SEAPAT WORKING PAPER
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Sri Moertiningsih Adioetomo
Dwini Handayani
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with the assistance of
Naoko Otobe

South-East Asia and the Pacific Multidisciplinary Advisory Team
INTERNATIONAL LABOUR OFFICE MANILA

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Foreword

This is a working paper of the ILO's South-East Asia and the Pacific Multidisciplinary Advisory Team (SEAPAT). SEAPAT's functions include: (i) advisory services to governments, employers' and workers' organizations on policies and technical issues within the ILO mandate; (ii) assistance in the preparation and updating of country strategies in the labour field; (iii) assistance to constituents, in the design, implementation, monitoring and evaluation of programmes and projects; and (iv) collection and dissemination of information and facilitating the exchange of national experiences through analytical studies, reports, etc.

This SEAPAT Working Paper No. 6 on *Gender dimensions of the economic crisis and employment in urban informal and rural sectors of Indonesia*, combines two of the technical papers presented during the *National workshop on promoting employment with gender equality in the context of globalization: Economic crisis, gender and employment*, organized in Jakarta in August 1999 by the ILO in close collaboration with the Ministry of Manpower in Indonesia.

In the face of the recent Asian economic and financial crisis, there has been increasing concern that women workers may be disproportionately affected by the downturn in Indonesia. However, the nature of the impact and changes that have been occurring in the country have required specific and in-depth gender-differentiated impact assessments on employment and economic opportunities in various sectors. The relevant issues have also needed review in the context of increasing external competition and economic and technological globalization that the country now finds itself in. This paper, therefore, was commissioned to specifically analyse the gender dimensions of the economic crisis on employment and economic opportunities in both the urban informal and rural sectors in Indonesia.

Globalization, defined as increasing economic, financial and technological integration of the national economies, has been affecting many countries in the world, and the recent Asian economic and financial crisis has been seen as a negative consequence of this process. When economies undergo downturns, it has been observed in many instances that women tend to experience more of the negative socio-economic consequences than men. This paper, therefore, aims to examine the specific gender dimensions of the impact of the economic crisis and to analyse various effects of changing economic factors on employment of both men and women workers in the urban informal and rural sectors. This is because it is believed that both these sectors have functioned as "cushions" to absorb retrenched workers from the formal sector.

This paper was prepared by a team of researchers from the Demographic Institute, Faculty of Economics of the University of Indonesia, in Jakarta under the technical guidance of Ms. Naoko Otobe, Economist and Gender Technical Specialist of SEAPAT, who conceived the basic ideas of the research, and was involved in the finalization of the paper for publication at different stages. Thanks also go to Ms. Heidi Velasquez who assisted in typing all the editorial changes in the text.

W. R Böhning
Director
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April 2000

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Dr. Sri Moertiningsih Adioetomo, Director, Demographic Institute, Faculty of Economics, University of Indonesia has coordinated the research on "Gender dimensions of the impact of the economic crisis on employment in the urban informal sector", and Ms. Dwini Handayani, Economist, and Mr. Nurhadi Wiyono, Demographer, also made contributions to this research paper. Mr. Hendranto, Computer expert assisted in processing research data, while the following team also worked as research assistants: Ms. Elda L. Padede, Economist, Ms. Fitria Fitriani, Economist and Ms. Damayanti, Economist.

Dr. Hatmadji, Assistant Director, Demographic Institute, Faculty of Economics, University of Indonesia coordinated the research on "Gender dimensions of the impact of economic crisis on employment in the rural sector.

Mr. Jonathan Aspin, ILO Consultant edited the paper for English and style.

List of acronyms and glossary

ABRI	Armed Forces
ASEAN	Association of Southeast Asian Nations
Arit	Sickle
BRI	Bank Rakyat Indonesia
Buruh tani	Farm worker
Cangkul	Hoe
CBS	Central Bureau of Statistics
Dinas Pertunian	Regional Office of the Ministry of Agriculture
Ember	Bucket
FGD	Focus group discussion
FLFPR	Female labour force participation rate
FSLF	Female share of the labour force
Glempang	A tool to make a straight line or small dike in the rice field
Gotong-Royong	Solidarity
GDP	Gross domestic product
Gaji	Wage
Ijon	A person who buys agricultural output before the harvest
Jurugan	Owner-Manager of their farms
Kabupaten	District
Kecamatan	Sub-district
Kelompok tani	Farmers' group
Kepala desa /kepala dusum	Village Head
Kelompok tani	Farmers' group
Koperasi unit desa (KUD)	Village unit cooperative
Koret	Rubber tapping knife
Kredit Usaha Tani (KUT)	Credit for farm business
Kelompok Arisan	Money lender
Kelompok wanita tani (KWT)	Women farmers' group
Kuli	Farm labourer
LFPR	Labour force participation rate
Lohor	Lunch-time or nap-time
MLFPR	Male labour force participation rate
Ojek	Motored pedicab
Opak	Food processing works
Opak Singkong	Home-industry foods
Padi Sawah	Wetland Paddy
Palawija	Secondary plants/ i.e. onion
Pasar Sentral Bawang	Special market for red onion
Pasaran	Market day
Pegawai/Negeri/Guru	Government Employee/Teacher
Pedagang Kecil	Small-scale vendors
Penebas	Wholesale buyer
Penyuluhan	Information and Education
Persaudaraan	Sisterhood
Petani Kecil	Small farmers
Petugas penyuluh lapangan	Agricultural field worker

Propinsi	Province
Pungutan liar	Contributions
Praktek Kerja Lapangan (PKL)	Field work practice
Sakernas	National Labour Force Survey
Swasembadaberas	Hulled-rice (main food of Indonesians)
SLTP	Junior high school
SSN	Social Safety Nets
Tanaman tahunan	Perennial plants
Tengkulak	Wholesaler
Tukang becak	Tricycle driver
Tukang ojek	Motorcycle driver
Warung kecil	Small stalls
Warung makanan	Food vendors or vegetable sellers
Warung	At home

I. Introduction and background

by: Naoko Otobe

1. Introduction

This SEAPAT Working Paper combines two of the studies prepared for the national tripartite workshop on promoting employment with gender equality in the context of globalization, organized in August 1999 in Jakarta with ILO support in collaboration with the Ministry of Manpower (DEPNAKER).

In the face of the recent Asian economic crisis, there has been increasing concern that women workers may be disproportionately affected by the downturn in Indonesia. However, the nature of the impact and changes that have been occurring in the country required specific and in-depth gender-differentiated impact assessment on employment and economic opportunities in various sectors. The relevant issues also needed to be reviewed in the context of increasing external competition, and economic and technological globalization. The workshop participants included representatives from various government ministries, employers' and workers' organizations, NGOs, donors and UN agencies, as well as experts.

The specific objectives of the workshop were as follows:

(a) raise awareness of government policy-makers, employers' and workers' organizations on the gender-differentiated impact of globalization on employment with particular attention to the economic crisis, so as to integrate a gender dimension into the overall macro and sectoral development policies geared towards employment promotion; and

(b) make concrete recommendations on the priority areas for action in terms of policy and legislative reforms, strategy, programmes and projects for various sectors to promote employment with gender equality through tripartite consultation.

The above-mentioned two studies were commissioned to assess the gender-specific changes in employment and income opportunities in both urban informal and rural sectors, in order to gather more empirical data with a view to facilitating discussions during the workshop.

2. Indonesia in economic crisis

The increasing vulnerability of countries to external economic and financial factors affecting their economic stability and well-being has become one of the major concerns in South-east and East Asia in recent times. After decades of high growth (6-7 per cent a year) the recent economic crisis, triggered by the financial crisis in the region, deeply affected Indonesia: GDP shrank by more than 13 per cent in 1998. The rupiah plunged in value by more than 80 per cent against the US dollar, and the rate of inflation was in double digits for a year or more. Furthermore, El Nino affected agricultural production, and international oil prices registered a sharp decline. After the riots in mid-May 1998, both capital and entrepreneurs fled the country. While there seems to be a small sign of recovery in the export sector, at the time of writing this paper the economic crisis had yet to bottom out.

An additional factor is increasing international competition - in particular in labour-intensive manufacturing industries such as textiles, garments, footwear and electronics - which pushes multinational companies to relocate their production sites to more competitive economies where labour and other costs are lower. The industries in Indonesia are therefore also subject to increasing competition from other countries in the region. Evidence shows that companies are increasingly resorting to subcontracting to cut production costs and hire, in particular, women homeworkers. However, the full extent is not known, owing to a lack of data. On the one hand, the crisis has accelerated the speed of industrial restructuring and adversely affected those industries which are most exposed to foreign exchange risks in the globalization process; on the other hand, those sectors directed to exports are doing better than those oriented towards the domestic market. The question, therefore, is where women workers were, in terms of opportunities and risks, in the overall transition of the Indonesian economy.

The ILO's report on *Employment Challenges of the Indonesian Economic Crisis* points out that, although it appears that the country's recent crisis was primarily caused by financial or debt-related factors, it had deeper roots in the country's economic structure and political situation. First, structural rigidities, arising from regulations in domestic trade and import restrictions, impeded economic efficiency and competitiveness. Second, the gradual devaluation of the rupiah by an average of 5 per cent against the US dollar a year, compared with a local inflation rate in the order of 10 per cent a year, resulted in an overvalued local currency, making imports expensive and exports cheaper on the international market. The country recorded a high growth rate of 15 per cent a year between 1986 and 1993, but export growth declined to 8 per cent a year thereafter, in particular in textiles, garments and other traditional exports. The relatively poor performance of exports contributed to a decline in GDP growth from nearly 8 per cent in 1996 to below 6 per cent in the second quarter of 1997 (ILO, 1998).

Owing to the recent economic and financial crisis, the prices of basic commodities such as cooking oil and rice shot up and availability itself also became a severe problem. The agricultural sector, in particular the subsistence sector, suffered the most from high inflation as well as from the general distribution constraints of fertilizer and other agricultural inputs, while export-oriented agriculture, especially the export-oriented plantation sector, seems to be doing well. The impact of El Niño also had a negative affect on agricultural production in general in 1997, in particular on rice production, which is likely to have aggravated the social tension in the country. However, the net producers of rice may have benefited from the price increase in rice. The overall implications of the various changing economic parameters on the agricultural sector have needed, therefore, a gender-disaggregated assessment in terms of their impact on income and employment opportunities. During the economic crisis, the overall share of rural sector employment increased for both women and men, indicating an increased role of this sector as a social safety net. Similarly, those who were retrenched were presumably also absorbed into the already overcrowded urban informal sector. Therefore, it was essential to analyse the impact of the economic crisis on employment and economic opportunities, from a specific gender perspective in these two sectors.

3. Women workers in Indonesia

Women workers make substantial contributions to the Indonesian economy through relatively high labour force participation in all sectors, but in particular in export-oriented and labour-intensive manufacturing, trade and services (the female: male ratio was between 58 and 105 in pre-crisis 1997). The sectoral distribution of the labour force indicates sex segregation of

the labour market, where women tend to cluster in the jobs and sectors where remuneration is lower. Women constitute 46 per cent of the total labour force aged 15 and over, and the overall female labour participation rate is 44.1 per cent compared with 72.3 per cent for men. The unemployment rate is slightly higher among female workers at 5.6 per cent (4.1 per cent for men), while among the educated youth the rate is even higher at 27.4 per cent (21.2 per cent for men). Underemployment is much higher among women workers at 51.6 per cent as compared with 27.5 per cent among men workers.

Although women workers have been gaining access to the formal and non-agricultural sectors of the economy over the last two decades, the wage data indicate that women only earn 68.5 per cent of the wage level of male workers on average. Women also play an important role in the agricultural sector, while a substantial number of women are engaged in economic activities with low remuneration and productivity in the informal sector as unpaid family workers, self-employed workers or homeworkers.

A recent ILO study (Oey-Gardiner, M. et.al, 1998) has shown that a substantial and disproportionate number of women workers have been affected by retrenchments (48 per cent of the retrenched are women as compared with their ratio of 38 per cent of the total labour force in 1998). Due to the high rate of inflation and unavailability of raw materials and the drastic falling-off in demand, home-based women workers have been badly affected by reduced levels of business, and hence reduced income levels, in general. In the agricultural sector, the price increases of agricultural inputs such as imported fertilizer and seeds, and El Nino have also affected the sector adversely, although the export-oriented plantation sector seems to be doing relatively better due to the devaluation of the rupiah. Given the high rate of inflation, there has been increasing economic pressure on women workers to increase their contribution to household income in general. Because the poverty level worsened during the economic crisis, the economic survival of women workers who are poor, in particular female heads of households in both urban and rural areas, requires special policy attention. Furthermore, special attention to migrant women workers is also needed. The statistics show that between 1994 and 1997, 67.5 per cent of all overseas workers were women, mostly working as domestic workers elsewhere in Asia and in the Middle East.

While women played an increasingly important economic role, particularly during the recent economic crisis, in maintaining the welfare and well-being of households, there is still a lack of policy attention to the economic role of women workers in the country. They also form the bottom rung of the overall international production systems providing cheap and flexible labour. The specific gender-differentiated impact of the economic crisis on employment and on economic opportunities during globalization has required further investigation, to measure the degrees and nature of the impact in various sectors of the economy. The results of these analyses were expected to provide more detailed and gender-disaggregated information for further policy debate, which is needed for Indonesia to establish gender-responsive strategies for human resource development and employment creation. These strategies will enable the key partners in all sectors, i.e. government ministries, employers' and workers' organizations as well as NGOs, to play an effective part in responding to the recent economic crisis in the context of increasing globalization.

4. Macroeconomic change, gender and employment: a conceptual framework

Women and men are both part of the economy. They are, therefore, both consumers and workers, as well as members of the household and community. The traditional values in

Indonesia have dictated the roles of men at work and women at home until very recent times, and in rural areas, these are still perpetuated. This has also been reflected in the labour market. Due to the ascribed roles and perception of the society, women in Indonesia are still regarded as secondary workers, and not the ones supporting families, as reflected in the laws on marriage and property ownership. They tend to cluster in jobs with less security, wages and less favourable terms and forms of employment. However, contrary to the mainstream thinking, Indonesia is also subject to gradual changes in gender relations and women have been gaining an important place in the labour market, as well. As mentioned earlier, they have been going into the formal sector jobs at an increasing speed, and indeed they dominate in some manufacturing industrial sectors (ILO, 1999).

Globalization has brought an external factor into play in the Indonesian labour market, as countries' markets are increasingly integrated, in terms of financial services, production, sales and engagement of workers. This has been seen in negative terms during the recent Asian crisis. A question has been raised, therefore, how the impact on men and women workers differs, as a result of their economic and social dispositions during the crisis, and how they coped with the impact. In various studies on the gender-specific impact of the crisis and globalization on employment in different sectors, this was to be reviewed in-depth, so as to enable more gender-responsive government legislation, policies and programmes which would enable the country to adequately respond to emerging needs and employment opportunities.

The analytical framework given in Table 1 was used in the rationale for the national workshop, as well as in establishing the framework for the analyses of the impact of various macroeconomic changes on the labour market, from a gender-specific perspective. Even in economic downturns, there are likely to be winners and losers, as these changes affect both production costs and sales prices, as well as the relative cost of labour in the overall production processes. During 1997, Indonesia saw hyperinflation (of 77 per cent) and rapid devaluation of the rupiah. Assuming that some of the export-oriented agriculture and manufacturing industries were able to benefit from the relative sales price reduction, they were likely to have benefited from the process, to the extent that their imported inputs were limited. This has been borne out anecdotally, and indeed a few manufacturing industries seem to be doing better than many others.

Table 1.1 Gender dimension of the impact of macroeconomic change on employment

	Women as household managers	**Women as remunerated workers**
Economic changes Changes in prices of consumer goods/ production inputs Market downturn	Availability of consumer goods affected Under inflation: purchasing power/family welfare go down	Women lose business Their employers lose business Less contracts from employers (home worker)
Labour market changes Winners and losers: net effect of labour oversupply	Men lose business Men retrenched - Housewives pushed to work outside home to supplement income	Women also retrenched Overcrowding in informal/rural sectors Search for jobs abroad

When men were retrenched from the construction and manufacturing sectors – sectors that were hit hard by the crisis - women housewives were also affected. If they were not in economically gainful employment, they were likely to join the labour market to help supplement

the household income. This has been evidenced by a higher increase in labour participation rates for women than for men. For those older married women already in the labour market, in some of the cases reported, enterprises have been firing them and engaging younger (often single) women to work in factories, as cost-cutting measures. In the formal sector, there have been many stories of this kind, and the process continues as enterprises remain hard pressed to stay in the market and remain competitive.

Those who work in the informal sector, such as small vendors, craft makers and homeworkers, are likely to have been affected negatively as a result of the overall market downturn, and the increased costs of production inputs, some of which may also be imported. The most severe impact was the high inflation of 1997 and 1998. At the early stage of the economic crisis, there were also shortages of food, including basic necessities. This hurt a large number of people, and the poorer population would have been the worst hit in this respect, particularly women in the urban informal and rural sectors.

The two studies commissioned on the impact of the economic crisis on employment in both the urban informal and rural sectors, therefore, were to ask questions as to how and to what extent globalization and the recent economic crisis affected men and women workers in the labour market. These were to be analysed in terms of both quantity and quality of jobs and income-earning opportunities. An attempt was made to analyse the changing employment patterns of men and women both between and within the urban informal and rural sectors.

Chapter II of this paper addresses the issues of economic crisis, gender and employment in the urban informal sector, in which an analysis is made of secondary data, largely taken from *Sakernas* (National Labour Force Survey), and of some limited empirical and anecdotal evidence gathered through selected interviews and focus group discussions, mostly undertaken in Jakarta.

Chapter III focuses on the gender-specific impact of the economic crisis on employment and income generation opportunities in the rural sector. It includes analyses of secondary data from *Sakernas*, and a survey and focus group discussions undertaken in Central Java and Lampung provinces. The survey also gathered some limited evidence on access to credit, technology and the market, which also has implications on access to employment and income opportunities for both women and men. Chapter IV will include summary conclusions and recommendations.

II. Economic crisis, employment and gender in the urban informal sector

by: Sri Moertiningsih Adietomo, Ms. Dwini Handayani and Mr. Nurhadi Wiyono

1. Purpose of study

This study focuses on the explanation of how globalization and the economic financial crisis have had different impacts on men and women in the labour market, affecting income, employment opportunities and working conditions. More specific research questions are:

(1) What is the gender-differentiated impact of the economic and financial crisis, as a phenomenon of globalization, on the urban informal labour market?

(2) What has happened to those people who had to stop working or change work because of the crisis?

(3) What is the condition of employment in the urban informal sector experienced by self-employed persons, homeworkers and those who were laid off from work in terms of their working conditions, business environment and income opportunities.

2. Method and design of study

This analysis is organized into three parts: (1) analysis of the impact of economic growth, structural changes and globalization on the labour force participation rate (LFPR), especially in the urban informal sector. This is conducted through an analysis of the trends of the female labour force participation rate (FLFPR) as compared with the male labour force participation rate (MLFPR), and women's share in each economic sector (industry). Publications from the Central Bureau of Statistics (CBS) will be the main source for this analysis; (2) analysis of gender-differentiated impact of the economic and financial crisis (as part of globalization in an economy) on employment in the urban informal sector in Indonesia. A special focus will be devoted to explaining movements of workers who stopped working/changed jobs during the first year of the economic crisis, within and across work status, and within and among economic sectors. This will be conducted by analysing the 1998 National Labour Force Survey (*Sakernas*) among men and women who stopped working/changed jobs between August 1997 and August 1998. Attention will be given to the magnitude of retrenched workers who had stopped working/changed jobs and their work status as of August 1998; (3) illustration of how people working in the informal sectors have coped with the impact of the crisis, and their working conditions. This is conducted through the review of the results derived from focus group discussions and in-depth interviews with urban informal sector workers in Jakarta and Botabek.

The detailed methodology of qualitative study is as follows:

(1) focus group discussions and in-depth interviews were conducted in Jakarta, Bogor and urban West Java (Bekasi, Tangerang and Sukabumi);

(2) three types of urban informal sector workers were selected: self-employed, outworkers (homeworkers) and daily labourers.

In Jakarta as well as urban West Java each type of urban informal employment was selected. Two localities were surveyed for each type of employment. One focus group discussion for men and one for women were conducted for each locality and type of employment.

In-depth interviews were conducted with two men and two women in each of the localities of employment. All together for both areas 24 focus group discussions (with 6-8 respondents each) and 48 in-depth interviews were undertaken.

3. Analytical framework

3.1 Gender and work

Discussions on gender and work usually centre on inequalities in access to employment and to income opportunities, and in career and wage differences between men and women. Women are less visible in the labour market, and are therefore always underrepresented in statistics. This underrepresentation is caused mainly by failure of development planners to recognize their contribution to households and the economy, sometimes known as "boundary blinkers" (Corner, 1996). The traditional view of the households division of labour is that men's activities are outside the household, while women take charge of domestic affairs. The shift in production of goods and services within households (by women) in the traditional economy to the market in the modern economy has resulted in a general perception that many transactions outside the household (producing and purchasing goods) fall within the domain of economics, and are therefore recognized as the contribution of men only. While women's lives have continued to focus on the household this has led to a tendency that what women produce and consume within the household is not considered an economic activity (Corner, 1996).

These boundary blinkers lead to "measurement blinkers" described as failure to recognize women's contributions to economic production and therefore leading to underenumeration of their participation in the labour force. This is induced by the concept and definition of labour force participation that is closely related to the measurement of national product/income.

There are also "contextual blinkers", which refer to the failure to recognize the importance of institutional context within which economic behaviour takes place, in particular, a gender-differentiated impact of the institutional context. This is associated with decision-making in the household, and therefore highly related to the role of women, the behaviour expected from women by society. Even today, women in Indonesia are expected to be responsible mainly for domestic affairs, looking after children, cooking for the family and other household chores. Husbands are expected to be responsible for earning money for the family. In many cases though, women are compelled to work for additional family income. However, women's work is perceived as "only helping the husbands" (Djamal, 1996; Adioetomo, 1999), even when women earn more. This traditional expectation means that women's contributions to economic activities are underestimated, and often are not recognized at all. The impact of such a perception is that women continue to be disadvantaged, because the opportunity costs of women's time are ignored or undervalued.

3.2 Gender and economic structural change

Structural adjustment usually follows economic development as an impact of macroeconomic policy. Economic growth is characterized by increases in the volume of goods and services produced by a society over time. Economic structural change is described as changes over time in the composition of goods and services produced. In a developing society, the structural change is characterized by a reduction in the share of the agricultural (traditional)

sector of the economy, accompanied by an increase in the share of the manufacturing and services (modern) sector. At the microeconomic level, structural change involves a gradual transfer of resources and activities from traditional, non-monetized household and subsistence sectors to the monetized modern economy (Corner, 1996).

Economic growth leads to increasing labour absorption. More and more women move from the rural informal sector into the urban labour market in both formal and informal sectors. However, the rapid increase in the share of manufacturing, construction and services in the national product is not accompanied by an equal increase in formal sector employment. More people have to create their own employment, creating a dual labour market, i.e. the formal and informal urban sectors. The increasing numbers of non-wage workers are accompanied by the increasing numbers of unpaid family workers, who are usually women. Therefore, it is a matter of dispute whether greater female participation in the labour market in a developing economy reflects an improvement in women's status and of their welfare (Wolf, 1992; Corner, 1996; ILO, 1996; Manning, 1998).

3.3 Gender, globalization and work

Globalization in economic and trade spheres has been widening dramatically, especially since the 1980s. Innovation and modern communications have led to a freer flow of capital and technology, which in turn has induced economic liberalization, among others through falling tariff barriers. Multinational companies have tried to relocate their production sites to reduce production costs. This was made possible by the availability of cheap and abundant labour in developing countries. The low cost of labour in most of them is a result of the increasing numbers of poorly educated workers entering the labour market every year. Falling mortality rates mean that more babies survive until their productive age. Even though the fertility rate has declined very rapidly over the last 10 years, the number of children born each year is still high in Indonesia, leading to an increasing trend in the labour supply, causing oversupply of labour. Under increasing global competition in the market, the relocation of production sites is concentrated in labour-intensive manufacturing. Many of these sites, especially in export processing industries such as textiles, garments, shoes, leather and toys, require specific characteristics of labour that can be fulfilled mostly by women workers. Women tend to be employed in these manufacturing industries because they are perceived as dextrous, nimble-handed and having qualities that are highly valued by industries producing intricately assembled goods for a volatile international market (Greider, 1997). Women's labour is relatively cheap, and abundant in supply in Indonesia. They are regarded by employers as being docile and not requiring permanent jobs; they have a high rate of entering and leaving the labour market; and are less organized by labour organizations. The increasing trend of women's labour absorption in developing countries in the era of economic globalization is much greater than that for men. This is partially explained by the overall increase in the share of manufacturing and services in GDP, and the relative increase in the educational levels of women.

Women workers in these multinational companies are paid very poorly, frequently too little to meet their daily needs. They are in a very weak position, and the government has no power to improve this situation, as law enforcement mechanism is still weak (Greider, 1997). Wolf (1992) concluded that factory workers tend to subsidize multinational companies in making profits. Women workers are also found in temporary and casual employment and with poor working conditions. Further, they are not always employed in the formal sector. Many of them are hired in piece-rate wage employment, in the form of subcontractors, or homeworkers.

Although their hours of work can be adjusted to suit housework and child-rearing, such workers do not have the working conditions available in formal sector employment. Manufacturing industries tend to avoid such fringe benefits as health care, paid annual leave and pensions. In the short term, globalization may appear to exacerbate the equity levels in the economy, with women starting from a position of disadvantage.

3.4 Gender, globalization and the economic crisis

The Asian economic and financial crisis is a side-effect of globalization in economies and finance. The crash of the Indonesian rupiah in July 1997 had a severe impact on individuals' economic lives. But women seem to have suffered most. High inflation caused by the fall of the rupiah increased the difficulties of women meeting households' daily needs. Furthermore, women have been compelled to work to earn more money for the family, at the same time that the labour market was shrinking because of the crisis. Workers were laid off from the formal sector, especially in manufacturing, construction, finance, and trade and services. Many of these retrenched workers are believed to have obtained jobs in the informal sector, which was crowded with women (ILO, 1998). This leads to increasing competition for women in the informal sector. How do they cope with this?

4. The evidence

4.1 Gender-differentiated impact of economic growth and structural changes on LFPR

4.1.1 Structural changes

Indonesian economic development during the last three decades has led to structural changes in the composition of manufacturing industries and their share of GDP. The role of the agricultural sector has been declining from 24.9 per cent in 1982 to only 14.8 per cent in 1997 (Table 2.1). The economic crisis increased the share of the agricultural sector to 17.2 per cent in 1998 leading to speculation that this sector might have been accommodating workers who were retrenched from other sectors. The share of mining and quarrying showed a similar pattern of decline from 13.7 per cent in 1982 to only 8.8 per cent in 1997, with a slight increase in 1998 to 9.8 per cent. These declines in the agricultural and mining sectors, before the crisis, were accompanied by an increased share in GDP of manufacturing, which had been going up since the 1970s. By 1982 this sector accounted for about 12.3 per cent of GDP, increasing rapidly to 20.6 per cent in 1990, and rising again to 24.7 per cent in 1996. This was followed by somewhat stable growth in 1997. The impact of the economic crisis since July 1997 might not have been recorded since the share of manufacturing in 1998 GDP was still 25 per cent.

The development of infrastructure, later induced by the globalization of finance, increased the share of the construction sector in GDP from 6.5 per cent in 1982 to 8.1 per cent in 1997. The real estate sector was hit first by the crisis, which was shown by the decline in the construction sector to only 5.6 per cent of GDP in 1998. The growth of the real estate and construction sectors was strongly related to the boom in the financial sector from the early 1990s.

The share of this sector declined from 8.9 per cent in 1997 to only 7.6 per cent in 1998. The impact of the crisis on trade, hotels and restaurants was beginning to emerge in 1998, shown by a slight decline in the share of GDP from 16.9 per cent in 1997 to 15.9 per cent in 1998. These declines indicate a slowdown in their activities, and many workers had to stop working.

4.1.2 Impact of structural changes and globalization on labour absorption

These movements in economic activities before 1998 undoubtedly increased LFPR both for men and women (Table 2.2). At all times, the rate of increase in women's participation in economic activity is higher than for men, especially during the era of globalization when multinational companies invested their capital in labour-intensive, highly women-dominant manufacturing industries. The high increase in participation in rural areas between 1997 and 1998 indicates that many people returned to rural areas because they were laid off or stopped working in other economic sectors (SMERU, 1999).

Between 1982 and 1987, the number of men in the labour force increased from 37.06 million to 53.97 million, and the number of women from 20.7 million to 33.08 million (Table 2.3). After the crisis, the number of men in the labour force decreased to 53.90 million, while the number of women in the labour force still increased to 33.77 million. The addition of women in the labour force between 1997 and 1998 might buttress the argument that during the crisis many women joined the labour force to earn additional income for the family.

Before the crisis, the pattern of labour absorption resembles the structural changes. The proportion of Indonesian workers who worked in the agricultural sector decreased from 55.2 per cent for men and 53.8 for women in 1982 to only 40.7 for men and 42.0 per cent for women in 1997 (Table 2.4). This is accompanied by an increasing percentage of workers engaged in manufacturing, which is higher for women than for men. In 1982, the proportion of women workers in manufacturing was 13.9 per cent, compared with only 8.5 per cent for men. This rose to 15.2 per cent for women in 1997 compared with 11.5 per cent for men. However, there have been arguments that this increasing trend in the participation of women in manufacturing is not always accompanied by improvements in their welfare. Although the increased number of multinational companies has provided a choice for women on whether to stay at home or work in agriculture or manufacturing, many have argued that globalization tends to curtail women's welfare (Wolf, 1992; ILO, 1996; Corner, 1996; Manning, 1996). The example of women workers in the Nike Shoe Company is given below:

> Globalization means many things to many people. At its simplest, it is about footloose corporations making investment wherever labour is cheapest and most productive, and it is about the growing plight of unskilled labour. Much of the world's cheap labour is female, and in the case of Asia, much of the export-led economic boom of the past decade has literally been on the backs of women. ... This rapid growth has provided many new jobs for women. [But], they are badly paid, working conditions are not good and there are few if any benefits and rights for workers, but at least it is better than existing alternatives, and undoubtedly, life has been better for many Asian women and their families as a result of rapid growth. However, women's hold on these jobs can be short-lived as capital moves on whenever it needs to in order to find even cheaper labour and to maximize profits. There are many examples of companies such as Nike moving from country to country and leaving thousands of women unemployed. Wages are driven to a minimum with the result that there are startling statistics such as that of Nike which pays Michael Jordan more to advertise its products than it pays its entire South East Asian workforce in one year (UNIFEM, Internet homepage.)

Another sector absorbing a high proportion of labour was trade, hotels and restaurants. From 1982 the proportion of men and women working in the trade sector was 11.68 per cent and 20.37 per cent, respectively, increasing to 15.57 per cent and 26.66 per cent in 1997. These proportions remained fairly stable during the crisis in 1998. The changes show that the Indonesian economy was shifting from the traditional agricultural sector, where productivity was marginal, to a modern economy, with higher productivity and an increasing share of manufacturing.

4.1.3 The informal sector

Under this study, the informal sector employment includes self-employment, self-employed with family workers and unpaid family work according to the *Sakernas* categories. However, outwork or home work is also included as it is considered as "wage employment in disguise".

The rapid growth of the manufacturing sector and other modern sectors in the Indonesian economy has not been able to fully absorb the growing Indonesian labour supply. Although the proportion of workers engaged in the formal sector has increased over time, this sector employs only about 35 per cent of working people on average (Table 2.5). The proportion of manufacturing in the informal sector is substantial at 38.07 per cent in 1998. In trade, hotels and restaurant sector, the rate is much higher at 82.98 per cent. The other workers have to create their own employment or even have to be satisfied working as unpaid family workers. The 1997 National Labour Force Survey reported that the formal sector industry absorbed only 36.7 per cent of workers. The rest were self-employed or engaged in other types of informal sector activities such as daily wage workers, disguised wage workers, subcontractors or unpaid family workers. Figures in this table reveal that even in manufacturing, around 40 per cent of workers are engaged in the informal sector. This might indicate that more and more manufacturing industries have chosen to subcontract their production processes to home-based workers; or that small-scale and cottage industries contribute to the growth of manufacturing industries. It is known that these informal sector workers do not enjoy the same employment and fringe benefits as their colleagues in the formal sector.

The definition mostly used in collecting data (especially by the CBS) on informal sector workers refers to those who have worked at least one hour during the previous week as self-employed persons, or as self-employed persons assisted by family labour, or who work as unpaid family labour. The formal sector is defined as those who work as employers and as employees in establishments. It is well known that women's share in the informal sector is higher than that of men's. In 1980, both for urban and rural areas, the share of women workers in the informal sector was 35.5 per cent of the total, compared with only 26.7 per cent in the formal sector. In 1990, their share in the informal sector increased to 38 per cent, and rose again to 39 per cent in 1995; their share in the formal sector decreased to 28.8 percent. The decrease of women's share in the formal sector and the increase in the informal sector might indicate that many women have shifted from the formal to informal sectors or from non-labour participation to the informal labour market to sustain their livelihoods (calculated from 1980 and 1990 Censuses and 1995 Intercensal Survey).

4.1.4 Wage employment

This comprises wage labourers and is characterized by non-ownership of the means of production, non-participation in the decision-making structure and rigid control over the worker's work performance. In the informal sector, the difference lies in the working conditions, especially in terms of security of the employment, stability of income, level of remuneration and provision of workers' benefits. In these respects, the informal sector wage-earners are more poorly treated compared with fellow workers in the formal sector. Informal sector wage workers generally do not enjoy any security in employment, being engaged at the will of the employer, overwhelmed with work or dismissed involuntarily; conditions are analogous to short-term wage workers. One example is the daily labourer, attached to large-scale firms employing labour on a

casual basis to avoid paying employment benefits. Informal sector enterprises fall both outside government regulations and the concern of trade unions. Consequently, wages are generally low and paid leave, etc., is virtually unknown. Examples include workers in construction and the tobacco industry, and small-scale businesses employing several workers. In addition, there are disguised wage workers, i.e. sales people earning a commission rather than a fixed salary. Examples include people selling cosmetic products, property, insurance products, books, etc.

4.1.5 Outwork and homework under the putting-out system

Outworkers, without formally being employees of a single entrepreneur, firm or group of firms, are contracted to carry out productive functions, e.g. in handicrafts, electronics, automotive industries. They work in their homes, or sometimes in makeshift premises, and are often paid by piece. The outworkers and homeworkers are often supplied with raw materials by the employer who also collects the finished goods for sale. Outworkers and homeworkers can also be called disguised wage workers. There is no clear-cut distinction between formal and informal sector by definition, but very clearly workers of this type suffer from low wages and lack of employment benefits. Working conditions are very different from formal sector factories. Very often the production undertaken under outwork or homework has a clear linkage to the formal sector.

There are other forms of informal sector employment, including apprenticeship. This is known as a way of acquiring skill, through training for trainees. Apprentices are found in a whole range of informal sector activities. Another form is unpaid family work, where the nature of employment is within the confines of the home, with an employer-employee relationship superimposed on kinship relationships, but without remuneration, in cash or kind. Usually unpaid family workers share the family's food, accommodation, etc., but this is not seen as a return on labour since it does not depend on the quantity of work realized.

4.1.6 Self-employment and self-generation of income opportunities

People under this category are termed self-employed because they do not have a legal, formal employment relationship with a recognized employer. Usually they do not have free access to raw materials and must operate on the basis of credit, rented premises or equipment. Examples include women running foodstalls, petty traders, street vendors and food catering services. They can also work as scavengers, garbage collectors, *ojek* (motor-pedicab) drivers, hairdressers, dressmakers, shoe-shine boys and newspaper vendors.

4.2 Gender-differentiated impact of structural adjustment on urban employment

The structure of employment is different in urban areas from rural areas: employment in urban areas is concentrated in manufacturing, wholesale trading, and community and social services (Table 2.6). In these three economic sectors, the percentage of women in each sector is always above the percentage of men working in them. However, in absolute terms, men outnumber women in all sectors, leading to an impression that women are still expected to focus on domestic activities.

The composition of urban workers by formal/informal sector also differs from that in rural areas. Because of the informal nature of employment in rural areas, which is dominated by self-employed agricultural work, the formal and informal sectors account for 35 per cent and 65 per cent, respectively. On the other hand, urban areas are characterized by modern

employment, so the ratio of the formal and informal sectors is fairly balanced. Table 2.7 shows the number of workers in urban areas according to their work status; it shows that more than half the total working population in urban areas are employees or employers, and thus they are in formal employment. However, the opportunities for women to work in the formal sector are fewer than for men (50 per cent compared with 60 per cent). A substantial number of women working in this informal sector are unpaid family workers, for example family members or other persons who help the owner in doing his/her work but are paid in kind or given a place to stay in the household. The percentage of unpaid family workers, both men and women, is increasing over time, indicating that remunerated employment in the informal sector is declining.

4.3 Gender-differentiated impact of globalization and the economic crisis on the urban informal sector

4.3.1 Overall impact

The economic and financial crisis that started in August 1997 is actually a regional crisis in Asian economies, but Indonesia has experienced a longer crisis and has suffered the most. This crisis has led to a contraction in many economic activities. As was stated earlier, manufacturing, real estate, construction, finance and trade, hotels and restaurants were hardest hit by the crisis. The construction sector was first hit, its share in 1998 GDP declined by 30 per cent. The financial sector declined by 15.1 per cent, while activities in trade, hotels and restaurants declined by 6.1 percent. The manufacturing sector still shows a constant share of GDP because some of the multinational factories are still producing for export, but in fact they have started to downsize their businesses. These events have brought many negative consequences on the Indonesian labour market. First, massive numbers of retrenched workers. Manufacturing industries, where many women were engaged because of their cheap and abundant labour supply, are facing difficulties owing to the increase in price of raw materials, which are mostly imported. This situation has led many people, men and women, to be laid off. But since social security does not exist, people cannot live without jobs and most probably they have entered the informal sector, which is often seen as a social safety net. The influx of workers into the informal sector adds to the crowding of women there, owing to retrenchments from the formal sector. Second, the Indonesian supply of labour increases yearly by about two to four million as result of the growing population. Third, because of the high inflation rate owing to the fall in the value of the rupiah, many housewives and children who were not in the labour market before the crisis have tried to find jobs and therefore increased the figure for unemployment or underemployment in the country.

The actual numbers of unemployed caused by the crisis has been a big debate in the country, partly owing to different perceptions of unemployment (i.e. definitions) or methods of estimating unemployment (i.e. employment elasticity). Recent data from the 1998 *Sakernas* have shown that about 5.14 million people aged 10 years and over were unemployed in August 1998 (calculated from the raw data; see also CBS, February 1999). This was close to the figure predicted by the ILO team in 1998, of 5.2 per cent (ILO, 1998). The 1998 *Sakernas* reported that the number of unemployed men was 2.89 million, higher than women at 2.24 million. However, in percentage terms the figure is higher for women - 6.1 per cent as against 5.0 per cent for men. In urban areas, unemployment is higher than in rural areas - 9.3 per cent compared with 3.3 per cent. In urban areas the share of unemployed women is higher than men's at 10.5 per cent compared with 8.6 per cent for men.

Table 2.8 shows that during the first year of the crisis the proportion of the population aged 10 years and over in urban areas entering the labour force increased by around 5.9 per cent for men and 7.9 per cent for women between 1996 and 1997. But, the percentage increase is smaller between 1997 and 1998, that is 4.1 per cent and 5.8 per cent for men and women, respectively. The large increases in men and women looking for a job, which are much higher for women (38.4 per cent) than for men (19.0 per cent) contributed significantly to this increase. They may have been retrenched from the formal sector, have stopped other work, are first time job-seekers, or are wives compelled to enter the labour market to meet their daily needs because of high inflation. On the other hand, the smaller increase in the numbers of working people between 1997 and 1998 shows that, compared with earlier years, this increase is less by 58.6 per cent for men and 43.5 per cent for women. This suggests that there were fewer jobs in the labour market.

Some have argued that the response to the crisis differed among men and women. While men who were laid off became depressed and did not know what to do, hanging around the house and spending more on tobacco, women on the other hand felt responsible to the family for meeting basic needs (Kompas, April 1998). This is true for rural areas, where the number of women not in the labour force (housewives) decreased substantially. On the other hand, the data for urban areas shows that there was still an increasing trend in the number of women who were not working, nor looking for work. Given the fact that no social security system exists, the increase in the number of men or women not in the labour force could be interpreted in two ways: first, they are from the middle class who can afford to have leisure time, or second, they are discouraged workers who do not try to look for jobs knowing that there are very few job opportunities for them.

Table 2.9 shows changes in the work status in urban areas. The decrease in the proportion of workers engaged in the urban informal sector is seen before the crisis, that is August 1996 to August 1997. During this period there was a 17.8 per cent decline in the numbers of self-employed with family workers. This proportion is much higher for women (28 per cent) compared with men (11 per cent). On the other hand, the share of unpaid family workers increased, but this was mainly seen among male workers, requiring further explanation. In general, during the year before the crisis, the *Sakernas* recorded a 10.4 per cent decline in women's employment in the informal sector, while for men, employment increased slightly by 0.9 per cent. The informal sector, however, seems to be the sector people turn to when they become unemployed or when they need to increase family income. Employment in the urban informal sector increased by 9.4 per cent during the first year of the economic crisis - August 1997 to August 1998. This time, the increase in informal sector employment was mainly among male workers - 10.3 per cent as against 8.1 per cent among women workers. The rise in the share of men in the self-employed and unpaid family workers categories in the urban informal sector is remarkable compared with that of women. Almost 11.7 percent of the increase was among men in the self-employed category, and 12.8 per cent among men who were unpaid family workers. This may have been caused by the decrease in urban formal employment of 2.3 per cent between August 1997 and August 1998: more male workers left (4 per cent) than women (an increase of 1.0 per cent). With regard to the small increase in women's employment in the formal sector, it may be speculated that the level is fairly stable probably because of the type of manufacturing sector they were working in. Although most manufacturing export industries have had difficulties with the higher prices of imported raw materials, very low rupiah values may have increased demand for their final products from other countries (in-depth interviews with small-scale manufacturers in Pulo Gadung, East Jakarta).

In summary, this section has shown that among those retrenched from the formal sector the proportion of men was much higher than women. On the other hand, there was a tendency for men to enter the informal sector. The following section will analyse this.

4.3.2 Magnitude of retrenchments and changes in work during the first year of the crisis

This analysis is heavily derived from the secondary data collected in the 1998 *Sakernas*. This is conducted on a yearly basis except when another big household survey is conducted the same year. The 1998 *Sakernas* was a large household survey, containing a sampleof 57,000 households throughout Indonesia. The timing of data collection (August) of the 1998 survey is perfect for comparison with the (August) 1997 survey. But in this section, analysis will mainly upon drawn the 1998 *Sakernas*, using retrospective questions on the magnitude of retrenchments or changed jobs and the reasons for stopping work or changing jobs.

Analysis is focused on urban areas in Indonesia and on the basis of information obtained from three sets of questions:

Question no.20: Have you ever worked before?

- asked of all respondents who were working, seeking work and not working at the time of the survey;
- those who were working for the first time, or had never changed jobs were excluded from the question no.21;
- thus respondents were only men and women who stopped working/changed jobs during August 1997–August 1998;
- the numbers of men and women who were working at the time of the 1998 *Sakernas* were obtained indirectly from the raw data. These were used to obtain magnitude (percentage) of retrenchments or those stopping work in the formal or informal sector.

Question no.21: If yes, whether stopped working/changed jobs after July 1997?

Question no 22. Reasons for stopping work or changing jobs after July 1997?

In general, the 1998 *Sakernas* reported that in all urban and rural areas of Indonesia, 4.28 million workers, men and women, aged 10 and above stopped working/changed jobs between August 1997 and August 1998. Among them 3.33 million stopped working/changed jobs in the formal sector, and the rest (945,700 workers) were in the informal sector (figures calculated from *Sakernas* 1998). The number of men who stopped working/changed jobs was twice as high as that for women, which was 2.8 million compared with 1.4 million respectively.

In urban areas there were 1.33 million men and 0.68 million women who stopped working/changed jobs after July 1997. Compared with the number of the workforce in July 1997, the proportion of men who stopped working/changed jobs after July 1997 was higher at 10.52 per cent than that of women at 8.14 per cent, showing that women's work in the formal sector is more stable. This is also true for those who were laid off from the formal sector. The proportion of men who were laid off after July 1997 was 14.27 per cent compared with 12.47 per cent for women. The informal sector seems to be least affected by the economic crisis. The proportion of men and women altogether that were compelled to stop working/change jobs was only 3.86 per cent. Again in the informal sector, the proportion of men who stopped working/changed jobs is higher at 4.34 per cent than that of the women at 3.27 per cent.

This analysis shows that women's work in the formal sector was less affected by the economic crises than men's; the absolute number of men workers retrenched or unemployed was higher than women workers. The informal sector proved to be the social safety net for those workers without jobs, and would have had difficulties in surviving.

4.3.3 Patterns of movement within and across work status

It was stated earlier that in urban areas there were 2.02 million people who stopped working/changed jobs after July 1997 (Table 2.10). Among these people, 1.68 million were retrenched from the formal sector, and 336,238 others stopped working/changed jobs in the informal sector. Out of the 2.02 million workers, 42.2 per cent (850,000 people) were already working again by August 1998 (a minimum of one hour a week). Of the rest, 713,091 people or 35.4 per cent were still seeking work, and another 452,010 persons (22.4 per cent) had left the labour force (they were not working nor seeking work – see top panel, Stopped working after July 1997).

The impact of the crisis on the labour market is seen in the right panel. Since the number of people working in August 1997 was not recorded in the 1998 *Sakernas,* the number recorded in the 1997 *Sakernas* is used to estimate the percentage of men and women who stopped working/changed jobs during the first year of the crisis. Table 10 shows that the number of men who stopped working/changed jobs is much higher than women (the absolute number is double) out of the total of those who either stopped working/changed jobs: men constituted 66 per cent, and women 34 per cent. The proportional percentage, however, is almost the same at 10.52 per cent for men and 8.14 per cent for women. The labour market seems to be narrowing for women after July 1997. In August 1998, about 50 per cent of men, compared with only 26.4 per cent of women workers who stopped working after July 1997, had already restarted work. The percentages of those still seeking work in August 1998 are about the same between men and women. But, the proportion of women in July 1997 who were out of the labour market in August 1998 is much higher than that of men, at 38 per cent (260,572), compared with only 14 per cent of men (191,438). Half of the men were already working again in August 1998 (666,787), having found a job in the formal sector, and the rest were in the informal sector. The situation is the same for women. However, the data show that once women left the labour market, they were less likely to get back to work, as evidenced by a much higher rate of unemployment and non-activity.

Looking at this is greater detail, the second panel of Table 10 shows the situation for workers who stopped working/changed jobs in the formal sector. The pattern of work turnover is similar to those of the general pattern above. These figures show that women are less likely to be thrown out of work or from the labour market. However, these women did not easily find a job again after July 1997. In August 1998, only 28.0 per cent of them (compared with 48.8 per cent of male ex-formal sector workers) had gone back to work. There is also a higher proportion of ex-formal sector women workers who were out of the labour market than men, at 31.9 per cent as against 13.3 per cent.

However, only 25.9 per cent of ex-formal sector male workers were able to get another job in the formal sector. About 23.0 per cent had to move to the informal sector, usually in work characterized by low productivity, low income and poor working conditions. A similar pattern is also found for women who stopped working/changed jobs in the formal sector in July 1997. From this evidence, it may be concluded that the urban informal labour market increased by about 333,000 people, spilled over from the formal sector.

The third panel shows the gender-differentiated impact of the crisis in the informal sector labour market. It seems that this sector is insensitive to economic crisis. Most probably this was due to added workers' effects of the sector - whilst on one hand the opportunities have been diminishing, on the other hand, many people also sought employment income opportunities.

This is indicated by the fact only about 3-4 per cent (3.27 per cent for women and 4.34 per cent for men) of urban workers stopped working/changed jobs in the informal sector between August 1997 and August 1998. However, among these, 57.8 per cent of male ex-informal sector workers were already working again in August 1998, but only 19.68 per cent of women were.

Surprisingly, the 1998 *Sakernas* recorded that there was a movement of ex-informal sector workers to the formal sector, or 21 per cent for men and 7.4 per cent for women. Who are these people? How could this happen while the economy in August 1998 was still in a very bad shape? Or does this show that factories made massive lay-offs early in the crisis, then opened later, recruiting younger workers at lower wages (Indrasari, 1999). This means that employment in manufacturing was still available if workers accepted poorer conditions than before.

Despite the fact that the informal sector was quite robust during the crisis, a high proportion of women who stopped working there were unable to get back into the labour market. The proportion is 64.97 per cent, compared with only 20 per cent of men.

From the foregoing analyses, while women were less likely to be pushed out of the labour market, once they were retrenched or unemployed, their chances of being re-employed were much lower than for men, in the period August 1997 to August 1998.

However, a more detailed analysis would be required to examine the profile of workers who changed work status or jobs during the crisis, in order to derive policy implications.

4.3.4 Reasons for stopping work or changing jobs

Question 22 asked the reasons why workers stopped working/changed jobs between August 1997 and August 1998. These included: they were laid off; income not sufficient; business stopped; work environment not suitable; and other reasons. The question elicited multiple answers. However, it is possible to discover a single answer for each of the main reasons for stopping work or changing jobs. The proportion of men retrenched from the formal sector was higher than that for women, 42.4 per cent compared with 37.1 per cent (Table 11a). However, among those retrenched, a higher proportion of men (35.0 per cent) than women (18.7 per cent) were able to get a job in August 1998, whether in the formal or informal sector. More than half of these retrenched men and women were still seeking a job in August 1998 when *Sakernas* was conducted. As said before, women were less likely to be thrown out of the labour market, but once they were retrenched or unemployed, they seemed to face more difficulties in finding work.

4.3.5 Patterns of hours of work and underemployment

Table 2.12 shows employment of those who worked again, according to hours of work. Owing to the definition of work used by the CBS that refers to at least one hour within the week before enumeration, it is important to have more information on the extent of underemployment for those who were re-employed after the crisis. In general, about one quarter of workers re-employed in the formal sector were under-employed with fewer than 35 hours per week. The

prevalence of underemployment in the formal sector for women is less than that for men. This is consistent with the fact that there are a higher percentage of women re-employed in the formal sector with more than 35 hours of work per week. However, considering the case found by Indrasari (1999), that there are factories that re-opened their business by employing workers at lower wages, a question arises as to whether the long hours of work reflect an increase in welfare. Or if the alternative is no work or long hours of work with lower payment, would it not be better to have such work than none at all?

On the other hand, women are characterized in the informal sector as underemployed. Whether they stopped working/changed jobs in the formal or informal sector, a higher percentage of women were working fewer than 35 hours per week compared with those of men. The informal sector after the crisis seems to be more crowded with men. A higher percentage of men than women were re-employed in the informal sector with more than 35 hours of work per week. This shows that competition among women in the informal sector became tougher, which probably explains why women, once they were expelled from the informal sector, were not likely to go back to the labour market again.

4.3.6 Patterns of movements within and among sectors

Table 2.13 shows the sectoral change of employment between August 1997 and August 1998. A high proportion of men and women (68 per cent of men and 52 per cent of women) who stopped working/changed jobs in the urban agricultural sector after July 1997 were already working in August 1998, while from those who stopped working/changed jobs in other sectors, only less than half were working. The percentage of women re-employed by August 1998 was even lower, especially those who were laid off in manufacturing and trade and services etc., which are characterized by a high ratio of informal sector workers.

In general, this table shows that the re-employed workers have tended to go back to the sector they worked in before the crisis. This is clearly seen in: urban agriculture for women (but less for men); manufacturing, trade, and services for both men and women; and construction for men. Urban agriculture is also seen as a safety net for those expelled from other sectors. As much as 12 per cent of men who stopped working/changed jobs in the manufacturing sector, and 16 per cent of those from the construction sector, changed their jobs to the urban agricultural sector. But women were unlikely to do this. It is also worth noting that, across industries for both genders, the percentages of those who shifted to trade and services (which is characterized by a high percentage of informal sector workers) are also high.

Thus it can be summarized that the crisis has induced movement of jobs among sectors across industries. Urban agriculture (which is also in the informal sector) and trade and services tend to be able to accommodate workers who were not able to get back into the same sector after July 1997.

4.3.7 Working conditions of new employment

Table 2.14 presents figures on the statements of workers who changed jobs, regarding their new working conditions. Owing to the way the question was asked, it is possible only to derive answers about working conditions of those who changed jobs both from the informal to formal sector, and within the formal sector. From this table it can be seen that more than half the men and women who changed jobs stated that their new working conditions in the formal sector were no better than before, whether in terms of income, facilities, health coverage, work safety

or transport facilities. Fewer women than men enjoyed better or same incomes, facilities in the workplace and transport facilities when moving from the formal or informal sector to the formal sector, which may suggest that women tended to be treated less favourably than men during the crisis.

5. Qualitative study

5.1 Methodology

Analysis of the earlier section was undertaken based on the aggregate data that have no detailed information on either types of work in the urban informal sector or the conditions of work. Therefore, it is impossible to study further details about the impact of the crisis as felt by men and women who work in each type of employment. According to Madhuri Bose (July 1990), there are five different types of employment activities often used to distinguish activities in the informal sector, namely self-employment, wage employment, outwork or home work, and unpaid family work.

To be able to look more closely at how the crisis had an impact on men and women in informal employment, especially conditions of work, a qualitative study was conducted to supplement the quantitative analysis presented above. Three types of urban informal employment were selected: self-employed workers, homeworkers and daily labourers. Unpaid family workers and disguised wage workers were not selected because they are invisible and therefore difficult to detect. Focus group discussions and in-depth interviews were undertaken with the three types.

In Jakarta as well as urban areas in West Java, members from each type were selected according to locality. Two locations were surveyed for each type. One focus group discussion both for men and women was conducted in each of the locations and for each type of employment. In-depth interviews were conducted with two men and two women in each of the locations for each type of employment.

For self-employed persons, both men and women who ran food-stalls, especially those behind the high-rise buildings where formal sector businesses and offices were located, were selected as informants. The theory in selecting these locations was that when formal sector companies - especially banks, real estate, financial institutions, and export-import companies that have benefited significantly from globalization - were affected by the crisis, the business of the food-stalls surrounding them may also have seen a downturn.

The homeworkers were chosen to see the impact of the crisis on their work, especially if, when the enterprise engaging these workers went bankrupt, homeworkers also lost jobs. This also happens with daily wage workers. For all of the informants, interviews included their response to the crisis and their strategy to cope with the situation.

It is not easy to distinguish between wage workers in the informal or formal sector. But using the example set by Bose (1990) wage workers from the informal sector are those who usually do not enjoy any security in employment, are engaged at the will of the employer, are overwhelmed with work and are dismissed involuntarily, etc. In this study, we chose wage workers from a small business paid on a piece-work system. The working relationship between the employer and employee is very informal.

The fieldwork was conducted during April and May 1999.

5.2 Findings

5.2.1 Self-employed

The economic and financial crisis had a severe impact on most informants' activities. Most of them stated that the biggest problems resided in the increase in the price of raw materials, especially if they were imported. As a consequence, they had to increase the price of their products. However, the purchasing power of the average consumer declined because of increases in most commodity prices, leading to a decline in domestic demand. This was compounded by massive retrenchments and an increase in unemployment. This problem was also experienced by self-employed workers with local materials. The price of raw materials went up substantially, but the increase in the price of their products was not proportional. As a consequence, the profit earned by self-employed workers decreased dramatically – and when seen in the context of greatly higher costs of living, the economic crisis can be seen to have threatened the welfare of self-employed workers. As they had no access to credit, they had difficulties in maintaining their businesses. Many of them only just managed to carry on, while some of them went bankrupt. Interviews were conducted with those who had survived.

5.2.2 Experience of food-stall owners

Most of the food-stall owners interviewed stated that they were losing customers. Retrenchment of employees from the formal sectors (offices, banks, financial institutions, service companies) near where some informants sold food had reduced the number of their customers. However, these informants were still able to maintain their businesses. Raw materials were always available, but the prices were higher. To prevent customers from leaving, they had not increased their food price as much as the price of raw materials. As a consequence, their income decreased substantially. Meanwhile at home they were faced by a general increase in prices of basic commodities. Other informants interviewed were self-employed food-stall owners, and operated near a big university campus in south Jakarta. Most of the informants stated that even though their student customers had not gone, their purchase frequency had decreased. Previously, the students used to eat at the stall twice a day, late morning and late afternoon. But after the crisis students on average ate only once, to reduce expenditure. Thus, businesses that were not directly related to globalization also experienced a decline in their turnover. This was because of the decline in the purchasing power of the population in general.

Some of these self-employed persons stated that they had to reduce the number of workers. When asked whether they had fired men or women helpers, many of them replied that it was better to have women as helpers, as they were considered diligent and obedient. They could help with household chores, besides doing their job at the food-stall. In fact, though, they employed men, because living arrangements were a lot easier: it is common in the informal sector for helpers to stay in the house of the owner. Informants said that men were stronger and capable of doing more physical and hard work, for example pushing a cart loaded with food. Many of the informants pitied the women who had to work very hard, as physically women were not considered fit enough to help in their business, they said.

These are examples of businesses in the urban informal sector. Although businesses were not affected by the availability of raw materials, because of the use of local materials, they were affected by a loss of customers because they were hit by the economic crisis, either through losing work or suffering from lower purchasing power. This analysis has shown that although businesses in the informal sector, especially food sector, still managed to survive, the general

level of welfare of self-employed workers fell. Women were pushed out from the informal sector because of the prevailing perception that they were too weak for this type of job, which required physical work.

5.2.3 Homeworkers

We visited homeworkers in Tangerang who worked for a factory making buckles for export, and another factory making a laundry-bluing product, for local demand. We also interviewed homeworkers (all men) whose job was to make mosquito-repellent stands from a piece of metal (a coil type insect repellent).

Homeworkers working for the buckle factory said that their job was to tear apart a block of buckles stamped at the factory into single buckles and then put the needles into each buckle. These tasks were taken to women at home to be done, while men worked in the factory doing heavier tasks. The informants stated that after the crisis the company faced irregularity in the supply of raw materials. However, they did not know whether the raw materials were obtained locally or imported, or whether their products were exported. Before the crisis, a worker was able to bring home 40 kg of buckles a day, equivalent to Rp. 12,000 per day; the post-crisis figure was only about 15 kg, or Rp. 7000. They said that in early 1999 they still received their annual bonus paid for Ramadan, but it was less than the year before (February 1998). There were no other benefits for these homeworkers. The incomes of the homeworkers were lower than those of the men who worked in the factory as regular workers.

The employment situation became worse after the crisis, since many more women entered this kind of job, including the buckle factory in Tangerang. The tougher competition was also felt by other homeworkers working for the laundry-bluing factory. Thus, while the conditions of work related to payments and fringe benefits diminished, competition among homeworkers became tougher.

5.2.4 Employers

The factory making mosquito-repellent stands was owned by a small businessman, and had a few workers. These workers slept at the factory, but were paid on piece rate. In a day, a worker could make around 50 kg of mosquito-repellent stands, with an average income of Rp. 7,500-10,000. From this money they sent home Rp. 100,000 a month to their families. The employer-employee relationship was based on a familial relationship. The owner did not pay any other benefits, but a small amount of money for Ramadan. Demand for stands depends on the demand for the mosquito repellent, which is produced by a very big company. When the value of the US dollar became very high in terms of the rupiah, the demand for the mosquito repellent increased substantially, because it was exported to Saudi Arabia, Malaysia and Sarawak. But as this was a single-buyer market, the price of the mosquito stands were determined by the buyer. Thus, even though demand was good, the finished-goods price did not always rise. On the other hand, the owner of the factory faced increases in the price of metal, the raw material. To counter this, he shifted the source of raw materials to scrap products from a national steel factory in West Java, allowing him to reduce the cost of raw materials, and to maintain the workers' wages. The problem lay in the uncertainty of demand.

5.2.5 Retrenched workers

The informants explained that they were being retrenched because the company experienced a decline in demand for their products. To cut production costs the company tried to reduce the hours of work. But when this did not work, the company asked the workers if they wanted to resign with severance money, which was more than if the company decided to carry out mass lay-offs. Many workers accepted this offer, because they thought that it was better to resign early, and that postponing it might cause a reduction of the severance payment, owing to worsening economic conditions.

Most of the informants said that they did not see any gender differences in the process of and criteria for laying off people. However, there were cases where women volunteered to be laid off rather than their husbands who happened to work in the same factory. One woman said that because her husband's income was higher, and another said it would be a shame to have a husband who did not have a job. Thus women tended to sacrifice themselves to accord with the social perception that men should be responsible for providing for the household.

5.2.6 Conditions after retrenchment

From the interviews with informants, the impact of retrenchment differed according to demographic characteristics. Many of the informants were 40 to 50 years of age when they were retrenched, with average education at high school level. They said that they were not interested in doing different work from what they used to do. They were reluctant to work if the wage was lower than what they received before, or when the place of work was far from home. Instead, they tended to be their own boss, such as opening a food-stall, becoming an *ojek* (motored pedicab) driver, or engaging in other income-generating activities. Some depended on the interest received depositing the severance money in a commercial bank. Because of the government's "tight money" policy, the interest rates of such deposits were very high, initially at 60 per cent a month, decreased to about 50, 40 and about 30 per cent for more than a year. But after the middle of 1999, the interest rates fell substantially to 11 per cent a year, impacting especially some retrenched workers.

Younger informants retrenched from work tried to find jobs. Some women tried to become salespersons for an insurance company. But, usually, income from this kind of job depended on commission when she or he sold the product. Some other informants joined the homeworkers working for the laundry-bluing factory. Their incomes decreased from Rp. 42,000 per week when they worked at the factory, to only Rp. 33,600. They were satisfied, though shifting jobs from the formal to informal sector lost them fringe benefits. But many more informants said they gave up seeking a new job. Most companies, they said, rejected applicants older than 30 years. So they decided to leave the labour market. Male informants had to find a job in the informal sector.

Workers who were not retrenched had to take over jobs done by their colleagues, so that they had to work for longer hours for no extra pay. Some informants asked their wives to find a job, among others working for a dress-maker. As many women were compelled to work for additional income, competition among them rose, at the same time that the informal sector was crowded with men retrenched from the formal sector.

5.2.7 Access to small credit

Almost all informants said that they had problems in accessing small credits, as they lacked a legal permit and collateral. This is an archetypal reason that has been reported from many studies. It did not matter whether they were men or women; they could have credit if they had a legal permit and collateral.

But the most interesting findings were that many of the informants (food-stall owners, petty traders) said they were not motivated to obtain credit in the economic crisis. According to some: "The current economy is not conducive to open or enlarge a new business"; and "There are too many sellers, but less and less buyers; and "I do not want to get credit, as I am afraid of not being able to pay back".

Paying instalments every month seems to be burdensome for them, especially because of the uncertainties of business. Small traders like them were afraid of being unable to obey the rules of the credit scheme.

Small credits available from the Ministry of Industry and Trade were used by small-business owners with some workers. One informant said that he once received a small amount of credit (Rp. 80 million) from the Government. But this was also because he owned a small factory building in a small industrial compound in east Jakarta, and had legal recognition from the Ministry of Industry and Trade. In short, he had a legal permit as well the collateral for obtaining credit.

Many informants stated that they received training from the Government. But only a small portion of them said that the training was very useful for their activities. Most of them said that the training was inapplicable to their daily business activities. Some of them said that the training focused on a highly technical method of operation that was inappropriate for their simple business activities. Others said that the substance was not directly related to their activities. Therefore, they suggested that the substance of the training should be designed to match their needs. The training should be more operation-oriented rather than theoretical. However, there were also informants who said that participation in a training programme could expand networking among small-business people and therefore would increase information on business opportunities.

5.2.8 Social safety net

Most of the informants said that they knew about the Government supported Social Safety Net (SSN) Program. But only one person said she received a benefit from SSN in the form of cheap rice. They knew that the SSN provided small credits to people to start or expand income-generating activities. However, they said that the amount was too small. Because of this, self-employed people in the small business compound in east Jakarta said that the SSN was not for them, since the amount was too small and the economic environment was too weak to start a new business.

5.2.9 Gender-differentiated impact of the crisis on the urban informal sector

The gender-differentiated nature of the impact of crisis became evident from the replies collected during the field work. First, most self-employed people who needed helpers to run their business said that women were suitable to do easy and light jobs not requiring muscles. Women were perceived as suitable to do jobs requiring dextrous and careful attention. They took pity if women had to very hard work requiring muscles. Therefore, even though employers wanted to

have women as helpers, they preferred hiring men helpers to carry heavy loads from home to the selling point. Women helpers in this kind of informal sector work were therefore more easily discharged from work. In addition, living arrangements were easier for men. Second, there was still a strong tendency for gender segregation of the type of work based on this stereotype. For example, heavier metalwork was for men, while lighter tasks were for women. Third, the social perception that men are the ones responsible for household income was borne out by the fact that women easily left the labour market. This impression came from the fact that when facing retrenchment, between husbands and wives who worked for the same employer, the wife, voluntarily left work because having an unemployed husband seemed unbearable in her society.

III. Economic crisis, employment and gender in the rural sector

by: Sri Harijati Hatmadgi, et.al

1. Gender-differentiated impact of globalization and macroeconomic changes on employment in the rural sector

1.1 Introduction: globalization and the labour market

Until early 1997, economic growth in the ASEAN countries – including Indonesia – was strong. Average GDP growth was above 5 per cent (Indonesia was growing at 8 per cent in 1996) while inflation was still in single digits. Stock markets were booming, showing good returns on investments in those countries – both from a local and foreign investor's point of view. These conditions created an economic environment conducive to globalization.

Indonesia, as one of the agrarian countries, planned and developed its agricultural sector, and used it as a comparative advantage to compete in the globalized open market. The agricultural sector was one of the main priorities in the Governments' development programmes in every PELITA[1] from the first to the sixth, especially the first and second, given that 55 per cent [2] in 1980 and 48 per cent [3] in 1990 of the labour force were absorbed in the agricultural sector; 97 per cent and 95 per cent, respectively, of these people lived in rural areas. Since the third PELITA, the Government began to transform the focus from traditional agricultural to a modernizing approach (i.e. agribusiness and agro-technology). As a result, self-sufficiency in hulled rice (the main food of Indonesians), or *swasembada beras*, was achieved early in the fourth PELITA. Indonesia had previously imported it for about 18 years. The Government paid attention to both traditional crops and manufactured agro-products through deregulation and policies such as diversification and intensification, to maintain self-sufficiency in hulled rice. As mentioned above, agribusiness has been one of Indonesia's most competitive export commodities.

1.2 Globalization in the rural sector

The agricultural sector employs the largest number of workers; the level of women's participation in agricultural employment depends on the use of technical or mechanical farming (Boserup, 1970). In areas with more traditional technology that depend on rainfall, there is a higher level of women's participation, whereas in areas with more developed technology with water irrigation systems, the job distribution rates are more balanced between men and women: men plough the land and women do the planting. Hence, technological development and job specialization affect the gender division of labour.

The effect of technology changes on women's participation in the labour force is also reflected in the changes of work patterns (Suratiyah et al., 1991). For example, women who were previously fully occupied as homemakers switched to the role of both homemakers and workers, either in agriculture or another economic sector (off-farm work), even though most of them may be working as unpaid family workers. Women might change from some field work to homework, and selling crops and home-produced goods.

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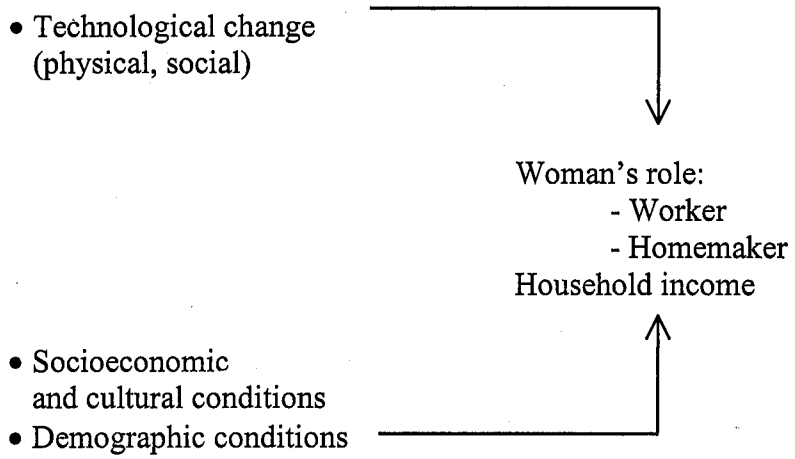
[1] PELITA (*Pembangunan Lima Tahun*): the series of five-year development plans, in force since 1971.

[2] Calculated from "Population of Indonesia – Results of the 1980 Population Census", CBS, 1983.

[3] Calculated from "Population of Indonesia – Results of the 1990 Population Census", CBS, 1993.

Figure 1.1 Impact of technological change and socioeconomic conditions on the role of women



Source: Suratiyah, Ken, et al., 1991.

The assumption that women are losing out in terms of employment opportunities, especially in the agricultural sector owing to the introduction of labour-replacing technologies, is valid for areas in the early stages of development, since technology creates special jobs for men (Durand, 1975; Standing, 1978). In the later stages of development, women's participation increases in parallel with the increase in household income. This eventually stimulates the use of technology in the household, which gives more opportunities to women to enter the labour market.

The effect of technological development in agriculture varies between regions. It depends on the socioeconomic and cultural conditions of a region, and on the accepted role of women in the household (see Figure 1.1).

The application of new technology in DI Yogyakarta reduced the proportion of female workers in planting activities, while in Bali it increased it (Table 3.1). For harvesting activities, the decrease of female workers in DI Yogyakarta was greater in percentage terms than in Bali.

1.3 The economic crisis and the labour market

While preparing to face the impact of globalization, Indonesia has an immediate concern, i.e. the economic crisis that began in mid-1997. This crisis, alongside a political crisis, has put the Indonesian economy in serious trouble. The crisis began with a currency crisis, then spread to all aspects of the Indonesian economy, because the nation's liabilities to foreign investors, both governments and companies, had risen dramatically owing to the steep depreciation of the rupiah against foreign currencies. So the currency crisis not only affected the financial sector, but unfortunately – and much worse – the production sector.

The crisis has affected people and the economy in two ways. First, it has resulted in high inflation. This in turn has forced people, given a certain standard of living, to earn a higher income. In the absence of unemployment benefit, people need to work to earn an income, whether in cash or kind.

Second, people seem to have moved from being economically inactive to becoming active in the labour market, and from the urban to rural sector. Because of the crisis, every able member of a family has been pressed to earn income, and the dependency rate in a family decreased to a minimum.

Clearly, this movement favours growth in national income since economically inactive people, in particular women, have now become active; in addition, it adds to the overall economic pressure on women workers. However, should this movement involve school-age children, this would be the same as discounting future income for the sake of current consumption, a possibility which seems more likely in rural areas.

During the crisis, the Government seemed to realize that the agricultural sector could support the economic recovery; it started to re-examine its agricultural policies, with increased orientation to marketing food crops and to export-oriented production. This also is likely to absorb more working people, especially homemakers and school-age children who were economically inactive previously. The female labour participation rate in agriculture grew between 1997 and 1998 (it decreased between 1996 and 1997), while the male rate fell in the rural sector (Table 3.2).

1.4 Objectives of study

Given that the growth of the Female Labour Force Participation Rate (FLFPR) is faster than that of the Male Labour Force Participation Rate (MLFPR), there is need to address the gender-differentiated impact of globalization, especially the impact of the crisis on rural sector employment. This chapter will examine: how a general reallocation of resources and the introduction of labour displacing technology can motivate rural-urban migration; how the growth of production of certain commodities, especially export-oriented production, is benefiting workers, in particular women in rural areas; and how the crisis has led homemakers and school-age children to enter the labour market.

The study will review the gender-differentiated impact of globalization and macroeconomic changes on employment patterns and working conditions in rural areas. Generally, the question of changing accessibility of technology and credit will be examined from a gender-disaggregated point of view.

The particular objective of the study was to obtain information on:

(a) the participation of household members – both men and women – in the labour force before and during the economic crisis;

(b) types of economic activities of household members, before and during the economic crisis;

(c) reasons (pull and push factors) for changes in economic activities of the household members;

(d) types of employment along with types of economic activities;

(e) hours worked of the employed person;

(f) income for each activity of the household members;

(g) accessibility of technology and credit with a gender perspective.

1.5 Secondary data

The secondary data used in this study are taken from the 1998 *Sakernas* (National Labour Force Survey), which was collected by the Central Bureau of Statistics (CBS). This study uses cross-tabulation analysis of published 1998 *Sakernas* data to obtain the employment rate, LFPR, and level of wages and average hours worked. In addition, the processing of raw data has been done to determine the employment changes (work status, type of occupation, and economic sector by gender and urban-rural), as well as the level of wages before and during the economic crisis.

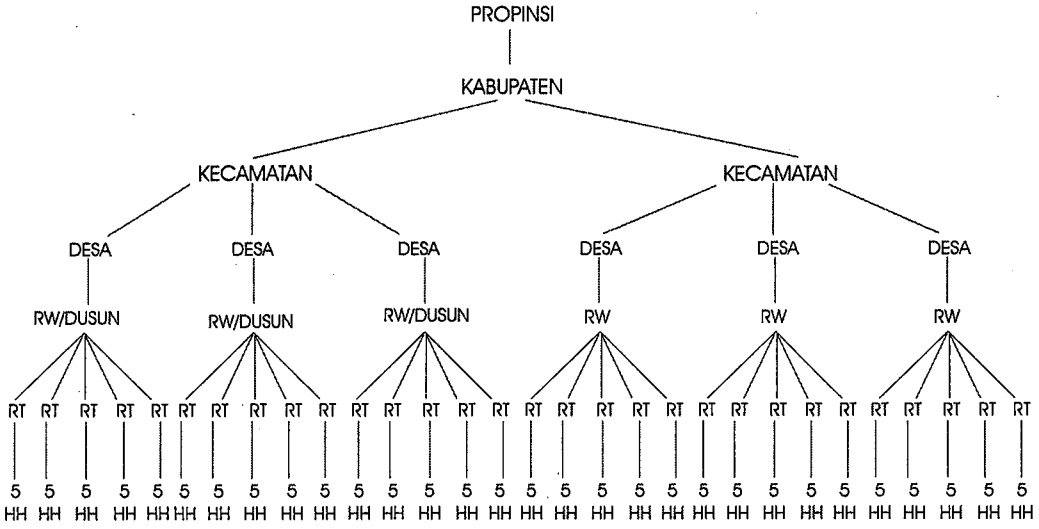
1.6 Field survey data collection

Two provinces were selected for field survey coverage, namely Central Java Province and Lampung Province. The two provinces were selected on the assumption that they would give a complete description of agricultural production, either food crops such as paddy and red onion, or cash crops for export such as pepper, rubber and coffee. It was assumed that the areas that were more exposed to cash crops, in particular export-only crops, would do better during the economic crisis than those which were mainly involved in subsistence rice production. In Central Java, *kabupaten* (district) Brebes was selected as an area that is well known as a red onion producer as well as paddy. Kabupaten North Lampung, in Lampung, which is abundant in rubber, coffee and pepper, was selected.

In each kabupaten two *kecamatan* (subdistricts) were chosen on the basis of the type of crop produced by the majority of the population in the area, i.e. the kecamatan (subdistrict) where the majority of the population produces paddy, and the kecamatan where the majority of the population produces export commodity crops. In kabupaten Brebes, kecamatan Wanasari, which is abundant in red onion and kecamatan Bulakamba, which produces paddy, were selected. In kabupaten North Lampung, kecamatan Baradatu, which produces paddy and kecamatan Blambangan Umpu, which produces pepper, coffee and rubber, were chosen.

In each *kecamatan* three villages were selected, and in each village five village neighbourhoods were selected (see Figure 1.2).

Figure 1.2 Sample design



Note: ***Propinsi*: Province, *Kecamatan*: District, *DESA:* Sub-district, *RW/DUSUN*: Village, *HH:* Household**

The sample unit of the survey was the household. This was taken from the list of households at the local village neighbourhood head as the basis for sample selection. If the list was incomplete (owing to lack of data), the interviewers made a list of all households in that village neighbourhood for sampling. In each province the number of households taken for sample was 150 households. In each household three respondents were scheduled for interview. These were: the head of household and two household members aged 10 years and above involved in economic activities. The total number of respondents were 441 persons in kabupaten Brebes, but only 287 persons in kabupaten North Lampung as most of the household members aged 10 years and above were not employed.

1.7 Qualitative survey

1.7.1 Focus group discussion

Focus group discussions (FGDs) were conducted to secure information on perceptions, opinions and problems faced by a group of homogenous informants on the assumption that this could represent the opinion of that group. The FGDs were conducted in such a way that there were no individuals who might dominate the discussion. In the discussions, it was expected that all of the participants would express their own opinions, problems and experiences.

In this research, FGDs were held in two big groups of people, including land-owning farmers, land-renting farmers and farm labourers. In each subdistrict the FGD was held four times, twice for men's groups and twice for women's groups. Each group comprised eight people who were assumed to be homogeneous in their socioeconomic characteristics. People who are engaged in two types of production were interviewed, namely paddy and rubber/red onion production.

1.7.2 In-depth interviews

In-depth interviews were administered with a simple interview guide, which was not rigid and was expected to evolve in the field, so that more complete information could be acquired. The informants in the interview were a man and woman in each village. In addition, there were also two religious/community leaders who had knowledge of the problems involved in the research. Similar to that of FGDs, informants were selected on the basis of their employment and farm ownership status, such as land-owning or land-renting farmers and farm labourers.

2. Characteristics of working-age population, labour force and workers in Indonesia

2.1 Working-age population

Before 1998, the working-age population was defined as that part of the population aged 10 years and over. In 1998 the definition was revised to include only those aged 15 years and over. The change was based on the assumption that the population aged 10 to 14 years would be in school, given that the Government has a policy of nine years of compulsory education. The 1998 *Sakernas* shows that the number of the working-age population in rural areas in Indonesia was 82,465,715 persons, mainly in the productive age groups between 15 and 39 years old (Table 3.3). The position is similar in Central Java and Lampung provinces. Nationally, there are more women than men, i.e. 50.6 per cent compared with 49.4 per cent. In Lampung, however, there are fewer women than men.

A large proportion of the population can be considered as potential resources for economic development, depending on their general skills and knowledge. Most workers in Indonesia still have low levels of education, i.e. SLTP (junior high school in both general and vocational or below). The proportion of women aged 15 years and over in Indonesia with no education and who have not finished primary school is much higher than that of men (39 per cent as against 27 per cent – see Table 3.4). Also, the proportion of women with a senior high school education and above is lower than that of men. Clearly, the educational level of women in the national labour force is lower than that of men. The two provinces mirror this finding to a greater or lesser degree.

The low levels of women's education is caused by the perpetuation of traditional values, i.e. the main functions of women are house-keeping, child-bearing and child-rearing, whereas men need to earn income outside household, and boys are therefore given priority for schooling.

2.2 Labour force and employment structure

The working-age population consist of two big groups, namely the labour force (the economically active population) and the non-labour force (the non-economically active population). The labour force is made up of those actively engaged in the labour market, and the non-labour force those not actively engaged in the labour market, e.g. they are still at school, doing house-keeping or retired.

The 1998 *Sakernas* data show 35.7 million men or 87.64 per cent of the male labour force and 23.6 million women or 56.61 per cent of the female labour force are either working or looking for work. A similar picture is also seen for Central Java and Lampung.

A high percentage of women do house-keeping (32.36 per cent) compared with only 0.67 per cent of men. This shows that there are still many women who do only "house-keeping" work. The field survey results also show that house-keeping work among respondents in Brebes and North Lampung had been the respondents' main job, while other jobs such as temporary farm labour, small retail trading, etc. were not regarded as their main jobs, but only as side jobs.

However, the 1998 *Sakernas* also shows that more than half the women aged 15 years and over in rural Indonesia are employed (Table 3.5). The figures for Lampung and Central Java are higher than the national figures.

The biggest percentage of workers in rural Indonesia, both men and women, are absorbed by the agricultural sector, at 62 per cent for men and 64 per cent for women (see Table 3.6). The next two biggest sectors are trade (wholesale, retail, restaurants and hotels) and manufacturing.

Trade sectors, especially retail trade and restaurants, provide significant opportunities for women's employment: the percentage of women working in this sector is twice as high as that of men. Although there are some women nationally who work in construction, the proportion is very low (less than 0.3 per cent). This is also true for women in Lampung and Central Java. The proportions of men working in this sector are 4 per cent in Lampung, 7 per cent in Central Java and 5 per cent nationally.

Nearly 60 per cent of male workers in rural Indonesia in 1998 were self-employed or self-employed assisted by a family member or temporary worker (Table 3.7). The equivalent percentage for female workers was only 35 per cent.

Another feature is the high percentage of women workers in rural areas working as unpaid family workers. In rural Indonesia nationally, nearly half of women workers are unpaid family workers, while the equivalent proportion of men workers is only 11 per cent. Lampung has a higher

proportion of unpaid family workers, with men at 16.7 per cent and women at 59.9 per cent. The workers in this group receive no cash wage (except some free meals).

2.3 Economic crisis

The economic crisis that started in July 1997 has caused some changes to the working-age population and labour force structure in Indonesia, because many industrial, trading and service companies have been forced to lay off their employees to survive. In the 1998 *Sakernas*, questions were asked to capture the impact of the crisis, in terms of job continuation of the population aged 15 years and over. The questions were asked of all the respondents, whether they were working or not.

The replies to these questions for rural areas are summarized in Tables 3.8 to 3.11. Table 3.8 shows that the proportion of the population aged 15 years and over in rural areas who had stopped working/changed jobs prior to August 1998[4] was 45.13 per cent of men and 31.07 per cent of women. A few of them stopped working/changed jobs after July 1997: 3.61 per cent of men and 1.86 per cent of women.

Out of those who stopped working/changed jobs after July 1997, among the men a large proportion (71.55 per cent) were working again (re-employed and absorbed by the labour market); among the women 48.67 per cent were economically inactive (Table 3.9). The proportion of women workers who stopped working/changed jobs after July 1997 and were re-employed in 1998 was only 35.58 per cent, half the men's figure. The proportion of male workers who stopped working/changed jobs after July 1997 and became economically inactive in 1998 was only 11.62 per cent, or much lower than female workers (48.67 per cent) in the same category. This means that men in rural areas who stopped working/changed jobs were more likely to be re-employed than women.

The proportions of those still looking for a job in 1998 were almost the same for men and women: 16.84 per cent and 15.74 per cent, respectively. Overall, men were more immediately absorbed into the labour market than women. It indicates that women who stopped working/changed jobs after July 1997 chose to become economically inactive rather than look for another job or perhaps they were discouraged by the lack of employment opportunity due to the economic downturn. The men who became economically inactive might have been waiting for a good opportunity to rejoin the labour market.

The reasons for stopping work/changing jobs (as a result of the economic crisis) after July 1997 are as follows (Table 3.10): laid off, 20.20 per cent of men and 13.69 per cent of women; insufficient income, 28.79 per cent of men and 20.51 of women; went out of business, 20.79 per cent of men and 15.03 per cent of women. Clearly, being laid off was not the main reason for stopping work/changing jobs: going out of business was equally important.

The proportions among those who were laid off after July 1997, and re-employed or absorbed in the labour market in 1998 were 55.93 per cent for men but only 27.72 per cent for women (Table 3.11). The biggest group of those still looking for a job in 1998 comprised women workers who were laid off, at 42.92 per cent.

The percentage of male workers who went out of business after July 1997 and re-employed in 1998 was bigger than that of women. Most of the women who stopped working/changed jobs after July 1997 because they went out of business became economically inactive in 1998. It might

[4] The 1998 *Sakernas* was undertaken in August 1998.

be that women workers were faced with more difficulties in starting a new business or re-entering the labour market.

It seems that women faced more difficulties than men in finding work after being laid off or going out of business. Twice the proportion of women than men who were laid off after July 1997 became economically inactive in 1998, namely 29.36 per cent compared with 11.24 per cent.

3. Employment patterns in rural areas

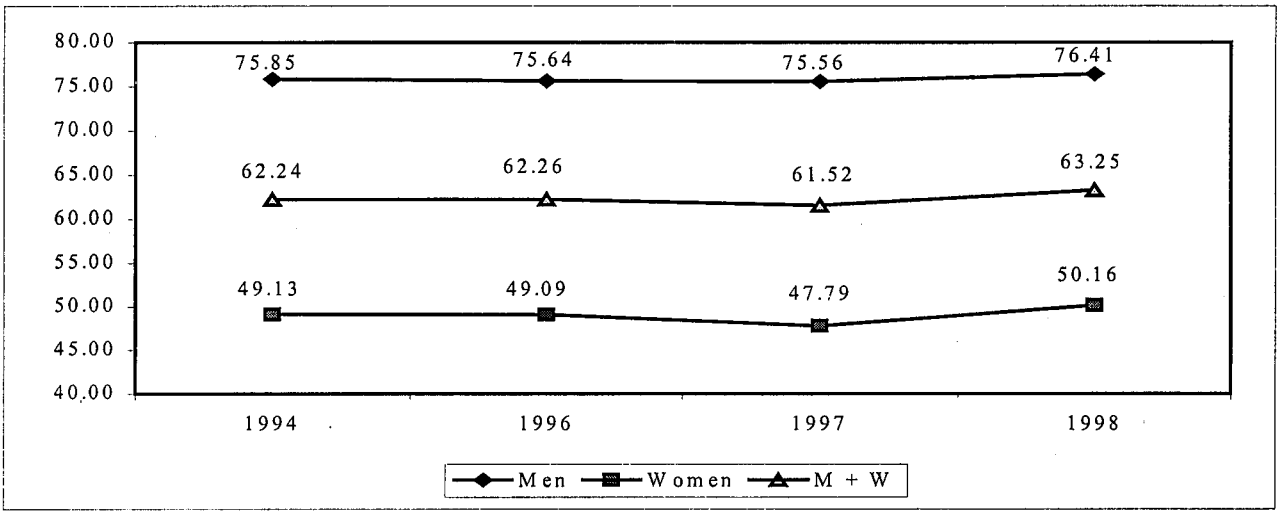
3.1 Labour force participation rate

The labour force participation rate (LFPR) shows what proportion of the working-age population is actively involved in the labour market – both those employed and those looking for a job. [5]

The patterns of the MLFPR and FLFPR nationally in 1994-98 are similar. The LFPRs are fairly stable with a slight increase in 1998 (Figure 3.1). Hence, there was no substantial change in the gender bias. Nevertheless, in 1998 the increase in the FLFPR was slightly higher.

Although the trends of the LFPR in rural areas for 1994-97 are nearly the same as those for Indonesia as a whole, the increase in the LFPR in 1998, especially for women, is only slightly greater (Figure 3.2).

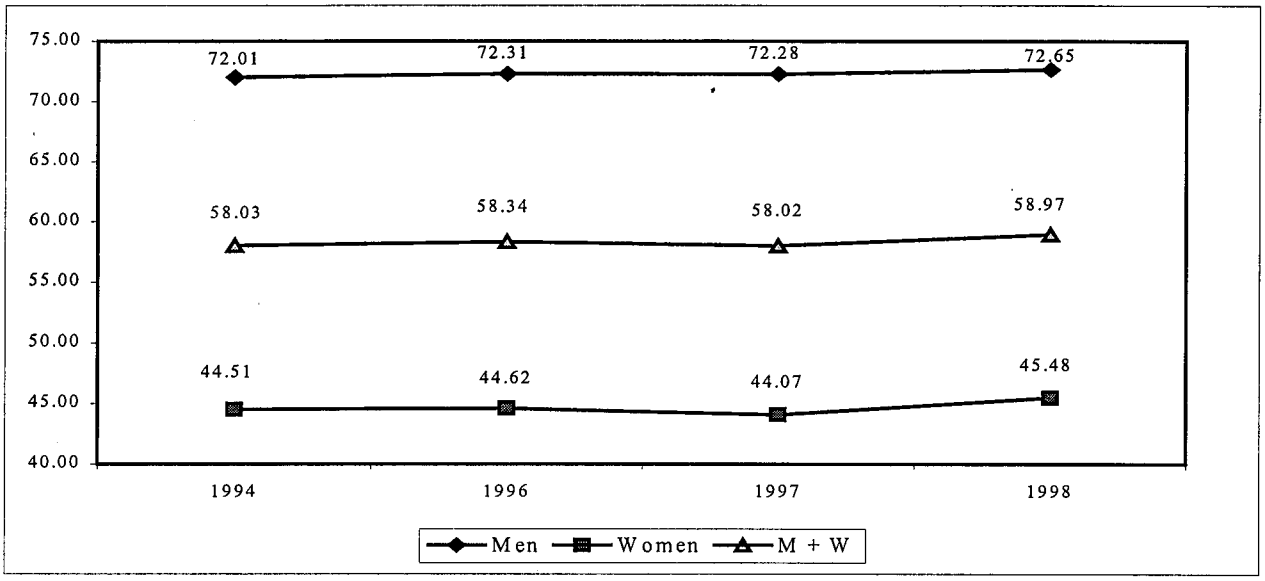
Figure 3.1 LFPR for population aged 10 years and over by gender, national, 1994-98



Source: Calculated from 1994-98 *Sakernas* data, CBS, Jakarta.

[5] Until 1997, CBS defined the working-age population as the population aged 10 years and over, but changed the definition in 1998 to the population aged 15 years and over.

Figure 3.2 LFPR for population aged 10 years and over in rural areas by gender, 1994-98



Source: Calculated from 1994-98 *Sakernas* data, CBS, Jakarta.

The higher increase in the FLFPR, both in rural areas and nationally, shows that women are more affected by the economic crisis than men. This may partly be the result of new entrants to the labour force among women who were not previously in it, probably motivated by the necessity to work to help their husbands or parents to earn money.

Table 3.12 shows LFPRs in rural areas in Lampung and Central Java (obtained from secondary data), with the national rate for comparison purposes (average of all 27 provinces).

The LFPR in Central Java, especially for women, is higher than in Lampung and even above the national rate. Java Island, which cultivates mainly paddy and horticulture-flora, gives more opportunities to women to be employed, compared with women in other islands. The skills used for land-processing are obtained by men and women through family tradition. The high FLFPR is mainly due to women's obligations as unpaid family members in farming families.

Labour force conditions in Lampung are worse than in Central Java. The male and female LFPRs in Lampung are lower than the national rates. The FLFPR in rural areas of Lampung fluctuates more than in Central Java. Most of the agricultural activities in Lampung are plantation and not wet-paddy farming, which has a longer farming cycle. This fact has made the role of women farmers less important than in Central Java, and it is possible for them not to work on the farm for a long time. The products of the plantations are exported. This might be the reason why the female population aged 10 years and over in Lampung province gives the impression of being inconsistent in entering the labour market (i.e. becoming economically active).

Globalization has influenced labour conditions somewhat, as signalled by the gradual shift in labour supply and demand in rural areas in Indonesia. This has been seen in the slight increases in the shares of non-agricultural sectors such as trade, construction, manufacturing and finance. Almost all economic sectors have shown increases in their total share of labour, except agriculture and community services (Table 3.13).

In terms of main work status in rural areas, the biggest proportion from 1994 to 1998 for men was "self-employed assisted by family member or temporary worker" and for women was "unpaid family worker" (Table 3.14). These two employment characteristics of the two genders have a close correlation. Unpaid family women workers helped the men.

The pattern of main work status for men and women is consistent between 1994 and 1998: men are more likely to be self-employed, while women are unpaid family workers. There was little change in women's work status in rural areas in Indonesia.

The recent economic crisis has had a substantial impact on the Indonesian labour market. Many companies have retrenched workers to reduce their production costs in order to continue operations. However, surprisingly, this was not directly reflected by the open unemployment rate, as most of those retrenched had to look for alternative sources of income to survive.

Based on the 1998 *Sakernas* in rural areas, the number of those who stopped working/changed jobs in rural areas after July 1997 (the 1998 *Sakernas* used this date as the starting point of the crisis) after being laid off was about 496,471 or 41 per cent of total (urban and rural) workers. This is made up of 371,236 men and 125,235 women. But in fact, the numbers of men in the labour force that were laid off after July 1997 and were reabsorbed into the labour market in 1998 are bigger than the numbers of women, both in absolute figures and as a percentage. This is clearly seen in Table 3.15.

From the above tables, 62.21 per cent of male workers that had been laid off after July 1997 were re-employed and only 9.76 per cent of them were still excluded from the labour market in rural areas. The equivalent figures for women were 35.25 per cent and 27.82 per cent respectively, the latter more than three times the men's percentage.

The crisis indeed caused lay-offs and raised open unemployment. However, it also made those who had been laid off find a job quickly and hence become reabsorbed into the labour market. The employment rate in 1998 did not decrease; rather it increased. (The rate of unemployment increased only once briefly in 1998).

3.2 Working hours and hours worked in rural employment

The qualitative survey shows that the number of hours of work for men and women in rural areas depends on the type of work. The hours worked in Central Java and in Lampung are shown in Table 3.15. The data on hours worked were obtained from the informants on every type of job done in a day (Table 3.16).

In the Central Java area of red onion and wetland paddy production, a man who works as a farm worker (*buruh tani)* or farm labourer (*kuli)* works the longest hours, around 11–12 hours per day. This is because a *buruh tani* or a *kuli*, after working on the farm for 8-9 hours, also works off-farm as a *tukang becak* (tricycle driver) or *tukang ojek* (motorcycle driver) in the evening for around 3 hours.

A woman in Central Java who works off-farm in her small shop or *warung* (at home) works the longest hours, i.e. 13 hours. When observed closely she works 15 hours, since the two hours of rest are not really rest. She says that she still accepts buyers who come to her *warung* although it is lunch-time *(lohor)* or nap-time.

The second longest hours worked are by most women who claim that farming is their main activity and the domestic work is only a side job (12.5 hours worked for both activities). Farm owners in Central Java, men or women, work only during the day (six hours, 6 p.m. to 12 noon).

They come to the land only to oversee their workers on their land.

The pattern of hours worked in Lampung, which is an area of export-oriented production, is similar to that in Central Java, although, the hours worked on all types of activities are longer. Farm owners surveyed in Lampung, men or women, work longer hours than those in Central Java because they work their own land. For rubber and coffee, they work almost every day, and generally with their family members. They work on their land continuously, and do not go back home for lunch or rest since the land they own is usually located far from home.

In Lampung, women's main jobs are as farm workers *(buruh tani)* and off-farm side jobs as food vendors (*warung makanan)* or vegetable sellers in the market. They work on the farm in the afternoon. A woman with a side job in food processing (*opak)* works on this in the evening, and on the farm in the morning. They work on the main and side jobs for 11 to 14 hours a day.

The information gathered from the qualitative survey shows that informants in Central Java and Lampung, men and women, with off-farm main jobs, work longer hours than those with main jobs on the farm. Women work longer hours than men because of domestic work.

The results of the survey show that in Central Java and Lampung men and women respondents engaged in non-agricultural (off-farm) activities work longer hours on average than those engaged in agriculture only (Table 3.17). This seems stable over time, i.e. from three years before the survey to one week before the survey. However, when closely analysed, in Central Java during the economic crisis (one year to one week before the survey) the average hours worked in non-agriculture were fewer than previously, while the average hours worked on agriculture were more than previously. Most likely, this was caused by the increase in the prices of agricultural commodities during the crisis, especially red onions, motivating people to work on the farm. In Lampung, people did not directly respond to the increase in the price of agricultural products and they just switched to export-oriented commodities that needed more time to harvest. Pepper and coffee need at least four or five years and it takes five or six years for rubber to yield a crop.

In Lampung, the men and women respondents working in agriculture worked similar average hours, at around 41.2 to 41.7 hours for men, and 36.5 to 37.8 hours for women a week. However, in non-agricultural work, men's average hours fluctuated from 43.4 hours three years before the survey to 40.4 hours one week before. The average hours worked by women in non-agriculture also fluctuated, from 51.8 hours worked three years before the survey to 53.0 hours one week before. This shows that during the economic crisis women were more involved in non-agricultural work to increase household income.

Table 3.18 shows the hours worked one week before the survey in agricultural and non-agricultural sectors by work status and education. In agriculture, men work longer hours than women (43 compared with 32 hours a week) in Central Java. In addition, men work longer hours in every work status. They work about 32 to 53 hours a week, while the women work some 21 to 35 hours only.

Looking at the respondents deployed by work status in the agricultural sector in Central Java, those working as employers and employees work the most hours (46 hours each). Among them, men work longer hours than women (53 to 35 hours). Family workers work the shortest hours (32 hours a week), which is easily understood since the persons involved are mainly wives and children who assist their husbands and parents in land-processing.

The figures are quite different from those of off-farm jobs or the non-agricultural sector. In this sector, men and women work the same number of hours, i.e. 48 hours. However, when

examined closely, it can be seen that the respondents with the longest hours in non-agricultural (off-farm) jobs are employers.[6] These people have small shops (men) and work in food processing/home industry (women). Both are helped by permanent workers. The hours worked are higher for women than men. Next are the respondents who are self-employed and assisted by unpaid workers. The women work longer hours (average 54 a week). "Others" in off-farm jobs in this group of respondents work as *Pegawai Negeri/Guru* (Government Employee/Teacher) and *ABRI* (the Armed Forces). They work only 33 hour a week.

In Lampung, the figure for hours worked from respondents in the agricultural sector was similar to that in Central Java, i.e. men work longer hours than women. Analysing by work status, the respondents who are self-employed and employees in the agricultural sector work similar hours, although their status is quite different. In Lampung, self-employed workers in agriculture are farm owners, while the employees are *buruh tani.* The self-employed women work longer hours than the men because they have to do domestic chores before and after land-processing. The self-employed respondents assisted by unpaid workers work an average 38 hours a week (134 people were covered in this study). They are farmers who are assisted by unpaid family members. Family workers worked fewer hours, 33 hours. Employers worked the least number of hours, only 21. They were owner-managers of their farms (*juragan,* but only two people were in this category).

Unlike the figure for Central Java, women in the non-agricultural sector in Lampung work longer hours than men, 53 compared with 40 (see Table 3.18). Some work off-farm as self-employed workers, as massagers and *pedagang kecil* (small-scale vendors), and work an average of 46 hours a week. Others are self-employed assisted by unpaid workers and include small stalls (*warung kecil)* and food-processing businesses for women, and carpenting for men. Women in this area work the longest hours, i.e. 67 hours a week; the men work only 30 hours a week.

Table 3.18 also shows the respondents who work in agriculture and non-agriculture/off-farm deployed by education. In the agricultural sector in Central Java, men work longer hours than women at all educational levels. The men with SLTP+ (Junior High School and above) work the longest hours (47 hours), while the women have the shortest (only 24 hours). In the non-agricultural sector, men and women work the same number of hours, i.e. 48. The men who finished SD (primary school) and SLTP+ work longer hours, but those with no education/did not finish SD, work fewer hours than the women in this group (49 as against 58 hours). In Lampung, although the men at all levels of schooling work longer hours than women, when looked at by level of education, men and women respondents with no education/did not finish SD and those who finished SLTP+, work similar numbers of hours (40 to 41 hours). Men who finish SD work the longer hours. The difference is even greater, i.e. 42 for men and 33 for women in agriculture work.

In non-agricultural/off-farm work, women who have lower education (no education, not finished SD and finished SD) work longer hours than men. The difference is substantial, 46 to 42 hours for men compared with 61 to 60 hours for women.

These figures show that women in Central Java with higher levels of education work fewer hours in either the agricultural or non-agricultural sector. In Lampung, however, higher levels of education do not influence the number of hours worked substantially, and only more in non-agriculture work as women work 8 hours less than men among those with SLTP+ education.

[6] The number of respondents involved are very small (4 per cent).

3.3 Income

The 1998 *Sakernas* data show that the main reason that workers stopped working/changed jobs after July 1997 was insufficient income. As said earlier, nominal increases in wages did not equate to real increases, partly because of the higher costs of basic living needs. One escape was to stop working and to look for a better paid job, or to become an entrepreneur in any sector that could provide a higher income.

At the national level, male workers' incomes in rural areas increased from Rp. 207,335 per month in 1997 to Rp. 255,789 in 1998, an increase of about 23.37 per cent, while for women the increase was only about 19.02 per cent (Table 3.19). The situations in Lampung and Central Java were fairly similar, although in Central Java the increase in income for men was lower than that for women, at 18.92 per cent and 30.38 per cent, respectively.

In the agricultural sector, there were increases in average monthly income between 1997 and 1998, for men and women (Table 3.20). During the economic crisis, the industrial sector, trade and services were badly affected, because some raw materials, and technological and marketing input were still dependent on other countries. In contrast, agriculture was the sector best able to face the economic crisis. Nationally, agricultural sector wages increased by 30.03 per cent for men and 31.25 per cent for women, as they also did in Lampung and Central Java: in Lampung, 39.67 per cent for men but only 0.5 per cent for women; in Central Java, 34.61 per cent for men and 48.87 per cent for women. The qualitative survey shows that the daily income increase for men was from Rp. 5,000 to Rp. 8,000, and for women from Rp. 3,000 to Rp. 5,000. Although the difference in the increases was fairly small, the question remains as to why it was the case.

In rural areas, the income problem was less dominant than in urban areas. The reason is that the biggest part of the labour force was still working in the agricultural sector, and retaining the traditional nature of mutual help as a social safety net. People get jobs (as farmers) because of family tradition and not solely for income. Agricultural employment is seasonal (temporary), and when there is no work to be done on the farm, workers can use their spare time for additional income, by, e.g. opening a small shop, developing home industry or doing other off-farm jobs.

Farm owners and farm workers usually get their income at harvest time, so they have no income *per se*. Farm labourers are usually paid a daily wage, even though it is temporary and based on the availability of work like land-processing, planting and harvesting. Two areas of the field survey have different kinds of crops. In Brebes, Central Java, paddy and horticultural crops are the norm, and they have a relatively short plant duration. It is possible to figure out the daily income by dividing the sale of the harvest by plant duration, or by dividing one-year income by the number of workdays within the year. In North Lampung, Lampung Province, the plants are perennial, i.e. a long plant duration. Even though some of the plants such as rubber are old, they can be tapped every day. Hence, the calculation of income per day can be made directly. For pepper and coffee, which are fruit-bearing plants, if they are old enough to bear fruit, they can be harvested every day. The income, thus, can be calculated accordingly.

In the agricultural sector, there are clear gender differentials in income earned, and this has been the case for years. The discrimination is principally caused by the difference in tasks. Men's land-processing and other land-preparation tasks are considered heavier than planting, which is usually done by women.

3.3.1 Brebes, Central Java

Income (for farm owners and farm workers) in the areas surveyed in Brebes, Central Java, fluctuate highly and are very elastic. This is not the case for labour wages, because they are proportionate to the increase in prices of other inputs.

Income fluctuation is caused mainly by the price movements of red onion. They reached a high in 1998, one year before the 1999 survey (ironically at the same time as the height of the macroeconomic crisis) of Rp. 2 million per quintal (100 kg) or Rp. 20,000 per kilogram. The price of red onion at the time was overvalued, so it was fragile and could decrease at any time, and finally resulted in elastic price fluctuations.

The average gross monthly income of all respondents in 1998 – men and women – increased to Rp. 285,811, or more than 300 per cent higher than 1996's level (before the crisis and when the Indonesian macroeconomic situation was stable) of Rp. 66,486. If that figure is broken down by gender, the rise in income of the female respondents was lower than that of the male respondents, i.e. 304 per cent (Rp. 207,421) and 334.5 per cent (Rp. 318,867) respectively (Table 3.21).

The increase in gross monthly income in the agricultural sector between 1996 and 1999 – almost 500 per cent – was higher than the increase in gross monthly income across all sectors. In rupiah terms, the average gross income per month of female respondents was Rp. 259,486, lower than that of male respondents, which was Rp. 384,852.

The increase in income needs to be analysed carefully, because expenditures also increased – for household items and agricultural production, owing to the economic crisis.

After the high increases in 1998, the income of respondents substantially decreased in 1999 (one week before the survey). This is because of the overvaluation of commodities in 1998. However, the prices of production inputs that had been affected by the crisis did not experience the same decrease in 1999. Wages for labourers (men and women) also increased and this was almost impossible to reverse. So the result for farm owners, who incurred increased inputs costs for their farming, was a substantial decrease in the amount of real income.

The price of production inputs needed in farming had increased so much that many farmers became unable to buy agricultural inputs or they had to reduce the amounts they used. Insecticides became too expensive, leading to smaller harvests and consequently income. In summary, a double impact of the crisis was felt by the farm owners – the first was the overvaluation of production prices in 1998 and the second was the decrease of production outputs (in quantity and quality) caused by the farmers' inability to afford some production inputs.

The average gross income per month, one week before the survey, was about Rp. 139,305, or a decrease of 51.29 per cent compared with one year earlier. The worst decrease in average gross incomes occurred in agriculture, at more than 60 per cent. Furthermore, the reduction in the average gross income of female respondents was higher than male respondents. This seems to be because, by the time of the survey, many women who had done house-keeping before and occasionally helped their husband or father had become unpaid family members working on the farm, because labour costs were too high to hire outside labourers.

3.3.2 North Lampung, Lampung Province

Income fluctuation also happened in Lampung but in a different pattern. In both provinces, the same increase in average gross income per day happened in 1998. But there was a difference in income fluctuation, or the rate of income fluctuation in Lampung was not as big and contrasts with

what happened in Central Java.

The average gross income per month – men and women – in Lampung increased to Rp. 63,643 in 1998, or 138.93 per cent higher than in 1996 (see Tables 3.22). For men this increase was 141.23 per cent (to Rp. 76,821) and for women 99.4 per cent (to Rp. 24,447).

As in Central Java, in Lampung the increase in average gross monthly income per day (153.21 per cent) of the respondents working in the agricultural sector was more than twice the rate of those working in the non-agricultural sector (63.22 per cent). The increase for women working in the agricultural sector (185.95 per cent) was higher than for men (136.44 per cent). But given the absolute low levels of income, it is clearly shown that the average gross income for women in agriculture less than one third of the income for men.

4. Changes in factors relating to employment in the rural sector

4.1 Technology in agriculture

Agricultural technology in the rural sector has to be improved to provide for the population's needs, especially in terms of food consumption. The main reason for improving it is, first, the dependency of the population on agricultural outputs is high, especially on rice. Second, the share of the population working in agriculture is relatively high and they live mainly in rural areas (62 per cent for men, 64 per cent for women). The impact of technology improvement is not only on agricultural output, but also on the welfare of farmers through income gains.

Findings show that two forms of agricultural technology exist in rural areas: (a) physical technology, including construction and repair of irrigation systems, using prime seeds, commercial insecticides and fertilizer, applied goods and correct cultivating methods; and (b) social technology, including agricultural information and education, and activities of farmers' groups. Both types of technology are usually combined in practice. The technology used will change and improve the knowledge of rural society, including that of women.

The impact of agricultural technology on one area is different from another. It depends on social, economic and cultural conditions in each society. In the Central Java and Lampung areas surveyed, the application of technology introduced often depends on the activities of society leaders, especially the village head (*kepala desa* or *kepala dusun*). He or she has to support and facilitate the introduction and application of technology needed by the people. Physical technology, like technical irrigation systems, and prime seeds, fertilizer, insecticide etc., is probably more easily applied and easier to comprehend than social technology. The latter is introduced in the form of "knowledge" that must be observed and practised.

The result of the 1999 survey shows that physical technology and social technology are applied in Central Java and Lampung. Physical technology includes water systems, agricultural equipment and tools, and agricultural techniques, while social technology covers information and education (*penyuluhan)*, and the activities of the *kelompok tani* (farmers' group).

4.1.1 Physical technology

In Central Java, most of the respondents use technical irrigation (92.55 per cent) (Table 3.23). It shows that the irrigation in Central Java is running well. The percentage of respondents using electric pumps and river water and artesian well-water ("Others") in Central Java is higher than those using rainwater.

The condition of the water system in Lampung is contrary to that in Central Java. The percentage of respondents who use rainwater is high at 75.34 per cent, while only 27.85 per cent of them use technical irrigation. This is in line with the type of plants cultivated. In areas where rubber, coffee and pepper are cultivated, the farmers depend on rainwater for their land. There is no irrigation in these areas. The large land area and the types of plant cultivated include perennial plants (*tanaman tahunan)* that are supposed to be considered unsuited to electric pumps or well-water. That is why the respondents who use "Other" water systems are a very small percentage (0.91 per cent).

In the areas where farmers plant wetland paddy, indeed, the technical irrigation system was long ago constructed by the Government, but only a small area used it during the survey, because it had almost no water in it. These areas have experienced heavy drought for almost three years. The lack of water makes many farmers switch to secondary plants (*palawija* and cassava) which need rainwater.

The other physical technologies applied in agriculture are the tractor, plough (traditional and mechanical), sprayer and other tools such as hoe, sickle, rubber-tapping knife, cup and bucket. In Central Java, the traditional plough drawn by cows or buffaloes was used by one respondent. Most respondents (85.11 per cent) used a mechanical plough operated by a man. Tractors were used in processing the land (used by 14.36 per cent of the respondents). Sprayers (big and small) were used by almost all respondents (96.28 per cent). The use of sprayers depends on the ability of farmers to buy insecticide. However, since the use of insecticide seems a must in the red onion and wetland paddy business, farmers may have tools of their own or borrow the equipment and tools from their *kelompok tani*, or rent from somebody who owns the equipment and tools. The other important tools were *arit* (sickle), *cangkul* (hoe), *ember* (bucket) and *glempang* (a tool to make a straight line or small dike in the rice field). They were used by three quarters of respondents (74.47 per cent).

The different plants cultivated and the different conditions of the land lead to different proportions of farmers who use agricultural technology. In Lampung, the share among respondents of paddy farmers who processed their land using ploughs drawn by a cow was 32 per cent, while those who used mechanical ploughs was only 11 per cent. This is understandable since most paddy farmers in Lampung are small farmers (*petani kecil).* Their land is not large, around 0.5 to 2 ha each, and they process their land traditionally (plough carried by cow or buffalo). The *kelompok tani,* i.e. expected to have equipment and tools needed for their members to rent, are seldom active in Lampung.

Sprayers are not used by many farmers in Lampung (only 28.77 per cent) owing to the higher price of insecticide (see Production Input) resulting from the economic crisis. Other tools such as *arit* (sickle), *koret* (rubber tapping knife), *(cangkul* (hoe), *ember* (bucket), and cup (for rubber) are used by 73.97 per cent of farmers in Lampung. The tools like *arit/koret, ember, cangkul* and cup are regarded as important tools for those involved in rubber cultivation.

The other physical technologies used are prime seeds (good quality seeds from the *Dinas Pertanian/*Regional Office of the Ministry of Agriculture), fertilizer, insecticide, other chemical inputs, marketing techniques, land-processing, production processing and storage. In Central Java, these technologies were applied by more than 93 per cent of the respondents, except in prime seeds, other chemical inputs and marketing techniques. By choosing the best production output (red onion and paddy) the farmers prepare seedling by themselves for cultivation, but only 66 per cent of them applied this technology; the proportion of farmers using chemical inputs was even lower (61 per cent).

In Lampung, the percentage of respondents using the agricultural inputs or techniques is very small. But those who use fertilizer, land-processing or marketing techniques are more than 56 per cent each. Although the price of fertilizer in Lampung is high, the share of respondents using it is high (60 per cent). This is because they use organic fertilizer made by the members of the farmers' group (men and women). They learn how to make fertilizer from the PPL (*petugas penyuluh lapangan*, or agricultural field worker). The low proportion of respondents using prime seeds, insecticides and other chemical inputs is due to their high price. The prime seeds of yearly plants in Lampung are provided by the *dinas pertanian* (agricultural office), to maintain the quality of these export commodities, but the respondents usually grow the seedlings themselves. Only 34.25 per cent of respondents used prime seeds.

In the areas surveyed in Central Java, the farmers cultivate seasonal commodities (three to six months). Their land is always processed after the harvest. After planting paddy, the farmers then process the land for the next crop, red onion or *palawija,* and so on. Thus, most respondents (97.34 per cent) process their land.

Land processing is not done by most of the respondents in Lampung, since they cultivate different types of plant. Many respondents in Lampung cultivate rubber, pepper and coffee or perennial plants which have a life span of more than 10 years, for rubber more than 15 years. More than half the respondents in Lampung (56.16 per cent) switched from cultivating pepper to rubber because of the expected better price of rubber and an insecure feeling for planting pepper on their land. This feeling was caused by the fact that, during the crisis when the price of pepper increased significantly, some villages were robbed of their pepper.

On the question of marketing techniques used, i.e. taking the production output directly to the market themselves (the traditional method), or, using marketing techniques like selling the output collectively to the *KUD (koperasi unit desa* or village unit cooperative), to a special market for red onion (*Pasar Sentral Bawang* in Central Java), to *penebas* (wholesale buyers), or to wholesalers, 75 per cent of the respondents in Central Java and 62 per cent in Lampung said that they used any of the marketing techniques mentioned above. In Central Java, the red onion farmers usually sold their outputs to *penebas*, the *KUD* and the *Pasar Sentral Bawang,* although, according to qualitative information, the *Pasar Sentral Bawang* is no longer a good place for selling, owing to the many "contributions" *(pungutan liar)* required. In Lampung, most farmers sold their products to wholesalers and the *KUD.*

Most red onion farmers in Central Java process and store their production. They process the output by smoking or airing it for a few days after the harvest, and then they store it for around three months to wait for the best time to sell. Nearly all of them follow this procedure (96.28 per cent).

For seasonal products, the price is cheaper when the crop is in season. In the case of red onion, the farmers usually wait for the best time to sell the produce and store it when the price is high (out of season). A red onion farmer says:

> Kalau bawang merah harganya kurang bagus, ya saya simpan dulu. Kalau baru metik langsung dijual, harganya jauh lebih rendah, dibanding dengan bawang yang disimpan sampai kering. Saat panenan, bawang belum kering harganya paling-paling 500 ribu per kintal. Tapi kalau dikeringkan sampai 2-3 bulan, harganya bisa sampai 1,5 juta (rupiah), 'kan jauh selisihnya..../ When the price of red onion is low, I prefer to store the harvest. If sold right after harvest, the price is far lower compared with the price of onion stored until it becomes dry. During harvest time, the onion is still wet and the highest price will only be

> Rp. 500 per 100 kg. But, if we smoke/air the crops and keep them for 2-3 months, it can reach Rp. 1.5 million per 100 kg. Quite a big difference, isn't it? (Central Java, April 1999).

Processing and then storing production is one of the techniques that helps farmers avoid big losses.

In Lampung, rubber, pepper and coffee farmers almost never process and store their production. Pepper and coffee, once harvested and dried in the sun, are sold to the wholesalers who come almost every day. (Rubber is not a commodity that can be processed by the farmers, as it requires high-technology methods.) Most of the farmers among the 26.48 per cent of respondents who process their production cultivate second crops (*palawija,* cassava) and process them as home-industry foods (e.g., *opak singkong).*

4.1.2 Social technology

Social technology in the form of information dissemination and education on farming and the activities of the *kelompok tani* are conducted in Central Java and Lampung areas surveyed. Although the groups are not active, most of the villages surveyed have *kelompok tani* (both men and women).

The person in charge of introducing social technology in rural areas is usually a PPL. He or she has to demonstrate ability, otherwise rural society does not trust him or her, and do not want to adopt the technology introduced. In introducing a new technology, a PPL has to demonstrate and try it out, and make sure that it is not only beneficial to farmers, but interesting as well. The following quotation shows how a farmer can feel bored when introduced to a new technology by a PPL because the same thing is repeated many times. He says:

> Bapak PPL dalam memberikan penyuluhan pada petani informasinya hanya gitu-gitu 'aja, sehingga kurang pengaruh bagaimana cara meningkatkan produksi seperti bawang atau padi. Yang diinginkan petani yang praktis 'aja, lalu ada pengaruhnya. Begitu harusnya...../ The PPL gave the same information repeatedly. So it has little impact on how to improve output like red onion and paddy. Actually, what a farmer is looking for is something practical and effective. And that's it. (Central Java, April 1999).

The obstacle of a PPL whose task is to improve farmers' knowledge is the high price of the production inputs to conduct practical training, made worse by the economic crisis. This means that a PPL has no chance to try out his knowledge. A PPL says:

> *Banyak petani baik secara individu atau kelompok yang punya uang berusaha mencoba teknologi baru. Tetapi di sisi lain sebagai Penyuluh seharusnya mencoba hasil temuan melalui eksperimen untuk menguji kebenaran teknologi yang akan diterapkan. Selama ini kami hanya memberi informasi melalui kelompok-kelompok tani tanpa didukung hasil eksperimen. Sehingga tingkat kepercayaan melalui informasi ini kadang-kadang kurang mendapat kepercayaan petani. Inilah masalah yang sering timbul.../* There are many farmers, individuals or groups, who have money and want to try out the new technology. But, as field workers we have to try out that technology through experiment to test first the validity of the technology that will be applied. So far, we only give information through farmers' groups without support of experimental results. That's a problem that has often emerged. (Central Java, April 1999).

Farmers expect the new technology to improve their output. A case in a village in Central Java shows that a group of students of Gajah Mada University who have a PKL (*Praktek Kerja Lapangan* or field work practice) succeeded in implementing the new social technology. This group is highly appreciated. This new technology introduces a new method to eradicate caterpillars by injecting certain vaccine.

In *kecamatan* Baradatu, Lampung, social technology has been introduced effectively by the village head, especially in the economic crisis, as seen by the activities of the *kelompok tani* and the women farmers' group (*kelompok wanita tani – KWT*). The *KWT*, established 12 months ago, has improved technology use. The members (20–25 women farmers) obtain physical technology (prime seeds, pesticides, small hand-sprayers, etc.) and social technology in the form of know-how on how to make fertilizer, grow seedlings, plant, raise chickens, etc. These women farmers admitted that they learned much that was useful. They felt that know-how, funds and agricultural inputs had improved their income in two ways. First, any improvement was at no additional cost in land-processing (from growing seedlings to harvest time). The members of *KWT* perform land-processing unpaid. During the crisis when workers' wages were high, *KWT* helped the members a lot. Second, land production methods were improved, thereby raising the quantity of output.

The other benefit of *KWT*'s activities, as stated by the members, was that they could meet their friends every week not only to work together but also to have a chat and to discuss their problems. This lowered the 'tension'. They said that to be active in the *KWT* strengthened sisterhood and solidarity (*persaudaraan* and *gotong-royong).* In this case, the women could play an important role in their society through disseminating the social technology they obtain.

4.2 Production inputs in agribusiness

The economic crisis had a great influence on the supply of production inputs in many sectors, including the agricultural sector in the areas surveyed in Central Java and Lampung, though in varying ways.

In Central Java and Lampung, as in all provinces in Indonesia, the price of commodities, including production inputs increased substantially. In Central Java, however, the provision of production inputs (including agriculture inputs) is different from that in Lampung, and results from differences in socioeconomic development and in marketing channels.

Strong socioeconomic development in Java has enabled the transport system and markets to offer commodities for household or business use on a daily basis. Although some imported commodities were difficult to find during the economic crisis, they were not as expensive as in Lampung, partly owing to Java's more efficient transport system.

The marketing channels developed by communities in Central Java are quite active. In the agricultural sector, farmers have formed groups to organize a range of activities, including the provision of production inputs. They are *KUD* and *kelompok tani* groups, and groups formed by farmers individually. These organizations are active mainly in buying and selling, and providing the many commodities they need. They can clearly help farmers in their work.

In Central Java, a farmer who is a *KUD* member, gives a comment on the activity of his *KUD*:

> *KUD cukup berperan khususnya pupuk. Cuma, penyediaan pupuk di KUD sini kadang-kadang saat petani butuh stoknya kurang mencukupi sehingga petani beli ke toko, tentunya dengan harga yang berbeda dengan KUD. Jika kita beli di KUD uangnya bisa*

belakangaan..../ KUD plays an important role especially in the supply of fertilizer. However, this *KUD* sometimes runs out of supplies when the farmers badly need it. Therefore we are forced to buy in the market, and of course, the price is different. When we buy in the *KUD* we can pay later. (Central Java, April 1999).

In Lampung, the price of production inputs increased three times during the economic crisis. The high price of commodities was made worse by a bad transport system. In some areas surveyed, public transport is available only in the morning, and for some areas even only once a week on market day (*pasaran*). In addition, the community organizations are inert. In six villages covered in Lampung, only one *KUD* is active, i.e. the *KUD* in Sido Arjo village. In the other villages some of the *KUD*s are "semi-active" and some are inactive. This situation makes it difficult for farmers to get the production inputs at the lowest price. The existing KUDs and *kelompok tani* are not strong enough.

The high production input prices make farmers reduce or completely abandon the inputs which are most needed for their work, i.e. fertilizer, insecticide, high quality seeds and good tools. On the high price of fertilizer an informant says:

Ngeluh niku soal tumbas pupuk, Bu, awis sanget. Sakderenge krisis pupuk per kintal 35 ribu (rupiah), sak meniko 150 ribu (rupiah).....Nopo boten sambat.../ I am complaining about fertilizer, it is so expensive. Before the crisis it used to be Rp. 35,000 per 100 kg, but now it is Rp. 150,000. Shouldn't I complain? (Lampung, April 1999).

Because of the high price, a farmer tries to avoid using insecticide, fertilizer or good quality seeds. Some farmers even could make these inputs themselves, if guided by the PPL, or by buying low quality inputs. And they perhaps could do that for a long time. However, a farmer cannot avoid buying tools or equipment for the land, e.g., hoe, *arit, ember* or plough, in the long run. After a while, the tools or equipment will need to be replaced. However, during the crisis any replacements were at high prices.

Table 3.24 gives the survey results for price increases in all production inputs. Most respondents stated that the price of production inputs rose significantly. However, 83.43 per cent of respondents in Central Java said that the price of seeds fell significantly during the crisis. This answer is based on the reality that most respondents in Central Java made the seedlings themselves. The seeds are chosen from their crops, and they do not buy from outside. This makes the price of seeds very low. This shows that the farmers in Central Java are more creative to help themselves during the 'hard time'.

In Lampung, more than 93 per cent of respondents said that they saw either an increase or a significant increase in the price of each production input. For fertilizer, almost all (94.23 per cent) of respondents said that the price had increased significantly.

4.3 Access to credit

For many years the Government has provided many kinds of credit to help the poor in both rural and urban areas. However, many of the credit facilities have not reached the target groups. Formal institutions such as banks, cooperatives and farmers' organizations do not deal with the poor in some areas, certainly not with poor women. They have stipulated requirements that are difficult for the poor to fulfil, in particular poor women. The result is that poor and rural borrowers often prefer an informal institution or money-lender who offers 'easier' credit terms.

In the two areas surveyed, in Central Java and Lampung, the situations with regard to access to credit are different. In Central Java, the qualitative survey shows that the *KUD* and *KUT* (*Kredit Usaha Tani* or credit for farm business) from Bank Rakyat (People's Bank) Indonesia (BRI) are active. Therefore, in these areas the farmers use the credit provided by them. *KUD* is also active in providing production inputs for credit or cash at lower than market prices.

In Lampung, *KUDs* exist in all villages surveyed but many of them were inert. In the three villages surveyed in *kecamatan* Blambangan Umpu, the only active *KUD* was that in Sido Arjo village. This *KUD* collects the production output (rubber) from the farmers and pays them a monthly 'wage'. It provides loans to the farmers or sells production inputs, the cost of which is taken directly from the farmers' wage. This system is feasible since *KUD* manages production output and marketing. In *kecamatan* Baradatu, the *KUD* is managed by the *kecamatan* office for the whole area. It also provides credit-in-kind or money for whole villages.

These kinds of credit system are used mainly by farm owners. They are prepared to take loans from *KUD* or BRI; the farm workers (*buruh tani)* and farm labourers *(kuli)* are not. The latter are worried about not being able to pay the instalments regularly as required by the institutions, since their income is not stable.

As already mentioned, the formal financial institutions are not used by the rural poor, particularly poor women, for many reasons, e.g., collateral is required; many formal documents are needed (cost and time incurred); a feeling that they are small people, they have no courage to take credit; the banks/cooperatives do not trust them; they worry about paying instalments regularly; they are ignored by the formal institutions; they cannot obtain the money instantly/soon; and for a married woman, she should have permission from her husband.

The statements of the informants support these reasons. A farmer with an irregular income states:

> *BRI ada di sini, tetapi susah untuk petani pinjam, karena harus bayar per bulan, sedangkan penghasilan petani tidak tentu. Juga harus ada jaminan.../* There is BRI here, but it is difficult to get a loan since it should be paid back monthly, while a farmer has no fixed income. It also requires collateral. (Lampung, April 1999).

On the requirement of the banks for a loan, that there must be collateral and formal documents, an informant comments:

> *Bank memang tiga persen. Tapi harus ada borehnya (borg: in Dutch). Kalau kita dagang harus ada surat siup-menyiup, surat keterangan. Kalau pegawai SK-nya, harus dititipkan semua di sana. Baru kita bisa ambil uang.../* The bank's interest, indeed, is only 3 per cent. But we must have collateral, for a businessman then there are papers and documents to submit and as an employee we must have a promotion letter, all should be put there (in the bank). Only then, could we get the money. (Lampung, April 1999).

Feeling herself a poor person, not trusted by the bank and unable to pay the instalment monthly, a woman who works as a *buruh tani* (farm labourer) in Lampung says:

> *Kulo rumaos tiyang boten gadah..... nek pedagang ageng nggih .. Lah pikire kulo boten saged mbayar..../* I realize that I am a poor person. If I were a big businesswoman, it would be okay. They might think that I am not able to pay. (Lampung, April 1999).

And a *petani penggarap* (farm worker) in Central Java says:

> *Saya hanya sebagai petani penggarap saja, dan meskipun ada kesempatan untuk memperoleh kredit KUT di kelompok saya, tapi saya tidak memanfaatkan karena saya takut*

tidak bisa mengembalikan. Habis 'gimana mau mengembalikan, untuk kebutuhan sehari-hari cukup saja sudah Alhamdulillah...../ I am only a farm worker, and although I have a chance to take a loan from the *KUT*, I do not use it since I am afraid to be unable to pay the instalment. How could I pay it, just being able to fulfil the daily needs is ... thank God (Alhamdulillah). (Central Java, April 1999).

A person who feels ignored by the bank (BRI) says:

Misalnya ngambil 5 juta di BRI, mulanginya 3 tahun kali 250 (ribu), kecil 'kan, juga dapat bonus, enak. Tapi kalau rakyat biasa, Bu, memang susah, kalau pegawai cepat bener...../ Say I borrow 5 million from BRI, and I have to pay it back within three years in Rp. 250,000 instalments. It is really small, especially when you also get a bonus. For the common (poor) people, it is difficult to obtain credit, but not for an employee, it's really quick. (Lampung, April 1999).

Especially for a married woman, there is an important document required by the formal institutions if the woman has the land for collateral, i.e. her husband's permission. The husband must sign the application form from the bank. For a woman who needs only a small amount of money for her business, taking credit from the bank will never cross her mind.

The above conditions mean that rural women in Lampung, especially those needing money quickly, prefer to borrow from an informal institution, e.g. a money lender (*kelompok arisan*). Many of the poorest people in the rural areas surveyed were in the hands of money lenders. A money lender gives a loan on trust, without formal documents. Many people, especially women, prefer these kinds of informal systems. Borrowing in this way is easy and so is often used by the poor. However, it has an extremely high rate of interest so that the borrowers are often trapped into a cycle of continuing indebtedness. A woman informant comments on her preference to use the services of an *ijon* (a person who buys agricultural output before the harvest).

Selama ini kami tidak pernah meminjam kepada BRI, karena terlalu sulit syarat-syaratnya, padahal pinjaman kami sebenarnya nggak besar. Sehingga pada kesehariannya banyak yang pinjam secara perorangan kepada yang punya uang, ijon..../ So far we have never borrowed money from BRI, since the conditions are difficult, and our loan is not much. Therefore, for daily needs we borrow from individuals who have money; they are wholesale buyers (*ijon*). (Central Java, April 1999).

Figures for sources of credit are given in the survey. However, in the qualitative survey, one must be careful in accepting the data on percentage of BRI as a source of credit. The respondents are farmers with no or little education; they usually do not know what kind of money they get, and the fact that it is a loan from *KUT* or government support through the Social Security Network given through BRI, leads them to believe that the loan is from BRI. (To control the flow of credit or social support given, the Government decided that the money should be distributed through BRI.)

There are other sources of credit for farmers in rural areas, including *KUD,* BRI, relatives, social support and wholesalers. A number of respondents, men and women, used these sources of credit, but in general women were less likely to borrow money. Out of 140 women respondents in Central Java, only 19 persons used sources of credit, but nearly twice as many men (25 per cent) as women. Use of sources of credit in Lampung was even lower than in Central Java, namely 10 per cent for women and 21 per cent for men. These findings support the statement of some informants in the two areas surveyed.

Among the sources of credit in Central Java, *KUD* is the most frequently used (56 per cent), especially men (62 per cent – Table 3.25). In addition, despite the difficulties of the banking system, one third of the borrowers in Central Java use BRI as their credit source. The help of

kelompok tani may be one of the reasons for this. Credit from wholesalers is usually used by small farmers *(petani kecil)*. Because of the relatively better economic conditions in all areas surveyed in Central Java, the number of respondents receiving social support was low, at only 2.8 per cent. Social support is managed by the village head and given to people who have activities in small business. Relatives are also a source of credit (13.9 per cent) used by farmers and non-farmers. This kind of credit is usually a very short-term loan given in an emergency, e.g. when someone falls sick.

In Lampung, most of the respondents secured credit from social support, 32.6 per cent, and mainly used by men. Several respondents in Lampung used the *KUD*, but only in Sido Arjo village where the *KUD* is active (19.6 per cent). Social support can become a source of credit and was used by many respondents (32.6 per cent). The kinds of social support in Lampung are loans from the village head which are usually given to the household head. *Kelompok arisan, kelompok tani* and other money lenders ("Others") help those who need money right away, and the percentage is very small. These loans are given on trust.

4.4 Market access

Access to market is how a producer reaches consumers as a group (in the market) or individually. A producer depends on, among others, the distance and transport facilities, i.e. roads and vehicles to reach consumers. In an area where transport is minimal it is difficult to meet buyers, and this makes production outputs cheap or even worthless. In some cases, however, market access is influenced by non-economic factors.

In the areas surveyed in Central Java, the respondents who were farmers had no difficulty in marketing their main products such as red onion and paddy. Relatively short distances and good transport system support market access. Formerly, the farmers sold their produce to the *Pasar Sentra Bawang* (central market for red onion) that is not far away. However, it is no longer a good place for selling, owing to the many "contributions" *(pungutan liar)* required. Although there are some hindrances in market access, the farmers in Central Java have few problems. Farmers who do not use the *Pasar Sentra Bawang* usually sell their produce to wholesalers from Cirebon, Semarang and Jakarta. Some wholesalers *(ijon)* even come before the crop is ready. An informant says:

> *Khusus untuk bawang merah, umumnya pemasaran hasil panen di sini sudah didatangi pembeli. Kadang-kadang belum panen sudah ada yang beli.... Ada yang dari Cirebon, Semarang dan bahkan dari Jakarta. Jadi dalam hal pemasaran nggak jadi masalah..../* Especially for red onion, the crops are usually bought here. Sometimes there are buyers *(ijon)* before the crop season. They come from Cirebon, Semarang and even from Jakarta. Thus, marketing is no problem at all. (Central Java, April 1999).

According to some informants, the price of their produce fluctuates, sometimes, up to Rp. 1.5 million, and sometimes down to Rp. 350,000 per 100 kg. In mid-1999, the price of red onion fell not because of the crop season, but because of imports of red onion from India, Philippines and Viet Nam. The village head of a certain village supports this:

> *Menurut informasi yang saya peroleh, karena ada bawang import dari Philipina yang masuk ke Pasar Sentra saat petani sedang panenan. Nah, ada unsur sengaja atau tidak, saya nggak tahu. Yang jelas, begitu ada bawang import harga bawang lokal langsung turun.../* The information I obtained is, it is caused by the imports of red onion from the Philippines to Pasar Sentra. Whether it was done on purpose or not, I do not know. The real impact is when there is imported red onion, the price of local production immediately falls. (Central Java, April 1999).

In this case, the relatively good market access is somewhat disturbed by an external factor (market policy).

In the three villages areas surveyed in *kecamatan* Blambangan Umpu, Lampung, where export-oriented commodities are cultivated (rubber, coffee and pepper), each village seems to have its own market access arrangements. In Negara Baru village, the farmers have easy market access, since the village is strategically located: the Jakarta–Medan high road passes the village, and transport is available every day for half the day. Since the roads in the village are good enough for four-wheel drive vehicles, the wholesaler *(tengkulak)* usually come to the farmers' houses. The farmers in this village sell their products to the wholesaler who comes ones or twice a week in small truck. If production output is only small, they sell their products (except for rubber) in the market which is open every market day *(hari pasaran)*. Rubber is always sold through the wholesaler.

For those who sell their products to the wholesaler the price is lower than if they brought them to the local town of Bukit Kemuning. But this takes time and money, and the farmers always have to tend the land (rubber, coffee, pepper) and look after other crops. They seem happy to sell this way during the harvest. They say:

> *Pembeli datang sendiri ke rumah. Masalah hasil disini, buah-buahan, singkong maupun lada atau karet, atau apa saja tidak usah repot-repot. Mereka (tengkulak/pembeli) mengambil sendiri. Lancar, Bu, baru dijemur saja orang sudah nunggu. Mereka datang seminggu sekali...../* The buyers come to the farmers' houses. To sell the outputs here, such as fruit, cassava, pepper or rubber, anything, there is no problem. They (wholesaler/buyers) come to take the commodities themselves. Very easy, even the products that are still to be dried (coffee and pepper), they are willing to wait. They come once a week. (Lampung, April 1999).

This kind of market access has been practised since before the crisis. However, because the price of their products is becoming higher, theft is occurring. Many of the farmers have lost their products just before harvesting. Once a farmer lost his pepper that was about to be dried, while another lost rubber sap. An informant states:

> *Memang banyak untung di masa krisis, Bu, tapi sekarang banyak yang mencuri panenan.../* Indeed, there was a good profit during the crisis, but there are many who stole the crops. (Lampung, April 1999).

In Negara Batin village, the case is different. In 1998, the village head handled market access for their production, especially that of rubber (produced by 60 per cent of the villagers), and valued it at a very low price. The farmers had no other market access. If they did not sell the products to the village head, they received a punishment from him. When the price of their goods had become very high during the crisis, they still received a low price. Supported by students of a private university in Lampung and a certain political party, the farmers staged a demonstration against the village head and he was sacked by the Government. Consequently, for one year the farmers have secured the market access and the market price for their production. Their income has risen (three to four times) and they are free to sell their production either to the wholesaler or to the market, and enjoy a high income. There is a *KUD*, but because of its relationship with the former village head, it is now inactive.

The situation is again different in Sido Arjo village where most of the villagers are rubber farmers. They were once PIR *(Program Inti Rakyat)* migrants who received land (2 ha each) from the Government. After 20 years, the land becomes theirs. Since the beginning, the farmers have had no market access for their produce (rubber). Market access is handled by the *KUD*, which is active in buying and selling. Although the *KUD* monopolizes the marketing of produce, it is not as bad as

in Negara Batin. For many years (since the farmers were migrants) the produce has been collected by the *KUD* every day and then sold in the market. The farmers do not receive their income every collection, but receive money every month as a *gaji* or 'wage'. However, the *KUD* price is lower than the price in the market outside. Their income rose during the crisis since the price of rubber also increased, but the price is still less than if they themselves could sell their produce outside. Before the crisis, their wage was Rp. 200,000-300,000 per month, and now they receive Rp. 400,000-600,000. Compared with those who are not *KUD* members (the newcomers), the farmers actually suffer a loss, as the newcomers get around Rp. 2 million a month.

The benefit of the *KUD* is that farmers have access to credit, and this is easy to understand since the *KUD* can deduct an amount from the 'wages' to repay any debt. Further, the *KUD* also provides production inputs and helps to maintain the land. However, when the farmers are asked if they want to maintain the land themselves and market their produce, they say that they would like to very much. The fact is, though, that they have no power and no supporters to realize this ambition.

In kecamatan Baradatu (and other areas surveyed in Lampung), farmers cultivate mainly wetland paddy and *palawija.* They have no problem in marketing their produce, because first, the market is not far away, and second, transport is available every day.

The farmers in the three villages surveyed have alternatives, either to go to market or wait for the wholesaler to visit them (almost) every day. They bargain to sell their produce, as it should be.

IV. Summary and recommendations

by: Sri Moertiningsih Adioetomo, Sri Harijati Hatmadgi, and Naoko Otobe

1. Summary of findings: urban informal sector

This paper has analyzed the impact of Asian economic-cum-financial crisis on employment in the urban informal and rural sectors, from a specific gender perspective between 1996 and 1999. The economic crisis has caused massive retrenchments which have affected more men than women in terms of absolute numbers, while many women also newly initiated economic activities trying to augment the household income, in order to compensate for its declining purchasing power. As it has been assumed that both urban informal and rural sectors had absorbed a large number of both women and men workers who had been retrenched or become unemployed, two studies were to shed light on the impact of changing macro-economic factors on employment and access to income with specific gender differentials in these sectors.

In order to analyse the specific gender dimensions of the impact of the macro-economic change on employment and economic opportunities, an analytical framework was presented at the beginning of the paper, summarizing the factors of macro-economic change and their relevant impact on employment. As known, the traditional views on men's and women's role which assume that men are expected to be economically active to provide for the household, and women are expected to take care of the domestic affairs, could affect their employment and income opportunities differently due to their social dispositions. Specific analyses being focussed on the gender differentials were, therefore, undertaken on both urban informal and rural sectors.

1.1 The impact of globalization and structural adjustment

Macroeconomic policy of the last 30 years before the economic crisis led to structural changes that increased employment for men and women in Indonesia. In urban areas, the Labour Force Participation Rate increased from 44 per cent in 1982 to 52.5 per cent in 1998. The annual rate of increase in the FLFPR was higher than the MLFPR, at 2 per cent a year between 1982 and 1990, compared with only 0.10 per cent for men. Although this rate declined thereafter, the figures were always higher for women than men. The number of employed women in 1982 was 20.7 million, and in 1997 it increased to 33.1 million. Even one year after the crisis, this figure still increased to 33.8 million, i.e. more women became economically active during the crisis.

The increasing rate and number of women in employment were often associated with the growth of increase in manufacturing, and in other sectors such as trade and services. The relocation of production sites by multinational companies, as an effect of the globalization of trade and falling tariff barriers, increased the demand for female labour in general. This was the result of their specific characteristics, which are considered appropriate by employers for jobs in the textiles, electronics, toys and leather, etc. industries. However, some of their specific characteristics have not always helped women in improving their welfare, such as poor education, semi-skilled, willing to do monotonous jobs, undemanding of a permanent job and less organized than men. Indeed, they have led to disadvantages for women. Further, being the country's high rate of economic growth has not been accompanied by adequate labour absorption. About 60 per cent of the labour force, men and women who were not absorbed by the formal sector, had to generate self-employment.

The informal sector, which includes those self-employed, home workers and unpaid family workers, as well as employees and employers of small establishments (normally family businesses), is usually characterized by poor working conditions and lack of fringe benefits, paid annual leave, sick leave and health coverage. The percentage of women working in the informal sector is higher than that of men. Even in the manufacturing sector, about half the employment is in the informal sector. This is mainly the result of the large number of small-scale manufacturing industries (cottage industries) and subcontractors/homeworkers. Many multinational companies have chosen to put out their production to reduce overheads, with homeworkers paid by the piece.

1.2 Impact of the economic crisis on urban informal employment

The economic crisis has had a serious impact on employment for both men and women. Factories that use large amounts of imported raw materials and the national market for their sales have been affected the most. The volume of demand was reduced owing to the decrease in purchasing power caused by the high rate of inflation. Prices of inputs became very high. This led to a decrease in production and in turn, many retrenchments, especially in the formal sector.

1.3 Gender dimensions of impacts on employment

In urban areas, the economic crisis hit the formal sector harder than the informal sector. The impact was also greater on men than women. Men's formal sector employment decreased by 3.5 per cent between 1997 and 1998, while that for women still increased by 1 per cent. Owing to the lack of social security, these men looked for other jobs. But the labour market in the formal sector had shrunk substantially, and therefore men moved into the informal sector, as seen in the substantial increase in men's informal sector employment of 10.3 per cent, higher than for women at 8.1 per cent. The urban informal sector is seen as a safety net during the crisis.

The FLFPR increased by 0.78 per cent, but the MLFPR fell by 0.27 per cent, showing the willingness of women to enter the labour market to help with family income. In 1998, there were 1.87 million men (5.74 per cent) and 1.31 million women (4.03 per cent) looking for a job.

The gender impact is different when we further look into details, or the experiences of men and women who stopped working/changed jobs after July 1997, when the rupiah dropped substantially. The 1998 *Sakernas* reported that between August 1997 and August 1998, about 1.3 million men and 0.68 million women stopped working/changed jobs in urban employment. Half the men found a new job, but only a quarter of the women did so. A bigger percentage of women than men were still looking for work in August 1998. This suggests that, even though women seem to be more responsive to the economic crisis, a high percentage of them actually looking for work are facing more difficulty in finding alternative employment. This is because most men expelled from the formal sector tried to make their living in the informal sector. Furthermore, the market accommodates younger women more easily than old women.

The informal sector seemed to be more stable during the crisis, because only about 2-3 per cent of workers in the informal sector stopped working/changed jobs. However, once women stopped working/changed jobs in this sector, they were unlikely to be able to enter the labour market again: about 65 per cent of such women failed to re-enter the labour market. From the qualitative survey, there are cases of self-employed women who were unable to plough back enough of their income into the business to keep working: profits decreased and could not meet both the increasing price of business inputs and daily necessities.

There was a tendency for workers who changed jobs to go back to the sector they were working in before. But, the pattern of labour movement following the crisis seems to indicate that urban agriculture, trade and services accommodated workers from other sectors, especially from manufacturing and construction. Fifty per cent of women workers (compared with 28 per cent of men) expelled from manufacturing moved to trade, i.e. informal sector activities. Both men and women who moved to new employment did not see improvements in working conditions (income, health care, transport facilities, etc.). In fact, more than two thirds of them said that working conditions were as bad or worse than before.

It can be concluded, therefore, that the crisis led to worse conditions for those who had to stop working or change jobs. While women were often compelled to work for additional family income, the labour market for them was shrinking. And although women were less affected by retrenchments at the aggregate level, once they were expelled from formal and informal sectors they had very few chances of getting back into the labour market.

Results from the qualitative survey show that the economic crisis affected the activities of most informants working in the urban informal sector. For the self-employed in small-scale industries, the impact was on the prices of raw materials, while demand for their products fell. This reduced profit. Those with only a small amount of capital often came close to bankruptcy. The solution was to reduce output quantity, reduce raw material quality and lay off workers, or even sell equipment.

The self-employed lost customers because of a decline in the latter group's purchasing power as well as retrenchments of these customers in the formal sector. Although the self-employed have survived, their profit has continually fallen owing to higher prices of raw materials. The increase in the cost of living caused their standard of living to drop significantly. However, they still felt very lucky.

Self-employed (small-trading) respondents in the qualitative survey said that they had no interest in obtaining bank credit, as they had no collateral and no legal permit. Others said that the business environment was not conducive to starting new activities. They felt that there were "too many sellers, but too few buyers", meaning that competition in the informal sector was very tough. Many of them also stated that they would like to use their own capital, where they had any, because they were not confident that they would be able to repay back any credit given to them.

Training was given by the Government, but it was suggested that the training be better matched to their needs. Some said that tools and equipment used in the training were too sophisticated to be used in their activities. With training, workers could establish networks with others in the same line of business.

Focus group discussions with retrenched workers revealed that hours of work were reduced considerably before they were laid off. But this did not help the situation, and finally they were offered the chance by their employer to resign voluntarily. The informants accepted the offer, considering that it was better to be retrenched early before the company finally went bankrupt and was unable to give a severance pay. One woman said that her husband was the one being laid off, but she offered to stop work as she would be embarrassed to have a husband without a job. Most of the retrenched workers in the focus group discussions said that those who were retrenched were between 40 and 50 years of age. These people wanted to go back to the same type of work, because of the skills that they had. They were unlikely to accept a job with lower pay, and they would rather work freelance, although income would not be secure. Many women who were laid off seemed to be discouraged from finding a new job.

The impact of the crisis on homeworkers was the uncertainty of the availability of raw materials, and this therefore affected their income since they were paid at piece rate. Their income was much lower than their colleagues working in the formal sector. After the crisis, the number of homeworkers increased, while the volume of orders fell. They wanted to find another job, but they had no alternative.

For the daily wage workers, the increase in the prices of daily necessities and transport costs were big obstacles. Wages were insufficient to meet these necessities. Some respondents said they had to ask their wives to work for additional income, thereby increasing competition among women in the informal sector. Others said that they had to reduce the quantity and quality of food, sell assets or use their savings.

Many of the informants said they had heard about social safety nets (SSN). Some said that the amount of money offered by the SSN to start a business was too small. The rest felt that the business environment was not conducive to opening a new (small) business.

From the qualitative survey, it was found out that women were disadvantaged more than men because of the crisis. Many self-employed workers had to reduce the number of their helpers, and quite often these were women. Although it was felt that women were more diligent and obedient than men, employers had to arrange for separate rooms for women, so raising overheads. Women were also stereotyped as weak, less energetic with respect to pushing carts or doing more physical activities. Women were generally subordinate, related to the concept of contextual blinkers discussed in Chapter II: they were expected to do the housework, rather than economic activities.

The analysis of the quantitative data has shown that while women seemed to be less affected by both retrenchments and unemployment at the aggregate level, in general, once they were pushed out of the labour market, they were less likely to find alternative employment. Furthermore, among those who stopped working/changed jobs after July 1997, there was a much higher rate of underemployment among women than among men, indicating that they also tend to be constrained being in full-employment (working for 35 hours or more). In summary, the overall data seem to suggest a mixed picture of women's employment in terms of levels of activity. Nevertheless, as the overall labour participation rate went up for women more than for men, they were most likely to have been pushed into the labour market to alleviate the decrease of real household income during the economic crisis. Furthermore, as the qualitative survey demonstrated, although many women were already working in poor working conditions, the situation worsened as a result of the crisis.

2. Summary of findings: rural sector

2.1 Impact of the economic crisis on rural employment

2.1.1 Labour force participation: gender difference

As found in rural Indonesia in general, the educational level of the women's working-age population in the two areas covered in the survey, namely Central Java and Lampung, was lower than that of men. Their low level of education might be the result of community tradition, still existing in some areas, reinforcing the traditional views that regards main functions of women as house-keeping, child-bearing and child-rearing, and boys are therefore given priority for schooling. The proportion of women aged 15 years and over with house-keeping as their main activity was more than 25 per cent, but less than 1 per cent for men (1998 *Sakernas*). Nevertheless, in 1998 more than half the women in rural areas of Central Java and Lampung were employed.

Trade, especially retail trade and restaurants, provided good opportunities for women's employment. The percentage of women working in this sector was more than twice that of men. From the 1998 *Sakernas* it was also found that the proportion of women workers acting as unpaid family workers was 42 per cent in Central Java and 60 per cent in Lampung, while for men the proportion was less than one third of that.

In August 1998, the proportions of men and women aged 15 years and over in rural areas who had stopped working/changed jobs after July 1997 were 45 per cent for men and 31 per cent for women. Nearly three quarters of the men from this group were re-employed, but only slightly more than one third of the women. The majority of women from this group chose to become economically inactive. The proportions of workers who stopped working/changed jobs after July 1997 because they were laid off were only 20 per cent (for men) and 14 per cent (for women). The main reason for stopping work/changing jobs after July 1997 was insufficient income.

In general, the LFPR in rural areas for 1994-97 in Indonesia as well as in Lampung and Central Java, was nearly the same. In 1998 there was a small increase in the LFPR. The increase for women was slightly larger, which may be the result of new women entrants to the labour market.

2.1.2 Working hours

Working hours, when a job starts and finishes, depends on the type of activity, either of the main or side activity, both for agriculture (on-farm) or non-agriculture (off-farm). In Central Java, farm owners, men and women, who have their main job in agriculture work from early morning to midday. Meanwhile, farm workers (*buruh tani penggarap)* who have the same working hours as farm owners, after working on someone else's land in the morning, then work on their own land in the afternoon. Farm labourers (*kuli*) work on the land of others the whole day.

In Lampung, where most of the farmers cultivate rubber, coffee and pepper, the land is usually in large holdings and far from home, and men and women go to work together. The work runs all day, from morning to evening, and some farmers even stay on the land before harvesting. Farm workers (*buruh tani)* have similar working hours to farm owners.

The working hours of persons working off-farm are based on the types of activity. In Central Java and Lampung, it is difficult to determine when a person who works in a small-scale industry (food processing) or small *warung* really starts and finishes work, especially when the job is done at home by family members (i.e. self-employed assisted by family members). For small *warung*, the work usually starts very early and finishes very late.

In Central Java and Lampung, the working hours of people with side-jobs vary depending on these jobs. Side-jobs in Central Java and Lampung are in small-scale industry/home industry or as a labourer (*buruh*), foodstall-keeper, carpenter, *ojek/becak* driver, and massager. Each activity has its own working hours. Foodstall-keepers (*warung makanan)*, sellers in the market and labourers usually start and finish work in the morning. Home industry (food processing) and *ojek/becak* drivers have their working hours in the afternoon till the evening after finishing their main job (farm labourers). The working hours for massagers and carpenters are uncertain and as required.

In the agricultural sector (on-farm), farm owners in Central Java work fewer average hours (average number of hours working) than farm owners in Lampung. This is because the farm owners in Lampung usually work on their land the whole day, while those in Lampung only manage their workers and usually do this in the morning. Farm workers and farm labourers work the longest

average hours. In the non-agricultural sector (off-farm), workers work longer hours than those in agriculture (on-farm), especially women who run their business mainly at home (the small *warung* or food-processing business). The women combine their business with domestic work.

This pattern seems similar from period to period, from three years before the survey to one year and one week before the survey. However, in Central Java, during the economic crisis (one year to one week before the survey) the average hours worked in the non-agricultural sector seem to have fallen but the average hours worked in the agricultural sector increased. Most likely this was caused by the increasing prices of agricultural commodities during the crisis, especially red onion, that attracted people to work on farms.

In Lampung, the increase in agricultural commodity prices (export-oriented products) was not reflected directly because the money is not obtained for a few months. Unlike red onion, rubber, coffee and pepper take time to cultivate. The average hours worked in agriculture over the three periods were similar in Lampung. Meanwhile the average hours worked by men in the non-agricultural sector (off-farm) decreased and that of women rose. This shows that during the economic crisis women seemed to become more involved in off-farm activities to improve household income.

In Central Java, at all educational levels, men worked longer hours than women. The men with SLTP+ (Junior High School) and above worked the longest hours, and the women in this group the lowest. In the non-agricultural sector, men and women worked the same number of hours. The men who finished SD (primary school) and SLTP+ worked longer hours than the equivalent group of women, but those with no education/did not finish SD worked fewer hours than the women.

In rural areas of Lampung, although in general men at all levels of education worked a greater number of average hours than women, for men and women who had no education/did not finish school and those SLTP+ worked similar numbers of hours. In the non-agricultural sector, women with the poorest education (no education/did not finish SD worked quite a few more hours than men.

In short, these figures show that women in Central Java with a higher educational level work less, both in the agricultural and non-agricultural sector. In Lampung, in contrast, a high level of education does not influence the number of hours worked in agriculture, while women work in this category of work less hours in non-agriculture activities, compared to men.

At the national level, in 1997-98, incomes of labourers/workers in rural areas increased, and the increase for men was bigger than for women. However, in Central Java the picture is different, as the increase for men was lower than for women. In the agricultural sector there is a gender difference in income earned, mainly caused by different tasks between the two genders: men's tasks, such as land-processing and land preparation, are considered heavier than planting the latter is usually done by women. Men are more likely to be self-employed and the women unpaid family workers. A similar pattern over the three periods shows that there was no progress in women's work status between 1996 and 1999.

The economic crisis caused lay-offs and raised open unemployment. However, it also made those who had been laid off find a job quickly, and hence become reabsorbed into the labour market. The labour force participation rate in 1998 did not decrease; rather it increased.

2.1.3 Technology

In Central Java, where the farmers cultivate red onion and paddy (wetland paddy or *padi sawah)*, technical irrigation is used. Small tractors are used, and mechanical ploughs are used by more than two thirds of respondents, because they have to process the land after the harvest. Almost all the farmers used sprayers on their land. The use of sprayers is related to the farmers' ability to buy insecticide and other chemical inputs. The farmers process and store their produce (red onion and paddy). This enables them to secure a high price for their produce, by selling it out of season.

In Lampung, the farmers in *kecamatan* Blambangan Umpu cultivate rubber, coffee and pepper, which depend on rainwater. In *kecamatan* Baradatu, where farmers cultivate wetland paddy, technical irrigation is needed. Indeed, the Government provides modern irrigation, but there has been no water for three years. This has made the farmers switch from cultivating paddy to *palawija.* The farmers have never used tractors, and only a few respondents use mechanical ploughs. Farmers in Lampung use more ploughs drawn by cows or buffaloes. Since many farmers did not use agricultural inputs, such as insecticide, during the economic crisis owing to their high price, only a few of them used sprayers. Besides insecticide, they could not afford prime seeds, fertilizers or other chemicals.

Very few of the farmers in Lampung process and store their produce. They usually gather and dry it for a few days and then sell it to wholesalers who come to them. This is their marketing technique. The impact of agricultural technology differs by rural area. It depends on social, economic and cultural conditions in each society. In the areas surveyed, the introduction and application of technology often depended on the activity of the village head: he or she has to be proactive in this. In Baradatu, Lampung, the women farmers' group, *KWT*, was empowered to apply new technology by the PPL. However, the actual application sometimes failed owing to the high price of the production inputs.

All farmers in Central Java and Lampung said that the price of all agricultural inputs became very high during the economic crisis. Strong socioeconomic development in Java has enabled the transport system and markets to offer commodities for household or business use on a daily basis. Although some imported commodities were difficult to find during the economic crisis, they were not as expensive as in Lampung, partly owing to Java's more efficient transport system. In Central Java, the low price of the prime seeds – noted by the respondents – was in reality based on the fact that most respondents grew the seedlings themselves from their own crops. This made the price of seeds very low.

In Central Java, among the sources of the credit, *KUD* was the most used by farmers. Despite the difficulties of the banking system, BRI was also used by many farmers, in Central Java and Lampung. The help of the *kelompok tani,* where the farmers are members, may be one of the reasons for this. In Lampung, social support is the major source of credit.

Although there are some hindrances to market access, the farmers in Central Java have few problems in selling their produce. They have a special market for red onion (*Pasar Sentral Bawang* in Central Java) which is, though, no longer a good place for selling because of the many illegal "contributions" required there. Farmers who do not use it usually they sell their produce to wholesalers from Cirebon, Semarang and Jakarta.

A special case happened in Negara Batin village, Lampung, where after the village head was sacked, the farmers became free to sell their production either to the wholesalers or at the market, and their income rose three to four times.

3. Recommendations

3.1 Urban informal sector

Recommendations on how to improve the situation and how to promote gender equality in employment in the urban informal sector will depend largely on the overall economic performance for the coming years. In the short run, foreign as well as domestic investment is unlikely to increase owing to uncertainties in the political situation, which influences both the amount of exchange available and domestic interest rates. The number of job advertisements in local newspapers seems to have increased lately (at the time of writing of this paper), but they are restricted to highly educated and highly skilled workers, while most urban informal workers, especially women, are poorly educated and low-skilled. However, there are more than 2 million young people entering the labour market every year. The situation is made worse by the increasing numbers of school dropouts entering the informal labour market.

Based on the findings of this study, the following recommendations are made:

(1) To encourage people for opening new businesses, it is suggested that more training in entrepreneurship is conducted both by the public and private sectors. The training has to be able to explore women's potential to use innovative and creative ideas that can be developed into new businesses.

(2) Such training has to meet women's needs, including simple and applicable production processes and applying appropriate technology, followed up by training in marketing the products.

(3) Training in specific production-related and business management skills of women is always needed, and should be improved.

(4) Before such training is conducted, it is suggested that a training needs assessment is undertaken.

(5) Not all women have the talent or potential to become entrepreneurs. Many studies have found that only those who have leadership and entrepreneurial skills will succeed in business. Therefore, it is suggested that groups of women are formed, to carry on collective businesses, each led by a successful business woman, who has a good business strategy. This can be formed as a cooperative, or association, or in the form of an *ibu-anak asuh*.

(6) Cooperation in the form of providing raw materials might also be suggested to reduce the cost of production, for example through women's cooperatives.

(7) As networking between informal sector workers is highly beneficial, it is suggested that it is developed or enhanced by cooperatives and women' business associations.

(8) In terms of access to credit, simple and direct procedures have to be applied. This can be enhanced by collective credits, with the business women mentioned above being responsible for collecting repayments.

(9) Social safety nets, if continued in the coming years, have to better target the beneficiaries and to have a more focused purpose. To enhance the effectiveness of targeting, it is recommended for the Government to work with women and gender-friendly community-based organizations.

(10) For medium- and long-term activities, efforts to increase girls' education to secondary level has to be given a high priority.

(11) Many of the entrepreneurial principles can be taught and instilled from early life, at home, in school and in the community. These include a commitment to finishing work punctually, high-quality results, a willingness to take risks, honesty, integrity and an enthusiasm to try new challenges.

(12) Gender bias in work and in other aspects of life should be eliminated, by consistent awareness-raising and training from early life at home, in school and in the community. In order to achieve this both government and civil society (employers' and workers' organizations and NGOs) should strive in raising gender awareness towards gender equality in the world of work.

3.2 Rural sector

Given the Government's intention to look towards agricultural sector as one of the sources for Indonesia's economic recovery, and that the sector seems to have absorbed a substantial number of retrenched and unemployed workers, it will be important to improve the over-all efficiency in agriculture. Fulfilling the objective of self-food sufficiency would be indispensable for the long-term sustainable economic development.

(1) The role of the PPL is important in increasing farmers' knowledge, so they should be given production inputs to conduct practical training. It is expected that PPLs will be more active in helping farmers to provide their own production inputs.

(2) Women in the non-agricultural sector, who have no school/not finished SD (primary school), especially those who are employed as family workers, should be given more skills training; and, if necessary, they should be given access to a credit system that is easy to start and pay into (in terms of opening it and instalment payments).

(3) The credit system should enable women, especially those who are married, to have greater access to formal financial institutions by removing the requirement to have the husband's permission, as long as these women fulfil the criteria to obtain credit.

(4) Rural women's organizations can also be promoted. As seen in the case of women's farmers groups, this type of self-managed organization empowers them. Furthermore, the groups could also constitute as the collateral for borrowing money from financial institutions, if they can also be formalized.

Table 2.1 GDP share by economic sector (%, 1993 prices)

	Economic sector	1982	1990	1996	1997	1998
1	Agriculture and forestry	24.87	19.87	15.42	14.81	17.20
2	Mining and quarrying	13.70	10.56	9.12	8.84	9.82
3	Manufacturing industry	12.30	20.64	24.71	25.07	25.30
4	Electricity, gas and water	0.97	0.87	1.18	1.27	1.52
5	Construction	6.49	6.03	7.96	8.07	5.64
6	Trade, hotels and restaurants	17.19	16.65	16.79	16.93	15.90
7	Transport and communications	6.51	6.61	7.18	7.41	7.49
8	Financial institutions	6.17	7.82	8.79	8.92	7.57
9	Community and public services	11.81	10.95	8.85	8.67	9.57
	Total	100.00	100.00	100.00	100.00	100.00

Source: CBS.

Table 2.2 Trends in LFPR, aged 10 years and above, various years

	LFPR					Annual increase (%)			
	1982	1990	1996	1997	1998	1982-90	1990-96	1996-97	1997-98
Urban									
Male	60.91	61.40	66.78	67.13	66.95	0.10	1.46	0.52	-0.27
Female	27.80	32.67	37.24	38.22	38.51	2.19	2.33	2.61	0.78
M & F	44.06	46.85	51.85	52.53	52.56	0.79	1.78	1.32	0.04
Rural									
Male	73.04	75.11	75.64	75.56	76.41	0.35	0.12	-0.10	1.12
Female	41.48	49.06	49.09	47.79	50.16	2.28	0.01	-2.64	4.95
M & F	56.98	61.94	62.26	61.52	63.25	1.09	0.08	-1.18	2.81

Source: *Sakernas*, 1982, 1990, 1996, 1997, 1998.

Table 2.3 Number of people employed aged 10 years and above, by economic sector and gender

	Economic sector	1982		1990		1996		1997		1998	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
1	Agriculture and forestry	20 443 213	11 150 101	25 827 409	16 550 900	23 001 530	14 718 721	21 959 918	13 888 713	23 871 273	15 543 492
2	Mining and quarrying	323 851	66 810	442 522	85 698	612 530	161 681	710 095	186 516	573 872	100 725
3	Manufacturing industry	3 138 871	2 883 058	4 210 051	3 483 212	5 877 588	4 895 450	6 188 675	5 026 147	5 482 379	4 451 243
4	Electricity, gas and water	54 569	7 097	123 870	10 846	147 488	16 654	214 128	19 109	131 070	16 779
5	Construction	2 103 007	43 203	2 000 058	59 451	3 675 827	120 401	4 050 419	149 781	3 385 925	135 757
6	Trade, hotels and restaurants	4 328 750	4 225 169	5 290 239	5 777 118	7 871 755	8 230 797	8 404 122	8 817 062	8 244 077	8 570 156
7	Transport and communications	1 778 628	17 484	2 259 418	53 054	3 850 206	92 593	4 022 749	114 904	4 023 556	130 151
8	Financial institutions	92 386	20 473	353 705	124 676	501 670	188 063	447 210	209 514	411 933	205 789
9	Community and public services	4 800 947	2 324 472	5 863 021	3 207 303	7 442 046	4 286 449	7 971 791	4 665 742	7 775 318	4 618 954
	Total	37 064 222	20 737 867	46 370 293	29 352 258	52 980 640	32 710 809	53 969 107	33 077 488	53 899 403	33 773 046

Source: *Sakernas*, 1982, 1990, 1996, 1997, 1998.

Table 2.4 Percentage of working population aged 10 years and above, by economic sector and gender

	Economic sector	1982		1990		1996		1997		1988	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
1	Agriculture and forestry	55.16	53.77	55.70	56.39	43.41	45	40.69	41.99	44.29	46.02
2	Mining and quarrying	0.87	0.32	0.95	0.29	1.16	0.49	1.32	0.56	1.06	0.3
3	Manufacturing industry	8.47	13.90	9.08	11.87	11.09	14.97	11.47	15.2	10.17	13.18
4	Electricity, gas and water	0.15	0.03	0.27	0.04	0.28	0.05	0.4	0.06	0.24	0.05
5	Construction	5.67	0.21	4.31	0.20	6.94	0.37	7.51	0.45	6.28	0.4
6	Trade, hotels and restaurants	11.68	20.37	11.41	19.68	14.86	25.16	15.57	26.66	15.3	25.38
7	Transport and communications	4.80	0.08	4.87	0.18	7.27	0.28	7.45	0.35	7.46	0.39
8	Financial institutions	0.25	0.10	0.76	0.42	0.95	0.57	0.83	0.63	0.76	0.61
9	Community and public services	12.95	11.21	12.64	10.93	14.05	13.1	14.77	14.11	14.43	13.68
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: *Sakernas*.

Table 2.5 Percentage of population 10 and older urban and rural, male and female working in the formal and informal sector, by industry

Industry	1982		1990		1996		1997		1998*)	
	Formal	Informal	Formal	Informal	Formal	Informal	Formal	Informal	Formal	Informal
Agriculture, Forestry	27.47	72.53	11.90	88.10	13.94	86.06	14.64	85.36	14.4	85.6
Mining and quarrying	64.02	35.98	50.36	49.64	49.99	50.01	56.74	49.61	56.74	43.26
Manufacturing industry	60.01	39.99	57.27	42.73	59.53	40.47	61.93	38.45	61.93	38.07
Electricity, gas and water	90.95	9.05	90.44	9.56	90.07	9.93	87.25	7.99	87.25	12.75
Construction	90.63	9.37	83.79	16.21	83.23	16.77	80.34	15.6	80.34	19.66
Trade, hotels and restaurants	17.78	82.22	11.6	88.40	17.35	82.65	17.02	82.09	17.02	82.98
Transport and communications	70.55	29.45	42.39	57.61	45.03	54.97	40.75	57.29	40.75	59.25
Financial institutions	97.66	2.34	92.6	7.40	95.89	4.11	95.42	6.19	95.42	4.58
Community and public services	83.48	16.52	81.33	18.67	81.44	18.56	80.84	19.78	80.84	19.16
Total	42.66	57.34	28.57	71.43	35.18	64.82	84.6	63.27	34.6	65.4

Source: *Sakernas*.

Table 2.6 Number and percentage of working population aged 10 years and above, by economic sector and gender, urban areas, 1996-98

	Economic sector	1996			1997			1998		
		Men	Women	Total	Men	Women	Total	Men	Women	Total
1	Agriculture, forestry etc.	1 630 238	678 870	2 309 108	1 648 121	702 602	2 350 723	2 345 553	1 069 521	3 415 074
		9.14	6.91	8.35	8.72	6.59	7.95	12.11	9.56	11.17
2	Mining and quarrying	181 074	31 154	212 228	201 415	51 914	253 329	239 875	29 695	269 570
		1.02	0.32	0.77	1.07	0.49	0.86	1.24	0.27	0.88
3	Manufacturing industry	2 817 838	1 825 947	4 643 785	3 093 085	2 021 333	5 114 418	2 815 327	2 000 551	4 815 878
		15.8	18.59	16.79	16.36	18.94	17.29	14.53	17.88	15.76
4	Electricity and gas and water	107 638	13 382	121 020	158 902	15 347	174 249	86 419	9 894	96 313
		0.6	0.14	0.44	0.84	0.14	0.59	0.45	0.09	0.32
5	Construction	1 547 053	66 578	1 613 631	1 686 922	89 900	1 776 822	1 513 793	81 264	1 595 057
		8.68	0.68	5.84	8.92	0.84	6.01	7.81	0.73	5.22
6	Trade, hotels and restaurants	4 558 119	4 155 790	8 713 909	4 794 234	4 478 354	9 272 588	4 913 301	4 586 587	9 499 888
		25.56	42.32	31.51	25.36	41.97	31.35	25.36	40.99	31.08
7	Transport and communications	2 052 683	57 008	2 109 691	2 123 273	80 347	2 203 620	2 168 055	93 858	2 261 913
		11.51	0.58	7.63	11.23	0.75	7.45	11.19	0.84	7.40
8	Finance, insurance etc.	422 494	163 272	585 766	365 167	182 881	548 048	350 719	182 637	533 356
		2.37	1.66	2.12	1.93	1.71	1.85	1.81	1.63	1.74
9	Community and public services	4 510 952	2 828 111	7 339 063	4 832 534	3 046 848	7 879 382	4 941 753	3 136 284	8 078 037
		25.3	28.8	26.54	25.56	28.56	26.64	25.51	28.03	26.43
	Others	3 810	0	3 810	1 551	0	1 551	0	0	0
		0.02	0	0.01	0.01	0	0.01	0	0	0
	Total	17 831 899	9 820 112	27 652 011	18 905 204	10 669 526	29 574 730	19 374 795	11 190 291	30 565 086

Source: Labour Force Situation in Indonesia 1996, 1997 and 1998.

Table 2.7 Number of people aged 10 years and above by work status and gender, urban areas, 1996-98

Work status	1996		1997		1998	
	Men	Women	Men	Women	Men	Women
Self–employed	3 894 873	2 105 034	4 409 441	2 375 800	4 992 989	2 496 553
Self-employed assisted by family workers	2 442 158	1 303 127	2 284 570	1 126 645	2 443 387	1 221 554
Employer	490 314	105 116	561 389	122 932	594 983	126 695
Employee	10 354 761	4 882 565	10 875 970	5 299 521	10 457 360	5 355 464
Unpaid worker	649 793	1 424 270	773 834	1 744 628	887 001	1 990 288
Total	17 831 899	9 820 112	18 905 204	10 669 526	19 375 720	11 190 554

Source: *Sakernas*, 1996, 1997, 1998.

Table 2.8 Percentage of population aged 10 years and above by work status and gender, urban areas, 1996-98

Work status	1996		1997		1998	
	Men	Women	Men	Women	Men	Women
Self-employed	21.84	21.44	23.32	22.27	25.77	22.31
Self-employed assisted by family workers	13.70	13.27	12.08	10.56	12.61	10.92
Employer	2.75	1.07	2.97	1.15	3.07	1.13
Employee	58.07	49.72	57.53	49.67	53.97	47.86
Unpaid worker	3.64	14.5	4.09	16.35	4.58	17.79
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: *Sakernas*, 1996, 1997, 1998.

Table 2.9 Percentage change of working population aged 10 years and above, by work status, urban areas, 1997 and 1998

Work status	1996-97			1997-98		
	Men	Women	Total	Men	Women	Total
Informal sector						
Self-employed	6.62	-7.04	1.72	11.69	4.84	9.40
Self-employed with family workers	-11.64	-28.34	-17.83	6.50	7.77	6.92
Unpaid family worker	14.63	1.47	10.31	12.76	12.34	12.76
Total working in informal sector	0.85	-10.39	-3.1	10.28	8.08	9.38
Formal sector						
Employer	7.58	-3.31	3.56	5.65	2.97	5.18
Worker	-0.93	13.01	2.41	-4.00	1.04	-2.29
Total working in formal sector	-0.54	12.57	2.45	-3.48	1.09	-1.97

Source: *Sakernas*, 1996, 1997, 1998.

Table 2.10 Population aged 10 years and above who stopped working/changed jobs after July 1997, by gender and employment status, urban areas, August 1998 (number and percentage)

Population >10 years	Employed			Seeking work	Not in labour force	Stopped working/ changed jobs after July 1997	Never stopped working	Number and % of all employed in July 1997
	Formal	Informal	Total					
Stopped working/changed jobs after July 1997								
Men	335 082	334 498	669 580	471 151	191 438	1 332 169	11 329 074	12 661 243
	25.15	25.11	50.26	35.37	14.37	100.00		10.52
Women	90 586	90 230	180 816	241 940	260 572	683 328	7 715 954	8 399 282
	13.26	13.2	26.46	35.41	38.13	100.00		8.14
Men and women	425 668	424 728	850 396	713 091	452 010	2 015 497	19 045 028	21 060 525
	21.12	21.07	42.19	35.38	22.43	100.00		9.57
Stopped working/changed jobs in formal sector after July 1997								
Men	290 893	258 347	549 240	425 749	149 584	1 124 573	6 757 255	7 881 828
	25.87	22.97	48.84	37.86	13.3	100.00		14.27
Women	81 061	74 438	155 499	222 194	176 993	554 686	3 912 562	4 467 248
	14.61	13.42	28.03	40.06	31.91	100.00		12.42
Men and women	371 954	332 785	704 739	647 943	326 577	1 679 259	10 669 817	12 349 076
	22.15	19.82	41.97	38.59	19.45	100.00		13.60
Stopped working/changed jobs in informal sector after July 1997								
Men	44 189	76 151	120 340	45 402	41 854	207 596	4 571 819	4 779 415
	21.29	36.68	57.97	21.87	20.16	100.00		4.34
Women	9 525	15 792	25 317	19 746	83 579	128 642	3 803 392	3 932 034
	7.4	12.28	19.68	15.35	64.97	100.00		3.27
Men and women	53 714	91 943	145 657	65 148	125 433	336 238	8 375 211	8 711 449
	15.97	27.34	43.32	19.38	37.3	100.00		3.86

Notes: Tabulated from *Sakernas*, 1998.

Table2.11a Population aged 10 years and above who stopped working/changed jobs in the formal sector by employment status, urban areas, August 1998 (number and percentage)

Reasons for stopping work/ changing jobs in formal sector after July 1997	Employed			Seeking work	Not in labour force	Stopped working/ changed jobs after July 1997
	Formal	Informal	Total			
Men						
	290 893	258 347	549 240	425 749	149 584	1 124 573
	25.87	22.97	48.84	37.86	13.3	100.00
Income not sufficient	70 747	51 738	122 485	43 694	8 095	174 274
	40.6	29.69	70.28	25.07	4.64	15.5
Environment not suitable	38 742	21 328	60 070	20 385	8 427	88 882
	43.59	24	67.58	22.93	9.48	7.9
Laid off	63 258	103 385	166 643	269 258	40 511	476 412
	13.28	21.7	34.98	56.52	8.5	42.36
Business stopped	68 089	54 119	122 208	56 034	20 589	198 831
	34.24	27.22	61.46	28.18	10.36	17.68
Others (multiple reasons)	50 057	27 777	77 834	36 378	71 962	186 174
	26.89	14.92	41.81	19.54	38.65	16.56
Women						
	81 061	74 438	155 499	222 194	176 993	554 686
	14.61	13.42	28.03	40.06	31.91	100.00
Income not sufficient	24 798	10 006	34 804	34 671	20 766	90 241
	27.48	11.09	38.57	38.42	23.01	16.27
Environment not suitable	13 173	9 542	22 715	18 339	14 970	56 024
	23.51	17.03	40.55	32.73	26.72	10.1
Laid off	18 146	20 312	38 458	122 215	44 879	205 552
	8.83	9.88	18.71	59.46	21.83	37.06
Business stopped	13 582	11 819	25 401	21 175	12 540	59 116
	22.98	19.99	42.97	35.82	21.21	10.66
Others (multiple reasons)	11 362	22 759	34 121	25 794	83 838	143 753
	7.9	15.83	23.74	17.94	58.32	25.92
Men and women						
	371 954	332 785	704 739	647 943	326 577	1 679 259
	22.15	19.82	41.97	38.59	19.45	100.00
Income not sufficient	95 545	61 744	157 289	78 365	28 861	264 515
	36.12	23.34	59.46	29.63	10.91	15.75
Environment not suitable	51 915	30 870	82 785	38 724	23 397	144 906
	35.83	21.3	57.13	26.72	16.15	8.63
Laid off	81 404	123 697	205 101	391 473	85 390	681 964
	11.94	18.14	30.08	57.4	12.52	40.61
Business stopped	81 671	65 938	147 609	77 209	33 129	257 947
	31.66	25.56	57.22	29.93	12.84	15.36
Others (multiple reasons)	61 419	50 536	111 955	62 172	155 800	329 927
	18.62	15.32	33.93	18.84	47.22	19.65

Source: Tabulated from *Sakernas*, 1998.

Table 2.11b Population aged 10 years and above who stopped working/changed jobs in the informal sector by employment status, urban areas, August 1998 (number and percentage)

Reasons for stopping work/ changing jobs in informal sector after July 1997	Employed			Seeking work	Not in labour force	Stopped working/ changed jobs after July 1997
	Formal	Informal	Total			
Men						
	44 189	76 151	120 340	45 402	41 854	207 596
	21.29	36.68	57.97	21.87	20.16	100.00
Income not sufficient	21 930	26 062	47 992	14 273	5 420	67 685
	32.4	38.5	70.9	21.09	8.01	32.6
Environment not suitable	4 362	4 274	8 636	575 -		9 211
	47.36	46.4	93.76	6.24		4.44
Business stop	14 932	31 314	46 246	24 922	6 915	78 083
	19.12	40.1	59.23	31.92	8.86	37.61
Others (multiple answers)	2 965	14 501	17 466	5 632	29 519	52 617
	5.64	27.56	33.19	10.7	56.1	25.35
Women						
	9 525	15 792	25 317	19 746	83 579	128 642
	7.4	12.28	19.68	15.35	64.97	100.00
Income not sufficient	2 521	6 831	9 352	3 064	30 870	43 286
	5.82	15.78	21.61	7.08	71.32	33.65
Environment not suitable	3 631	295	3 926	1 181	3 217	8 324
	43.62	3.54	47.16	14.19	38.65	6.47
Business stopped	2 149	609	2 758	8 503	12 954	24 215
	8.87	2.51	11.39	35.11	53.5	18.82
Others (multiple answers)	1 224	8 057	9 281	6 998	36 538	52 817
	2.32	15.25	17.57	13.25	69.18	41.06
Men and women						
	53 714	91 943	145 657	65 148	125 433	336 238
	15.97	27.34	43.32	19.38	37.3	100.00
Income not sufficient	24 451	32 893	57 344	17 337	36 290	110 971
	22.03	29.64	51.67	15.62	32.7	33
Environment not suitable	7 993	4 569	12 562	1 756	3 217	17 535
	45.58	26.06	71.64	10.01	18.35	5.22
Business stopped	17 081	31 923	49 004	33 425	19 869	102 298
	16.7	31.21	47.9	32.67	19.42	30.42
Others (multiple answers)	4 189	22 558	26 747	12 630	66 057	105 434
	3.97	21.4	25.37	11.98	62.65	31.36

Source: Tabulated from *Sakernas*, 1998.

Table 2.12. Employment of population aged 10 years and above who stopped working/changed jobs between August 1997 and August 1998, by gender, employment sector and hours of work, urban areas, August 1998 (number and percentage)

	Formal sector			Informal sector		
	<35 hrs	35hrs+	Total	<35 hrs	35hrs+	Total
Stopped working/changed jobs after July 1997						
Men	92 719	242 363	335 082	151 635	182 863	334 498
	27.67	72.33	100.00	45.33	54.67	100.00
Women	21 445	69 141	90 586	56 177	34 053	90 230
	23.67	76.33	100.00	62.26	37.74	100.00
Men and women	114 164	311 504	425 668	207 812	216 916	424 728
	26.82	73.18	100.00	48.93	51.07	100.00
Stopped working/changed jobs in formal sector after July 1997						
Men	82 921	207 972	290 893	112 876	145 471	258 347
	28.51	71.49	100.00	43.69	56.31	100.00
Women	20 105	60 956	81 061	44 279	30 159	74 438
	24.8	75.2	100.00	59.48	40.52	100.00
Men and women	103 026	268 928	371 954	157 155	175 630	332 785
	27.7	72.3	100.00	47.22	52.78	100.00
Stopped working/changed jobs in informal sector after July 1997						
Men	9 798	34 391	44 189	38 759	37 392	76 151
	22.17	77.83	100.00	50.9	49.1	100.00
Women	1 340	8 185	9 525	11 898	3 894	15 792
	14.07	85.93	100.00	75.34	24.66	100.00
Men and women	11 138	42 576	53 714	50 657	41 286	91 943
	20.74	79.26	100.00	55.1	44.9	100.00

Source: Tabulated from *Sakernas*, 1998.

Table 2.13 Population aged 10 years and above who changed jobs between August 1997 and August 1998, by economic sector and gender, before and after the crisis, urban areas, August 1998 (number and percentage)

Economic sector employed, August 1997	Economic sector employed, August 1998						Changed jobs (%)	Numbers stopped working/ changed jobs
	Agriculture	Manu-facturing	Construction	Trade, hotels & restaurants	1.1.1.1.1 Others	Total		
Men								
Agriculture	19 032	7 613	9 512	10 446	14 777	61 380	68.42	89 706
	31.01	12.4	15.5	17.02	24.07	100.00		
Manufacturing	19 449	40 957	17 465	44 346	36 963	159 180	47.71	333 635
	12.22	25.73	10.97	27.86	23.22	100.00		
Construction	18 990	9 212	41 100	23 774	24 572	117 648	49.68	236 815
	16.14	7.83	34.93	20.21	20.89	100.00		
Trade, hotels and restaurants	7 368	8 091	7 602	49 355	29 335	101 751	48.59	209 392
	7.24	7.95	7.47	48.51	28.83	100.00		
Others	24 677	18 810	21 403	71 234	93 497	229 621	49.63	462 621
	10.75	8.19	9.32	31.02	40.72	100.00		
Women								
Agriculture	13 346	5 795	0	2 024	925	22 090	52.64	41 965
	60.42	26.23	0	9.16	4.19	100.00		
Manufacturing	2 793	16 324	1 993	28 890	7 409	57 409	25.13	228 408
	4.87	28.43	3.47	50.32	12.91	100.00		
Construction	0	0	0	0	0	0	0	17 659
Trade, hotels and restaurants	896	4 063	896	24 491	3 677	34 023	16.13	210 971
	2.63	11.94	2.63	71.98	10.81	100.00		
Others	3 138	6 316	0	18 018	39 822	67 294	36.51	184 325
	4.66	9.39	0	26.78	59.18	100.00		
Men and women								
Agriculture	32 378	13 408	9 512	12 470	15 702	83 470	63.39	131 671
	38.79	16.06	11.4	14.94	18.81	100.00		
Manufacturing	22 242	57 281	19 458	73 236	44 372	216 589	38.54	562 043
	10.27	26.45	8.98	33.81	20.49	100.00		
Construction	18 990	9 212	41 100	23 774	24 572	117 648	46.23	254 474
	16.14	7.83	34.93	20.21	20.89	100.00		
Trade, hotels and restaurants	8 264	12 154	8 498	73 846	33 012	135 774	32.3	420 363
	6.09	8.95	6.26	54.39	24.31	100.00		
Others	27 815	25 126	21 403	89 252	133 319	296 915	45.89	646 946
	9.37	8.46	7.21	30.06	44.9	100.00		

Source: Tabulated from *Sakernas*, 1998.

Table 2.14. Percentage of workers who changed jobs between August 1997 and August 1998 according to working conditions of new employment, urban areas, August 1998

Working conditions	Men			Women		
	Formal 1997 Formal 1998	Informal 1997 Formal1 1998	Total	Formal 1997 Formal 1998	Informal 1997 Formal1 1998	Total
No.	290 893	44 189	335 082	81 061	9 525	90 586
%	100.00	100.00	100.00	100.00	100.00	100.00
Income						
Same -good/better	46.17	33.47	44.5	35.23	26.92	34.36
Same-no good/worse	46.53	54.32	47.55	57.48	47.38	56.41
Not clear-no answer	7.3	12.22	7.95	7.29	25.7	9.23
Facilities at the workplace						
Same -good/better	29.31	34.25	29.96	23.54	17.21	22.87
Same-no good/worse	61.03	53.53	60.04	66.39	57.09	65.41
Not clear- no answer	9.66	12.22	9.99	10.07	25.7	11.72
Health cover						
Same -good/better	39.42	38.67	39.32	30.41	26.92	30.04
Same-no good/worse	50.75	49.12	50.54	57.1	47.38	56.08
Not clear - no answer	9.83	12.22	10.14	12.49	25.7	13.88
Work safety						
Same -good/better	36.89	41.53	37.5	19.22	22.56	19.57
Same-no good/worse	53.88	46.25	52.87	67.65	51.74	65.98
Not clear - no answer	9.24	12.24	9.63	13.13	25.7	14.45
Transport facilities						
Same -good/better	25.5	20.9	24.89	24.54	17.21	23.77
Same-no good/worse	64.38	66.88	64.71	59.95	57.09	59.65
Not clear - no answer	10.13	12.22	10.4	15.51	25.7	16.58
Overall conditions						
Same -good/better	37.59	32.54	36.92	24.98	17.21	24.16
Same-no good/worse	54.23	55.25	54.36	64.94	57.09	64.12
Not clear - no answer	8.18	12.22	8.71	10.08	25.7	11.72

Source: Tabulated from *Sakernas*, 1998.

Table 3.1 Percentage of women in planting and harvesting activities in self-employed farming

Location	New technology		Old technology	
	Narrow	Large	Narrow	Large
DI Yogyakarta				
Planting activities	86.90	65.60	96.30	100.00
Harvesting activities	39.10	43.70	90.60	94.00
Bali				
Planting activities	47.50	36.40	10.00	11.80
Harvesting activities	50.80	63.30	73.70	81.80

Source: Suratiyah, Yogyakarta,1991.

Table 3.2 Labour Force Participation Rate (LRFPR) by economic sector and gender, rural areas 1996-1998 (%)

Economic sector	1996		1997		1998	
	Men	Women	Men	Women	Men	Women
1	60.35	39.65	60.64	39.36	59.83	40.17
2	76.77	23.23	79.08	20.92	82.66	17.34
3	49.92	50.08	50.74	49.26	51.93	48.07
4	92.41	7.59	93.62	6.38	86.64	13.36
5	97.53	2.47	97.53	2.47	97.17	2.83
6	44.85	55.15	45.42	54.58	45.55	54.45
7	98.06	1.94	98.21	1.79	98.09	1.91
8	76.15	23.85	75.49	24.51	72.56	27.44
9	66.78	33.22	65.98	34.02	65.34	34.66
10	84.13	15.87	00.00	100.00	00.00	00.00
Total	**60.57**	**39.43**	**61.01**	**38.99**	**60.42**	**39.58**

Notes: 1. Agriculture, forestry, hunting and fishery. 2. Mining and quarrying. 3. Manufacturing industry. 4. Electricity, gas and water. 5. Construction. 6. Wholesale trade, retail trade, restaurants and hotels. 7. Transportation, storage and communications. 8. Finance, insurance, real estate and business services. 9. Community, social and personal services. 10. Others.

Source: *Sakernas* 1996, 1997 and 1998.

Table 3.3 Working-age population in rural areas by gender and age group, Lampung, Central Java and national, 1998 (%)

Age group	Lampung		Central Java		National	
	Men	Women	Men	Women	Men	Women
15-19	19.01	15.00	15.59	13.41	15.98	14.25
20-24	11.35	12.79	10.55	11.38	10.78	12.11
25-29	11.02	14.57	10.06	11.29	11.29	12.84
30-34	11.55	12.15	10.57	10.81	10.58	11.27
35-39	12.94	11.51	10.43	10.65	11.50	11.05
40-44	7.33	8.32	9.33	8.17	9.38	8.74
45-49	7.52	7.68	7.88	7.54	7.92	7.52
50-54	5.21	5.12	6.53	6.43	6.38	6.02
55-59	3.96	4.34	5.31	5.47	4.91	4.84
60-64	4.49	3.98	5.10	5.53	4.59	4.32
65-69	2.64	2.06	3.51	4.20	2.81	3.02
70-74	1.45	1.28	3.14	3.01	2.23	2.15
75+	1.52	1.21	2.00	2.10	1.67	1.87
%	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
Total: %	**51.8**	**48.2**	**49.3**	**50.7**	**49.4**	**50.6**
No.	**1 898 295**	**1 762 971**	**6 639 500**	**6 831 910**	**40 751 917**	**41 713 798**

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.4 Working-age population in rural areas by level of education, Lampung, Central Java and National, 1998 (%)

Educ. level	Lampung		Central Java		National	
	Men	Women	Men	Women	Men	Women
1	4.03	8.17	8.14	18.17	8.01	16.58
2	18.35	24.52	20.02	22.41	19.64	22.39
3	40.07	40.01	45.43	41.63	42.33	39.66
4	19.87	15.35	13.92	10.95	15.00	11.44
5	3.04	1.78	1.94	0.79	1.85	1.44
6	8.12	4.76	5.49	3.13	7.32	4.78
7	5.15	4.48	3.94	2.16	4.46	2.78
8	0.46	0.28	0.29	0.32	0.40	0.38
9	0.40	0.21	0.45	0.26	0.36	0.24
10	0.53	0.43	0.39	0.18	0.64	0.30
%	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
No.	**1 898 295**	**1 762 971**	**6 639 500**	**6 831 910**	**40 751 917**	**41 713 798**

Notes: 1. No education. 2. Did not complete primary school. 3. Primary school. 4. Junior high school (general). 5. Junior high school (vocational). 6. Senior high school (general). 7. Senior high school (vocational). 8. Diploma I/II. 9. Diploma III/academy. 10. University.

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.5 Working-age population (15 years and over) in rural areas, by main activity, Lampung, Central Java and National, 1998

Total working-age population	Lampung		Central Java		National	
	Men	Women	Men	Women	Men	Women
Economically active						
Working	86.27	56.15	84.37	59.84	85.05	54.44
Still looking for work	1.91	2.42	3.22	2.08	2.59	2.17
Total: %	88.18	58.56	87.59	61.92	87.64	56.61
No.	1 674 008	1 032 472	5 815 660	4 230 310	35 713 505	23 613 721
Non-economically active						
School	7.19	8.03	5.49	5.16	5.49	5.05
House-keeping	0.33	29.28	0.51	26.46	0.67	32.36
Others	4.29	4.12	6.41	6.47	6.21	5.98
Total: %	11.82	41.44	12.41	38.08	12.36	43.39
No.	224 287	730 499	823 840	2 601 600	5 038 412	18 100 077

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.6 Workers in rural areas by economic sector and gender, Lampung, Central Java and National, 1998

Economic sector	Lampung		Central Java		National	
	Men	Women	Men	Women	Men	Women
1	72.92	73.54	57.16	54.82	62.25	63.79
2	0.84	0.13	0.48	0.13	0.98	0.31
3	6.04	5.32	10.06	15.98	7.75	10.95
4	0.00	0.00	0.12	0.00	0.13	0.03
5	4.06	0.13	7.28	0.17	5.40	0.24
6	4.90	13.80	10.62	22.04	9.73	17.76
7	4.97	0.13	6.07	0.03	5.36	0.16
8	0.15	0.00	0.22	0.13	0.18	0.10
9	6.12	6.96	7.98	6.70	8.22	6.65
%	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
No.	**1 637 671**	**989 870**	**5 601 570**	**4 088 035**	**34 659 505**	**22 708 411**

Notes: 1. Agriculture, forestry, hunting and fishery. 2. Mining and quarrying. 3. Manufacturing industry. 4. Electricity, gas and water. 5. Construction. 6. Wholesale trade, retail trade, restaurants and hotels. 7. Transportation, storage and communications. 8. Finance, insurance, real estate and business services. 9. Community, social and personal services. 10. Others.

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.7 Workers in rural areas by main work status and gender, Lampung, Central Java and national, 1998

Main work status		Lampung		Central Java		Indonesia	
		Men	Women	Men	Women	Men	Women
1		22.72	13.67	20.39	20.85	25.55	18.51
2		37.18	14.94	35.20	13.69	35.09	17.06
3		1.68	0.25	2.30	0.56	1.91	0.63
4		21.65	11.27	30.02	22.41	26.08	17.78
5		16.76	59.87	12.09	42.49	11.38	46.03
Total:	**%**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
	No.	**1 637 671**	**989 870**	**5 601 570**	**4 088 035**	**34 659 505**	**22 708 411**

Notes: 1. Self-employed. 2. Self-employed assisted by family member/temporary worker. 3. Employer. 4. Labourer/employee. 5. Unpaid family member.

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.8 Percentage of population aged 15 years and over by working experience and type of activity, rural areas, 1998

	Economically active						Economically inactive		Total working-age population	
	Working		Looking for work		Total					
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Ever stopped working/ changed jobs	48.45	40.12	43.00	30.84	48.29	39.76	22.73	19.74	45.13	31.07
Before July 1997	45.41	38.90	19.49	17.37	44.65	38.08	19.33	17.66	41.52	29.22
After July 1997	3.04	1.21	23.52	13.47	3.64	1.68	3.39	2.08	3.61	1.86
Never stopped working/ changed jobs before	51.55	59.88	57.00	69.16	51.71	60.24	77.27	80.26	54.87	68.93
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.9 Percentage of population aged 15 years and over by working experience and type of activity, rural areas, 1998

	Economically active						Economically inactive		Total working-age population	
	Working		Looking for work		Total					
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Ever stopped working/ changed jobs	91.31	70.28	2.46	2.15	93.77	72.43	6.23	27.57	100.00	100.00
Before July 1997	93.03	72.49	1.21	1.29	94.24	73.78	5.76	26.22	100.00	100.00
After July 1997	71.55	35.58	16.84	15.74	88.38	51.33	11.62	48.67	100.00	100.00
Never stopped working/ changed jobs before	79.90	47.29	2.69	2.18	82.59	49.47	17.41	50.53	100.00	100.00
Total	**85.05**	**54.44**	**2.59**	**2.17**	**87.64**	**56.61**	**12.36**	**43.39**	**100.00**	**100.00**

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.10 Percentage of population aged 15 years and over who stopped working/changed jobs after July 1997 by reason and type of activity, rural areas, 1998

Reason for stopping work/ changing jobs	Economically active						Economically inactive		Total	
	Working		Looking for work		Total					
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Insufficient income	33.51	25.88	18.84	17.60	30.70	23.36	14.31	17.48	28.79	20.51
Unsuitable working environment	7.18	11.12	9.01	15.29	7.53	12.39	4.30	5.61	7.15	9.10
Laid off	15.82	10.59	39.28	37.49	20.30	18.77	19.46	8.28	20.20	13.69
Went out of business	20.22	15.30	24.53	13.87	21.04	14.86	18.88	15.20	20.79	15.03
Others	23.28	37.11	8.34	15.75	20.43	30.61	43.04	53.43	23.07	41.68
Stopped working/changed jobs after July 1997	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.11 Percentage of population aged 15 years and over who stopped working/changed jobs after July 1997 by reason and type of activity, rural areas, 1998

Reason for stopping work/ changing jobs	Economically active						Economically inactive		Total	
	Working		Looking for work		Total					
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Insufficient income	83.15	45.22	11.05	13.44	94.20	58.66	5.80	41.34	100.00	100.00
Unsuitable working environment	71.71	43.79	21.27	26.33	92.98	70.12	7.02	29.88	100.00	100.00
Laid off	55.93	27.72	32.82	42.92	88.76	70.64	11.24	29.36	100.00	100.00
Went out of business	69.47	36.48	19.92	14.46	89.40	50.94	10.60	49.06	100.00	100.00
Others	72.11	31.90	6.11	5.92	78.22	37.82	21.78	62.18	100.00	100.00
Stopped working/changed jobs after July 1997	**71.44**	**35.83**	**16.88**	**15.67**	**88.33**	**51.50**	**11.67**	**48.50**	**100.00**	**100.00**

Source: Calculated from 1998 *Sakernas* data, CBS, 1999, Jakarta.

Table 3.12 LFPRs for population aged 10 years and over in rural areas by gender, Lampung, Central Java and national, 1994-98 (%)

	1994		1996		1997		1998	
	Men	Women	Men	Women	Men	Women	Men	Women
Lampung	72.37	43.38	75.63	49.49	73.87	44.35	76.43	49.88
Central Java	76.59	52.71	77.97	53.71	75.43	51.90	77.22	55.50
National	75.85	49.13	75.64	49.09	75.56	47.79	76.41	50.16

Source: Calculated from 1994-98 *Sakernas* data, CBS, Jakarta.

Table 3.13 Percentage distribution of labour by economic sector and gender, rural areas, 1994 -98

Economic sector	1994		1996		1997		1998	
	Men	Women	Men	Women	Men	Women	Men	Women
1	61.67	62.65	60.79	61.33	57.93	58.84	62.25	63.79
2	1.33	0.40	1.23	0.57	1.45	0.60	0.98	0.31
3	9.11	13.23	8.70	13.41	8.83	13.41	7.75	10.95
4	0.13	0.01	0.11	0.01	0.16	0.02	0.13	0.03
5	5.70	0.23	6.05	0.24	6.74	0.27	5.40	0.24
6	8.80	16.52	9.42	17.80	10.29	19.36	9.73	17.76
7	4.47	0.17	5.11	0.16	5.42	0.15	5.36	0.16
8	0.34	0.12	0.23	0.11	0.23	0.12	0.18	0.10
9	8.31	6.43	8.34	6.37	8.95	7.22	8.22	6.65
10	0.13	0.26	0.02	0.0045	0.00	0.01	0.00	0.00
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Notes: 1. Agriculture, forestry, hunting and fishery. 2. Mining and quarrying. 3. Manufacturing industry. 4. Electricity, gas and water. 5. Construction. 6. Wholesale trade, retail trade, restaurants and hotels. 7. Transportation, storage and communications. 8. Finance, insurance, real estate and business services. 9. Community, social and personal services. 10. Others.

Source: Calculated from 1994-98 *Sakernas* data, CBS, Jakarta.

Table 3.14 Percentage distribution of labour by main work status and gender, rural areas, 1994-98

Main work status	1994		1996		1997		1998	
	Men	Women	Men	Women	Men	Women	Men	Women
1	21.66	17.25	23.07	18.50	25.02	19.73	25.55	18.51
2	35.15	15.76	36.37	20.80	32.31	14.75	35.09	17.06
3	0.94	0.34	1.26	0.70	1.83	0.68	1.91	0.63
4	27.76	17.36	27.63	17.48	28.85	18.72	26.08	17.78
5	14.49	49.29	11.67	42.53	11.99	46.12	11.38	46.03
Total	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Notes: 1. Self-employed. 2. Self-employed assisted by family member/temporary worker. 3. Employer. 4. Employee. 5. Unpaid family worker.
Source: Calculated from 1994-98 *Sakernas* data, CBS, Jakarta.

Table 3.15 Number of people aged 10 years and over who stopped working/changed jobs after July 1997 owing to retrenchment, by gender and activity, rural areas, 1998

	Economically active						Economically inactive		Total	
	Working	%	Looking for work	%	Total	%	No.	%	No.	%
Men	230 950	62.21	104 070	28.03	335 020	90.24	36 216	9.76	371 236	100.00
Women	44 141	35.25	46 254	36.93	90 395	72.18	34 840	27.82	125 235	100.00
Total	275 091	55.41	150 324	30.28	425 415	85.69	71 056	14.31	496 471	100.00

Source: Calculated from 1994-98 *Sakernas* data, CBS, Jakarta.

Table 3.16 Weekly hours worked in agricultural and non-agricultural activities, by gender, Central Java and Lampung, 1996, 1998 and 1999

Location/ activity	1996			1998			1999		
	Men	Women	Both	Men	Women	Both	Men	Women	Both
Central Java									
Agriculture	37.9	32.6	36.1	37.7	31.7	35.7	42.6	32.0	39.1
Non-agriculture	50.2	50.7	50.4	50.0	48.8	49.4	48.3	48.2	48.3
Total	**41.1**	**40.0**	**40.8**	**40.9**	**38.7**	**40.0**	**44.0**	**38.8**	**41.9**
Lampung									
Agriculture	41.7	37.8	40.3	41.2	37.2	39.7	41.3	36.5	39.6
Non-agriculture	43.4	51.8	48.9	42.5	53.1	50.0	40.4	53.0	49.9
Total	**41.9**	**41.1**	**41.5**	**41.3**	**41.5**	**41.4**	**41.2**	**40.8**	**41.1**
Central and Lampung									
Agriculture	39.8	35.4	38.2	41.2	37.2	39.7	42.0	34.4	39.3
Non-agriculture	48.8	51.1	50.0	42.5	53.1	50.0	47.0	49.8	48.7
Total	**41.6**	**40.5**	**41.2**	**41.1**	**40.0**	**40.6**	**42.8**	**39.7**	**41.5**

Source: Demographic Institute, Faculty of Economics, University of Indonesia, (FEUI) 1999.

Table 3.17 Working hours and hours worked per week by type of work and gender, Central Java and Lampung, 1999

Gender/type of work	Type of work	Working hours	Hours worked
Central Java			
Men			
Main work, on farm:	Farm owner	On own land: 06.00 am-12.00 am	6
	Farm worker (*buruh tani/ penggarap*)	On land of others: 07.00 am-12.00 am; On own land: 01.00 pm-04.00 pm	8
	Farm laborer (*kuli*)	07.00 am-04.00 pm	9
Main work, off farm:	Carpenter (as required)	07.00 am-05.00 pm (2 hours rest)	8
Side work	Driver	06.00 am-02.00 pm	8
	Ojek	07.00 pm-10.00 pm	3
	Becak	04.00 pm-09.00 pm	5
Women			
Main work, on farm:	Farm owner	On own land: 06.00 am-12.00 am	6
	Farm worker (*buruh tani*)	On land of others: 07.00 am -2.00 am;	5
	Farm labourer (*kuli*)	On own land: 01.00 pm-04.00 pm	3
Main work, off farm:	Warung (vendor)	07.00 am-04.00 pm	9
Side work	Cookies business	07.00 am -10.00 pm (2 hours rest)	13
	Salted eggs business	04.30 am-04.00 pm	9.5
	Domestic work	02.00 pm-05.00 pm	3
		04.30 am-07.00 am and 04.00 pm-08.00 pm	6.5
Lampung			
Men			
Main work, on farm	Farm owner: rubber, etc.	07.00 am-04.00 pm	9
	Farm owner: paddy, etc.	06.00 am -11.00 am and	7
	Farm labourer (*buruh tani*)	02.00 pm-04.00 pm	
Main work, off farm:	Carpenter (at home)	07.00 am-05.00 pm (2 hours rest)	8
	Labourer (*buruh*)	07.00 am-05.00 pm	10
	Carpenter (as required)	07.00 am-05.00 pm (2 hours rest)	8
Side work	Painter (as required)	(uncertain)	4
	Labourer (*buruh*)	(uncertain)	4
		07.00 am -12.00 am	5
Women			
Main work, on farm	Farm owner: rubber, etc.	07.00 am-04.00 pm	9
	Farm owner: paddy, etc.	06.00 am-11.00 am and	7
	Farm labourer (*buruh tani)*	02.00 pm-04.00 pm	
Main work, off farm	*Warung* (at home)	07.00 am-05.00 pm (2 hours rest)	8
	Labourer *(buruh)*	07.00 am-09.00 pm	14
	Seller (at market)	07.00 am-04.00 pm (2 hours rest)	7
Side work	*Warung makanan*	06.00 am-11.00 am	5
	Food processing (*opak)*	04.00 am-10.00 am	6
	Domestic work	04.00 pm-10.00 pm	6
	Massager/*pijat*	04.30 am-07.00 am and 04.00 pm-09.30 pm (uncertain)	8 2

Source: Demographic Institute, FEUI (primary data), 1999.

Table 3.18 Average weekly hours worked one week before survey in agricultural and non-agricultural sectors by work status, education and gender, Central Java and Lampung, 1999

Work status/ education	Central Java						Lampung					
	Agriculture			Non-agriculture			Agriculture			Non-agriculture		
	Men	Women	Both	Men	Women	Both	Men	Women	Both	Men	Women	Both
Work status												
Self-employed	39	21	36	49	48	48	42	47	43	-	46	46
	(6)	(1)	(7)	(12)	(16)	(28)	(42)	(15)	(57)		(11)	(11)
Self-employed assisted by unpaid worker	42	30	41	44	54	51	41	33	38	30	67	58
	(84)	(6)	(90)	(9)	(20)	(29)	(83)	(33)	(134)	(4)	(13)	(17)
Employer	49	35	46	77	98	88	21	-	21	-	-	-
	(3)	(1)	(4)	(2)	(2)	(4)	(2)		(2)			
Employee	53	35	46	49	43	47	45	44	45	47	52	48
	(38)	(25)	(63)	(24)	(10)	(34)	(22)	(10)	(32)	(6)	(2)	(8)
Family worker	32	31	32	-	35	35	39	31	33	-	32	32
	(30)	(48)	(78)		(11)	(11)	(4)	(12)	(16)		(5)	(5)
Other	-	-	-	33	-	33	42	-	42	-	-	-
				(3)		(3)	(2)		(2)			
Total	**43**	**32**	**39**	**48**	**48**	**48**	**41**	**37**	**40**	**40**	**53**	**41**
	(161)	**(81)**	**(242)**	**(50)**	**(59)**	**(109)**	**(155)**	**(88)**	**(243)**	**(10)**	**(31)**	**(284)**
Education												
No education/Did not finishSD (primary school)	41	33	38	49	58	55	41	40	41	46	61	55
	(61)	(32)	(93)	(9)	(16)	(25)	(52)	(31)	(83)	(3)	(4)	(7)
Finished SD	42	33	38	62	51	54	42	33	38	42	60	58
	(62)	(40)	(102)	(12)	(31)	(43)	(61)	(45)	(106)	(2)	(20)	(22)
SLTP+(Junior High School and above)	47	24	43	42	29	39	40	41	40	36	28	32
	(38)	(9)	(47)	(29)	(12)	(41)	(42)	(12)	(54)	(5)	(7)	(12)
Total	**43**	**32**	**39**	**48**	**48**	**48**	**41**	**37**	**40**	**40**	**53**	**50**
	(161)	**(81)**	**(242)**	**(50)**	**(59)**	**(109)**	**(155)**	**(88)**	**(243)**	**(10)**	**(31)**	**(41)**

Source: Demographic Institute, FEUI (primary data), 1999.

Note: The numbers in bracket are numbers of respondents.

Table 3.19 Monthly average income, Lampung, Central Java and national, 1997-98 (in rupiah)

Location	1997		1998		Increase rate (%)	
	Men	Women	Men	Women	Men	Women
Lampung	186 438	143 047	253 534	186 180	35.98	30.15
Central Java	189 779	100 024	225 689	130 414	18.92	30.38
National	207 335	137 127	255 789	163 211	23.37	19.02

Source: Calculated from 1997 and 1998 *Sakernas* data, CBS, Jakarta.

Table 3.20 Average monthly income in agriculture in rural areas, Lampung, Central Java and national, 1997-98 (in rupiah)

Location	1997		1998		Increase (%)	
	Men	Women	Men	Women	Men	Women
Lampung	128 214	93 617	179 080	94 118	39.67	0.54
Central Java	105 469	58 033	141 968	86 392	34.61	48.87
National	136 031	74 911	176 876	98 320	30.03	31.25

Source: Calculated from 1997 and 1998 *Sakernas* data, CBS, Jakarta.

Table 3.21 Average monthly income by economic sector, period and gender, Brebes, Central Java, 1996, 1998 and 1999 (in rupiah)

Economic sector	1996			1998			1999		
	Men	Women	Both	Men	Women	Both	Men	Women	Both
Agriculture	77 915	3 538	60 493	384 852	259 486	358 631	180 950	100 138	142 129
Non- agriculture	64 833	88 900	75 015	141 442	163 577	151 576	107 183	165 164	134 759
Total	**73 386**	**51 283**	**66 486**	**318 867**	**207 421**	**285 811**	**159 074**	**97 761**	**139 305**

Source: Demographic Institute, FEUI (primary data), 1999.

Table 3.22 Average monthly income by sector, period and gender, North Lampung, Lampung Province, 1996, 1998 and 1999 (in rupiah)

Sector	1996			1998			1999		
	Men	Women	Both	Men	Women	Both	Men	Women	Both
Agriculture	34 755	8 980	29 734	82 244	25 678	75 289	60 286	7 648	50 716
Non-Agriculture	6 086	17 180	12 612	12 344	23 677	20 586	24 614	15 733	17 805
Total	**31 846**	**12 260**	**26 637**	**76 821**	**24 447**	**63 643**	**56 719**	**12 674**	**41 488**

Source: Demographic Institute, FEUI (primary data), 1999.

Table 3.23 Percentage of respondents in agriculture by technology, Central Java and Lampung, 1999

Technology	Central Java		Lampung	
	%	No.	%	No.
Water system				
Technical irrigation	92.55	174	27.85	61
Rain water	28.72	54	75.34	165
Others	37.77	71	0.91	2
Equipment/tools				
Tractor	14.36	27	0.91	2
Plough drawn by cow/buffalo	0.53	1	31.96	70
Mechanical plough operated by man	85.11	160	11.42	25
Sprayer	96.28	181	28.77	63
Other tools	74.47	140	73.97	162
Inputs/processes				
Prime seeds	65.96	124	34.25	75
Fertilizer	97.34	183	60.27	132
Insecticide	96.28	181	36.53	80
Other chemical inputs	61.17	115	0.91	2
Land-processing	97.34	183	56.16	123
Marketing technique	75.00	141	62.10	136
Production processing	93.09	175	26.48	58
Production storage	96.28	181	44.75	98

Note: Respondents may have given more than one answer.

Table 3.24 Percentage of respondents by price change and type of production input, Central Java and Lampung, 1999

Price change	Central Java				Lampung			
	Seeds	Fertilizer	Insect-icide	Tools	Seeds	Fertilizer	Insecticide	Tools
Great increase	7.69	89.09	76.83	78.68	66.15	94.23	83.78	75.82
Increase	1.78	4.85	12.20	13. 97	27.69	3.21	10.81	22.22
Constant	2.96	-	0.61	2.94	3.08	1.28	1.80	-
Decrease	4.14	4.80	8.54	1.47	-	-	-	-
Great decrease	83.43	1.21	1.83	2.94	3.08	1.28	3.60	1.96
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Number	169	165	164	136	65	156	111	153

Table 3.25 Percentage of respondents by source of credit and gender, Central Java and Lampung, 1999

Source of credit	Central Java			Lampung		
	Men	Women	M & F	Men	Women	M & F
Relatives	13.2 (7)	15.8 (3)	13.9 (10)	14.7 (5)	8.3 (1)	13.0 (6)
KUD	62.3 (33)	36.8 (7)	55.6 (30)	17.6 (6)	25.0 (3)	19.6 (9)
BRI	30.2 (16)	42.1 (8)	33.3 (24)	14.7 (5)	41.7 (5)	21.7 (10)
Social support	3.8 (2)	-	2.8 (2)	38.2 (13)	16.3 (2)	32.6 (15)
Wholesaler/*ijon*	1.9 (1)	10.5 (2)	4.2 (3)	-	-	-
Others	-	-	-	14.7 (5)	8.33 (1)	13.0 (6)

Note: Respondents could give more than one answer. The numbers in parenthesis are actual numbers of respondents.

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