

**MACROECONOMIC AND ADJUSTMENT POLICIES (MIMAP)
GENDER NETWORK (PHASE III)**

**THE GENDERED IMPACTS OF INFORMATION AND
COMMUNICATION TECHNOLOGIES IN VIET NAM**

By

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Final Paper for the Research Module on "*Gender and ICT in Viet Nam*",
sponsored by IDRC.

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Hanoi, December 2005

Acknowledgements

This research project was prepared by the Institute of Economics Gender-ICT Project Team led by Le Thuc Duc and 4 researchers including Tran Quoc Trung, Nguyen Thi Thanh Ha, Pham Anh Tuyet, and Nguyen Van Tien.

We would like to express our sincere thanks to Prof. Swapna Mukhopadhyay and Mr. Rajib Nandi - Research Coordinator from Institute of Social Studies Trust, India and Dr. Nguyen Thang from Institute of Economics for their significant and continuous intellectual support, technical assistance and valuable comments.

The great contribution in the form of financial, technical and administrative support by International Development Research Centre (Canada) and Institute of Social Studies Trust, India and their dedicated staff, particularly Steve McGurk is highly appreciated.

We acknowledge and are greatly benefited from valuable comments of participants attended in the national workshop on gendered impacts of the development in the information and communication technologies in Vietnam held in Hanoi on 27 December 2005.

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Abbreviations

ASEAN	Association of Southeast Asian
CAGR	Compound Annual Growth Rate
CPRGS	Comprehensive Poverty Reduction and Growth Strategy
DGPT	Department General for Post and Telecommunications
GDP	Gross Domestic Product
GSO	General Statistical Office
HCMC	Ho Chi Minh City
ICT	Information and Communication Technologies
IT	Information Technology
ITU	International Telecommunication Union
MARD	Ministry of Agriculture and Rural Development
MDG	Millennium Development Goals
MIMAP	Macroeconomic and Adjustment Policies
MOET	Ministry of Education and Training
MOSTE	Ministry of Science Technology and Environment
MOT	Ministry of Trade
R&D	Research and Development
SME	Small and Medium Enterprise
SRV	Socialist Republic of Viet Nam
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
USAID	U.S. Agency for International Development
USD	U.S. Dollars
VAB	Viet Nam Agriculture Bank
VAT	Value Added Tax
VCIT	Viet Nam-Canada Information Technology Project
VFLF	Vietnamese Farther Land Front
VHLSS	Viet Nam Household Living Standards Survey 2001 -2002
VND	Viet Nam Dong
VNPT	Viet Nam Posts and Telecommunications Corporation
VTV	Viet Nam Television
VWU	Vietnamese Women's Union

I. AN INTRODUCTION

Gender inequality has been around for thousands years. It had been accepted as norms in the feudalist society, which is long, and is therefore, deep-rooted in behavior of people, both men and women. Even though the gender inequality now contradicts the ideals of modern society and the spirit of the country's legal system, it does not seem to fade away easily. The Information and Communication Technologies (ICT), as sector of the economy, was virtually not developed in Viet Nam until the 80s of last century. However, over two decades of growth, it has demonstrated to have powerful impacts on many aspects of lives in this country, which has so far been in the early stage of ICT development. The practice suggests strongly that the feminist, the government and civil society may take the advantage of ICT in their fight for the gender equality.

While the general literature on gender in Viet Nam is substantial, that on the connection between ICT and gender issues has been very limited. McDonald (1999) and VCIT (2001) find that there is the labor division bias in the ICT in Viet Nam. Overall in the ICT sector women generally work in lower skilled and lower paid positions than men. Women are often hired for sales, marketing and administrative positions within the ICT industry or computer and electronic assembly or work as programmers while most of managers, technicians, software designers, hardware specialists in ICT industry are men. UNDP (2003) concludes that ICT have been used to different degrees in achieving specific Millennium Development Goals (MDGs) such as poverty alleviation, education and learning, gender equality, healthcare and environment protection and points out that without ICT, these MDGs and target of human development would not be achieved. The study, however, found some evidence of gender gaps in terms of employment, education and training, management in ICT industry.

The development of ICT industry in Viet Nam nearly coincides with at least three other major developments that have profound impacts on lives in this country, including that on gender equality. First, the transition to market economy facilitates the economic growth of relatively high rate, and at the result, GDP per capita increased by over two and half times in two decades (1985-2004). Secondly, the adoption of Open-Door Policy made it possible a greater exchange of information with the rest of the world. Finally, over a long

period of time, the government and a large number of social organizations ran their campaign for family planning and population control. Individually, the effects of ICT revolution on gender issues might not be as strong as the others. Nevertheless, the growth of ICT bolstered the effects of the other. For instance, TVs and radio are an essential part of the campaign for population control. Likewise, there are clearly strong mutual supports between ICT revolution and the process of Open Door. Thus, the effects of the processes mixed together, and that makes it difficult to separate individual effects of ICT quantitatively.

While there are good reasons to hope that ICT development to be helpful to alleviate gender inequity, there have been challenges to that view. The overall gendered effects of ICT will depend on two factors. First, if women and men have the same opportunity to exploit the power of ICT. Secondly, if women can take the advantage of ICT available to them as much as men do. It turns out that those may fail in practice just because people think so. As the perception on disadvantage of female members in society make the gender gap persist. That may work through the way one makes decision on education, e.g. parents gave more opportunity to their sons than to their daughters, and girls were less likely than boys to choose science streams and that may lead to certain gender gap in future incomes.

The presence of ICT in rural areas of Viet Nam has been very little, and therefore the social and economic impacts have been very weak in those areas. To capture the impacts already on place, this paper will focus on Hanoi and Ho Chi Minh City (two biggest cities of Viet Nam), which host nearly all the ICT related enterprises of Viet Nam. Likewise, the effects of ICT development on many economic sectors are insignificant, and therefore, our firm surveys work only with the ones with outputs in the ICT industry. Moreover, in the circumstance that the effect of ICT being mixed with those of other major reform taken at the same time in Viet Nam, we limit our task in this paper to analyse the channels, through which the ICT growth affects gender equality. Only in cases the effect of ICT is the same as the trend, which is the overall effect of the major processes described above, the effect of ICT is reflected on data, which should be interpreted qualitatively.

The growth of ICT works on gender gap mainly through income, education and political empowerment of female members of society. The impact on the economic status of female member has been significant only for the people in the ICT industry. However, as the salary ratio between male to female employees is greater than that in the economy in general, and it does not imply the ICT has improved gender equity in income. Women in this sector are paid much less than men counterparts. Furthermore, female employees are holding shorter terms of labor contract and faced lower chances of promotion. A greater proportion of women than men felt a sense of economic insecurity, which is the threat of being laid off without notice. On basic education, the effect of Internet has not been very significant. More substantially, TVs and radio are effective in transmitting popular knowledge and teaching foreign languages, which is very helpful for many urban girls to have high paid jobs in enterprises with foreign partnership and that makes certain difference in gender gap. Furthermore, female access to ICT equipments such as mobile phones, internet, computers and other ICT related devices has been significantly less than that of males.

The social and political impacts of ICT on gender gap have been powerful. In fact, social opinion has changed much in direction in favor female members. It is easier now to elect women to public offices, and to accept women in managerial positions than ever before. However, if one leaves out the urban part of the country, ICT has had insignificant impact on women in the rest of the country. There were very limited number of examples of ICT being used to help the poor and the real effect of ICT on poverty reduction has not been statistically observed. The implication from this research does not support to the claim that the gender gap within the ICT sector had widened in Viet Nam over time. In fact, these surveys show that gender gap is narrower now than it was a few years ago.

Despite the obvious gender-differences in the ICT industry, with the positive attitudes of women towards ICT's emerged from our surveys, Vietnamese women seem to have a bright future. A majority of parents took a positive view on education per se and technical/ICT education for their daughters. Nearly all the parents regarded ICT employment as providing good work opportunities for their daughters. Urban boys and girls displayed almost the same degree of enthusiasm to ICT's and the uses of ICT's.

Even if this is not the case in the vast rural areas of Viet Nam, the situation of the two largest cities will have important spillover effects on a much greater part of population.

This paper is organized as follows. The presentation of the evolution of the status of Vietnamese women in history is the content of Section II, which follows the introductory section. The recent development is discussed in more detail than that of the ancient time. The section brings up the state of the affairs up to the point of ICT advent. Section III is the description of the legal background concerned either gender issues or the ICT sector. Next, the development of ICT industry and the position of female employees in the ICT industry are discussed in Section IV. The position of female employees in this sector in comparison to male counterparts explains a part of the gendered impacts of ICT growth. The general effect of ICT on gender gap is studied in Section V, where other effects such as through income, social and political empowerment are also considered. Finally, concluding remarks and policy recommendations follow in Section VI.

II. DEVELOPMENT OF GENDER EQUALITY IN VIET NAM

1. The pre-modern history of gender equality in Viet Nam

The status of women in the society was not necessarily all bad in the early days of Viet Nam's history. Today women can be proud of the heroism of the ancient Vietnamese women. In 43 AD, the Trung Sisters, accompanied by female generals and lieutenants, led an army of 80,000 to overcome the Chinese occupation forces in Viet Nam. Even though the revolt was then gradually being suppressed and the Ladies Trungs were killed, they became the heroic symbol of Vietnamese women. Two centuries later, in 248 AD, Lady Trieu, a nineteen years old peasant woman from the province of Thanh-Hoa led a rebellion, again ousting the Chinese invaders. Throughout the centuries these women remained outstanding legends of Viet Nam.

A nearly-thousand-year period of Chinese occupation of the North of Viet Nam left a strong imprint on the social and cultural development of the country. The Confucianism was adopted as the official ideology of the Vietnamese feudal state. It has a very strong effect on gender stance of Vietnamese society. According to Confucian doctrines, men are superior and women are inferior. Women are subjects to be ruled by their father,

husband, eldest son and the King. This male domination was also reflected in the gender roles and division of labour in the society.

In the feudalist society of Viet Nam, one made one's career either in battle fields or by scoring highly in examinations. However, Vietnamese women, regardless of family background, the princesses and mandarins' daughters were not exception, never accepted in schools of formal education system, which is necessary for being able to take any of such an exam, and therefore had no chance for women being nominated for positions of powers. In families, under the feudalist customs, the economic connections between parents and married daughters is less important than that of married sons, and that explains for part of the discrimination against girls.

There is evidence of gendered argument in Vietnamese ancient society. The earliest document relating to equality between men and women is from the Le Dynasty. The Hong Duc Code of 1483 provided women with equal rights to inheritance, the right to divorce and protection from violence. The evolution of idea, however, not always worked in favor direction for women as the Confucianism spread during the years of Chinese occupation.

French colonialism had brought in some western ideas in favor women, but the positive ideas had an effect, if any, on fraction of Vietnamese women. When the French education system replaced the Chinese model of education in Viet Nam in 1920s, schools started accepting female students. However, as of 1945, among around thousand college students of Viet Nam, there were only few of females. Like it was before, under the colonial regime, most women were illiterate. French colonial rule, however, contributed to an increased discussion on women's liberation.

2. Promotion of gender equality under socialism

In 1930, the Vietnamese Communist Party was established under the leadership of Ho Chi Minh, who in this same year, established the Women's Emancipation Association (later re-named the Viet Nam Women's Union), making it the world's longest running national machinery for women. Ho Chi Minh identified gender equality as one of the ten main tasks of Vietnamese Revolution. With the advent of the Communist Party, socialist

policy enshrined gender equity in the Constitution and many policies of Vietnamese Government.

The Communist Party gave strong support to women's advancement, and helped to create an institutional context for a type of feminism that supported many women's rights. This includes labour laws, extensive access to maternity benefits and child-care centers, access to education and employment, and legalized abortion. In the centrally planned economy, the Communist Party had substantial influence on the distribution of income, and therefore, biases against women were often avoided. In 1983, paid maternity leave in Viet Nam was extended from 60 days to 75 days. In December 1984, according to Resolution No. 176a, paid maternity leave was extended to 180 days. More childcare facilities and kindergartens have been set up by the State, factories and cooperatives (VWU, 1985). Quite possibly, that those measures were feasible only under the socialist system of economic organization. In fact, after the adoption of Doi Moi (economic renovation), women have lost some of those benefits, particularly paid maternity leave that is seen as too expensive for private enterprises to bear.

Communist leadership in political system of Viet Nam has been facilitating election of women for public offices at all levels so that to meet certain targets, such as minimal ratios of female representation in those offices. In the past, it often works more through Vietnamese Fatherland Front's (VFLF) maneuver rather than election campaign, but the influence of the VFLF has diminished after the Doi Moi, which led to political renovation as well.

3. The wars and the effects on Vietnamese women

Perhaps, few countries had as much war time in the modern history as Viet Nam did. Over three fourths of the last century, Viet Nam was in constant wars and the legacy is significant on the way people live today. In the war times, emotions were highly and sacrifices were huge, and that grew altruism of all members of society and women in particular and that affected the long pattern of gender equality.

For larger part of the twentieth century, most of the male part of Viet Nam's human resource was mobilized to serve in the wars, which took any thing the country could afford. Women had to take every responsibility behind the battlefields, but also serve

directly or nearly directly in the fighting against enemies. The situation lasted for decades, and those war-serving women have set samples and strengthened certain features of Vietnamese women such as braveness, independent and responsibility. Wars have left a legacy of energetic, dynamic women, who care for other members in families a society. That made them easier to participate in public life. In fact, there have been many role models in the wars as well as in the subsequent economic activities for Vietnamese women.

4. Impacts of Doi Moi on position of women

Under the Doi Moi policy, launched in 1986, it allowed private economy, de-collectivized agriculture and liberalized trade. A series of economic, social and legal reforms have led to market economy, in which competition has replaced the planned allocation by the government. The adoption of market competition is believed to have brought a clear revitalization for Vietnamese economy, which was performing poorly before the Doi Moi. No doubt, the Doi Moi benefits the society at whole, including women as a group. However, for the circumstance in the period it emerged, it does not necessarily improve the gender equity. In fact, market economy widens the gap between the rich and the poor, and men versus women.

Doi Moi led to (a) change in employment opportunity, (b) change in access to resources, (c) change in access to public services and (d) change in women's position in the occupational structure. None of these changes is in favor women because of certain constraints, which are the consequences of past discriminatory factors. The erosion of women's social position coincided with the shift of economic power from the state and collective entities to that of private market. The State and collective mechanism worked in favor gender equality more than private market does. Women were the main bearers of burdens in their household businesses, which are mostly agricultural and were formed after the collapse of agriculture cooperatives in the end of 1980s. Their work became more intense and invisible and old patterns of patriarchal control over women's labour re-emerged. Female labour in agriculture rose from 75.6 percent of all female labour in 1989 to 79.9 percent in 1992, while those of male labor changed little. Such intensification is also due to the growing rate of male migration to find paid employment in cities.

5. Widening gender gap under de-collectivization and privatization

The importance of this issue to gender equality arises from the fact that the old cooperative system, the extent by which men's labour was underpaid, was often more than that of women, and the operation of private market reversed the mechanism. Land concentration for some (more likely men) means little land or landlessness for others. Women's farms on average are half the size of men's, the quality of allocated land is often inferior and they are far more likely to become landless. While the land law itself is officially very equitable, women are often allocated less land than men, and therefore have to work more intensively, due to social and cultural prejudices. When unable to produce enough to meet their subsistence and to pay tax, they are much more likely than men end up transferring their land use rights and becoming waged workers on other farms.

The land use rights certificate often bears the name of the household head, which in practice is usually a man. While officially, the wife is entitled to half in a divorce in any case, in practice, the lack of her name has been shown to cause great difficulties and may be another cause of female landlessness. A recent legislative provision to ensure both names are on the land use right certificates, which is called for by the CPRGS, is an important reform. However, current data indicate that women run small farms while men do the large ones. The number of women having less than 2000 square meters of land is double of that for men, while the number of men having over 18000 square meters of land is three times as many as that of women.

Laborers on farms are more female than male. Women account for 70 percent of the labour force in the informal sector, small household trading enterprises, characterized by "a high degree of fragmentation in the production process with limited training, little coordination, lack of supportive services, irregular working hours and remuneration by piece of work," while control over labour and income is rooted in traditional patriarchal structures. While such household enterprises offer women many avenues for badly needed extra cash, it is difficult to go up the ladder. Men have more choices available to them that include those requires larger capital and more advanced technology.

III.A REVIEW ON LEGAL ISSUES CONCERNING GENDER AND ICT

1. Recent government policies toward gender equality

The Government of Viet Nam is committed to promote the integration of women into the national development process without discrimination. The Constitution of 1992 states that "Female and male citizens are equal in political, social, cultural, economic and family matters" (Article 54) and "Female and male workers and employees who are doing similar work shall be equally paid" (Article 63). Despite the fact that the legal framework depicts gender equality, in practice, cultural norms constrain its full realization in the family, work place and society in general.

The National Committee for the Advancement of Women is the Governmental agency making mechanism for women's and gender issues. The National Plan of Action for the Advancement of Women by the year 2000, signed by the Prime Minister in October 1997, is the national policy on women implemented before 2000. This policy covers eleven critical areas including employment, poverty alleviation and hunger eradication, equal opportunities in education and training, improved health care, the role and position of women in leadership structures and decision making, the protection and promotion of women's rights, the role of the family, the role of women in environmental issues and sustainable development, information and communication activities on equal rights, women's contribution to peace, an enhanced national system of public administration, and protection of the girls.

The current National Strategy for the Advancement of Vietnamese Women to 2010, which was approved by the Government in January 2002, plays a crucial role in the Government's overall framework to achieve and sustain gender equality. The strategy reflects the government's on-going commitments to sustainable and equitable development across all fields. It involves the coordination and support of key line ministries. The Strategy includes five key objectives with various targets in each field to be reached by 2010, which are: 1) labour and employment; 2) education; 3) health care; 4) leadership at all levels in all sectors; 5) capacity of the organization for woman advancement.

There are also other policies of government that aim at protecting women. In the area of financial assistance, for instance, Vietnamese Women's Union (VWU) is an important benevolent intermediary between microfinance organizations and female head of households. There about 50 thousands of for-women microfinance organizations in Viet Nam. Under a program by UNFPA, half million of USD was deposited in the Viet Nam Agriculture Bank (VAB) to provide loans to poor women with out any collateral. Female heads of households, especially those of ethnic minority, are the targets of many other recent poverty reduction programs of the Government. The assistances often involve credits or transfers of knowledge on farming and cattle breeding. In some cases, they help the women purchasing their products. Another pro-women financial measure by the government is the design of social security of Viet Nam, which is the system of annuities. Experts in the area say there is factor favoring female employees in the social security system.

The Government approved the Comprehensive Poverty Reduction and Growth Strategy (CPRGS) in 2002, in which there is a platform for strengthening the monitoring and evaluation gender equality and women empowerment. The major gender-related aspects of the CPRGS include ensuring the names of both husband and wife are on land use right certificates by 2005, increasing the participation of women in all agencies, sectors and enterprises by 3-5 percent by 2010, and establishing a Learning Promotion Fund and set targets for women at different levels in training and disciplines. The CPRGS aims to reduce women's overburden in domestic work through investing in small-scale technologies to serve family needs in clean water and energy, by greatly expanding the kindergarten and nursery school system, and by launching campaigns to propagate and educate about family responsibility sharing.

Following up the adoption of Enterprise Law, in November 2001, the government of Viet Nam issued Decree 90/2001/ND-CP on "Promotion of SMEs' Development". The Decree provides supporting programs for SME development which give the priorities to the women entrepreneurs. Recently, the government in the late 2003 also equalizes the corporate income tax rate for both domestic and foreign invested enterprises, in an attempt to create a competitive business environment in the country. Their corporate income tax shall be reduced equivalent to the cost for women labors.

2. Recent government policies and strategies toward ICT

Information technology

The government of Viet Nam has recognized the risk of being left behind too far from ICT advanced countries, and made a strong commitment to remedy the situation. Back in 1993, the Government's Resolution 49/CP on Information Technology Development in Viet Nam in 1990s and the National Program on Information Technology for 1995-2000 (first Master Plan) which was approved by the Prime Minister in its decision 211/TTg in 1995 outlined the task of building up a firm foundation of the ICT infrastructure and, at the same time, developing an information industry into a leading industry of the economy. The program also focused on major issues such as the IT application in public and other socio-economic management. It set the human resource and infrastructure development targets enabling Viet Nam's ICT to successfully implement projects in this field, and to bring the benefits of this relatively new technology in social and economic movement in the country. Furthermore, the program also called for development of IT industry.

Current national strategy is articulated by the Policy Directive 58-CT/TW of the Communist Party's Politburo in 2000. The purposes of the Directive are to set national priority for accelerating IT and create foundations for establishing policy on the use and development of IT to support the modernization for period 2001-2005. This Directive marks the turning point in IT industry in Viet Nam. Subsequently, a series of legal documents were issued for implementation of the Directive. Of which the most important document is the Prime Minister's Decision 81/2001/TTg in 2001 on ratification of the action plan for realization of the Policy Directive over the period of 2001-2010. It establishes national IT targets for deploying and applying ICTs in four program areas for 2001-2010 to implement the Party Directive 58-CT/TW. To this end, a number of plans and legal documents of the Prime Minister have been issued in the following issues:

- ✍ computerization and automation of government management and administration to improve public service delivery which was approved by the Prime Minister's Decisions 112/2001/QD-TTg and 136/2001/QD-TTg in 2001;

- ✍ approval of National IT Development and Application Master Plan for the Period 2002- 2005 in the Prime Minister's Decision 95/2002/QD-TTg in 2002. A number of IT Master Plans have been developed at ministry and provincial levels to support for the established goals (e.g. MOT for E-commerce, MOET for education and training, MARD for agriculture and rural development, DGPT for telecommunication and Hanoi and Ho Chi Minh Peoples' Committees for public administration);
- ✍ establishment of a National IT Steering Committee and Secretariat based in MOSTE in the Prime Minister's Decision 176/2002/ND-CP in 2002. Its functions are to provide guidelines for implementation of the Party Directive 58-CT/TW and the National IT Master Plan and to explore policy and structural reforms, including one entity to govern ICTs in the future;
- ✍ approval of a Program on IT Human Resource Development to 2010 in the Prime Minister's Decision 331/TTg in 2004. The program provides training on IT development and application in universities and IT management for officials in charge, popularizes computer and Internet skills and knowledge for 100 percent of students in universities, colleges, technical and vocational schools, upper-secondary schools, civil servants and 50 percent of pupils in secondary schools and others;
- ✍ establishment of a Department for IT Application under Ministry of Post and Telecommunications in the Prime Minister's Decision 1120/QD-TTg in 2004 to assist Minister of Post and Telecommunications perform the functions of State management over and organize the implementation of IT application throughout the country.

Major contents of the National IT Development and Application Master Plan (second Master Plan) include: (i) expanding national information infrastructure; (ii) building up the IT-related capacity of Viet Nam's human resource; and (iii) improving the legal and regulatory environment to attract more foreign investment and to facilitate growth of the IT sector. While the overall aim of the Master Plan is to create an environment enabling growth of all IT-related sectors, the biggest motivation of the government remains to

focus on fostering IT industry, which is hoped to become a major earner of foreign currencies to meet the demand of industrialization.

Telecommunication and Internet

There has been an increased movement towards greater liberalization of both telecommunication and Internet services recently, by allowing more service providers including private enterprises to enter the market as well as allowing an increasingly liberalized pricing system for new market entrants since the promulgation of the Governmental Decree 55/2001/ND-CP on Internet and the Prime Minister's Decisions 158/2001/QD-TTg in 2001 on telecommunications development strategy up to 2010 and 33/2002/QD-TTg in 2002 on Internet development plan in 2001 - 2005 period. The Strategy set strategic objectives for the development of the sector, namely: (i) develop the national information infrastructure with advanced technology which has high capacity, high service quality, and nation-wide coverage; (ii) provide a wide range of postal and telecommunications services to satisfy the demand of society. The service charges should be comparable to that of other countries in the region. Services will be provided to both urban & rural areas. By the year 2010, the telephone/Internet penetration rate should reach the average rate of the region; (iii) build the post and telecommunications industry to become a leading sector, contributing an increasing portion to the overall GDP of the country.

The substantial changes on telecommunication policy and market actually happen when the Ordinance on Post and Telecommunications was passed and came into effect in 2002 and the Governmental Decree 160/2004/ND-CP on the implementation of “Ordinance on Post and Telecommunications” was issued in 2004, providing guidelines in details on telecommunications. These make the regulatory framework on telecommunications more transparent and more predictable. The regulation separates policy, regulatory and operational functions, introduces a measure of liberalization, establishes a separate ministry to coordinate the ICT sector, and clarifies the roles of different players already licensed and stipulates provisions for the increased private sector participation in the telecommunications sector.

The Ordinance is relatively liberal and supportive of competition that is one of the policy principles stated in the Strategy. This is elaborated in the Governmental Decree 160/2004/ND-CP in three areas including the definitions of essential facilities and dominant shares, the interconnection regime and the setting of tariffs. The Ordinance also creates the fundamental ICT institutional reform by establishing the Ministry of Post and Telecommunications in 2002 to replace Department General of Posts and Telecommunications. The ministry has main responsibility for developing policies, laws and standards and performing the functions of state management over telecommunications, postal and Internet services, IT, electronics, transmission and broadcast, radio frequencies and national information infrastructure; regulating tariffs and fees; and issuing licenses for all services throughout the country.

As the results, the cost of telecommunications and Internet services is gradually reduced despite this the telecommunication and Internet service provision market remains dominated by Viet Nam Post and Telecommunications - a state-owned enterprise.

Incentives

Regarding to the incentives for foreign and domestic investment in ICT sector, the Government has promulgated a number of legal documents such as Governmental Decree 10/1998/ND-CP, Governmental Resolution 07/2000/NQ-CP, Governmental Decree 51/1999/ND-CP, Prime Minister's Decision 128/2000/QD-TTg, Prime Minister's Decision 19/2001/QD-TTg, Governmental Decree 35/2002/ND-CP and Governmental Decree 164/2003/ND-CP. These investment incentives include highest corporate income tax exemption and reduction, import tax and VAT exemption for imported fixed assets, access to soft loan borrowing and credit guarantee, VAT refund, land rent exemption and reduction etc. Currently foreign and domestic investment in manufacturing computers, software products, ICT and Internet equipment and providing services on IT R&D and human resources training is eligible for these investment incentives.

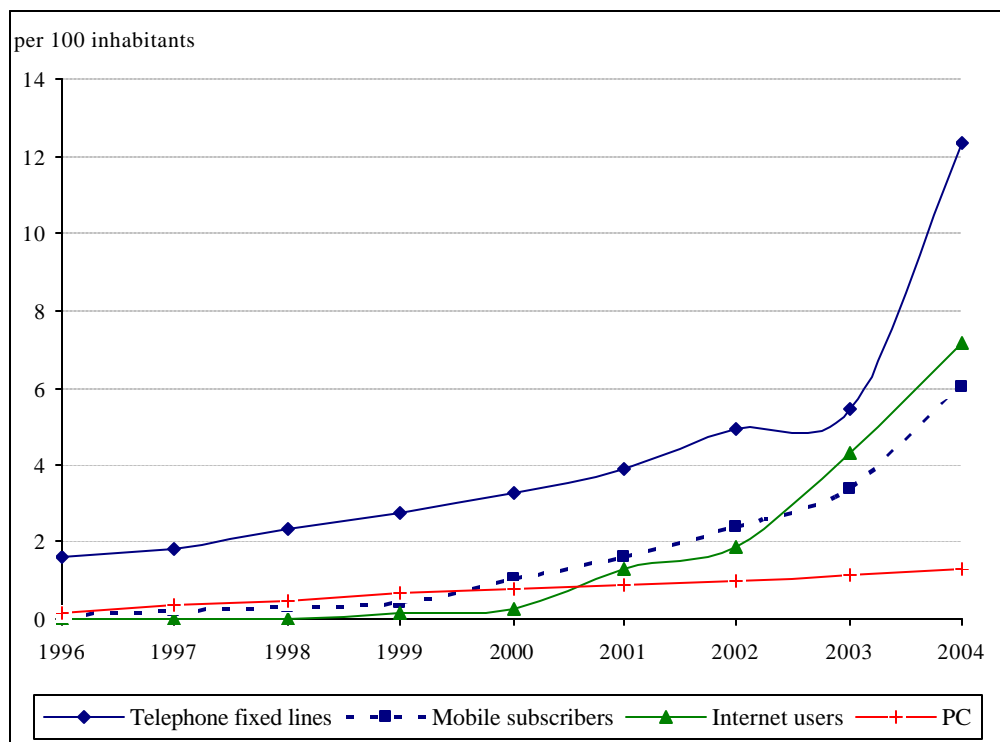
IV. ICT INDUSTRY DEVELOPMENT AND ICT ACCESS

1. Overview of ICT industry development in Viet Nam

ICT Industry in Viet Nam has been growing very rapidly over the last decade, as is indicated in Figure 1. The number of main telephone lines grew from 1.62 per 100

inhabitants in 1996 to 12.34 in 2004, at a compound annual growth rate (CAGR) of 28.9 percent, which is one of the highest in the world. The number of mobile cellular subscribers grew from 0.09 per 100 inhabitants in 1996 to 6.05 in 2004 with a CAGR of 68.2 percent. Computing and the Internet are catching on slowly in Viet Nam as evidenced by the rise in IT users over the past few years. The Internet only came to be in Viet Nam in 1997 and has steadily increased its user base from 1.28 per 100 inhabitants in 2001 to 7.16 in 2004. In 2004 there were one million computers and 1.27 percent of the population owing computers. Although home Internet connections are still slow, at an average connection time of 37 seconds compared to the international average of 10 seconds, many more people gain access to the Internet in a different way.

Figure 1: Densities of selected ICT equipments in Viet Nam



Source: ITU, 2004

There are some important factors that have been contributing to the rapid development of ICT industry in Viet Nam over the last decade namely:

- ✂ GDP per capita increased by over two and half times in two decades of 1985-2004;

- ✍ Viet Nam now has a fairly good physical infrastructure. New and advanced technologies have been recently and quickly adopted. All switching systems have been recently digitized and most telecom services, including new services such as GPRS, VPN, Wi-Fi Internet, etc are now available;
- ✍ Telecom tariffs have been reduced substantially in the last 4 years, and tariffs of many telecom services, especially Internet related services, are now lower than the average level of ASEAN countries;
- ✍ The competition regime is also improving, although at a very measured pace. Following key regulatory changes in the mid-late 1990s the dominant position of the government owned monopoly VNPT has been dismantled to a certain extent by the entry of other state owned players and private sector participation has been allowed in certain markets, notably in value-added services, albeit on a limited basis.

Despite recent developments in the sector, Viet Nam's ICT indicators still lag behind many other countries in the region and it is clearly indicated on Table 1.

Table 1: Selected ICT indicators in ASEAN countries in 2004

	<i>Unit: per 100 inhabitants</i>			
	Telephone fixed lines	Mobile subscribers	Internet users	PCs
Brunei	25.57	40.06	15.30	8.47
Cambodia	0.26	3.52	0.28	0.26
Indonesia	4.49	13.48	6.52	1.36
Lao PDR	1.30	3.53	0.36	0.38
Malaysia	17.87	58.74	39.71	19.70
Myanmar	0.79	0.17	0.12	0.60
Philippines	4.16	39.85	5.32	4.46
Singapore	43.20	89.47	56.12	76.11
Thailand	10.59	44.12	11.25	6.00
Vietnam	12.34	6.05	7.16	1.27
ASEAN average	12.06	29.90	14.21	11.86

Source: ITU, 2005

As a result of the rapid development, the contribution of ICT industry in Viet Nam to GDP increased from 2.3 percent in 2001 to 2.7 percent in 2003. However, the employment that ICT industry creates has been relatively modest. As of 2003, the

number of employees in this industry was as many as 112 thousands. Total capital of the ICT industry increased substantially from USD 2.4 billions in 2001 to USD 3.5 billions in 2003. In the same year, total revenues of ICT industry reached nearly USD 2 billions (See Table 2), which is very high in terms of earning per employee.

Table 2: Selected indicators of ICT industry in Viet Nam, 2001 - 2003

	Unit	2001	2002	2003
ICT industry as % of GDP	%	2.3	2.6	2.7
Number of enterprises	Enterprise	212	338	468
Number of employees	Persons	101493	105648	112362
Total capital	VND bill.	36111	43085	56738
Total turnover	"	18924	22728	30541
Profit before taxes	"	6085	8332	9457
Taxes and fees	"	3590	4244	5281

Source: Real Situation of Enterprises, Surveys in 2002, 2003, and 2004, GSO (2005).

2. ICT access of households

The economy of Viet Nam remains in its low level of development, and ICT of Viet Nam is even more so. Even if in the relatively underdeveloped area of South East region, Viet Nam, together with Cambodia, Laos, and Myanmar, belongs to the bottom half of ICT readiness. According to Viet Nam Household Living Standard Survey of 2002, less than 11 percent of households own telephones and even much lower in some regions such as the North Western, North Eastern, and North Central Coast, where the densities are 4.0, 5.7, and 5.8 per cent respectively. In whole country, slightly over half of households have color TV sets. For computers, less than 2.5 percent of households own them, but they concentrate mostly in urban area. In the rural areas, only 0.43 percent of households have the computers. On the household base, there are five from each thousand households are Internet connected. For the rural households less than four of ten thousand of them are connected to Internet. On such a background (see Table 3) one can not expected the ICT industry to have an important impact on general level of income of Vietnamese.

Table 3: Share of households having different types of ICT assets in 2002

	<i>Unit: percent</i>		
	Total	Area	
		Urban	Rural
Telephone	10.7	32.5	3.7
Video	22.5	46.7	14.7
Color TV	52.7	81.2	43.6
Stereo equipment	5.8	14.6	2.9
Radio/cassette player	27.7	29.0	27.3
Computer	2.4	8.9	0.4

Source: VHLSS 2002, GSO (2004)

3. Gender biases in ICT employees

ICT industry is very attractive industry for employees in terms of wage income. Wage of employees working in the sector in average is much higher than that for employees working in other industries. However there exists a gender wage gap within ICT sector. This will be explored in more details in the next section based on MIMAP-Gender Network Survey. In the telecommunications, there is no gender inequality in employment structure. In 2003 data, nearly half of employees were female. Male workers, however, dominate in labor force of the IT sub-sector, where women only counted for less than one third of total employees in 2003 (Table 4). The gender gap, however, is not just in the representation in the sector. For instance, it depends on which kind of jobs the female employees do in the telecommunications, and how high their wage compared to male counterparts. Those issues will be addressed latter in this paper.

Table 4: ICT employment in Viet Nam, 2001 - 2003

	Unit	2001	2002	2003
Telecom sector				
Number of employees	Persons	98208	100429	105643
Percentage of female employees	%	43.8	42.3	47.4
Average monthly wage income per person	VND thous.	2013	2110	2613
IT sector				
Number of employees	Persons	3285	5219	6719
Average monthly wage income per person	VND thous.	3020	2917	3151
Percentage of female employees	%	29.8	31.2	30.6

Source: GSO, 2005, The Real Situation of Enterprises through the Results of Surveys Conducted in 2002, 2003 and 2004.

V. HAVE THE ICTs BEEN HELPFUL TO NARROW GENDER GAP?

1. Gender gap in incomes with ICT development

One of the important substances in gender gap is in economic aspect. Literature on the gender inequality has widely addressed this issue in all the countries studied. It is the income that makes the most of the way women are in disadvantageous position compared to men in many regions of the world. In this section, we focus on the impact of ICT growth on the change in the economic gap between the male and female employees.

For Viet Nam, the biggest factor for gender inequality is their economic dependence, which is more often partial than full, on their spouses. The poorer a household, the worse is the female spouse treated in the family if her earning power is less than her spouse. Thus, the impact of ICT on the gender equality may work in either of two following ways. First, it is through the overall prosperity of the household; and secondly, it raises the income by the female member comparatively to that of male member. For the first count, the impacts have been very slight in Viet Nam, for ICT has virtually no income effect on poor families. In fact only the fractional group of urban wealthy people has had benefit from information and telecommunications technologies.

a. The impact of ICT development on income of rural women

Most of the poor are in rural areas, and the rural women bear the more hardship of poverty than men, and more gender inequality than urban women. A research on rural poverty in Viet Nam carried out by Le et al. (2004) find that “female factors are found to have associated with poverty. Not only female ratio in households and household head being female increase the incidence of poverty, but also being female, the poverty reduction effect of her participation foreign sector is less significant than that of a male counterpart”. Le et al. (2004) also find that one of factors explaining poverty is the degree of inaccessibility to major centers in general and in information in particular. The effect of the young sector of ICT on the vast rural population has been sparse. It is hoped that ICT can help to reduce market failures, which often borne by farmers with certain disadvantages, many of them are women.

Price fluctuation costs farmer dearly, especially the poor women who are often not knowledgeable of things beyond their job of growing crops. For instances, in response to

the fluctuation in world price of coffee, farmers in Dak-Lak province cut down their coffee trees and that costs them enormously. Likewise, farmers in Dong-Thap-Muoi, not knowing the planning of local land use, switched from growing rice to that of cajuputs (in response to market prices) and then cut down the cajuputs and back to rice, even if their cajuput have not been grown high enough to cover their costs. There are many other examples of how the poor women have become poorer just because of the lack of assistance in the information with necessary for them. Together with the agricultural extension services¹, the availability of ICT can be very helpful in alleviating the market failures in conjunction to the middlemen. In addition, ICT can also help women to improve resource management efficiency in terms of increasing labor productivity, reducing costs and find market for their products. A survey by Ministry of Agriculture and Rural Development (MARD) and UNDP found that many farmers to be completely dependent upon middlemen for commodity price information, which may adversely affect their production and sales choices. Price manipulation by the middlemen is particularly harmful for poor women, who are less knowledgeable of trading.

The MARD has developed a website and information management system to gather both market information and disseminate important crop maintenance information to farmers and provincial Departments for Agriculture and Rural Development. Moreover MARD has linked the information gathered and accessible via their website with print material, a medium often both more trusted and accessible to the majority of farmers and rural populations (UNDP, 2003). In practice, farmers can have access to Internet through their communes' Post and Cultural points. According to the plan of Viet Nam's Post and Telecommunications, by the end of 2005 the number of Post and Culture Centers with Internet-connected computers should have reached four thousands², and that means nearly half of all communes can access to the facility of Internet.

There are also a number of other web facilities to assist SMEs in Viet Nam. The ICT facilities for the SMEs are free of charges, and therefore it is helpful to the poor rural poor. In practice, the benefit of rural Internet provision has been very limited, and the

¹ The government of Viet Nam has been providing this service for over a decade. The purposes of the agricultural extension services include facilitating farmers' access to information or production techniques and market developments.

² Source: www.vnnic.net.vn/thongke, 15 August, 2005

main reason for that is in poor provision of content in Vietnamese, or other local languages. Moreover, the poor women are not necessarily motivated enough to take the advantage of the available ICT without assistance from the staffs of agricultural extension services. The households with male heads may in fact be benefited more from the development of ICT because of the backward tradition, according to which, women work long day and men have some spare times in which they play, read newspapers and do other things. In the modern days, indeed men have more time for having information, including the facility of ICT. Thus, the effect of ICT development on rural poverty is not gender neutral.

In addition to the public utility, the advancement of ICT in Viet Nam has been used with great success by groups and individuals. Business websites have been used for selling agriculture products. For its relatively low costs, web facility may be considered to be available on nondiscriminatory basic. However, the number of business website is currently small in Viet Nam. Data of Viet Nam Internet Center indicate that at the end of August 2004, only 10,362 Vietnamese enterprises registered websites³ for their operations and that means no more than 8 percent of enterprises have taken the advantage of Internet in Viet Nam. The mere ten thousand business websites in a country with population of eighty million is too few.

It is the fact only the high income households have any income effects by the growth of ICT over last three to four decades. At the same time, the problems such as family violence, girl school drop-out, etc., are more likely too happen in the low income households, in which the problems of gender inequality are more severe. For the low income families are at the same time, the material effect of ICT has been insignificant.

b. The gendered impact of ICT development on income within the sector

The growth of ICT affects the demand for women labor in two ways. First, on negative impact, there had been concerns that the higher productivity brought about by computers and modern technologies of communications may have a contracting effect on demand for certain skills that are comparative advantage of women. The practice of over three decades does not support any hypothesis on such demand contraction. Secondly, the

³ Source: Ministry of Finance's Electronic News 30 March 2005

positive impact, which is the creation of employment by the ICT related businesses, was well expected to benefit both men and women. In fact, the enterprises with large employment in information, post and telecommunication are owned by the state and tend to be relatively nice for women in employment. For the whole economy, women occupy only 37 percent of all wage employment⁴, but according to data of Post & Communication Trade Union (2000), they share about half of the Post and Telecommunications labour force. One of the biggest ICT programs in Viet Nam is the government's 'program for computerization'. Thanks to that program, the number of ICT professionals in line ministries at the central and provincial levels tripled over the period 1995-98, in which proportion of female ICT staff increased from 12.6 percent to 16 percent (McDonald, 1999). By all indicators, there is little doubt that the overall effect of ICT development on demand for female labor is positive.

Wage in ICT is relatively high (VND 2,251 thousand for whole sample) and it is also true for women, who average monthly income of VND1,907 thousand). Data of VHLSS 2002, which is a two-year earlier survey, indicate that for the whole economy, the monthly average wage is VND 826 thousand and that of female workers is VND 748 thousand, which are much lower the above corresponding figures⁵. Therefore, an employment in ICT can be a chance to improve economic status for a woman. In that sense, the growth of ICT employment may affect gender equality in Viet Nam and that depends on the way the labor market in this sector functions.

Job security

In market for ICT labor, the clearest disadvantage of Vietnamese women, as a group, is job security. The survey data shows that female ICT employees do not have the same job security as male counterparts, especially in Hanoi, where 54 percent of female employee work on short contracts, while only one third of male counterparts do so (Table 5). Even though most of IT workers are employed full time, the percentage of women having long contracts is lower than that of men (43 percent vs. 62 percent). On the other hand, up to 47 percent of women work on short contracts while only 30 percent of men work on short

⁴ This is calculated based VHLSS 2002 data of sectors other than agriculture, fishery and forestry .

⁵ The rate of inflation in Viet Nam in 2002, 2003, and 2004 are 2.9 percent, 3 percent, and 9.5 percent respectively, so the comparative power remains strong.

ones. Comparatively, the job is more secure for women in Ho Chi Minh City than those in Hanoi as 33 percent of women in Ho Chi Minh City compared with 54 percent in Hanoi hold short-term contracts.

Table 5: Type of work basis in the IT enterprises

Unit: percent

Work basis	Male	Female	Total	Hanoi			HCMC		
				Male	Female	Total	Male	Female	Total
Tenured	8.4	9.8	9.0	7.1	9.6	8.5	9.1	10.3	9.5
Long contract	62.1	43.4	54.0	60.0	36.5	46.5	63.4	56.9	61.5
Short contract	29.5	46.8	37.0	32.9	53.9	45.0	27.5	32.8	29.0

Source: MIMAP-Gender Network survey

Long-term contracts are more likely for male ICT workers and that guarantees job for security of men. While 48 percent of men have contracts with terms longer than a year, but less than 39 percent of women have such type. Majority of male ICT employees in Hanoi have their contracts longer than a year, less than one third of female ICT employees in Ho Chi Minh City have that sort of contracts. For the group of contracts shorter than one year, the gender distribution in Hanoi and Ho Chi Minh City are similar.

The lack of job security has been causing more stress to female IT workers than male counterparts. In Hanoi we find that 59 percent of women in Hanoi compared with 33 percent of women in Ho Chi Minh City felt the threat of getting retrenchment without prior notice (Table 6). However, male IT workers suffered more physical stress and strain than female counterparts when we observe that one-fourth of male IT workers compared with one-eighth of female counterparts had to work on night shifts.

Table 6: Proportion of ICT workers suffering job related stress

Unit: percent

	Male	Female	Total	Hanoi			HCMC		
				Male	Female	Total	Male	Female	Total
Get social security benefit due to job cut	62.9	49.3	57.0	57.5	47.2	51.6	66.7	54.4	63.2
Work on night shifts	25.2	12.7	19.8	21.4	12.2	16.1	27.5	13.8	23.5
Feel the risk of losing job without warning	45.8	50.3	47.8	56.5	59.1	58.0	39.4	32.8	37.5

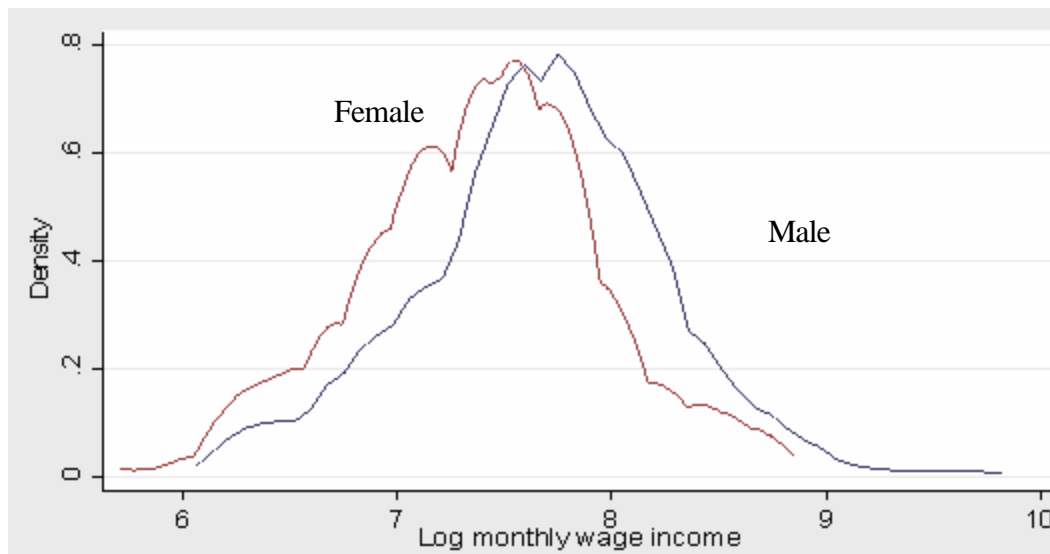
Source: MIMAP-Gender Network survey

Given that law enforcement in Viet Nam has been weak, particularly the low effectiveness of judicial system in protection employees, the lack of job security, especially in Hanoi, may bring about work pressure or stress for women. They feel fear of being easily pushed out of employment, whenever business condition deteriorates. Thus, with respect to job security, the sector of ICT does not seem to improve gender equality in labor market.

Wages and Allowances

As mentioned earlier, ICT is a high paid industry and it is true in Viet Nam. In addition, salary of women in this sector in average is higher than that for women working in other industries. However there exists a gender wage gap within ICT sector. ICT employees, especially females, faced poor care from their employers. Like it found in previous studies (McDonald 1999, UNDP 2003a), the data MIMAP-Gender Network survey indicates that women are more concentrated in low levels of remuneration compared to men, and it is clearly demonstrated in Figure 2.

Figure 2: Kernel density estimate of monthly wage income of IT workers by sex



Source: MIMAP-Gender Network survey

More specifically, Over half (54 percent) of female ICT employees make each VND 2 millions⁶ per month or less, while 64 percent of male counterparts make VND 2 millions per month or more (Table 7). Overall, more than one third of male ICT employees make

⁶ At the exchange rate of the end of 2002, VND 2 millions is equivalent to USD150.

VND 3 millions per month or more, but less than 14 percent of female counterparts do so. The fraction of very high income male ICT employees in Hanoi is relatively small, and one of the reasons is that many ICT enterprises in Hanoi belong to State ownership.

Table 7: Distribution of monthly income of IT workers by sex and location

Unit: percent

Remuneration in VND mil.	Male	Female	Total	Hanoi			HCMC		
				Male	Female	Total	Male	Female	Total
Below 1	6.6	14.4	10.0	12.9	20.9	17.5	2.8	1.7	2.5
1 to 2	30.0	39.3	34.0	52.9	43.5	47.5	16.2	31.0	20.5
2 to 3	30.0	32.4	31.0	23.5	30.4	27.5	33.8	36.2	34.5
3 to 4	20.3	6.4	14.3	8.2	1.7	4.5	27.5	15.5	24.0
Above 4	13.2	7.5	10.7	2.4	3.5	3.0	19.7	15.5	18.5

Source: MIMAP-Gender Network survey

In this industry, the employees' trainings or background are essential in wages and therefore are part of gender gap. The average monthly income of male ICT workers was 1.32 time higher than that of female counterparts (see Table 8). For the whole economy the ratio of salaries of male employees is 1.17, and that means the gender inequality in ICT wage is even worse than that in general economy. For comparative skill, if one takes the gender ratio for the class of medium grade technicians⁷, the ratio is 1.23 is higher than that of general workers, but still lower than that for ICT workers. Further, looking at the salary of the group of high grade technicians⁸ and one comes up with the ratio of 1.26, which is lower than that of ICT. It suggests that ICT wage has not facilitated gender equality.

Table 8: Monthly average income of IT employees with college or higher education

Unit: thousand of VND, except Male/Female wage ratio

Average wage	Male (1)	Female (2)	Total	Gender Gap (1/2)
ICT stream	2,674	1,969	2,448	1.36
Non-ICT stream	2,140	1,867	1,967	1.15
Sample Total	2,512	1,907	2,251	1.32

Source: MIMAP-Gender Network survey

While the gendered difference in ICT wage is clear and so is gender inequality, it needs not be a fact of discrimination. Part of the disadvantage of female employees is in

⁷ *Source: VHLSS 2002*

⁸ *Source: VHLSS 2002*

conjunction to the non-IT major in schooling of many. In general, the average monthly income of IT workers with ICT related major was 1.25 times higher than that of IT workers without ICT related major (Table 8). It is important to note that the gendered wage gap was strongest for those with IT major in their education.

Other than wages, the survey found that ICT employees do not receive very good fringe benefits. In fact, up to one third of them do not receive social security and health insurance. For the short contract workers, 45 percent of them do not receive any social security and health insurance. Furthermore, 55 percent of the employees working for private ICT enterprises do not receive any social security or health insurance. Likewise, more than 30 percent of women reported they are not provided adequate maternity leave in general. The situation is more severe for female workers in Ho Chi Minh City, where the proportions of women benefited from social security, health insurance and maternity leave are 63.8 percent, 63.8 percent, and 39.0 percent, respectively. While it is hard to judge the gender equality on the ground of these benefits, it is clear that the special needs of women are not met.

Even though the ICT was expected to bring about better gender equality in income, it has not. The average salary of women is clearly lower than that of men in this sector, and the income gender gap in this industry has been even higher than that in the economy. There are many reasons for that, and one of them is the gender difference in occupation in the ICT enterprises.

c. Gendered difference in positions in the ICT enterprises

For a number of reasons, including prejudices against them, it is harder for women to get high paid job in ICT industry. Prejudices include the unfair view on traditional role of women, the myth of their technical/managerial incompetence, and others. Clearly, fewer women are employed in ICT sector than men are. Data of Population Census of 1999 reveals that the representation of women in private and foreign ICT enterprises is even worse than the overall, and that is partly because state owned ICT enterprises are relatively more in favor female employees. Moreover, as Table 9 shows that the ratios of women representation are relatively higher in software or data processing than in

hardware, and their representation is lowest in “Other” category, which include high paid functions such as management and designing.

Table 9: Number of employees in computers

Unit: person, except (1)/(2)

	Total	Hardware	Software	Data processing	Other⁹
Males (1)	2,684	137	724	166	1,657
Female (2)	1,154	55	326	137	636
(1)/(2)	0.43	0.40	0.45	0.83	0.38

Source: Population Census 1999

The division of labor in ICT enterprises in Hanoi and Ho Chi Minh City is demonstrated on Table 10. Given their under-representation in the industry, there are even fewer women in position of management. Female employees are more likely than men being in low paid position. The situation remains the same after controlling for qualification. That is, when consider only the employees with bachelor degrees (and not higher), the story remains the same. Directly, 19 percent of the sample felt that ICT women were mostly employed in the low skilled and low wage jobs. This is consistent with the findings in UNDP (2003).

Table 10: Designation of ICT employees

Unit: percent

Positions	Male	Female
Division (or higher) management	9.7	7.5
Group heads	8.8	4.6
Regular employee	81.5	87.9
Total	100	100

Source: MIMAP-Gender Network survey

Having professional education is an important benefit for employees and the selection of candidates for training tells the expectation of employers about the future contribution of the candidates. That may reflect the management attitude toward women and therefore gender sensitive. For its feature, there exists constant demand for learning in ICT sector and it is an important factor for career advancement of the sector employees. The survey

⁹ This category includes works related to databases, repairing computers, etc.

data shows that, up to 39 percent of female ICT workers (40 percent in Ha Noi and 37 percent in Ho Chi Minh City) think men have more opportunities than women.

Even though only few women (5 percent) have mentioned of any discrimination in their organization, some of them (30 percent of female employees), however, think there exist obstacles to promoting women. Nearly a half of female employees say they would have problem if they would work on night shifts. Moreover, women have more family responsibilities and they are not willing to sacrifice family happiness. In fact, only 31 percent would accept a promotion conditional on movement to another place, leaving their family behind. Likewise, about 30 percent disagree with the assumption that ICT-related jobs are better for women compared to other kinds of jobs (Table 11).

There is a strong gender prejudice in Viet Nam regarding particularly technical issues. According to the baseless prejudgment, men are more technically competent than women in general and in the ICT industry, in particular. In practice, women are often hired for sales, marketing and some administrative positions within the ICT industry, even when they have the same qualifications as men in software, hardware and other ICT areas. A study by the Viet Nam-Canada Information Technology Project (VCIT) in 1998 described the situation as “men enjoying stable jobs and handsome salaries while women had to work long hours for low incomes. Most men were university graduates while most of women hold only high school degrees” (McDonald, 1998).

Table 11: Work environment in perception of female IT employees

	<i>Unit: percent</i>		
Response: Yes	Hanoi	HCMC	Total
Men get more opportunity of training than women	40.4	36.8	39.2
Exists gender discrimination in the organization	4.4	5.3	4.7
There are delays and barriers in promotion of women	26.3	36.8	29.8
ICT-related jobs are better for women than other kinds of jobs	8.8	3.5	7.0
In this profession, women are mostly employed in the low skilled and low wage jobs	24.8	7.0	18.8
Accept a promotion in condition of movement to a another place leaving one’s family behind	30.0	33.3	31.1
Have problem with one’s parents/ family members, if working on night shifts	43.9	60.7	49.4

Source: MIMAP-Gender Network survey

ICT has obviously created many economic opportunity for both male and women, but has not been proven to narrow gender gap in Viet Nam with respect to income. The prior gender inequality plays its role in the ICT labor market and work environment and that perpetuates the gender inequality. One of the factors that connect the past disadvantage of women to that in ICT is their education attainments, which is a form of investment by their parents.

2. ICT and education attainment of women

In this section, we look at dual connections between women education and ICT sector. The first is how women education attainment affects their position in the industry. Secondly, how ICT has facilitated women learning. In either aspect, we try to shed light on gender equality.

a. Education: the cause and the consequences of gender gap

For majority of its employees, to have positions in the ICT industry, it depends on decision one made in the past, even before taking their courses related to this field. Moreover, it often requires substantial education and that is in fact, sizable investment in human capital and in that sense, gender is a factor in such decisions of young people's families. In whole country, as reflected in VHLSS 2002, girls have not been given the same education as boys have (Table 12). Moreover, women are concentrated mostly in social disciplines, such as pedagogy and social sciences, and account for about 70 percent of all students in these fields. Men are more concentrated in sciences and technologies. In engineering and electric technicians, men count for over 70 percent of all students (UNDP 2003).

Table 12: Highest degrees by sexes

Unit: percent

	Non-degree	Primary	Lower Secondary	Upper Secondary	Higher
Male	21.8	27.3	29.5	12.0	9.3
Female	32.8	25.6	25.8	9.4	6.5

Source: VHLSS 2002

Other evidence of gender bias in career selecting can be found in Population Census 1999, which shows that only 40 percent of 24 thousand people engaging in natural

science research are women. At the same time, women count for 44 percent of total researchers in social sciences and humanity. Data in MIMAP-Gender survey is consistent with the finding in the report by UNDP (2003) that “the education gap between men and women in Viet Nam is reducing.” In fact, today girls in Hanoi and Ho Chi Minh City do not suffer from gender discrimination by their parents. Some 81 percent of parents said that they would not make any difference in educating a boy and a girl, while only 19 percent said they would. And 95 percent of parents said that they would not differentiate between their son and daughter in terms of technical/computer education, while only 5 percent say they would.

The survey shows that educational levels of both male and female ICT employees are high, as 90 percent are college graduates and 5 percent are with post-graduate degrees. Among these, IT and Telecommunications degrees constitute 64 percent. However, the percentage of women with such degrees (47 percent) is much lower than that of men (77 percent). A similar disparity is easily recognized in Hanoi and Ho Chi Minh City. Thus, there exists certain disadvantage of women right at the beginning of their carrier in ICT. The ICT degree gender gap, together with the mismatch between their education majors and the real jobs could hinder the female participation in this profession and their likelihood in moving up the career ladder.

b. Role of ICT for education and learning

For girls and women in Viet Nam, mobility and access to public places, in many cases, are not free of drawback unlike it is for boys and men. In such a context, the advantage of ICTs is that they can deliver education content to the doorstep. Another advantage of ICTs is in possible low cost to learners. Potentially, with the application of ICTs, government can create more flexible learning environments for the poor learners, including women. From remote communes, women can access to valuable knowledge relevant to their farming or other businesses. In fact, ICTs are widely used by VTV, the MARD and international agencies such as World Bank, UNDP, and others to bring lessons to Vietnamese people, including rural women, who have less alternative means of learning than other parts of population.

The enabling role of ICT is mostly in informal education that is more of transmission of popular knowledge than the instruction of basic education. The effect of Internet on education has been very narrow, not only because of limited accessibility in IT infrastructure, but also because of insufficiency and shallowness of the contents it conveys. For instance, there has been much of debate of the advantage of distance learning, but few of such programs gone further than experimental stages. Educational effect of television, and radio in some extent, has been more powerful than that of Internet. There are many examples of teaching programs targeting women using ICT facility. One of such is the Radio program teaching Business for women of Cham minority in Binh Thuan province (VTV, 12 August, 2005).

Over last two decades, the young and the grown up people in Viet Nam made a colossal progress in learning foreign languages, mostly English, which is very few spoke before the Doi Moi. VTVs and the Voice of Viet Nam (the central radio station) have made a major contribution to the development of English learning population of Viet Nam. For majority of women, this form of education is important because private education in English has been too expensive for them. The programs for teaching French, Russian, and Chinese on VTV have been also very well received in the wide community of learners.

In the system of education of Viet Nam, there are national exams which, in most of the cases, determine future careers of pupils. It is commonly believed that in order to boost their chance of success in such exams, the pupils have often to take extra curriculum classes, which are both resource and time consuming. Even the society has denounced the practice of demand for such extra curriculum classes they have been there long enough. The existence of the extra curriculum classes that serve the only purpose of passing the national exams unfairly create disadvantage for the pupils of low income, who have certain duty in income generation or doing home chores. In particular, girls have less chance to take that kind of extra curriculum classes, not only because they have heavier chore duties, but also because their parents more willing to sacrifice their daughters' extra education for earnings or housework. The Science-Education Channel of VTV2 provides its regular programs that are helpful for girls or children of low income families and therefore makes it fairer for the competition for their careers.

In Viet Nam, TV has been the most effective tools of all ICTs in their functions of enabling education. For a number of reasons, such as shortage of IT infrastructure, inadequate teaching personnel or resources, the applications of ICT in regular schools have been relatively simple and therefore not effective enough to have impact on gender equality. Overall, main merit of ICT for education, and therefore on gender equality has been in conjunction to dissemination of popular knowledge and teaching foreign languages. However, for the large demand of service workers with foreign language in the emerging market of Viet Nam, it helps many young women to have job with decent wage in foreign enterprises.

3. ICT and the social and political empowerment of women

The effect of ICT development on income of women has been weak, except that on the income of those within the industry, which is relatively small in terms of employment share in the economy. Likewise, the high potential of the facilitating power of ICT on educational attainment of women has been far from fully realized. Other than the way it works through income and education, the applications of ICT have wide social effects on people's attitudes toward gender inequality. The impacts on people's attitudes need not be mostly direct, and are often diverse in nature.

a. ICT as network and advocacy for gender equality

The legacy of the feudal society has not gone completely, it remains at least in the attitudes of parents and the in-laws toward girls and women. According to the views, what is most important to girls is to become happy wives and mothers, for whom, many social connections do more harm than good. It discourages girls from active participation in social activities. Even though the gap has been much narrowed compared to that under the feudalism, it is the fact that men and boys are socialized more than girls and women, and obviously, male members utilize more social capital than female members in general. The advantage in networking often is a factor for one's chance of getting a job or being promoted in one's organization.

Other than the backward way of thinking on how the girls have to behave differently from boys, there are other reasons for family members discouraging girls from being active in society, such as safety as well as limitation of leisure time because girls often

have heavy load of chores at home. A survey conducted in Ho Chi Minh City found that urban women spend almost six hours on housework a day and men spend 1.5 hours a day; in rural areas women spend 7.5 hours and men a mere 30 minutes¹⁰. It is reasonable expected that, rural women suffer even more inequality in this respect.

Table 13: Network ability of IT workers: “Are males network better than females?”

	Unit: percent								
	Male	Female	Total	Hanoi			HCM City		
				Male	Female	Total	Male	Female	Total
Yes	32.2	33.5	32.7	35.3	40.0	38.0	30.3	20.7	27.5
No	10.6	10.4	10.5	10.6	13.9	12.5	10.6	3.4	8.5
The same	57.3	56.1	56.8	54.1	46.1	79.5	59.1	75.9	64.0

Source: MIMAP-Gender Network survey

Internet makes it possible for women to socialize without having to go out at night. It allows girls and women overcome problem of distance and time. In fact, for the people within the industry, the gap is not very clear. Majority, except for the sub-sample of female workers in Hanoi, say that male and female employees have the same ability of networking. In no sub-sample the answers “yes” count for majority (see Table 13), and this is a good indication of strong networking capability of people within ICTs.

b. ICTs as amplifiers of women’s voices and perspectives

Even if the legal system of Viet Nam is relatively good with regard to gender equality, women themselves, especially those in rural and isolated areas, need not be fully aware of their rights. TV system, with its wide access, have actually let them know of basic rights, including women rights and the sense of how more liberal they can be toward authority, many of whom had been undemocratic to them. In fact, many women have not been able to take advantage of the greater democracy brought about by the “Doi Moi”, and mass media is helpful in that regard.

The high level organizations of public administration are good protectors of women, and generally better than private sectors. Mass media is often the enemies of wrong doers against feminists and women. Given that poor women are the most frequent victims of wrong doers of all kinds, from sexual and violent abuses to political and economical

¹⁰ *Source:* Viet Nam News, January 30, 1999

unfair treatment, the availability of ICTs with relatively low cost for reporting to high office is a new link to authority and is therefore a power enhancer for women. For instance, in Viet Nam, land belongs to the State, and local authorities give lands to farmers for cultivation and collect rents for the State. As the usage and productivity of land vary, so do the rents. In practice, local officers have substantial arbitrariness over land distribution and rates of rents. Mass media have reported many cases unfair tax duties in conjunctions to the arbitrariness and the people with low education and little connections are often the victims in such unfair cases, which present the tip of the iceberg. The TVs, Internet news have been crucial for uncovering many of such cases.

A big part of discrimination against women takes place in their houses, but ICTs can still have an impact. There are websites that provide interactive resources about domestic violence and let the media to share information, preventing further domestic violence. Not only the ICTs let the women know fuller what they are entitled, but also provide channels for getting help. ICTs improve access to justice and public administration, and build up capacity to deliver basic services, including those protecting women, and therefore made up certain political power for poor women.

c. Other effects of ICT on powering women

One of the other major impacts of ICT on gender equality is that on the family planning. Even though it is an indirect impact, but it is significant, at least in urban areas. ICTs have certainly been part of the success of the campaign for population control, which in turn made progress in gender equality. The impact of the population control on gender gap works in two channels. First, on current generation of mothers, for whom fewer children means to have less burdens and more leisure time and that allow the women to enjoy their lives as well as study. Secondly, on the future generation that is most of families would have one or two children at the result of the campaign. When the families have fewer children, the parents are less likely to discriminate against their daughters as all the children are better taken care of. Moreover, smaller size of family means the income per member to increase, and therefore there will be less reason for parents to keep their daughters out of schools because of the cost of education. This effect has been relatively clearly observed in urban areas, but less so in rural areas.

As discussed above, disadvantage of women has little to do with Viet Nam's legal system. In stead, it is mostly in people behavior. The men attitudes toward women have changed for a number of reasons, including the social development created by the Open Door policy. Through TVs and Internet, men get access to information from other countries. Whether one likes it or not, the good things will be learned gradually. Our survey data indicate that there have been changes (see Table 14).

Table 14: Male household heads' perception on gendered changes

Unit: percent

	Hanoi	HCMC	Urban	Suburb	Total
Things changed in the present generation	87.5	76.4	77.3	90.4	81.8
Attitudes changed	81.7	70.6	72.9	82.2	76.1

Source: MIMAP-Gender Network survey

VI. CONCLUDING REMARKS AND RECOMMENDATIONS

Gender inequality existed for many centuries and needed not have a trend. The gradual spreading of the Confucianism brought about a long lasting influence to role of women in society and in families. In fact, when the feudal state adopted the Confucian teaching as orthodox ideology, many discriminatory norms against women became institutionalized. French colonialism brought in the ideas of liberty and equality that might have had favorable impact on life of a fraction of elite women and girls, but the liberty and equity become realized for mass only after the colonialism had gone. The status of women in society and in families was improved as the socialism took power in this country. Even if the advent of market economy benefited Vietnamese women in absolute terms, the market competition has not improved gender gap.

The decisions influencing the gender equality can be made in either household or society level. How big the gender gap is depends on the qualification of decision makers. For instance, the education attainment, attitude toward democracy of the decision makers in general can be a measure of support for women advancement. Policy makers of a large organization are typically elected (or nominated) in certain criteria, which are often pro-gender equality. Not all households have such gender friendly leadership, especially

those with male household heads, who have limited education and is possibly egoistic. The evidence of possible of contradiction between the state and household purposes is the Land Law's article that requires land titling for both spouses. Thus, for certain gender issues, a shift of power to households may be negative.

Even though the focus of this study is narrow for the major findings concern mostly two biggest cities and one sector, the implications need not be meaningful for those areas only. As the ICTs will be more substantially used in other sectors and in other cities and provinces, where more industrialization take place sooner or later, while the incomes of people in other provinces approach those in the biggest cities, and all that make the gendered impacts of ICT in the provinces to resemble those observed in this study.

Gender bias has rooted deeply in people minds and to alleviate it, policy has to approach private sector. The promotion of ICT development can be an effective tool, at least as means for propaganda for gender equality. TV and radio broadcasts, and the Internet in some extent, have been doing good jobs in favor women. Those are, however, have not covered the larger part of rural areas, and therefore, it is essential to bring more TVs, and radio equipments to villages. The more advanced means of Internet may have to be public good to reach rural women. In order to take fuller advantage of the Internet, it is not enough to provide the internet-connected computers to commune Post-culture centers. The government or civil-society organizations have to assist in production of contents in local languages that meet the needs of rural people.

Private funding for education has not been gender neutral, and that has been a factor for women disadvantage in careers. The government has to make public education accessible for girls, especially those in poor families. To remedy the prejudice against female members, the government subsidy for education may have to be biased in favor girls, for instance, reduced tuition or increased fellowship funds for girl to help those from low income families. Moreover, incentives should be provided to encourage girls take more of the sciences and technology subjects that may help them to boost their chances in ICT and other modern branches of economy.

IT education in schools has been limited, and the government recognizes that current teaching resource and computers in schools fail to meet the demand of the government

strategy for ICT development of Viet Nam. The problem can not be solved quickly because the higher institutions, which are supposed to produce IT teachers for schools, have the same problem that is shortage of resources. The government has to spend higher budget share on training, most likely by sending students to study in foreign universities. Moreover, a number of measures have to be taken so that the foreign trainees have enough incentive to return to serve in Viet Nam.

Even if the legal system of Viet Nam is pro-women, there are issues that can be improved. Two major pieces related to feminism belong to the Land Law and the Labor Code. The former one contains the regulation that both spouses have their names in the couples' Land Use Certificates. For many poor households, land ownership is the only major asset and is therefore important for gender equality in the households. This regulation has been far from fully enforced, and it is desirable to have it implemented thoroughly.

Labor market in Viet Nam has not functioning well enough, in the sense that employees are often in such a position that unable to claim the benefits they entitled by Labor Code. It remains much to do to reinforce the regulations of the Labor Code especially in private enterprises. In particular, the minimal intervention of the authorities should be aimed at the protection of the interests of female employees, making sure that they are treated as well, not only in terms of monetary benefits, but also in their opportunity for further education and career advancement. In addition, they should get the benefits applied to female only, as it required by the Labor Code.

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