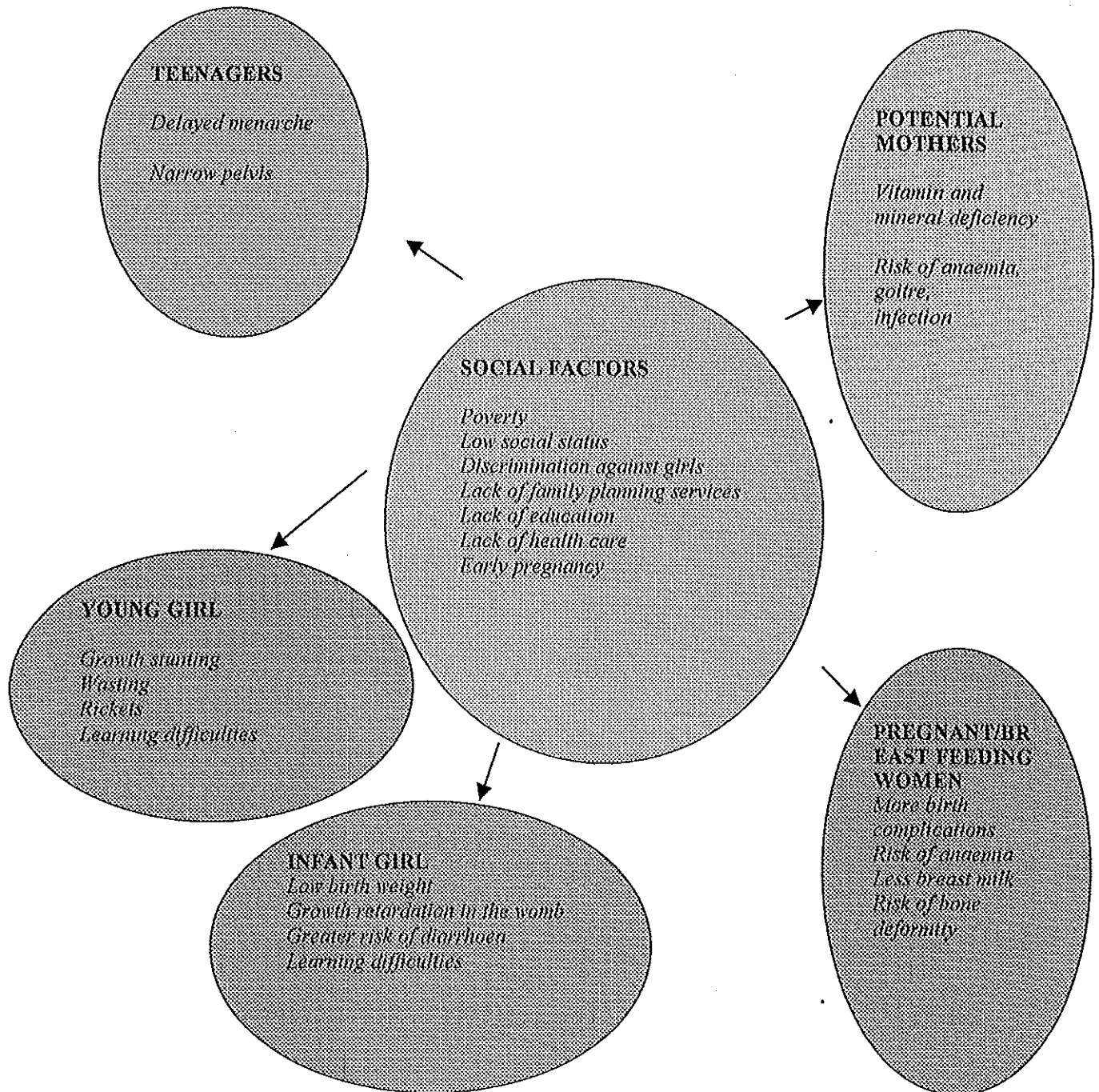
³⁹ S Veena, R Leela, T Sujatha et al, 'Secular Trends in the Heights and Weights of Women from Rural Areas around Hyderabad', paper presented at Nutrition Society of India, 21st Annual Meeting, November 24-25, 1988

⁴⁰ BK Tiwari, 'Country Report on India', paper presented at the Regional Consultation on Nutritional Status of Adolescent Girls and Women of Reproductive Age, November 26-28, 1997

tissues or for breast-feeding. The South-East Asia Region of WHO (including India) has the highest prevalence of Vitamin-A deficiency, as well as the largest number of people affected.

The vicious circle of malnutrition can be seen from the figure given below.

Vicious circle of malnutrition



In their paper, Jean Dreze and PV Srinivasan⁴¹ have made an attempt to shed some light on the living conditions of widows in rural India using consumer expenditure data and related information from the 42nd round of the National Sample Survey (the reference year is 1986-87). The economic conditions of widows are likely to depend on their living arrangements, including the type of household they live in. The authors have distinguished the different types of households on the following classification criteria:

- a. Whether the household head is male or female
- b. The marital status of the household head (if the head is female)
- c. Whether or not a widow lives in the household, and
- d. The composition of the household in terms of family structure (single, nuclear, 'extended' or other).

One aspect of this classification procedure concerns households with at least one widow. These households are divided into 3 groups:

- a) Single widows
- b) Nuclear households consisting of a widow and unmarried children
- c) Extended households (all households other than single widows and nuclear households).

The authors have presented the average per capita consumption expenditure (APCE) of different household types and also three different poverty indices for each group (Po=head count ratio; P1=poverty gap index; P2=squared poverty gap index). The head-count ratio is 63.4 for the rural population as a whole, but varies considerably between different groups, from 14.5% for single males to 68.2% among extended male households with at least widow. In most cases, the difference in APCE between two household types is statistically significant. The APCE is little higher and the head count ratio a little lower, among female-headed households as compared with male-headed households. This is in contrast with the common notion that female-headed households are particularly vulnerable to poverty⁴². Interestingly the ranking of single-person household types in the scale of poverty is more or less as expected: single widows are the poorest, followed by single women, single widowers, and single men, in that order.

But APCE as an indicator of household economic status has many flaws; including the one that it ignores differences in household composition between different groups. It does not take into account differences in consumption needs

⁴¹ Jean Dreze and PV Srinivasan, 'Widowhood and Poverty in Rural India: Some Inferences from the Household Survey Data' in *Journal of Development Economics*, Vol. 54, pp. 217-234

⁴² Earlier studies of the relationship between female-headedness and poverty in rural India based on household consumption data yield mixed results. Overall there seems to be no strong evidence of a greater incidence of poverty among female-headed households, in terms of standard poverty indices such as head count ratio. For an exposition of this topic see Jean Dreze's (1990) *Widows in Rural India*, Discussion Paper No. 26, Development Economics Research Programme, STICERD, London School of Economics.

relating to the age and sex composition of different households. A standard way of addressing the issue of household composition is the use of 'equivalence scales', which gives different weights to household members in different age and sex. In order to avoid the debate on the type of equivalence scale selected, the authors have selected different equivalence scales, for finding the change in the head count ratios. They have found that the rankings based on head count ratios remain insensitive to the application of equivalence scale. Thus the 'counter intuitive' results could not be corrected by this new method. For instance, the finding that the incidence of poverty is somewhat lower among female headed than among male-headed households is quite robust to different assumptions about equivalence scales.

The authors have asked whether in assessing the incidence of poverty in different household groups, any adjustment should be made for possible 'economies of scale' in household consumption. At the same level of per capita expenditure, a larger household is able to achieve a higher level of well being than a smaller household. Economies of scale may exist for a variety of reasons, including the role of collective goods in household consumption, the presence of increasing returns in domestic technology and the use of bulk-purchase discounts by larger households. The authors have prepared the scale adjusted head count ratio (i.e. the proportion of the population with scale-adjusted per capita expenditure below a certain amount which is calculated to be Rs.112/month when there are no economies of scale). As the economies of scale rises, a few dramatic rank reversals can be observed: nuclear widow headed households become the poorest group instead of the 12th poorest and single widows becomes the 4th poorest instead of the 16th—to exemplify a few. The scale adjusted head-count ratio for a particular household group tends to be lower at higher levels of economies of scale if the household group in question has a relatively large average size and vice-versa for small households. Because of this the head count ratio, say, nuclear widow headed households (which are much smaller than average) rises sharply as we consider progressively higher levels of economies of scale. We also find that the head count ratio for female-headed household becomes greater than that of male-headed households, as there is rise in the economies of scale from 1 to 0.8. According to the authors poverty ranking of different household types often depends on the precise value of the economies of scale.

The authors have shown by using the OLS regression that for given household size and child adult ratio, female headed households are poorer than male headed households, even in terms of average per capita expenditure and unadjusted head count ratios.

According to DeRose, Das and Millman,⁴³ where food is part of female disadvantage, it appears to be a problem of quality (micronutrient intake) much

⁴³ DeRose, Das and Millman's, 'Does Female Disadvantage Mean Lower Access to Food?' in *Population and Development Review* 26(3): 517-547, September 2000.

more often than one of quantity (calorie intake). Pregnant and lactating women also have systematically lower calorie intake adequacy than both men and other women in South Asia. The pattern of greater male advantage shown by anthropometric studies than food intake studies of children in South Asia points to differential access to health care as a more salient component of female disadvantage, even in communities where food intake is inequitable at some ages. According to DeRose, Das and Millman discrimination against women operates through mechanisms other than calorie deprivation. It mainly operates through differential access to health care, education and leisure, which contributes to depressing women's functional capabilities. The authors think that not only access to food but also access to health and sanitation is important to elevate the social and economic status of women.

According to Lynn Bennett⁴⁴, development projects often focus on improving the welfare of vulnerable individuals by providing resources to their households. The distribution of benefits derived from these resources, however, cannot always be assumed to conform to the priorities of the project designer. This paper specially focuses on women's productive roles as determinant of their bargaining power within the household. Women fill a dual role in most households, being both mother/caretaker and economic provider, which can cause conflicts in time use and in the allocation of responsibilities. Welfare agencies generally focus on one or the other of the two roles. A framework which incorporates more than the roles of the mother is needed to identify the determinants of child health and nutrition. A mere examination of the trade-off between the time women spends in income production time and child care will not suffice. What is required is an investigation of how this trade-off is itself conditioned by the economic and social-cultural environment according to the author.

One of the key steps in understanding women's roles in the determination of child health and nutritional status may be a careful investigation of the process of resource allocation within the household. It is essential to understand gender specific priorities for expenditure and the degree to which men and women control and influence various areas of decision making. But the attempt must be made if we are to move beyond the accepted premise of the New Household Economics (Becker, 1965, 1981)⁴⁵ that a single joint utility function can adequately represent the dynamics of household decision-making. The joint utility concept is based upon a number of inaccurate and ethnocentric assumptions about the nature of the family. One of these assumptions is that all household members share the same priorities for the use of the household time

⁴⁴ Lynn Bennett (1990). 'An Approach to the Study of Women's Productive Roles as a Determinant of Intrahousehold Allocation Patterns' in *Intrahousehold Resource Allocation* ed. by Beatrice Lorge Rogers and Nina P Schlossman, United Nations University.

⁴⁵ GS Becker (1965). *A Theory of the Allocation of Time*, in *Economic Journal*, 75(2), 493-518.
----- (1981). *A Treatise on the Family*, Harvard University Press, Cambridge.

and resources (Evenson et al, 1980)⁴⁶. But data from Africa and elsewhere illustrate that (1) household income is not always pooled and men and women often have separate culturally designated obligations to meet different sets of needs within and beyond the conjugal family. In particular, it has been noted (Fapohunda, 1978⁴⁷; Guyer, 1982⁴⁸; for Africa) that women are responsible for all or part of the resources needed to support their children. A number of studies, according to Bennett, indicate that what the household decides to do with its resources is not the outcome of spontaneous utopian 'agreement' but instead grows out of serious bargaining (covert or overt) among its individual members (Safilios-Rothschild, 1980)⁴⁹.

Other two assumptions associated with the concept of the joint household utility function are: (1) that all household members have equal bargaining power to enforce their own definition of utility; and (2) that all members benefit equally from the way resources are actually allocated. Any observed inequality in the distribution of household resources therefore is interpreted as the most efficient reaction to the prevailing wage-price conditions (i.e. as part of the household unit's maximising behaviour). Folbre's (1984)⁵⁰ study of time allocation and nutrition data from Laguna, Philippines reveal inequalities in household distribution patterns like men having more leisure time compared to females, women's diet were deficient in relation to required daily allowance. Folbre (1984)⁵¹ sees this phenomenon arising out of structural asymmetries in the economic, social and legal position of men and women which give the 2 sexes unequal bargaining power. Rather than viewing the household as a single maximising unit, she posits that the household is a group of maximising individuals, in which individual family members co-operate with one another primarily to further their own personal interest. Bargaining power appears to be affected by the individual's contribution to the household income, according to Folbre. But based on her study of Hindus living in the hills in Nepal, Lynn Bennett says that a number of additional social factors, such as support from family of origin, freedom to divorce and remarry, polygamy, and individual personality, also affect women's bargaining power. She argues against the concept of *maximisation* and says that concept of *maximisation* is appropriate for trying to understand individual decision making inside the household, cannot be

⁴⁶ Evenson, RE et al (1980). Nutrition, Work and Demographic Behaviour in Rural Philippine Households: A Synopsis of Several Laguna Household Studies, in Binswanger et al (ed.) *Rural Households Studies in Asia*, Singapore University Press, Singapore.

⁴⁷ Fapohunda, ER (1978). *Characteristics of Women Workers in Lagos: Data for Reconsideration by Labour Market Theorist*, in *Labour and Society*, 3(2): 158-171.

⁴⁸ Guyer, JI (1982). *Dynamic Approaches to Domestic Budgeting, Cases and Methods from Africa*. Presented at Seminar on Women and Income Control in the Third World Conference, New York.

⁴⁹ Safilios-Rothschild, C (1980). *The Role of the Family: Neglected Aspect of Rural Poverty*, in *Implementing Programmes of Human Development*, Staff Paper 403, World Bank, Washington, DC.

⁵⁰ Folbre, N (1982). *Exploitation Comes Home: A Critique of the Marxian Theory of Family Labour*. *Cambridge Journal of Economics*, 6: 317-329.

⁵¹ Folbre, N (1982). *Ibid.*

understood within a purely economic framework. She suggests that instead of assuming an exogenously given joint utility function or household distribution rule, it would be more useful to investigate how the rule itself varies in different cultural and economic settings and to uncover the process through which household members establish the rule.

Bennett thinks that some of the most important aspects of the household decision making process cannot be quantified. Instead they need to be captured through in-depth anthropological observation, what Geertz (1973)⁵² has called 'thick description'. According to Lynn Bennett, there are mainly four determinants within the family of the child's health and nutritional status: (1) child-care time; and (2) income to purchase material goods such as food, clothes, medicine, and shelter or home produced equivalents. Two other factors impinge on how the first two inputs are used: (3) the priorities and bargaining power of different family members, which determine the pattern of distribution of household resources; and (4) the knowledge and skills of various family members, which determine how efficiently the time and income inputs are transferred into child welfare. One of the main resources the family has is the time of its members. Acharya and Bennett (1983)⁵³ developed a technique using time-allocation data and detailed household production data to estimate the relative value of each household member's contribution to household subsistence production without relying on imputed wage rates. It then becomes possible to look at the income inputs of not only wage-earners working in the market economy (who generally are men) but also of those who work without pay for the family (generally women), saving income in income-sparing activities. Disaggregation permits us to begin to analyse the trade-offs between different members of the family for certain types of inputs. For example, it allows us to determine in cases where the mother works outside the home and cannot spend as much time on child care and food preparation, whether or not other family members make up the difference. Disaggregation of inputs is also vital to the examination of relationships between income earning and bargaining power i.e. the ability to influence how household resources are used. Lynn Bennett's framework helps us to identify the social and economic conditions under which women's income producing work results in healthier, better nourished children and those conditions in which it fails to do so. Her model does not define women's productive work narrowly in terms of 'labour force participation'.

⁵² Geertz, C (1973). *The Interpretation of Culture*, Lynn Bennett Basic Books, New York.

⁵³ Acharya, M and Bennett, L (1981). *The Rur Lynn Bennett al Women of Nepal. The Status of Women in Nepal, Vol. II: Field Studies, Part-9*, Tribhuvan University, Center for Economic Development and Administration, Kathmandu, Nepal.

Anderson and Garcia⁵⁴ say that efforts to target and assess the nutritional effects of food and nutrition programmes suffer from the lack of unique or commonly agreed-upon indicator of nutrition impact. Anthropometric measures such as weight- and height-for-age are frequently used in evaluations of nutrition of food distribution programmes, while the impact on the food acquisition of calorie deficient households is more often used as a proxy for the nutrition effects of food and agricultural policies and programmes. The impact on food consumption of malnourished individuals is used in some cases, but much less frequently because it is more difficult and costly to obtain reliable data on an individual's food consumption than to obtain his or her anthropometric measurements, or data on household food acquisition.

Anderson and Garcia discuss about the pros and cons associated with obtaining the data at the interhousehold and intrahousehold level. They have discussed about the pluses and the minuses associated with anthropometric measures and calorie adequacy measure for different groups. The authors then check the efficiency of (a) the estimates of household-level calorie adequacy as a proxy for the calorie adequacy of preschoolers and pregnant or lactating women; (b) weight-for-age as a proxy for the calorie adequacy of preschoolers; (c) calorie adequacy of individual pre-schoolers and pregnant or lactating women closely correlated with other variables for which data are easy to collect, such as household calorie consumption, household income and individual anthropometric measures.

The analysis is based on data collected as a part of a consumer food-price subsidy scheme in 3 regions of the Philippines (Garcia and Pinstrup-Anderson, 1987)⁵⁵. Data on household level variables were collected twice during 1983 from a cross section of 840 households. Anthropometric data on pre-school children were collected monthly from the same households over a 12 month period. Calorie adequacy was calculated as actual consumption relative to recommended daily allowances. Severe calorie deficiencies were found among preschoolers, particularly girls. Other population groups including adolescent girls and pregnant or lactating women were also seriously affected, which indicates unequal food distribution within the household.

According to the Anderson and Garcia, reliance on household calorie adequacy as an indicator of the degree of calorie adequacy introduces large errors. Only 39% of the households with preschoolers consuming less than one-half of their calorie requirements would be captured by a programme targeted on households below 50% calorie adequacy (24% of all households). A programme targeted on

⁵⁴ Anderson and Garcia (1990). 'Data on Food Consumption by High-risk Family Members: Its Utility for Identifying Target Households for Food and Nutrition Programmes' in *Intrahousehold Resource Allocation* ed. by Beatrice Lorge Rogers and Nina P Schlossman, United Nations University.

⁵⁵ Garcia M., and P Pinstrup-Anderson (1987) *The Pilot Food Price Subsidy Scheme in the Philippines: Its Impact on Income, Food Consumption and Nutritional Status*. Research Report 61. IFPRI, Washington DC

households consuming 60% of requirements or less would leave out 61% of the pre-schoolers who consume 60% or less, including 29% who consume less than 50% of their requirements. The problems of excluding such a large number of target households through a targeting approach based on household-level calorie adequacy is compounded by the inclusion of a corresponding large number of non-target households.

Targeting households with 60% calorie adequacy or lower would capture one-half of the preschoolers whose weight-for-height was 61-75% of standard. Thus targeting efficiency is low. If calorie adequacy of preschoolers is used instead of household adequacy, two-third of the preschoolers with third degree and 54% with second malnutrition would be covered. If on the other hand targeting is based on the weight-for-age of preschoolers and households with pre-schoolers whose weight-for-age is less than 75% of standard are defined as the target group (27% of all households), 28% of the preschoolers with a calorie adequacy of 60% or below will be covered, along with the same percentage of those with calorie adequacy of between 60 and 75%. The weight-for-height of about 31.8% of the sample preschoolers was 90% of standard or below. 44% of these would be covered by a programme targeting households with 60% or lower calorie adequacy.

Anderson and Garcia then discusses the correlation between calorie adequacy and other potential nutrition indicators—household calorie consumption per capita, household calorie consumption, household calorie adequacy, household food acquisition (expenditures), household food acquisition per capita (expenditures per capita), household income per capita and weight of preschooler relative to standard. The correlations are low indicating that none of the selected variables are good proxies for the calorie adequacy of individual high-risk household members. Household calorie adequacy is a much better proxy for the calorie adequacy of pregnant and lactating women than for the calorie adequacy of pre-schoolers. Correlation between the weight of preschoolers relative to standard weights and household-level variables is generally low.

The main conclusion which the authors draw is that the collection of data on the food consumption of individual high risk household members for the purpose of programme targeting does not appear to be justified if the identification of target households is based on anthropometric measures of preschoolers or calorie adequacy of pregnant and/or lactating women. If weight-for-age and weight-for height of preschoolers are deemed to be most appropriate nutrition indicators, then collection of data on the calorie consumption of individual household members does not appear to be justified targeting households. If the calorie adequacy of preschoolers is the indicator chosen to assess their nutritional status and is thus used as the basis for targeting, data should be collected on the calories consumed by these children. In their study neither household-level variables nor anthropometric measures were found to provide acceptable proxies

for the calorie adequacy of individual preschoolers. According to the authors, the household calorie adequacy appears to be an acceptable indicator for targeting if the goal of the project is to improve the nutritional status of pregnant and lactating women with large calorie deficits. However the authors have cautioned us about interpreting the results and in generalizing the findings beyond the scope of their study.

Engle⁵⁶ emphasizes that the important contribution of psychology is the recognition of individual psychological characteristics as determinant of behaviour. She posits that personality may be significant factor in both control over resources and access to consumption goods. Engle stresses the conflict-resolution model rather than the unified household model of intrahousehold allocation, noting that household priorities may be influenced by individual members in a variety of ways. Members with the power to enforce their preferences may coerce, but household members without authority can still exercise influence through their own special knowledge and expertise, by persuasion, or by quiet resistance. Engle also distinguishes between power to influence allocation decisions and the access to consumption goods and productive resources. Engle offers a psychological explanation for this phenomenon, based on the closer relationship and greater degree of bonding between mothers and their children than between fathers and children. She however cautions that this theory has not been empirically tested in a rigorous manner. The outsider's perception of efficiency in the use of a resource may conflict with the native's perception of individual rights to its use.

Designing development programme to improve the life circumstances of the rural poor is far more difficult than previously believed. Increasing the disposable income of a family or providing food aid has not necessarily resulted in better fed, healthier children. Agricultural development projects have not always improved children's nutritional status. Psychological concepts, according to Engle, can help refine economic models of household processes as well. Who within the family will benefit from a development project is a central question for project planners. A project that increases a family's income may improve the nutritional status of the father but leave that of the children unaffected. The target group of the project is often defined by the development agency, while cultural and familial patterns may redirect benefits toward a different group.

According to Engle, two factors in the intra-household allocation of resources can be better understood through the application of psychological knowledge: (1) factors influencing power and decision-making within the household, including the ways in which the family role of the income-earners affects how money and other resources are used; and (2) the effects on intrahousehold allocation patterns of parental beliefs or rules for distributing resources.

⁵⁶ Patrice Engle (1990). 'Intrahousehold Allocation of Resources: Perspective from Psychology' in *Intrahousehold Resource Allocation*, United Nations University.

According to Engle, the economic model of household decision-making which suggests that all family members act as a unit to maximize their mutual good is not a particular accurate model for decision making in many low-income households. Under condition of extreme poverty, pooling of income is less common. A spouse is often kept ignorant of the amount the other earns.

The hypothesis that mothers are more likely than fathers to spend income for the immediate food and health needs of their children has been suggested. This, according to Engle, is due to differential levels of attachment to the children by the fathers and the mothers. However, it appears that fathers have the capacity for responsive and care giving to that of mothers, but in most cultures the mothers is the primary care-giver. This pattern is beginning to change in Westernised societies. As of now, however, the mother is more responsive to the child's needs and thus may be more likely than the father to spend money to meet those needs, according to Engle.

Another hypothesis that Engle draws our attention to is that women's power and status within the household are associated with their income-earning ability. These results are significant for policy, particularly if the relationships are causal. If they are causal, one would predict that, as mother begins to earn money, she will increase her role in decision making within the family. Given the information on attachment and perception of needs, that money would be preferentially directed toward children's welfare. Control over income is an immediate gateway to power. By extension, lack of control over income remains a primary basis for women's basis for women's variable but continuing subordination as well as the heightened vulnerability of many poor households. Power defined as the capacity to alter the actions of others can be based on factors other than control over resources. It may rest on expertise (perceived as having special knowledge) or on reference (desire to identify with a certain person, admiration of a person as a role model). A second factor affecting the operation of power within a household structure is the dynamic through which one individual achieves greater power. The psychological literature, according to Engle, suggests that the powerful use different strategies than do the powerless in closer relationships. According to Engle, from studies in the US and Latin America, increasing women's income appears to be least disruptive of power relationships when the earned income is used towards a shared family goal.

When an individual allocates resources to particular family members, the basis for the allocation decisions will affect what kind of family member receives more resources. According to Engle, sex difference in nutritional status and probably in food distribution within the household, may be due to the perceived utility or the potential contribution of the children. Differential feeding and caring of male and female infants is based on the relative value of males and females in a society and the perceived long range utility of sons and daughters. Infanticides and under-investment in some children, which they believe indicates that when a child is not expected to be a long-term contributor to the household, fewer

resources are directed toward that child. Equity theory (a contribution rule) would suggest that families will not allocate more resources to a needy or a malnourished child, which is the assumption underlying targeted feeding programmes and may explain why they so often do not achieve their projected goals.

According to Engle, different findings underscore the value of providing policy-makers with a framework within which to identify their own assumptions about distribution rules and to determine whether these are congruent with or differ from those of target group. In designing programmes and projects, it is vital to understand that not all members of a (homogenous) cultural group follow the same allocation rules for the same type of resource. Engle cautions that social and institutional structures which promote changes in family member's role and the value of their time, can affect intra-household resource distribution. Projects that do not take into account target individual's usual activities and time-allocation patterns or constraints represent poor planning, insensitive to intrahousehold dynamics. Examining how changes in time and task allocation might affect mothers and children is a crucial step in policy and programme implementation.

Scrimshaw's⁵⁷ paper proposes an integration of qualitative methods such as those used in traditional ethnographic studies with more quantitative data-collection methods characteristics of survey research in economics. Each approach, the qualitative and the quantitative, has both advantages and disadvantages; combining the two strengthens both. In fact, the sequence from qualitative description to structured direct observation to survey research is now the method of data collection commonly followed by anthropologists who recognize the importance of statistical reliability and by economists who recognize that they cannot construct adequate models of behaviour without identifying and incorporating culturally specific variables. Scrimshaw outlines a sequence which might be followed to obtain information for the assessment of programme impacts on the household and its allocative processes. Data collection starts with explanatory ethnographic work, followed by structured observations and guided but open ended interviews, which lead to the design of structured surveys of statistically representative samples of the population.

Behrman's⁵⁸ comment on Rosenzweig's economic model⁵⁹ introduces the idea, developed further by Engle that it would be useful to identify the allocative rules

⁵⁷ Susan C M Scrimshaw (1990). 'Combining Quantitative and Qualitative Methods in the Study of Intrahousehold Resource Allocation' in *Intrahousehold Resource Allocation* ed. by Beatrice Lorge Rogers and Nina P Schlossman, United Nations University.

⁵⁸ Jerk R Behrman (1990). 'Peeking into the Black Box of Economic Models' in *Intrahousehold Resource Allocation* ed. by Beatrice Lorge Rogers and Nina P Schlossman, United Nations University.

⁵⁹ Mark R Rosenzweig. *Programme Interventions, Intrahousehold Allocation and the Welfare of Individuals: Economic Models of the Household*, in *Intrahousehold Resource Allocation* ed. by Beatrice Lorge Rogers and Nina P Schlossman, United Nations University, 1990

for different types of households and individuals, and what determines the choice of a rule. Behrman distinguishes allocation based on equity (each member is entitled to a fair share of any resources), equal outcome (resources are distributed in such a way as to equalize the welfare of members, so that the least endowed member might receive the most), fair return (each member is entitled to resources in proportion to his/her material contribution to the household), and maximization (members most likely to benefit from a resource are given the largest share). This latter rule may produce the greatest inequality among members, while maximizing returns to the household as a whole. Moreover different rules may be followed for different resources (e.g. health care may be allocated equally among children while only the brightest child might be sent to school), and households facing different kinds of constraints may follow different rules. For example, household under severe resource constraints may try to maximize the households' resources at a cost to the welfare of some members, while households with relatively abundant resources may follow an equal-share or equal-outcome strategy.

Economic models of the household provide an framework which provides us with insights, particularly regarding the importance of prices in addition to income effects, the difficulty of signing the impact of many exogenous changes, the possibilities of substitution among members of a household within and across generations, the role of overall resource constraints and the influence of often unobserved endowments, according to Behrman. Rosenzweig suggest that since data on individual inputs (e.g. nutrition) that are determined within the household are difficult to obtain, so data on related outcomes (e.g. health measures) may be much more cost-effective to obtain. Behrman argue that Rosenzweig's emphasis on the importance of wage data (that if wages depend on consumption of nutrients and other related inputs) make wages endogenous. Thus the appropriate representation of the opportunity cost of time may become more complicated.

Behrman criticizes Rosenzweig for treating the household as a black box, in the sense that observed outcomes respond within a reduced-form framework to exogenous changes in market prices and other variables. Behrman then exemplifies the preference of a particular rule in parental allocation of resources among children. Using the sibling data from samples for the US and rural South India, Behrman tries to find the parental rule in allocation of resources among children. For the US the expected output data related to adult earnings and the input data to schooling levels for two different generations. For India, the expected output data are health outcomes and the input data are nutrients for both the lean and surplus seasons. For the US, the estimates suggests that parental preference curves are approximately like the Cobb-Douglas type case for both generations which implies significant parental inequality aversion and behaviour far different from that of a pure investment model, but close to neutrality concerning the compensation or reinforcement of endowment

differentials. Parents also slightly favour older children and girls in the sense they weigh equal outcomes for such children more heavily than they do for younger children and boys.

For India, the estimates suggest about neutral (Cobb-Douglas) curvature of parental preferences in the surplus season when food is relatively abundant, but much closer to a pure investment strategy (i.e. parents allocating resources to the children so that the highest total returns are obtained, with no consideration about the distribution of outcomes) in the lean season when food is in short supply. Moreover, the allocations suggests preference for boys over girls and for older over younger children in the lean season.

Several assumptions of the economic household models summarized by Rosenzweig are criticized by Behrman. Though Rosenzweig have included in his model about the change in tastes, but does not include the variables which affect tastes. Behrman feels that maximisation is not a good representation of behaviour because households are constrained by cultural norms or because they do not adjust to every chance for slight gain but instead 'satisfied' by following rules of thumb, for instance.

According to Behrman, Rosenzweig's estimates of the reduced forms from the economic model of the household generally depend on cross section associations. But Rosenzweig have held some dynamic changes constant in the cross-section (e.g. new technology or changed position of a reference group of norms).

7. CONCLUSION

In our Report on PDS, we discussed the problems related to malnutrition, PDS and food security. We saw that food security is a much broader concept rather than what is commonly understood. It encompasses not only production of food grains but also its delivery and demand. Food security does not end by delivering the food at the doorstep of the household since there exists intrahousehold disproportionality in the distribution of food which can arise out of gender discrimination. The notion of micronutrient deficiency must be included when we are talking about food and nutrition security.

If we look at the production side of food security, then raising the productivity of land becomes important. But then it should come to our mind what green revolution technology has done to our environment. In this respect *sustainable agriculture* based on land distribution in favour of the small farmers and agricultural labourers becomes the call of the day as this can not only preserve our ecology but can raise the purchasing power of the poor. Women should be provided with land rights so that they enjoy the fruit of their labour when they work as family labourer. Local level government where community can

participate in a much democratic manner like *panchayats*, too can help in coping up sudden shortfall in food crop production by building up granaries. This would help in meeting the crisis without waiting for the government help/FCI trucks to arrive. *Panchayats* can play a decisive role in land reforms and can help in the monitoring of institutions which provide social services such as health, water supply and sanitation in the rural areas. In order to provide employment for the poorer sections in the rural areas, the government can open up its treasury for *food-for-work* programme, which can not only raise the purchasing power of these sections but can help in asset-creation.

The policy of Targeted PDS may lead to the underestimation of the people who are needy and suffer from malnutrition. There is a need for widening the net of PDS instead of rolling it back. To locate the targetable population who stay below the poverty line, a more wider definition of poverty line is required which includes not only expenditure on macronutrients, but expenditure on micronutrients, clothes, electricity, fuels, health facilities, water, sanitation, sewerage etc. For providing food security at the household level, particularly to poor women, special programmes like ICDS should supplement the PDS.

As can be seen from the table 3 given below, in 1993-94, the average calorie intake for both urban and rural population is below the respective norms of 2100 K.Cal./day and 2400 K.Cal./day. This indicates that there is need for the continuance of the PDS both in the urban and rural areas. India is not in a stage, where all its citizens can pay market price for the food it purchases.

Table 3 : Average per capita calorie intake

Expenditure Class	Rural (K.Cal./day)			Annual growth rate	Urban (K.Cal./day)			Annual growth rate
	1972-73	1977-78	1993-94		1972-73	1977-78	1993-94	
Lower 30%	1504	1630	1678	0.5	1579	1701	1682	0.3
Middle 40%	2170	2296	2119	-0.1	2154	2438	2111	-0.1
Top 30%	3161	3190	2672	-0.8	2572	2979	2405	-0.3
All classes	2268	2364	2152	-0.2	2107	2379	2071	-0.1

Source: *Food and Nutrition Security, R. Radhakrishna, India Development Report 2000, pp. 50*

There is not only gender bias in the distribution of food at the household level, but there also exists gender bias in the accessibility of non-food basic services like health facilities, sanitation, education etc. There is need for the government to spend more on women (by giving them skill-based education) so that they are

employed in gainful activities. Women employed in gainful activities have more survival chances as they have better access to food. There is a need for more numbers of household level nutritional studies, which will look into the various aspects of food security like coping up strategies, food calendar, body mass index etc.

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**Appendix Table 1 : Total sales or offtake of foodgrain in the PDS,
all state and UT, 1998 ('000 tonnes)**

State/UT	Rice	Wheat	Total foodgrain	Share of State in all-India offtake of foodgrain
Andhra Pradesh	1991.4	132	2123.4	11.5
Tamil Nadu	1273	246.3	1519.3	8.2
Kerala	1653.6	472.6	2126.2	11.5
West Bengal	248.2	1020.2	1268.4	6.8
Karnataka	890.6	306.7	1197.3	6.5
Maharashtra	630.5	1082.5	1713	9.3
Assam	548.6	232.7	781.3	4.2
Gujarat	227.6	425.1	652.7	3.5
Orissa	585	406	991	5.4
Rajasthan	4.9	481.5	486.4	2.6
Uttar Pradesh	426.9	1003.8	1430.7	7.7
J&K	277.9	147.6	425.5	2.3
Madhya Pradesh	299.4	324.2	623.8	3.4
Bihar	233.5	689.9	923.4	5
Meghalaya	179.6	28.8	208.4	1.1
Delhi	111.9	611.6	723.5	3.9
Tripura	174.2	17.7	191.9	1
Himachal Pradesh	108.7	130.3	239	1.3
Mizoram	119	23.6	142.6	0.8
Arunachal Pradesh	92.4	5.6	98	0.5
Nagaland	114.2	42.1	156.3	0.8
Goa	62.2	33.5	95.7	0.5
Haryana	0	102.8	102.8	0.6
Manipur	46.2	30.8	77	0.4
Sikkim	58.4	9.4	67.8	0.4
Lakshwadeep	3.9	0.3	4.2	0
Punjab	1.6	9	10.6	0.1
Pondicherry	1	0.1	1.1	0
Chandigarh	2.1	5.1	7.2	0
D&N Haveli	4.4	2.5	6.9	0
Daman & Diu	1.6	0.7	2.3	0
A&N Islands	0	0	0	0
All India	10373	8145	18518*	100

Source: Refer to 'Weakening Welfare: The Public Distribution of Food in India' by Madhura Swaminathan, Table 4.2, p-36, Chapter-4

**Appendix Table 2 : Total Sales or Offtake of Foodgrain in the PDS and Population,
All States & Union Territories, 1995**

State/UT	Share of State in All India Population (%)	Population in Thousands	Quantity of Offtake (in Thousand Tonnes)			Share of State in All India Offtake of Foodgrain (%)
			Rice	Wheat	Foodgrain	
Andhra Pradesh	7.8	71712	2322	110	2432	17.1
Tamil Nadu	6.4	58287	1560	160	1720	12.1
Kerala	3.4	30907	1149	499	1648	11.6
West Bengal	8	73271	455	845	1300	9.2
Karnataka	5.2	48054	896	232	1128	7.9
Maharashtra	9.4	85905	317	602	919	6.5
Assam	2.7	24610	408	357	765	5.4
Gujarat	4.9	44614	202	427	629	4.4
Orissa	3.7	34268	326	200	526	3.7
Rajasthan	5.3	48205	9	484	493	3.5
Uttar Pradesh	16.4	150118	208	226	434	3.1
J&K	0.9	8505	262	113	375	2.6
Madhya Pradesh	7.9	72139	194	140	334	2.3
Bihar	10.4	94907	19	198	217	1.5
Meghalaya	0.2	1960	156	28	184	1.3
<i>Delhi</i>	<i>1.2</i>	<i>10965</i>	<i>30</i>	<i>160</i>	<i>190</i>	<i>1.3</i>
Tripura	0.3	3045	161	8	169	1.2
Himachal Pradesh	0.6	5611	44	109	153	1.1
Mizoram	0.1	789	96	25	121	0.8
Arunachal Pradesh	0.1	961	90	9	99	0.7
Nagaland	0.15	1386	68	36	104	0.7
Goa	0.1	1273	42	22	64	0.5
Haryana	1.9	18072	7	53	60	0.4
Manipur	0.2	2031	29	28	57	0.4
Sikkim	0.05	467	42	10	52	0.4
Lakshwadeep		58	4	neg	4	0.03
Punjab	2.4	21599	1	2	3	0.02
Pondicherry	0.1	882	3	neg	3	0.02
Chandigarh		777	1	n.a.	1	0.01
D&N Haveli		156	1	n.a.	1	0.01
Daman & Diu		111	1	n.a.	1	0.01
A&N Islands	0.2*	328	n.a.	n.a.	n.a.	n.a.
All India	100	915971	9103	5083	14186	100

Note: Data Refer to Actual Sales from Central Pool From various State Governments as Reported by the ministry of Food, and do Include Sales to the Defence Ministry, B.S.F etc. Foodgrain here refers to rice and wheat together.
Source: Refer to 'Weakening Welfare: The Public Distribution of Food in India' by Madhura Swaminathan, Table 4.1, p-36, Chapter-4

Appendix Table 3 : Estimated Per Capita Expenditure as a Percentage of Total Expenditure by States

Regions/States	Food Expenditure			Non-Food Expenditure and CPI 1993-94				Total Expenditure
	Food Grains	Other food	Total food	Health	Education	Other non food	Total non-food	
North								
Haryana	16.9	43.3	60.2	5.9	4.9	29	39.8	100
Himachal Pradesh	25.3	35	60.3	8.7	7	24.3	39.7	100
Punjab	15.8	41.9	57.8	5.8	3.2	33.2	42.2	100
Upper Central								
Bihar	43.3	26.2	69.5	10.2	3.4	16.9	30.5	100
UP	29.5	33.4	62.9	6.6	2.7	2.8	37.1	100
Lower Central								
MP	34.6	27.3	61.9	9.7	2.4	26	38.1	100
Orissa	42.5	26.4	68.9	5.9	3	22.2	31.1	100
Rajasthan	19.7	39.7	59.4	6.7	2.5	31.4	40.6	100
East								
North Eastern Region	39.9	32.4	71.7	6.3	4.5	17.4	28.3	100
West Bengal	38.9	31.5	70.4	8.5	2.9	18.2	29.6	100
West								
Gujarat	23.7	42.2	65.9	5.3	2.9	26	34.1	100
Maharastra	26.8	34.3	61.1	7.5	3.2	28.2	38.9	100
South								
Andhra Pradesh	29.2	30	59.2	9.3	2.3	29.2	40.8	100
Karnataka	32.5	33	65.6	8	3.7	22.7	34.4	100
Kerala	22.5	39.7	62.2	6.5	5.3	26	37.8	100
Tamil Nadu	32.2	32.7	64.9	10.1	2.6	22.4	35.1	100
All-India	30.5	33.4	63.9	7.4	3.1	25.6	36.1	100

Source: India Human Development Report, NCAER, Household Expenditure and Food Security, Ch-5, pp.87

Appendix Table 4 : Per Capita Consumption of Foodgrains (kg. Per month) by States

Regions/States	Household Income Groups(Rs. Per year)				Social Groups				Village Development Groups			All Groups
	upto 20,000	20,001 to 40,000	40,001 to 62000	Above 62,000	STs and SCs	Hindus	Muslims	Other Minorities	Upto 30	31-45	Above 45	
North												
Haryana	12.3	12.3	13.2	14	12.6	12.9	11.6	14.3	13	12.9	12.7	12.8
Himachal Pradesh	17.6	17.4	17	16.2	17.4	17.4	16.2	18.2	16.9	17.1	18.6	17.4
Punjab	13.4	14.1	15.1	15.4	13.1	13.8	13.8	14.5	15.1	13.7	14.8	14.3
Upper Central												
Bihar	14.4	14.9	16.3	16.4	15	15	14.8	11.9	14.6	15.3	14.1	14.8
UP	15.1	14.9	15.6	15.2	14.7	15.3	14.3	14.4	15.2	15.2	14.6	15.2
Lower Central												
MP	13.7	13.4	13	13	13.3	13.5	12.4	16.2	13.8	13.3	12.7	13.5
Orissa	16.5	16.4	15.7	15.6	15.8	16.3	13.7	18.7	16.4	16.5	16	16.4
Rajasthan	18.4	17.5	15.8	16.1	17.5	17.6	17.2	22.2	17.5	18.2	15.7	17.6
East												
North Eastern Region	11.8	12.9	12.5	13.7	11.4	12.2	13.2	12.6	13.4	12.1	12.5	12.5
West Bengal	15.8	17.2	17.3	17.1	16.1	16.4	16.1	16	15.2	16.6	16.3	16.3
West												
Gujarat	9.7	10.1	10.5	12.2	9.8	10.2	9.7	12.6	10.9	9.8	10.3	10.1
Maharastra	12.8	13.4	13.3	13.8	13.4	13.3	11.1	12.6	14	13.8	12.7	13.2
South												
Andhra Pradesh	13.9	14.4	14.5	15.9	14.6	14.3	12.6	16.3	14.3	14.5	14	14.3
Karnataka	14.6	15.6	15.6	16.1	14.9	15.3	14	14.2	17.8	15.1	14.9	15.1
Kerala	9.4	10.1	9.5	10.5	9.4	9.7	8.9	10.6	10.2	9.5	9.9	9.8
Tamil Nadu	12.5	12.7	13.2	12.4	12.9	12.6	12.6	11.5	9.7	12.5	12.7	12.6
All-India	14.2	14.3	14.4	14.7	14.4	14.4	14	13.3	14.9	14.5	13.5	14.3

Source : India Human Development Report, NCAER, Household Expenditure and Food Security, Ch-5, pp.258, Appendix A.5.2

Appendix Table 5 : Consumption of Foodgrains and Utilization of the PDS in states

Regions/States	House hold income (Rs. Per Year)	Per capita income (Rs. Per year) (kg/month)	Per capita consumption of foodgrain met from PDS	Percentage of households using the PDS	Quantity of cereals(kg) bought from PDS (per household/month)	Percentage of requirements of cereals met by PDS
North						
Haryana	39956	6368	12.8	9	18.1	32.4
Himachal Pradesh	23973	4168	17.4	75.6	43.8	41.4
Punjab	37418	6380	14.3	5.6	23.4	5.6
Upper Central						
Bihar	22459	3691	14.8	5	49.5	29.7
UP	26733	4185	15.2	5.2	33.4	24.6
Lower Central						
MP	25319	4166	13.5	34.2	15.7	20.4
Orissa	17208	3028	16.4	5.2	18.6	16.7
Rajasthan	27184	4229	17.6	23.6	33.1	14.7
East						
North Eastern Region	28160	5070	12.5	21.7	20.5	31.9
West Bengal	18113	3157	16.3	11.3	38.4	45.6
West						
Gujarat	29356	5288	10.1	47.6	17.3	18.7
Maharashtra	29929	5525	13.2	50.7	13.8	13.2
South						
Andhra Pradesh	24776	5046	14.3	66.4	18.6	30.6
Karnataka	27372	4769	15.1	70.1	15	22.6
Kerala	29101	5778	9.8	78	23.7	51.9
Tamil Nadu	23271	5122	12.6	82.4	12	21.6
All-India	25653	4485	14.3	33.2	19	23.6

Source: India Human Development Report, NCAER, Household Expenditure and Food Security, Ch-5, pp.92

Appendix Table 6 : Dependence on the PDS for purchase of foodgrain, all states, rural areas, 1986-87 (% of households by type of purchase)

State	Type of Purchase from PDS		
	No purchase from PDS	Partial Purchase from PDS	All purchase from PDS
Mizoram	6.4	47	46.6
Kerala	12.3	79	8.6
Goa	20.4	69.1	10.5
Tripura	30.8	66.5	2.7
Karnataka	38.1	53.9	8
Andhra Pradesh	40.3	47.3	12.4
Tamil Nadu	46.5	44.9	8.5
Maharashtra	52.3	32.4	15.3
Gujarat	55.5	30	14.6
Meghalaya	61.2	31.5	7.4
Delhi	64.6	20.4	15
Sikkim	70	2.6	27.4
Himachal	71.8	13.1	15.1
West Bengal	73.1	22.7	4.1
Assam	75.4	21.9	2.8
J&K	76.7	10.2	13.2
MP	90.9	4.8	4.3
Rajasthan	91.2	3.6	5.2
Manipur	94.6	4.5	0.9
Haryana	96.9	1.6	1.5
UP	97.9	0.6	1.6
Orissa	98.3	1.2	0.5
Bihar	98.3	1.2	0.5
Punjab	99.9	0	0.1

Source : Refer to 'Weakening Welfare: The Public Distribution of Food in India' by Madhura Swaminathan, Table 4.5, p-44, Chapter-4

Appendix Table 7 : Dependence on the PDS for purchase of foodgrain, all states, urban areas, 1986-87 (% of households by type of purchase)

State	Type of Purchase from PDS		
	No purchase from PDS	Partial Purchase from PDS	All purchase from PDS
Mizoram	1.1	54.6	44.3
Kerala	13	83.8	3.3
Goa	18.3	70.6	11.2
Tripura	21.4	49	29.6
Karnataka	26.3	17.1	56.6
Andhra Pradesh	37.3	58.9	3.8
Tamil Nadu	40.2	51.2	8.5
Maharashtra	44.4	52.8	2.8
Gujarat	44.6	52.8	2.7
Meghalaya	48.6	47.9	3.5
Delhi	56.2	38.5	5.3
Sikkim	57	40.6	2.5
Himachal	64.1	28.6	7.3
West Bengal	68	24.5	7.5
Assam	74.7	14.1	11.3
J&K	79	5.3	15.8
MP	82.6	12.1	5.3
Rajasthan	86.2	11.4	2.4
Manipur	92.9	4.3	2.8
Haryana	92.9	6.4	0.7
UP	93	4.6	2.5
Orissa	94.4	2.2	3.4
Bihar	95	3	2
Punjab	95.4	3.6	1

Source: Refer to 'Weakening Welfare: The Public Distribution of Food in India' by Madhura Swaminathan, Table 4.6, p-44, Chapter-4

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Annexure – V

**Preliminary Results from a Pilot Study on
Food Security in Delhi Slums**

PRELIMINARY RESULTS FROM A PILOT STUDY ON FOOD SECURITY IN DELHI SLUMS

A pilot study was carried out in four slum clusters in the trans-Jamuna region of Delhi state to find out if there has been any gender-differentiated impact of recent changes in the food policy of the government with special reference to changes in the Public Distribution System. The ISST research team had conducted Focus Group Discussions, Key Informant Interviews and had carried out a Household Survey on a pilot basis in the area during 2001-2002 with a view to elicit information in this regard .

1. HOUSEHOLD SURVEY

a. The background

A household survey was conducted in four slum clusters in the trans-Jamuna region of Delhi to assess gender differentiated implications of changes in policies pertaining to the Public Distribution System (PDS) at the household level. Changes include sharp increase in prices of items sold through the PDS in the past few years as well as the introduction of a targeted system of PDS that prescribes different entitlements for families above and below the poverty line. In order to obtain insights into the gendered situation vis-à-vis Food Security at the household level, the survey canvassed a questionnaire to both males and females in the household. Questions were asked from the head of the household, male or female, and the spouse, on a range of gendered variables that are known to play an important role in Food Security within the household, with a view to understand the nature of differential vulnerability in terms of the quality and quantity of food available to different members of the household. To assess the impact of food intake on nutritional status of individual members, anthropomorphic measures were taken from all members of the surveyed households. Also on a 10 % sub-sample of the total sample of 200 households, detailed data on who ate what and when during a 24-hour reference period were collected for in-depth qualitative analysis.

b. The sample

402 respondents from 201 households comprising of 1083 individuals were interviewed for the pilot survey. The questionnaire was canvassed in four slum locations in the trans-Jamuna region of East Delhi. These are Sonia Camp (54 households), Rajiv Camp (56 households), Nehru Camp (52 households) and Ravidas Camp (39 households).

Both quantitative and qualitative methods were used in the survey to gather information. Focus Groups Discussions were conducted in the four colonies in the second half of 2001. Response from the groups was good because the Facilitators came from the team that runs the ISST Community Centre in the

locality. Key informant interviews of a range of officials and community leaders were conducted concurrently.

The survey questionnaire was designed keeping in mind the key components of household Food Security, namely access, utilization and vulnerability, with a view to study differences that may arise due to the gender factor. The major areas covered by the questionnaire were:

- **Household profiles**, including size and composition of family, **education** wise breakdown and **health** status of all members.
- Details of **household income and expenditure**, including gender differences in **access** and **control** over resources
- **Household food consumption** and intra-household differences in food consumption for a sample of the surveyed households over a 24 hour period to examine gender differences in food consumption.
- **Nutritional outcomes** in the form of height and weight measurements of all members in sample households.
- Gender factors relevant for assessing the availability and utilisation of food to different members of the households, such as **food related practices** (like eating order) and **nutritional knowledge**.
- Household **coping strategies** at times of financial stress. This was seen to be important, as it is believed that gender differences may not be so apparent when the family is relatively conformable financially but may become increasingly obvious when the household is economically stressed.
- **A range of factors pertaining to the PDS**: Experience of different household members with the functioning of the PDS over time and changes therein over the past few years

The questionnaire was finalised after being piloted in 25 households. The surveyors were chosen from the JJ Colonies, most of them being educated youth and/or social work students on field placement. Surveyors were trained by the ISST research team over a period two days in four broad areas. These were:

- a) Objectives of the project.
- b) Gender sensitisation.
- c) Good interviewing / surveyor practices, and
- d) Familiarisation with the questionnaire, right method of taking height and weight measurements, and sensitization on proper administration of the survey questionnaire.

c. Some preliminary survey results¹

Education

34% of the population surveyed was found to be totally illiterate. Of the remaining 66%, roughly half had only primary education. As expected, the level of education among males is much higher than that among females. As against 29% of male respondents who were found to be totally illiterate, the corresponding percentage for women was 47.

Health

Reported incidence of major and minor illnesses was not very high in the sampled population. Almost 90% of the population, both males and females, reported no illness. Roughly 6% of the population was reported to be suffering from some major illness. Yet medicines and doctors' fees constitute nearly 15% of total household expenditures on an average.

Household income and expenditure

It was difficult to get reliable estimates for household incomes, especially since most earners had irregular incomes. For the purpose of this survey, total household expenditure as reported by the male and female respondents from each household was taken as a surrogate of household income. The distribution of total household expenditure in the surveyed population is given in the Table A.V.1 below. The table is based on the information on household expenditures supplied by the women in the households. There are some differences in the reporting of household incomes and expenditures between males and females in the households. These differences could result from incomplete information, recall problems, and/or unwillingness to respond. On a priori basis, expenses on

Table A.V.1 : Distribution of household incomes

Income groups	% of house holds	Av. Income	% spent on food	% spent on medical expenses
Below Rs 1500	20	Rs.1383	65%	13%
Rs.1500 –Rs.2100	32	Rs. 1963	61%	13%
Rs2100– Rs. 3500	37	Rs. 2739	53%	15%
Rs 3500 & above	11	Rs. 6772	27%	18%

food and medicines as reported by females appear to be more realistic than those reported by males. At the same time, it is quite likely that since males in the sample are main earners, women may not be fully aware about the magnitude of total household incomes. However better information does not

¹ It may be noted that data processing work on the information collected in the household survey so far is currently in progress. Hence the analysis of the survey results reported here is incomplete.

necessarily mean absence of all reporting bias: underreporting of incomes is a persistent phenomenon encountered in income surveys. Considering all these factors, we have taken the figures on expenditures as reported by the woman of the household as the basis for the table above.

As regards the grouping adopted here, it may be noted that Rs. 1500/- for monthly household income for the lowest income group was chosen as it was designated as the cut-off point for 'poor' households with an average size of 5.4 members in Delhi for the year 1993-94 according to the Modified Expert Group Estimates at 1993-94 prices. In real terms, this is the 'poorest' category. Rs 2100 is roughly the cut-off point for BPL households adopted by the Government of the National Capital Territory of Delhi for the year 2001, making the second group from the bottom 'poor' by official standards. The table is based on total household incomes, without any corrections for household size and composition.

It is clear from this data that food expenditure as a percentage of total household expenditure is a falling function of the latter, which is as expected. Medical expenses are also fairly high.

Male-female discrepancies in reporting

A number of identical questions were asked from male and female respondents, household heads and their spouses, in the sampled households in order to assess discrepancies, if any, between the knowledge and perceptions about various issues between them. An interesting thing that emerged from the survey is that for most questions, of both objective and perceptual varieties, there were significant variations between the responses given by the two.

For instance according to male respondents, 136 persons in the 5 + age group in the sample were illiterate. According female respondents the number is 203: more than 50% higher than the male response. There is a significant degree of difference on other dimensions of the educational status of the population as well, depending on who one puts the question to. There is also a lot of discrepancy specifically about the educational status and educational attainments of the adult female respondents in the household as evinced from the woman herself and the corresponding male interviewed in the household. For instance while 92% of male respondents said that the female in the household (generally the spouse) has had no participation in any adult literacy programme whatsoever, the corresponding percentage reported by females themselves was only 81.6%. Similarly, more women than men in households reported that the female respondent in the household had been a member of a women's group or a Self Help Group etc, that a daughter was withdrawn from school, or that a son was not enrolled in any school. Also more women than men cited financial factors as the reason for withdrawal of children from schooling while more men cited 'not doing well in studies' as the major reason, especially in case of boys.

Similar discrepancies emerged between male and female members of the household in reporting the incidence of pregnancy related problems and child death in the family. Many more females than males reported child deaths, still births, miscarriages and abortions, --- suggesting patent lack of knowledge and/or interest among male members about maternal and child health issues.

Similar discrepancies come up from answers to just about every question. These discrepancies suggest that there are differences among men and women in the household not merely in terms of perception but also perhaps in terms of knowledge about the objective state of affairs.

2. FOOD AND NUTRITION

Gender differences in food security, which is the focus of this study, is not merely about access to adequate quantity of food but also about the nutritional content of that food. Environmental factors play a major role in mediating the absorptive capacity of the body to translate food consumption into nutritional intakes. The survey attempted to capture some of these variables.

a. Nutritional knowledge and requirements

When asked about special nutritional requirements of men, women and children, both males and females in the households had similar kinds of answers. A large fraction of both men and women (76% - 77%) thought that children have special requirements, whereas between 52% and 54% of women and men suggested that so do males. 57.2% of the males and 49.2% of the females did not think that females need any special kind of food, excepting when they are pregnant (65.2% of males and 81.1% of females).

Evidence from other studies has identified over and above household income, a woman's education, her 'status' in the household, and the nature of social capital she has access to, as important determinants of nutritional status of household members, especially the status of child nutrition. The present study has attempted to assess these factors. Since nutrition and health are closely linked, the study has also looked into illnesses suffered by all household members, with special emphasis on maternal and child health.

What is most striking is the information we have got on the extent of malnutrition among both sexes and across income groups in the sample. This information in the form of Body Mass Index (BMI) has been collected from all members of the sampled households.

b. Prevalence of malnutrition

The distributions of BMI scores for the male and female interviewees are given in Tables A.V.2a and A.V.2b.

Table A.V.2a : Body Mass Index Scores among Male Respondents by Household Income

BMI	Monthly Household incomes				Average for the sample	Average for Delhi NCT ⁹
	Less than Rs.1500	Rs. 1500-Rs. 2100	Rs. 2100-Rs. 3500	Rs. 3500 & above		
<16 ¹	3	0	13	0	6	4
16-17 ²	8	20	5	0	10	4
17-18.5 ³	18	22	27	14	22	12
CED⁴	28	42	45	14	38	20
18.5-20.0 ⁵	33	22	19	32	24	20
20-25 ⁶	35	30	32	45	33	53
25-30 ⁷	5	6	4	9	5	7
30 & above ⁸	0	0	0	0	0	1

Note:

1. III degree Chronic Energy Deficiency
2. II degree Chronic Energy Deficiency
3. I degree Chronic Energy Deficiency
4. Overall Chronic Energy Deficiency
5. Low Normal
6. Normal
7. I degree obesity
8. II degree obesity
9. Average for all Delhi Rural and Urban Combined. India Nutritional Profile-1998,p.233. Ministry of Human Resource Development, GOI

Table A.V.2b : Body Mass Index Scores among Female Respondents by Household Income

BMI	Average Monthly Income				Average for the sample	Average for Delhi NCT ¹⁰
	less than Rs. 1500	Rs. 1500-Rs. 2100	Rs. 2100-Rs. 3500	Rs. 3500 & above		
<16	7.5	3.13	1.27	16.67	5	3.9
16-17	2.5	12.5	10.13	11.11	9	3.3
17-18.5	25	10.93	13.92	0	14	11.1
CED	35	26.56	25.32	29.17	28	18.3
18.5-20.0	22.5	34.38	20.25	32.33	26	17.1
20-25	32.5	37.5	41.77	38.89	38	56.2
25-30	10	1.56	12.66	0	8	6.9
30 & above	0	0	0	0	0	1.5

Note: Same as Above

The above tables pertain to the information obtained on the male and female respondents only and do not include the data that have been collected for other members of the sampled households. At the time of writing this report, the processing of the information on stunting and wasting of children in the households is still incomplete. Nevertheless, it is clear that there are significant gender differences in the patterns of malnutrition, and it may be useful to analyse these. Some of these differences can be identified as follows:

1. A very high percentage of both male and female respondents in the study sites are far more malnourished as per CED levels than the average Delhiite.

This is not very surprising and can be explained by the fact that the average household income of the population in the study sites is far below that in the rest of the NCT, suggesting that households that are not officially recognized as 'poor' (i.e., falling below the official 'poverty line') may still be poor enough to be unable to meet the basic energy requirements of the household members by a log shot.

2. The pattern of chronic energy deficiency appears to be more a function of household income levels among women than among men

The percentage of women exhibiting CED is a falling function of the levels of household incomes as one moves across the first three income groups. This is not so among men. In fact for men the corresponding percentages are a rising function of household incomes and these are systematically above corresponding female percentages.

It would be interesting to try to understand the underlying causes behind these patterns. Given that most of the male earners in the sites are casual workers, it could very well be that in the bottom rungs of the income scales, the men are earning their incomes at the expense of their health basic levels of energy efficiency.

For women however, there is a clear link between poverty and CED: high levels of poverty are linked to high percentages of women with CED. The pattern breaks for the highest income group, but that can be explained by the very high incidence of severe (3rd degree) CED among women in this group: a phenomenon which needs to be explored further.

The link between poverty and severe malnutrition among women is strongly suggested also by the following result:

3. There is far more CED of the third degree among women than among men in the poorest households

Third degree CED is more pervasive among women in the poorest households, suggesting that in all probability women in these households are relinquishing their share of food, which may be in patently inadequate supply, for feeding the men and children.

4. *There is very a high incidence of severe malnourishment (3rd degree CED) among women in the highest income category*

This is an apparent anomaly but could be the result of the fact that high household income levels are also linked with larger numbers of earners in the households. The high level of energy deficiency in the women in these households could be because that these women are also working outside the home. These factors need to be investigated in depth. The other reason could be inadequate nutritional knowledge among these women: a phenomenon which has been corroborated by the results of the household survey. It needs also to be checked as to whether there is a high percentage of pregnant and lactating mothers in this group.

A similar anomaly is found among men in the third income group from the bottom (Rs.2100-Rs.3500), where a very high incidence of 3rd degree CED has been recorded. One needs to check whether these men are also the ones who are suffering from 'major' ailments.

3. PUBLIC DISTRIBUTION SYSTEM

a. Findings on the functioning of PDS from the questionnaire survey

82% of the population reported having a ration card. A majority of them have had one for more than five years. But close to 77% reported that they do not take the full quota. Among the reasons cited as to why they do not take the full quota, most people said that there is no incentive to buy the stuff from ration shops primarily because there is no price difference between ration shops and the open market (81.3%). Other reasons cited were inadequacy of money to buy in one shot (56.8%), inferior quality of goods supplied at the fair price shops (54.8%), bad behavior of the ration shopkeeper (32.3%), faulty measures (30.3%), inadequate supplies (20.6%) etc. More than 50% of the respondents said that they had used the ration shop facilities much more intensively some years back than they do now. The reasons cited was mostly lower prices in comparison to open market prices then as compared to now (65.6%), better availability of products in ration shops (31.3%), and better quality of products (31%). Most respondents said that the increase in prices of commodities sold from ration shops has considerably raised the food budget in the family (54.2%) and that they now restrict the use of ration shop products to only a few items such as sugar and kerosene oil. Most families reported that they have stopped taking food grains from ratio shops. Many reported enhanced economical problems and reduction in some items of food consumption due to higher costs.

Although most families reported having filled in the income form (72%), and most reported a below poverty level status (67.2%), a very large number of respondents (71.7%) had no clue about the benefits of the new card. The ISST team found that while most of the families had TPDS stamped on their ration cards since the late Nineties, very few had 'qualified' for the official BPL status from the recent BPL survey that was carried out in the locations during the latter half of the year 2001. Nobody had derived any concrete benefits in terms of lower prices from the TPDS stamp then, and few will do so in the present round of assessment of poverty status.

b. Analysis of the manner of functioning of the altered PDS in the study sites based on result of FGD's and other field notes of ISST research team

It may be recalled that under the economic reforms initiatives of the Central Government, food prices in ration shops had been experiencing an upward spurt across the country. By the middle of the Nineties, differences in the prices of foodgrains from fair price shops and corresponding market prices were already much too low to compensate for the inconvenience of irregular supplies and poor quality of items sold through the former. As a result, off-takes from ration shops had been falling drastically. (Cf. Annexure IV of this report).

The Targeted Public Distribution System (TDPS) which was announced in 1997 was implemented in the study location in 1998-99 in the form of distribution of TDPS ration cards among the settlers, most of whom still hold the TDPS stamped cards. However the official stamp did not entitle them to get supplies from ration shops at reduced prices. FGD's with local slum dwellers suggested that even after official announcements by the Delhi Government on reduction in prices of rice and wheat supplied through the ration shops to Rs. 6/- and Rs.4.50 per kg respectively, the benefits of these reduced prices have not been passed on to them: a finding which has been corroborated through our questionnaire survey of two hundred households in the area.

The ISST Survey team had been working in the field in 2001-2002, at the same time when the official survey for locating the Below Poverty Level (BPL) households in the area was on, and had the opportunity to observe first hand the process of identification adopted by the official teams. By and large the information on household incomes would be gathered by official surveyors --- largely teachers in government schools untrained in survey methodologies. This information would be taken from self-styled 'pradhans' in the localities. This would then form the primary basis for deciding which of the households have monthly incomes less than Rs.2400/-, the officially sanctioned 'poverty line' in Delhi. These 'decisions' were taken independent of considerations of household size or the regularity of such earnings. Rarely ever the official surveyors would make household visits to corroborate the information obtained second hand from the local 'chief'. The presence of items such as cooking gas or a television set,

even if it is a small black and white set obtained as a gift, would disqualify a household from its claim to the BPL status. Now that the BPL survey is over, less than a fifth of the dwellers in the study site have been provided a BPL status, in spite of the fact that the majority of the population in the surveyed sites are indeed very poor.

In the FGD's conducted in study sites, the locals complained of corruption of various kinds in their dealings with officials, who as a rule ask for payments for any 'favour' done, as well as with ration shop owners who threaten them with revocation of even their existing TDPS cards if they complain overmuch.

Thus changes in the PDS rules have very clearly had an adverse impact on these poor households. Prices of foodgrains are high, and most of the households have not benefited from the altered system. Implementation of the two-tier system has been patently faulty, depriving these households of their legitimate claim to affordable food. The changes in the PDS have effectively resulted in increase in the food budget overall, which is very high on an average, and has reduced the fraction of income that is available for other uses. The policy of introducing a two-tier system on the ground by identifying BPL households has clearly failed, which it is bound to, given the ad hoc nature of the identifying criteria. Our pilot survey suggests that although overt hunger may not be present on a significant scale, malnutrition is rampant in the study sites. It is also quite clear that malnutrition cuts across the official poverty line, suggesting that nutritious and affordable food is beyond the reach even of those that are officially 'non-poor'.

As regards the gendered impact of these anti-poor changes in food policy, one can easily surmise that over and above the common effects of reduced real household incomes shared by all members of the household as a result of increased food prices, as home managers, women are in an additionally disadvantaged position as they are the ones that directly face the challenge of serving nutritious and tasty food in adequate amounts to all the household members including men and children. Our survey results also show that women are generally the last to eat, and may very well end up with too little, on days there is not enough to go around.