



RESOURCE BOOK II - (Part I)

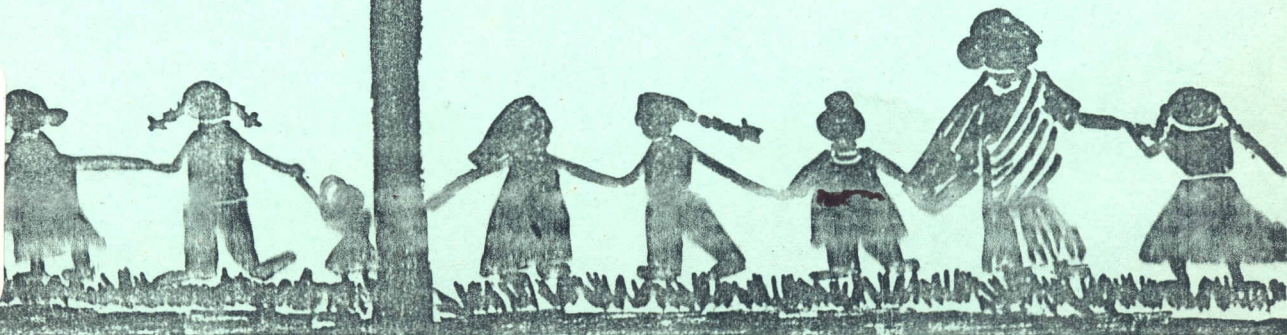
Women,
Environment
and Community
Participation

Compiled by Sarala Kumari

UMA RESOURCE CENTRE
Institute of Social Studies Trust
Bangalore
October 1994

(for private circulation)

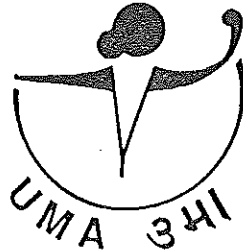
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Women, Environment and Community
Participation: An Annotated Bibliography

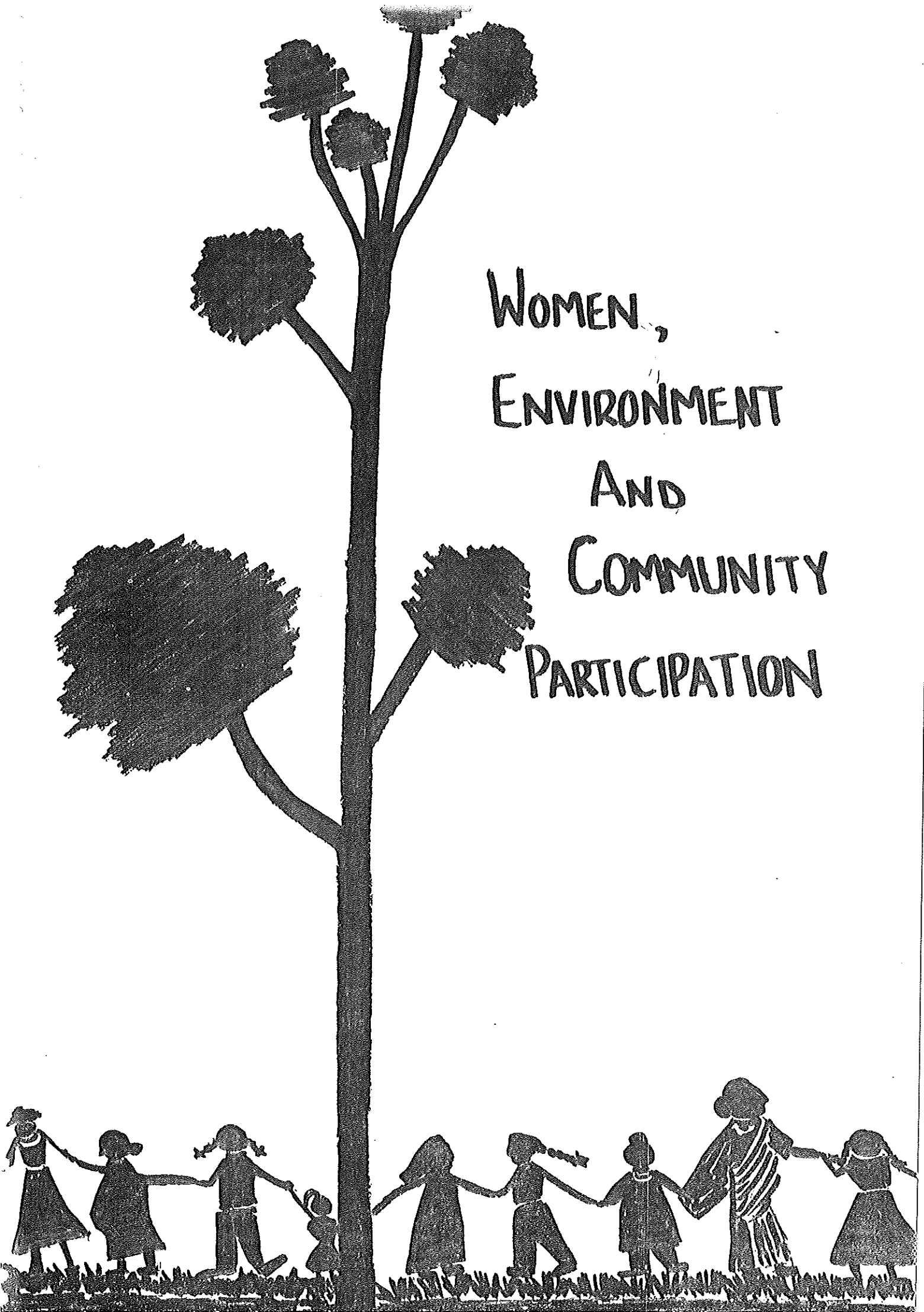
Compiled by Sarala Kumari
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WOMEN,
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Environmental Quality, 1970 - The first Annual Report of the Council on Environmental Quality Pgs 1- 323.

The annual report traces the understanding of environmental problems, Federal organisation for environmental quality, water pollution, air pollution, man's inadvertent modification of weather and climate, solid wastes, noise; pesticides and radiation, population, growth and resources, land use, international co-operation, citizen participation, environmental education and present and future environmental needs.

Appendices of the report has the National Environmental Policy Act of 1969, excerpts from the state of the Union address. The environmental quality improvement act.

The opening chapter of the report deals with the growing awareness and understanding by the American people of the nature of the threat to the environment and the interrelationship of environmental problems. Pollution is one of the most obvious dangers. But the problems are much broader. They encompass control of land use, the expansion of population and waste of resources. The including chapter discusses the need for better, stronger institutions, improved measurement of the environment and the need for comprehensive policies and strategies.

Danyl D'Monte, 1985.

Temples of Tombs. Industry versus environment: Three controversies. Centre for Science and Environment Pg.283.

The title is derived from Pandit Nehru's off quoted remark, when he was opening the Nangal Canal, that modern industrial and agricultural projects were "the temples of today". The book questions whether these are in fact symbols of hope and promise for those who live in their vicinity or turn out to be symbols of disillusionment. The cover depicts the controversial lion-tailed macaque of silent valley, the habitat of which was threatened by the dam. It is used to symbolise the apparent conflict between industrial growth and the natural environment, in which all living things - human beings, most of all have a stake.

The introduction sets out the terms of the "environment versus development" debate globally and then examines its context in India. It shows how the documentation of three major cases in detail highlights problems which recur whenever large so called development projects are planned. The following six chapters deal with the three cases: one chapter tells the story of what transpired in

each case and the second draws the appropriate conclusions. The last two chapters sum up the lesson of the books and examine what alternatives were available in place of these major projects.

Anil Agarwal, 1987.
The Wrath of Nature

The impact of environmental destruction on floods and droughts. A presentation by centre for Science & Environment to the members of Parliament of India with the support of Dept of environment forests and wildlife.

This presentation is the attempt of a small group of researchers to tell others what it has learned from its experiences in the field of environmental destruction on floods and droughts. Information on India's water balance with relation to agriculture and forestry observed in different states of India is been discussed and presented graphically and using photographs.

World Commission on Environment & Development (1989) - Our Common Future. A Text Book.
Oxford University Press, Walton Street, Oxford OX26DP, New York Pg.352 published by S.K.Mookerjee, Oxford University Press YMCA Library Building, Jaisingh Road New Delhi 110 001.

The book examines the critical environment and development problems on the planet and puts forward realistic proposals to solve them. Our common future serves notice the time has come for a marriage between economy and ecology. The book is divided into three parts.

1. Common Concerns: In view of the commission the world crisis, such as the environmental crisis, the developmental crisis, the food crisis and the energy crisis are not separate crises. They are all one. We are now forced to consider the impact of ecological stress.
2. Common challenges: The commission is optimistic about the future. Provided the political will is available, humanity has the ability to make development sustainable. The commission reviewed the problems and potential related to population and human resources, food production, species and ecosystems, energy, industry and urbanisation.
3. Common Endeavours: Agricultural production will only be sustainable if the resource base is secure. To ensure this, new approaches to food production are necessary: small scale irrigation systems where with

participation of farmers in the management of water systems is essential, using organic plant nutrients to compliment chemicals and pest control based on natural methods; agro forestry; diverse cropping systems etc.,

The major shift in policies is a necessary condition for achieving a sustainable and equitable development. This book is one of the major recent signs at International policy level that policy makers and conventional agricultural institutions are increasingly becoming aware of the importance of sustainability and the need to reduce costs by minimising the use of external inputs. But to assume that we have the technology at our command is underrating the tremendous effort still required to develop technologies that bridge the opportunity gaps that farmers face in resource poor areas.

Friedman, & Schaur, E.1990.
Environment and Self-reliance. Human Resource Development Foundation - 74, Vigyanlok, Near Anand Vihar, Delhi - 110 092, India 155 pg.

To communicate the available scientific knowledge to the common man is transposing it into cartoons supported by appropriate captions. These picture scripts form the basis for manuals. It is an endeavour to promote ecological sanity among the masses. Its four chapters are concerned with: Communication for self-reliance, you and your environment, grow more trees, wasteland into farm land. The authors work with the communication centre of scientific knowledge for self reliance.

Gliessman, S.R (ed) 1990
Agroecology Researching the Ecological Basis for Sustainable Agriculture Ecological studies Vol.78, New York, Springer Verlag 380 pg. ISBN 0 - 387-97028-2.

This is an important overview of recent agro-ecological research in both the North and the South. Part 1-deals with basic ecological concepts in agro-eco-systems. Part 2 with agro ecosystem design and management. The contributors (34 in all) are agronomists and ecologists who have begun to bring their respective strengths and approaches together to address the serious problems that test the world's ability to sustain its food production system. Topics include research methodology, theoretical aspects of crop diversification and biological control, low input ideotypes, analysis of traditional farming systems, and theoretical exploration of variability, stability and risks. Practical cases are reported from Mexico, India, Netherlands, USA, China and Thailand. The book concludes by stating that it is one thing to express the need for sustainability and yet

another actually to quantify issues such as nutrient cycling, energy flow, and population dynamics. There is a long way to go, and the book gives a challenging contribution along the way.

Jeremy J. Waford and Zeinab Parton, 1990
The World Bank and the Environment, First Annual Report.
The World Bank, Washington, DC. pg99.

The report was prepared by environment department of the world bank. That environmental degradation in its many forms constitutes a significant threat to economic development has become widened during the past decade. Sound environmental management has been recognised as fundamental to the development process, and the world bank emphasises the need to make environmental concerns an integral part of its activities. It recommended that actions be taken to bring environmental strategy into the mainstream of country economic frame work, to strengthen research on the underlying causes of environmental degradation and on the feasibility of appropriate, policy interventions, to implement a new environmental assessment methodology to increase lending for free standing environmental and population projects, to expand its efforts in staff training and guidance of Bank staff on environmental matters, and to participate more effectively in the international environmental debate.

Major environmental concerns were addressed through country focussed environmental strategy work policy and research activities, and lending operations. Five problem areas were identified which needed attention from the bank and its members;

1. Destruction of natural habitats land degradation,
2. Degradation and depletion of fresh water resources,
3. Urban industrial, and
4. Agricultural pollution.
5. Degradation the "global conmas".

Country environmental strategies take many forms. They may be country wide or directed at more localised problems. The bank studies to date highlight both the importance and the difficulty of establishing cause and effect relationships in environmental problems. They point to the appropriate policies and investments needed to correct existing problems or to prevent further ones from occurring. The range of factors that lead, directly or indirectly to environmental problems often includes poverty, rapid population growth insecurity of land tenure, economic incentives that encourage unsustainable use of resource, and inadequate legal frame work or institutional capacity.

These studies also stress the importance of policies designed to foster in developing countries a pattern of growth that is more efficient and less resource-intensive than that which has characterised development in the industrial countries. Fortunately, opportunities do exist for policies and investments in which economic and environmental objectives coincide, such as pricing energy at its true economic cost.

The bank has collaborated with leading environmental NGO's in a variety of activities in this field, including the publication of a new book "Conserving the World's Biological Diversity". A major initiative begun during the year was preparation of a new forestry policy paper. The paper provides bank staff and country personnel with guidelines for effective forest management, especially as it relates to curbing deforestation and the loss of natural habitat.

Work on land degradation during the year revolved primarily around farm policies and incentives, technological constraints, land tenure issues and community participation.

The degradation and depletion of fresh water resources is posing increasing threats to economic development in many countries. An effort to replace traditional sectoral strategies with an integrated approach to water resource management - involving agricultural, initiated in Asia and Europe, Middle East and North Africa regions.

Research projects to identify optimal investment strategies for irrigation and agricultural development, and to address the problems of waterlogging and salinity that often result from irrigation schemes were initiated.

Mark Poffenberger, 1990
Joint Management for Forest Lands
Experiences from South Asia
Program Statement

This paper briefly examines three regions within South Asia where poor land management is causing environmental degradation and social and economic problems for rural communities. Within each setting, an example is given for a government agency which is attempting to improve land management through partnerships with community groups. The experiences of each program are discussed and assessed in terms of the productivity, equity and sustainability of emerging joint management systems. The paper concludes by describing Foundation efforts to support forest agencies developing new approaches to participatory management.

Madhu Sarin 1990
Working with Village Groups
Workshop report on Sustainable Forestry
September 10-12. Organised by Indian Environmental
Society. Sponsored by Ford Foundation

The author reports, the basis of joint management of forest areas with village groups is mutual respect for the interest of both parties. The forest department's interest are relatively straight forward and also she speaks about the women strengths in in managing the forests.

Nanda, M. 1990,
Planting the future: A Resource guide to
Sustainable Agriculture in the third world,
International Alliance for Sustainable Agriculture.

This publication provides a comprehensive listing of sustainable agriculture resources and groups in the third world, as well as specific descriptions of the farming practices. It is completely indexed by country, group and subject based on a questionnaire sent to 430 sustainable agriculture groups in 70 countries in Africa, Asia, Latin America and the Carribean. It includes an extensive glossary and listing of books, journals, videos and other media. A very useful tool to enhance networking.

Mishra, P.R. Kadegodi, G.K and Kanchan Chopra, 1991
Centre for Science & Environment Pg.1-9 Chakriya Vikas
Pranali: A new Way forward for India's Rural people. CSE
booklet 3.

The booklet gives an information on Alternative man by Anil Agarwal Chakriya Vikas Pranali by P.R.Mishra and cyclical reinvestment strategy. An alternative approach to Rural Development by Kadekodi and Chopra.

Asian & Pacific Women's Resource & Action Series
Environment - A text book, 1992, Pub. by APDC, Pesiaran
Duta, Kuala Lumpur, Malaysia.

The text book deals with topics like forest dwellers and tribal communities, agriculture based communities, coastal and sea based communities, Urban based and other environmental issues.

Also gives information on resources, annotated bibliography, Journals, magazines and newsletter.

Networks, Organisations and groups address are available.

Coper, D & Vellve, R & H Hobbelink, 1992 -
Growing diversity - genetic resources and local food
securities.
Genetic Resources Action International (GRAIN) Pg.166,
ISBN 1 853.39 119.

The Green Revolution has threatened farmers traditional role in managing genetic resources. New varieties issued by international research centres has replaced many traditional ones, demand extra inputs and often add to farming risks. If biological diversity is further neglected, the future production of the world's staple foods may be jeopardised. This book reports on actions to prevent erosion of the pool of traditional varieties and farming systems. It documents farmers practices in conserving land-races and improving local varieties, community efforts to conserve genetic resources and how local groups are organising the collection, exchange and multiplication of land races.

Mira Shiva, 1992,
Environmental Degradation and subversion of Health.
Development dialogue Vol.2 Pg.71

Mira Shiva shows how 'mal-development' is expanding in the third world together with the increase in object poverty. This trend can be described as one of extreme deprivation on the other. What large segments of the population are deprived of are, as Mira Shiva emphasises essentials like food, clean water and air, health care and safe living and working conditions. The excess on the other hand, 'consists of the bombarding of our beings our lives and our environment with hazardous gases, chemicals and biological contamination, i.e irrational and inessential toxification! In her contribution, Mira Shiva also provides a series of other striking examples of how Third World Societies are flooded with inessentials in the midst of an increasing scarcity of essentials. She ends her thought provoking article with a section devoted to the politics of population policies, an area where the North for more than thirty years has been trying to solve problems of extreme deprivation of essentials with an ever increasing number of hazardous and irrational technological fixes.

Rio Summit -
Praful Bidwai, 1992.
Lets get Political - Down to Earth. July 15, Pg.45

Never before has an idea with so much power and such a profoundly universal appeal been turned so quickly into an issue of narrow, sectarian self interest of the powerful. Environmentalism, which many of us thought was an idea, whose time has come the world over, is now

like a dream that turned over as soon as it was appropriated by the rich and the greedy by capital.

There's one lesson in this for all of us, The environmental movement, to the extent we can talk about it globally.

Penny Newman, 1992.

Killing legally with toxic waste: Women and Environment in the United States. Development dialogue Vol.1-2 Pg.50

In this very challenging contribution, the author introduces the reader to Stringfellow acid pits neighbouring the small community of Glen Avon in Southern California, on whose population they have had disastrous effects. From the community she takes us to the national and international scenes where transnational chemical corporations dispose of ever increasing horrors of toxicwaste, which increasingly are 'exported' to the Third World.

She strongly emphasises the view that environmental work has to start at the local level and should build on the concerns and the anxieties of the people and especially of the women in the local communities.

Vandana Shiva, 1992.

Women Ecology and Health: Rebuilding connections. Development dialogue. Vol.1-2 Pg.3

The contributions in this volume illustrate a different process one which locates the problem and begins with people's own lives. It connects global environmental issues with how people are affected on a daily basis on diverse local situations.

The 'environment' in these papers is not an external, distant category; in Penny Newman's words, 'The Environment' for women in our communities is the place we live in and that means everything that affects our lives.

Women's involvement in the environmental movement has started with their lives and with the severe threat to the health of their families. From the perspective of women, environmental issues are quite directly, and clearly issues of survival. Ann Usher in her discussion on deforestation and AIDS explains, 'The Thai Community forestry movement that emerged in the mid 1980's is not just a fight for rights over the forest. It is fight for survival, a point Penny Newman makes in the context of toxic hazards.

A common criticism levelled at ecologist feminist approaches to the current crisis, is that of

'essentialism' relating environmental issues to women in a specific way is seen as essentialist world view. Across the world, women are rebuilding connections with nature and renewing the insight that what we do to nature, we do to ourselves. There is no insular divide between the environment and our bodies. Environmental hazards are also health hazards in food systems. Pesticides do not merely pollute fields, they end up polluting our bodies. Destruction of bio-diversity does not merely impoverish nature, it impoverishes tribal and peasant societies. These links exist in the real world even though they have been denied by fragmented and divided world views. Beginning with women's experiences, analysis and action will build the connections between ecology and health, for a more holistic approach to the contemporary crisis of survival.

E Vander Werf and A de Jager, Leusden:
ETC foundation; The Hague: Land bouw, Economic
Institute 1992, 90pps ISBN 90 5242 164.
Ecological agriculture in South India an agro economic
comparison and study of transition.

This is a report from two research programmes on ecological agriculture in South India. Experiences of 12 farmers in transition to ecological agriculture are described and analysed. A gradual approach is crucial for success. The length of the transition period (3-5 years on average) is directly related to the previous farming systems, specifically the amounts of mineral fertilizer used. The agronomic and economic performance of 7 pairs of farms - one ecological and one conventional reference farm is compared. The gross margins/ha and net farm income per labour day are similar. Labour input per hectare also does not differ significantly. In ecological farms, trees and livestock are far more numerous than in conventional farms.

Anil Agarwal, 1993.
The Land of Milk from water
Our Planet Vol.5 No.2 pg 8-9

The author reports a case study of Sukhomajri village in the Sub-Himalayan Shivalik hills.

Overgrazing and deforestation had left the village environment badly degraded, with extremely high rates of erosion, able only to support a destitute people. Crop lands produced a few tonnes of grains for food. The deficit was made up with purchases from the local town with the help of earnings sent back to the village by migrant workers.

Sukhomajri village had a highly degraded watershed with soil erosion rates reaching 900 tonnes of soil per

hectare of land, but Sukhomajri villages united to build an earthen dam on the local stream to irrigate their fields. The dam changed everything grass and trees returned to the watershed, fodder and fuelwood became abundant and milk production increased dramatically and with irrigation from the small dam, villagers began to harvest three assured crops, instead of just one risky crop a year.

V.Bakthavatsalam, 1993.

Promoting Renewable Energy - Role of Banking Systems
Energy Perspectives in Plantation Industry.
Planters Energy Network.

The demand for energy which is a vital input for economic and social development, is steadily increasing due to the rapid growth in industrial and agricultural activities. The New Renewable Source of Energy (NRSE) can be used gainfully and improve the quality of life. The growth of the department of Non-Conventional Energy sources and its major activities and thrust areas have been highlighted.

The paper describes the establishment and the main objectives and function of the Indian Renewable Energy Development Agency (IREDA) which is basically an instrument for the promotion and development in financing of NRSE technologies. Tables showing the amount loaned by IREDA for different categories of energy sectors as well as IREDA's operation in the past are shown. The quantity of fossil fuels saved in monetary terms during the past 4 years is shown. The norms followed for financing various NRSE projects are given.

Complementarity begets productivity, 1993 -
Down to Earth Dec'15th, Pg.22

Simultaneous cultivation of several crops, using organic manures and pesticides, can raise productivity, says Karnataka's L.Narayan Reddy. Reddy's farming technique reports the innovative use of cattle urine as a pesticide - eg. he uses a mixture containing cattle urine and neem leaves, steeped together in a small cement pit, as a pesticide. The urine that overflows from the pit enriches manure, leaf and biogas slurry composts in two pits measuring 90 cubic metres (cum) each. Local grasses grown between rows of trees in the drip irrigated orchards provide fodder and help retain soil moisture.

Coconut leaves, husk and weeds, put around coconut palms as mulch, decompose within a year and supplement the 12kg of compost manure that is put annually in each of the eight pits dug at radius of 2mts around each tree.

Each tree is connected to the drip, system. Cost (75,000) he justifies the expenditure saying it reduces labour costs and water consumption.

Reddy's enterprise has brought material rewards, by growing paddy, roses, coconuts, vegetables, ragi, eucalyptus and mulberry with help of well irrigation.

Livestock Rearing

Ganesh Pangare, Richard Cincotta, 1993

Pastoralists at the Goss Roads, Down to Earth Dec'15th
Pg-25

Hemmed in by intensive agricultural and industrial activity, pastoralists are finding less room to carry on their activities. One result is that manure trade, a sustainable practice is going out of business.

Pastoralists are vanishing breed the world over Herders of sheep and cattle have a key role to play in the rehabilitation and sustainable management of fragile ecosystem. Apart from producing milk, meat, leather and wool and providing animals for traction and manure for agriculture, livestock, rearing earns foreign exchange from exports. Today traditional pastoral institutions are being increasingly threatened with mass displacement because of intense competition from agriculture. Population growth, herd dispossession and drought.

Pastoralism is a highly complex activity, hinging on a final balance, between human population animal population and natural resources. Though it maintains a reputation as the most complex and formidable of all agricultural and natural resource development tasks. Pastoralists tend to among the least educated and least empowered of rural populations. Pastoralists is at odds with rural agricultural and urban development priorities and pastoralists remain largely outside post - colonial power equation.

Indira Gandhi

Safeguarding Environment - A text book published by Wiley Eastern Ltd, India - Pg 54, Down to Earth. Nov.30, 1993.

Safeguarding environment has been collated by Indira Gandhi Memorial Trust from the late Prime Minister's major speeches on environment and attendant concerns, delivered at national and international fora. The book serves the useful purpose of a primer on environment.

As an able statesman, Mrs.Gandhi realised ecological problems were created by the need of the poor for a livelihood, the greed of middlemen for quick profiles the demands of industry, and the short sightedness of

environment, by its very definition was pervasive, and therefore there can be no environmental planning without the involvement of people at all levels.

Organic Farming

1. Gopalkrishnan and Vijaylakshmi have been growing cereals, pulses, vegetables and tubers at their farm in Attappedy in Kerala for over seven years, without using any synthetic fertilizers.

Saarang is involved in activities such as education, documentation and networking to promote natural farming.

2. Agriculture Man Ecology in Pondicherry seeks to make marginal farmers self reliant through ecological agriculture. Twice a year, it conducts training programmes for farmers, officials and NGO.
3. Kudumbam - has a farm in Oduganpath in Pudukottai district, where training and demonstrations are given on using plant - based pest repellants, preparing compost, mulching and conserving water.

Kudumbam also brings out a monthly newsletter in Tamil - Pasantalir which highlights the advantages of recycling agricultural wastes and lists the names of farmers and agencies practicing organic farming.

4. Dharitri - is a voluntary organisation in Karnataka, which is creating awareness about issues like vermiculture, composting, organic farming and other sustainable methods of agriculture. They also provide organic produce to consumer on request.

J.S.Juneja, 1993

Fuel Wood Policy Issues and Sustainable Development
Energy Perspectives in Plantation Industry.
Planters Energy Network.

Non-commercial form of energy usage still plays a predominant role in the Indian energy scenario. Fuelwood which is a common non-commercial source of energy and its management is closely linked to the development of the well being of major population living below the poverty line. In this paper, the production, sustainability and the formulation of appropriate technology for the fuelwood conservation, conversion and utilisation for rural industries including plantation are described in detail. The forest policies followed in India is reviewed critically. Major policy recommendations for the sustainable development of fuelwood for rural industries are given. The necessary research and development efforts to fulfill the goals

taking into account integrated action plans are projected.

Finally, the importance to earmark appropriate government policies to promote fuelwood option to plantation and rural industries is highlighted.

Kamala Bhasin, 1993

Some Thoughts on Development and Sustainable Development. ISIS International Women in Action 1/93.

In these pages, the Author, ISIS International associate from India, shares with us her ideas and reflections about what the problems of mainstream development, about what sustainable development really right, to be and about what we can do to promote sustainable development.

The main model of development followed by our countries has focussed on production of goods. It has been obsessed with material aspects, with economics, at the cost of all other aspects of life. This is why Gross National Product (GNP) is the main criteria for judging a country's development people's well being. And GNP is calculated by anything that is produced and sold in the market. Liquor productions, weapon production pornography all these go into the calculation of GNP.

Development today has led to centralisation of resources, and decision making power. Originally more people controlled local resources but slowly decision making power is more and more centralised, Sustainable Development has to be people-centred and people oriented not things centred and things oriented.

Decentralisation is another principle of sustainable development. We have to move towards decentralisation in decision making and in control over resources. More and more decentralisation should take place in politics, agriculture, in economics and in industry.

This decentralisation will move away from homogeneity, it will allow diversity to flourish. Local people will live according to their own cultures and tradition.

**Ours is a model of Natural Farming, 1993 -
Down to Earth, Dec'15th Pg.23.**

Vijayalakshmi and Balakrishnan of Agali village in Kerala's Palkad district have been practicing natural farming since 1983. They have made 8ha of degraded land cultivate through mulching, water conservation and silviculture, without any ploughing, fertilizers or pesticides.

Contour bunding, percolation ponds and check dam were constructed to conserve soil and water. Afforestation (Bamboos, silver-oak and rosewood) were planted to check soil erosion and vegetables and tubers were cultivated. Sunflower, paddy, samai and cowpea seeds are broadcasted on the mulch and intercropped. Cultivation of bananas not only yields fruits, but leaves as well for mulching and manure. Many of the crops are not sown again but allowed to regenerate naturally.

This study is not organic farming, but natural farming, fertilizers come from trees and excreta of earthworms. Instead of burning weeds, used as mulch helps in good breeding of earthworms. Fort is a veritable bird sanctuary and many birds keep pests and vermin under control, thereby eliminating the need for chemical pesticides. Their main objective is to be self sufficient in fuel, food and vegetables. They are planning to train villagers in natural farming.

Pranab Mukhopadhyay, 1993, Traditional irrigation fails the money test - Down to Earth Nov. 15th pg 52.

Out of the total 303.42 million ha of land that make up India 136.18 million ha were categorised in 1987-88 as not sown area and of this only 43.05 ha receives irrigation. The sources of irrigation, according to official records, are canals, tubewells, tanks wells and other sources, a classification adopted by the British for the convenience of revenue categorisation.

The author traces "Nirmal Sengupta's - User - friendly Irrigation designs - a Book" The book reveals the decline, current status and future prospects of what has been categorised as tanks and other sources which broadly, though not exhaustively, include wells, irrigation channels and lift irrigation schemes. These provide water for about 6.24m.ha.

Realising the virtues of organic farming, 1993 - Down to Earth Nov.30, Pg.49

Several organisations, at home and abroad are promoting organic farming as a method of food production that is both ecologically and social sustainable.

The fundamental theme of organic farming is its ecological approach. It makes maximum possible use of organic wastes, originating from the farm, to keep up soil fertility.

The international federation of organic agriculture movements (IFOAM) which has 360 member organisations in more than 65 countries, units their efforts to promote organic agriculture as an ecologically and socially

sustainable method of food production.

It also publishes a quarterly internal letter, which reports on IFOAM activities.

Trees can't offset global warming.
Science & Technology,
Down to Earth - January 15th 1993.

New studies show large forest areas alone may not be able to counter the effects of increased carbon dioxide in the atmosphere. It is widely believed that higher carbon dioxide levels in the atmosphere will stimulate plant growth and thus help crops and forests fix more carbon - a positive feed back effort that may partially help control the global warming problem.

Two recent studies indicate forests may not be as efficient in filtering out carbon dioxide as many people think. Researchers at the university of Basel in Switzerland have found that elevated carbon dioxide levels in the atmosphere only lead to a greater "Carbon turnover" and not to greater sequestering by (science Vol.237, 2077)

K.Chopra, 1994,
Whose Common Future? Reclaiming the commons.
The Ecologist, Down to Earth - May 31st Pg.53.

This provocatively titled book, written by the editorial team of "The Ecologist", points out the laws governing the use of "the commons" were not usually written because the complexity they dealt with was not amenable to generalisation. Resisting monoculture-the chapter entitled "Reclaiming the commons" quotes instances of communities from all over the world resisting the expansion of monocultures which degrade and over exploit the environment, and which tried to disengage from the wider market economy. These 'has to be realisation that bio-diversity preservation, the most efficient use of soil and water and determining the course of sustainable development intervention take account of such requirements, localised effort will remain a marginal alternative.

Sevanthi Ninan - (1994)
Tough Decisions ahead. Down to Earth - Feb 28. pg63

Energy efficiency is the only sure route to energy sufficiency in the future, but nations are unlikely to achieve it without some hard political decisions. A brisk and informative series being aired on BBC called where on Earth are we going? began with a programme called "Energy without end". It took a look at what is happening around the world on the energy use front and

concluded that the key to a sustainable energy policy in many countries was using fossil fuels more efficiently.

But efficiencies of power plants vary considerably from 35% at some places in England to 90% in Sweden. Some Swedish plants fully utilise the steam generated in the conversion so that two energies are derived from one source. Sweden is also a society that takes energy conservation more seriously than some others, with the highest standards of energy insulation in buildings.

The future of the third world depends on greater use of solar energy and photovoltaic technology. Wind power is another source that has to be developed to its greatest potential. Without these, says energy without end, people on this earth face some pretty tough choices in the foreseeable future.

Deforestation

Sreedharan. K, 1994, Bark and Bite -
Down to Earth. May 31st.

A whopping 25,000 people formed a human chain (10Km) in Kerala's Jeerakappara forest to rally against the wanton destruction wrought by encroachers.

The human barricade, called "MANUSHYA PRATHIRODHA NIRA" was a part of an ongoing struggle to protect resources that are integral to their lives. It was organised by District Forest Protection Co-ordination Committee (DFPCC) comprising the Kerala Shashtra Sahitya Parishad (KSSP), the society for the protection of the Environment in Kerala, the Democratic Youth Federation of India and several environmental protection groups.

The protest was sparked by the havoc wrought by encroachers, who have been allowed to run riot. The forest cover in the area has shrunk from 40% in 1947 to just 8% at present. Water supply was jeopardised the people of the region realised that this felling would ruin the hydroelectric station and affect the water supply to the region. They protested immediately. The agitation forced the encroacher to stop butchering trees.

Rural Water Supply (Woman Pump Mechanic) -
Shukla Basu, 1994 Pumping Iron - Down to Earth , Feb
28th Pg.22

The training of women in the maintenance of handpumps has not only flooded them with confidence, it has rescued a government water supply programme from sinking.

Ajufa Begum, a 27 year old woman is a handpump mechanic in village Hathopara in Assam's Kamrup District. She is one of the five women who are proudly brandishing certificates establishing their credentials as "hand pump mechanics", given to them after a one day training course organised by the Public Health Engineering Department (PHED). Women have been trained by UNICEF to maintain pumps in AP, Maharashtra, MP, UP, WB, Rajasthan and Assam.

Training women to be just mechanics is not really, empowering them, but only a very minuscule step towards making the women self-reliant. Women are not really in power unless they can make decisions and educate and motivate others to carry them out.

Mega - Projects are in the pipeline to involve more women in village contact drivers and water & sanitation (WATSAN) committees. Consumer based convergence services (CBS) have been formed encompassing literacy, health, hygiene, nutrition in fact anything that directly concerns women.

Hand pump mechanic is just a beginning a mile stone on the road to emancipation.

The Ladakh Ecological Development Group, an NGO, promotes ecological and sustainable development based on traditional methods. Among its activities is propagation of traditional organic farming.

Kasturbagram Krishi Kshetra has been practicing organic farming in Madhya Pradesh for over a decade. The organisation recycles farm, home and animal wastes, practices biological control of pests and uses organic manure. They train farmers and arrange workshops and seminars.

A vermicompost technology developed by M.R.Bhiday, Director of the Institute of Natural Organic Agriculture (INORA) in Maharashtra has been disseminated to farmers through a network of 20 INORA centres throughout India. INORA also conducts educational and research-cum demonstration programmes.

CSE at Delhi has compiled a comprehensive database on institutions, agencies and individuals promoting organic farming.