

EADN Regional Project on the Social Impact of the
Asian Financial Crisis

**The Impact of the Regional Economic Crisis on
Employment and an Evaluation of Public Work
Programmes in Indonesia**

By

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January 2002

1. INTRODUCTION

The Indonesian monetary crisis, which later became a full-blown economic crisis, transformed the country from one of the world's fastest growing economies into one of its slowest growing economies. From 1970 to 1996, Indonesia consistently recorded average annual growth rates of about 8 per cent. In 1998, the growth rate dropped drastically to -14 per cent. One of the consequences of this negative economic growth was a rise in unemployment. The sharp drop in construction and manufacturing activities, the increase in firm closures and bankruptcies, as well as the long drought in the agricultural sector (World Bank, 1998; Firdausy, 1999a), were the main reasons for the increase in unemployment, especially among unskilled workers.

To solve the growing unemployment problem, the Government of Indonesia, with the financial assistance of international and bilateral agencies initiated a large public works programme, starting in the financial year 1998/1999 with a budget allocation of more than US\$ 2 billion. This programme aimed to generate employment for about 2 million people per year (ILO, 1998a, 1998b). However, there was skepticism that this programme could successfully mitigate the unemployment problem created by the crisis.

This study has three main objectives. First, to examine critically the impact of the crisis on employment. Second, to evaluate the implementation of public works programmes provided by the government until 1999 which targetted unemployed workers (especially the non-skilled). This assessment is necessary because there have been few studies of this public works programme, and its effectiveness in assisting the unemployed in obtaining jobs during the crisis period. Finally, the third purpose is to explore the policy implications as well as provide recommendations on reducing unemployment during a crisis.

Along with the published literature, data and information were collected from the Central Board of Statistics (CBS), the Department of Manpower, and other institutions. Data collected from the CBS include the National Labour Force Survey (SAKERNAS) 1997, and the National Accounting System (NAS) 1998. These macro level data were collected to analyze the social impact of the crisis on employment. In addition, data and information were gathered from small sample surveys in Bekasi, Tangerang and Indramayu in West Java Province. This information was collected through interviews with workers involved in public works programmes. Twenty-five workers were interviewed in each area surveyed. The purpose of collecting data and information at the micro level was to evaluate the implementation of public works programmes in these areas as case studies. Furthermore, the study also collected information from informal and formal leaders in the areas surveyed using in-depth interviews. This was used to supplement data and information collected from the questionnaires.

The paper is organized as follows. The impact of the crisis on the economy is discussed in the first section. The next section highlights the social impact of the economic crisis, with particular emphasis on employment. This is followed by an evaluation of the public works programmes using micro-level data collected from the field. The paper finally draws out policy implications and recommendations for the government to consider in order to

overcome the unemployment problem in general, and to achieve effective public works programmes in particular.

2. THE IMPACT OF THE CRISIS ON THE MACROECONOMY

In comparison to other countries in crisis, Indonesia was most severely affected by the crisis (for details of the social impact of the crisis, see, for instance, World Bank, 1998, ILO, 1998a; and the literature cited therein). In less than a year, the economic success that had been achieved over the last 32 years of development had been eroded. Indonesia, which was previously ranked by the World Bank as part of the lower-middle income group, together with Thailand, Malaysia and other NIEs (Newly Industrializing Countries) had reverted back to the status of a poor country. The macroeconomic indicators prior to the crisis (Table 1) reveal that the country had an average high growth rate of 7 per cent per year between 1990-1996, with inflation in single digits. It also witnessed a structural shift from an agricultural-based economy to an industrial-based economy.

Table 1.
Indonesia: Selected Key Indicators, 1990-1996
(in per cent of GDP, unless otherwise indicated)

	1990	1991	1992	1993	1994	1995	1996
Internal Stability							
Gross Domestic Product							
Real GDP growth rate (per cent)	9.0	8.9	7.2	7.3	7.5	8.1	7.8
Agriculture	2.3	2.9	6.3	1.7	0.6	4.2	1.9
Industry	13.2	11.8	8.2	9.8	11.1	10.2	10.4
Services	7.6	9.3	6.8	7.5	7.2	7.9	7.6
Consumption	63.3	64.1	61.6	64.7	65.5	65.9	66.0
Private	54.4	55.0	52.3	55.7	57.4	57.8	58.3
Government	9.0	9.1	9.5	9.0	8.1	8.1	7.7
National Saving	27.5	26.9	26.9	27.0	26.4	28.0	26.5
Private	19.1	19.8	20.5	20.4	22.0	22.4	22.8
Public	8.4	7.1	6.4	6.6	6.4	5.6	5.7
Investment	30.1	29.9	29.0	28.3	30.3	31.3	32.1
Private	23.5	21.7	20.9	24.0	24.0	25.8	26.9
Public	6.6	7.7	7.8	7.4	6.3	5.5	5.3
Inflation (CPI)	9.5	9.5	4.9	9.8	9.2	8.6	6.5
Fiscal Balance	0.4	0.4	-0.4	-0.6	0.1	0.8	0.2
External Stability							
Current Account Balance	-2.8	-3.7	-2.2	-1.6	-1.7	-3.7	-4.0
Net Capital Inflows	4.9	5.0	3.8	1.9	2.4	4.6	5.0
of which							
Net Portfolio	-0.1	0.0	-0.1	1.1	2.2	2.0	n.a.
Investment	1.0	1.3	1.4	1.3	1.2	2.2	n.a.
Net Direct Investment	3.3	3.6	3.5	1.4	-0.9	1.3	n.a.
Other Capital	0.7	0.1	-1.0	-1.9	-0.1	-0.9	n.a.
	4.7	4.8	5.0	5.2	5.0	4.4	5.1

Net Error and Omissions	514.0 222.0	505.7 236.9	497.4 221.8	557.1 211.9	602.9 195.8	657.4 205.0	633.3 194.0
Reserves (in months of import)							
Ratio of M2 to Reserves (per cent)	15.9	17.9	20.5	20.1	17.7	20.9	24.8
Total External Debt (in per cent of Exports of Goods and Services)	11.1	14.3	18.1	18.0	17.1	24.3	29.3
Short term Debt (in per cent of Total External Debt)	30.9	32.0	31.6	33.8	30.0	33.7	33.0
Short Term Debt (in US\$ billion)	26.6	27.4	29.4	25.9	26.0	26.0	26.2
Debt-Service Ratio (in per cent of Exports of Goods and Services)	15.9	13.5	16.6	8.4	8.8	13.4	9.7
Exports (per cent of GDP)	28.64	20.06	18.71	14.14	16.11	18.02	22.78
Exports (per cent of growth rate)							
Oil Price (US\$ per barrel)							

Source: International Monetary Fund (IMF), International Financial Statistics, various issues.

IMF, World Economic Outlook, various issues.

J.P. Morgan, World Financial markets, Indonesia, 27 Jun 1997, p. 69.

J.P. Morgan, Emerging Market data Watch, ASEAN Currency Risks After The Baht's Fall, 7 July 1997, p. 3-4.

Despite the high growth, there were many problems with the economy prior to the crisis (a detailed discussion of these problems can be seen, for instance, in Johnson, 1997; World Bank, 1998; Cole and Slade, 1998; Firdausy, 1999a, 1999b), for instance, in terms of the debt service ratio and current account balances which led to instability in the economy when the crisis hit the country. The collapse of the economy was evident both in relation to negative economic growth (-14 per cent in 1998), and also other macroeconomic variables such as consumption, government expenditure, investment and imports. As a result of the crisis, both household and government consumption growth rates were negative in 1998. The growth rate of household consumption by GDP between 1997 and 1998 was - 4.9 per cent, whereas government consumption by GDP contribution was -15.3 per cent. Similarly, the growth of investment by GDP contribution was - 42.4 per cent, and import growth was -7.7 per cent. The only positive figure by GDP contribution was in export variables (Table 2).

Table 2.
Investment, Government Spending,
Export and Import by GDP contribution, 1997 and 1998 (at constant 1993 prices)

Description	1997 (Rp. Billion)	1998 (Rp. Billion)	Percentage change 1997 –1998
1. Government spending	31 700.8	26 839.9	-15.33
2. Investment	139 724.8	80 525.9	-42.37
3. Export	121 157.9	137 487.1	13.48
4. Import	139 796.1	129 056.1	-7.68

Source: Calculated from CBS 1999.

The positive growth of exports between 1997 and 1998 was partly due to the increase in the export growth of commodities such as textiles, gold, silver and metal. Some commodities like wood products, footwear, rubber and palm oil, however, experienced negative growth (Table 3). The negative growth rate of these particular export commodities owed to the difficulties these industries faced in obtaining import inputs and letters of credit and the lack of demand from overseas.

Table 3.
Value and Percentage Change of 10 export commodities
By Industrial Sector Classification, 1997 and 1998

Group	Value (in US\$ thousand)		Change (per cent)	Share of Industrial Export - 1998
	1997	1998		
Textile	2 136 139	2 425 759	13.56	21.02
Wood	1 875 451	1 549 335	-17.39	13.42
Gold, Silver and other metal	334 298	1 014 383	203.44	8.79
Electricity	998 615	873 305	-12.55	7.57
Steel, machine & Automotive	571 498	825 180	44.39	7.15
Pulp and paper	421 083	726 937	72.64	6.30
Leather, leather goods & shoes	768 593	532 457	-30.70	4.61
Rubber	686 978	520 464	-24.24	4.51
Base Chemical	306 090	507 043	65.65	4.39
Oil Palm	575 010	359 148	-37.54	3.11
10 Commodities Export	8 673 756	9 334 011	7.61	80.87
Total of Industrial Export	10 455 393	11 542 304	10.40	100.00
Percentage of 10 Commodities export to Total Industrial Export	82.96	80.87		
Percentage of 10 Commodities to Non-oil Export	70.18	69.76		
Percentage of 10 Commodities to Total Export	52.30	57.73		

Source: CBS, calculated by Industrial and Trade Department, 1997 and 1998.

In terms of growth by economic sector (at constant 1993 prices), all sectors of the economy experienced substantial falls in activity in 1998 except for agriculture and utilities. The sectors that suffered the largest collapse after the crisis were construction and trade, hotels and restaurants. The growth of the construction sector in 1998 declined to - 37.5 per cent, while growth in trade, hotels and restaurants fell by 20.6 per cent (Table 4). There was also a notable decline in growth in the financial sector.

Table 4.
Real GDP growth by sector, 1997 and 1998
(Rp. billion at constant 1993 prices)

Sector	1997	1998	Growth (per cent)
1. Agriculture, livestock, forestry and fisheries	64 289.5	64 532.0	0.38
2. Mining and Quarrying	38 385.9	37 101.7	-3.38
3. Manufacturing Industries	108 828.6	91 473.3	-15.95
4. Electricity, Gas and Water supply	5 498.6	5 576.8	1.42
5. Construction	35 040.6	21 902.9	-37.49
6. Trade, hotel & restaurant	73 503.6	58 330.1	-20.64
7. Transportation and communication	32 169.4	28 361.4	-11.84
8. Financial, Ownership and business	38 730.1	31 664.5	-18.24
9. Services	37 649.1	35 573.8	-5.51
Total	434 095.4	374 516.5	-13.72

Source: Calculated from National Accounting System, CBS, 1998.

Apart from the negative effects on the macro economy of the country, the crisis also adversely affected the economy at the micro level. This was related to the huge negative changes in the macroeconomic environment. Many firms (even well-managed firms) went bankrupt, simply because they failed to plan for an 80 per cent devaluation and a period of interest rates in excess of 100 per cent. Bankruptcies and a sharp decrease in production of some firms in turn caused other firms with sound management practices to go bankrupt. To minimize losses in organization capital of these firms through such a 'domino' effect, it would be necessary to place a very high priority on maintaining production in the midst of a crisis, because decreases in production then impact upon the poor through increased unemployment.

Technically, bankruptcies were also experienced by many Indonesian banks because of non-repayment of loans – a consequence of bad loans, the adverse effects of the depreciation on the borrower, as well as the previous practice of borrowing in foreign currencies and re-lending in Rupiah. Due to these problems, many banks were liquidated. Up to March 1999, the government had liquidated more than 54 commercial banks.

In addition, the crisis had economic consequences for both the rich and the poor. The effects on the poor were transmitted through several channels - a contraction in the demand for labour, reduced transfers from wealthier family members, and increases in commodity prices, especially for internationally traded goods, among others. Sumarto, Wetterberg and Pritchett (1999) in their study of 4,025 sub-districts (kecamatan) of Indonesia found that urban areas in general had been affected more severely than rural areas. This may reflect the fact that the crisis was initially an urban crisis. The effects on rural areas, however, tended to be a secondary consequence of the urban effects.

Moreover, between provinces in the country, both urban and rural areas in Java had been badly affected. This result presumably reflects the high degree of integration between rural and urban areas in Java, as seen in the high rate of labour mobility. Minimal impact was reported in large areas of Sumatra, Sulawesi and Maluku (Poppele, Sumarto and Pritchett, 1999). Other islands which experienced severe effects included East Timor, and East and West Nusatenggara. However, these areas were also affected by the El Nino drought, so it is difficult to separate the effects of the drought and the crisis. East Kalimantan was also negatively affected, but in this case the effect of the crisis was combined with the effects of fires.

It is clear that the economic crisis in Indonesia almost destroyed the economic fundamentals of the country, which were constructed over the previous 32 years under the Soeharto regime. The only economic sector which seemed to have survived the crisis was agriculture, whereas other sectors experienced negative growth. To overcome the crisis, the government needed to address all the economic variables that caused the crisis, which included debt problems, financial problems, and weaknesses in the economic structure.

3. THE IMPACT OF THE CRISIS ON EMPLOYMENT

3.1. Employment Situation Prior to the Crisis

As outlined at the outset, Indonesia made rapid progress in development over the past 30 years. The country was even labelled one of the miracle economic performers of the 1990s, due primarily to its ability to sustain a long period of rapid economic growth without triggering inflation. Others saw it as a nascent New Industrializing Economy of Asia - on the verge of becoming a middle tier, industrialized economy in the region.

The effects of the rapid economic growth and associated policies before the economic crisis in mid-1997 were favourable to labour, in terms of improved welfare, security and equity across the country (see, for example, Manning 1998). The overall open unemployment rate was less than 5 per cent throughout the 1990s, and declined from 4.6 per cent to 4.4 per cent between 1992 and 1996. There was also a corresponding fall in underemployment. With GDP growth during the 1990s exceeding 8 per cent, average labour productivity grew at just under 6 per cent per annum until mid 1997.

In addition to these positive developments, there was also a change in the structure of employment. Agricultural employment declined rapidly from 65.8 per cent in 1971 to 44 per cent in 1996. At the same time, industrial employment increased rapidly from

10.1 per cent in 1971 to 18.4 per cent in 1996. The share of employment in the trade and services sector also increased by about 13.5 per cent during this period, from 24.1 per cent in 1971 to 37.6 per cent in 1996.

The high growth rate of the non-agricultural sector during 1991-1997 was partly due to the movement of labour from the agricultural sector to the non-agricultural sector (Manning, 1998). A large labour movement from the agricultural (or traditional) sector to the non-agricultural sector before the crisis was the result of the better educational attainment of workers, the rise of skilled and professional workers, and limited agricultural land. Consequently, many workers from rural areas moved to urban areas looking for a better wage income.

Despite positive changes in employment and earnings before the crisis, some problems with the labour markets could still be discerned. Manning (1998) observed that there were at least three problems, namely, a high proportion of employment in low productivity activities; a large traditional and mainly rural non-agricultural sector in which family and micro-enterprises dominated and returns were commonly much lower than daily wages in agriculture; and a tiny modern sector, especially outside government (and military) employment, epitomized by a very small proportion of professional and other white-collar and educated workers.

In other words, there were still problems associated with the labour market before the crisis in mid-1997. Formal sector employment in the country still lagged in response to economic change. The agricultural sector continued to absorb unskilled workers, informal sector work was widespread and continued to grow in the cities, and rural self-employment and family work remained a major contributor to the share of total employment.

3.2 Employment situation during the crisis

There was a marked change in the employment situation during the crisis in comparison with the pre-crisis period. There was a notable rise in the number of unemployed, although estimates of the exact number of unemployed varied. For instance, according to the ILO (1998a), the number of unemployed in 1998 was about 15 million people, or 20 per cent of the total labour force of 93 million. The National Planning Board (Bappenas) estimated the number of unemployed at about 12.4 million people; whereas the Ministry of Manpower estimated it to be about 13.7 million people (Table 5). The discrepancy in these estimates is partly due to the use of different estimates of economic contraction in 1998, and the varying estimates of the backlog of job seekers from earlier years.

Table 5.
Estimate of Crisis-Induced Unemployment in 1998

	Persons (Million)			Percentage		
	MoM ¹⁾	BAPPENAS ²⁾	Task Force ³⁾	MoM	BAPPE-NAS	Task Force
Backlog 1997	5.80	5.80	2.48	42	47	27
New entrants 1998	2.70	2.80	1.40	20	23	15
Sub-total Job Seekers	8.50	8.60	3.88	62	69	42
Displaced Workers	5.20	3.84	5.41	38	31	58
Total Unemployment (U)	13.70	12.44	9.29	100	100	100
Labour Force (LF)	92.60	91.53	92.60			
Unemployment Rate (U/LF) in percent	14.8	13.6	10.0			

Notes:

- 1) Ministry of Manpower (MoM): Assumes 0 per cent economic growth in 1998 and uses reported dismissals.
- 2) BAPPENAS: Assumes 10 per cent contraction in 1998 and uses sectoral elasticity.
- 3) Task Force: Assumes 30 per cent contraction in 1998 incorporated sectors and uses employment elasticity for wage employment only.
- 4) Important Remark: The Task Force estimate of 5.4 million displaced workers includes 2.6 million workers re-absorbed in formal/informal employment. Therefore open unemployment is limited to 6.7 million persons, or 7.2 per cent of the labour force.

Source: ILO, 1998a.

Using data from the National Accounting System Survey 1998, this study calculated that the number of unemployed was about 4.5 million people (excluding the new entrants in 1998 and the backlog in 1997), largely as a result of retrenchments in 1998 (Details of the number of retrenched workers by sector are given in Table 6).

Table 6.
Employment by sector, 1997 and 1998
(in thousands)

Sector	1997	1998	Change 1998 – 1997 (in thousands)	Change 1998-1997 (in percent)
1. Agriculture, livestock, forestry and fisheries	35 848.63	36 280.98	432.35	1.2
2. Mining and Quarrying	896.61	1 074.59	177.98	19.85
3. Manufacturing Industries	11 214.82	10 617.19	-597.63	-5.33
4. Electricity, Gas and Water supply	233.24	241.30	8.06	3.46
5. Construction	4 200.20	2 807.07	-1393.13	-33.17
6. Trade, hotel & Restaurant	17 221.18	14 944.81	-2 276.37	-13.2
7. Transportation and Communication	4 137.65	3 510.50	-627.15	-15.6
8. Financial, Ownership and business	656.72	558.91	-97.81	-14.89
9. Services	12 640.69	12 559.20	-81.49	-0.64
Total	87 049.74	82 594.55	-4 455.19	-5.12

Source: Calculated from CBS National Accounting System Survey, 1998

It is evident from Table 6 that the level of retrenchment varied between sectors. Of the nine sectors examined, clearly the greatest impact of retrenchments was clearly felt in the construction, and the transportation sector. On the other hand, the agricultural and mining sectors were not affected. Rather, these sectors absorbed workers retrenched from other sectors. Thus, the agricultural sector played an important role in offsetting retrenchments in other sectors during the crisis.

The sectoral variations in the impact of the crisis on retrenchments have led to structural changes in employment. Agriculture's share of total employment during the crisis increased, while the share of industry and services that had been steadily increasing till 1997 declined. The industrial sector, for instance, employed 19 per cent of the labour force in 1997, but in 1998, this share decreased to 17 per cent. Furthermore, there was also a slight reversal in the urban-rural trend. Unlike in previous years, the number of employed working in urban areas declined, while it was estimated that the share of the labour force in rural areas increased from 66 per cent in 1997 to 71 per cent in 1998. There was also an increase in employment in the informal sectors, which suggests that many displaced workers from the manufacturing sector were forced to work in the informal sector because they could not afford to remain unemployed for long (Table 7).

Table 7
Structural Changes in Employment, 1986-1998

Sector	Total Employment (Million)				Share of the Labour Force (percent)			
	1986	1990	1997	1998	1986	1990	1997	1998
1. Agriculture	37.6	42.4	35.8	36.4	55	56	41	43
2. Industry	10.6	10.4	16.5	14.2	16	14	19	17
3. Trade	9.8	11.1	17.2	18.3	14	15	20	22
4. Services	10.1	12.2	17.4	15.4	15	16	20	18
Total	68.3	75.9	87.0	84.3	100	100	100	100
By Location								
1. Urban	13.6	18.3	29.6	24.2	20	24	34	29
2. Rural	54.7	57.6	57.5	60.1	80	76	66	71
Total	68.3	75.9	87.0	84.3	100	100	100	100
By Formal/Informal Employment								
1. Formal	17.6	21.1	30.5	25.1	26	28	35	30
2. Informal	50.8	54.8	56.6	59.1	74	72	65	70
Total	68.3	75.9	87.0	84.3	100	100	100	100

Source: Calculated from National Labour Force Survey, 1997, cited in ILO, 1998a.

Note: There may be slight differences in the totals due to rounding off in the original calculations.

The sectoral variation in retrenchments and lay-offs and the structural changes in employment reflect the pattern of sectoral growth. A large number of workers in the construction and trade sectors were laid off partly as the result of the negative growth of these sectors. The construction sector, for instance, with a growth rate of -37.5 per cent, laid off 1.4 million of its workers, while the trade sector, with negative growth of 20.6 per cent, laid off 2.3 million workers (Table 8).

Table 8.
Relationship Between Economic Growth and Retrenched Workers
By Sector, 1997 and 1998

Sector	Growth Rate (per cent)*, 1997-1998	Retrenched workers (thousand), 1997-1998	Retrenched Workers (thousand per 1 per cent Fluctuation of GDP)
1. Agriculture, livestock, forestry and fisheries	+0.38	+432.35	+1138
2. Mining and Quarrying	-3.35	+177.98	***
3. Manufacturing Industries	-15.95	-597.63	-38
4. Electricity, Gas and Water supply	+1.42	+8.06	+6
5. Construction	-37.49	-1393.13	-37
6. Trade, hotel & restaurant	-20.64	-2 276.37	-110
7. Transportation and communication	-11.84	-627.15	-53
8. Financial, Ownership and business	-18.24	-97.81	-5
9. Services	-5.51	-81.49	-15
Total	-13.72	-4 455.21	-325

Source: Calculated from CBS National Accounting System Survey, 1998

A calculation of the impact of fluctuations in growth on lay-offs shows that a one per cent change in growth is estimated to have implications for 325,000 workers. In other words, an increase (or decrease) of 1 per cent growth leads to a rise (or decline) of 325,000 workers. Such results underline the necessity of economic growth for generating employment in the country.

The crisis also had adverse affects on other aspects of the labour market, of which one of the most significant was the impact on employment productivity in each sector of the economy. As can be seen from Table 9, the average employment productivity¹ by sector declined quite significantly, from Rp. 5 million to Rp. 4.5 million between 1997 and 1998. Declines in employment productivity occurred across all sectors, with the exception of the transportation sector. Therefore, the crisis not only created unemployment, but it also led to low labour productivity in each sector, excluding the transportation and communication sector.

¹ The estimation of productivity is done by dividing output with the number of workers in the sector.

Table 9.
Average Employment Productivity by Sector
1997 and 1998 (Rp. Thousand)

Sector	1997	1998
1. Agriculture, livestock, forestry and fisheries	1793.4	1778.7
2. Mining and Quarrying	42812.3	34526.4
3. Manufacturing Industries	9704.0	8615.6
4. Electricity, Gas and Water supply	23574.9	23111.5
5. Construction	8342.6	7802.8
6. Trade, hotel & restaurant	4268.2	3903.0
7. Transportation and communication	7774.8	8079.0
8. Financial, Ownership and business	58975.1	56654.0
9. Services	2978.4	2832.5
Average	4986.8	4534.4

Source: CBS, National Accounting System Survey 1998

Furthermore, in terms of employment equivalent, it is estimated that the total employment equivalent declined from 89.5 million in 1997 to 78.7 million in 1998, which was caused by the decrease of employment equivalent in every sector other than agriculture (Table 10).

Table 10.
Employment Equivalent (EQ) by Sector, 1997 and 1998
(Thousand EQ)

Sector	1997	1998
1. Agriculture, livestock, forestry and fisheries	31078.01	31371.50
2. Mining and Quarrying	742.77	500.38
3. Manufacturing Industries	13124.10	10255.21
4. Electricity, Gas and Water supply	307.45	264.73
5. Construction	5585.98	2869.29
6. Trade, hotel & restaurant	18947.76	15296.19
7. Transportation and communication	4882.79	3732.54
8. Financial, Ownership and business	858.99	646.29
9. Services	13972.77	13823.97
Total	89500.60	78760.10

Source: Calculated from National Accounting System survey, 1997 and 1998

While there was a decline in employment and employment productivity, there was an increase in the hours of employment. It has been calculated that in 1997, the average work hours of Indonesian workers for a week was 40.9 hours, while in 1998 it increased to 41.08 hours per week. This indicates that in addition to lay-offs and unemployment, those workers who retained their jobs had to work slightly harder compared to the period before the crisis as they needed more earnings to fulfill their daily needs (Table 11).

Table 11.
Average hours of Employment per week by Sector,
1997 and 1998 (Hours)

Sector	1997	1998
1. Agriculture, Livestock, Forestry and Fisheries	40.86	40.86
2. Mining and Quarrying	40.81	40.69
3. Manufacturing Industries	41.10	41.24
4. Electricity, Gas and Water Supply	41.17	41.27
5. Construction	41.25	41.99
6. Trade, Hotel and Restaurant	41.04	41.27
7. Transportation and Communication	41.09	41.39
8. Financial, Ownership and business	41.23	41.54
9. Services	41.07	41.11
Average	40.99	41.08

Source: Calculated from National Accounting System Survey, 1997 and 1998

Longer working hours to maintain their earnings level to fulfill their daily needs suggests that earnings had fallen during the crisis. An analysis of earnings seems to confirm this. Although workers increased their working hours compared to before the crisis, the income earnings of workers in 1998 was relatively lower than in 1997. As can be seen in Table 12, the average income per employment equivalent decreased from Rp. 3.7 million in 1997 to Rp. 3.5 million in 1998, despite workers increasing their average hours of work per week. This implies that the wages of workers decreased from Rp. 70,700 per week in 1997 to Rp. 68,000 per week in 1998. Clearly, the crisis resulted in lower average incomes for workers and consequently, workers faced declining purchasing power during the crisis.

Table 12.
Average Wage per Employment Equivalent per Year, by Sector, 1997 and 1998 (Rp.
Thousand)

Sector	1997	1998
1. Agriculture, Livestock, Forestry and Fisheries	2230.55	2058.95
2. Mining and Quarrying	14304.69	18764.44
3. Manufacturing Industries	4635.48	5607.22
4. Electricity, Gas and Water Supply	6114.07	7428.51
5. Construction	5153.93	5799.32
6. Trade, Hotel and Restaurant	3824.89	4133.66
7. Transportation and Communication	3155.38	3212.56
8. Financial, Ownership and business	24315.72	21400.19
9. Services	3478.37	2833.75
Average	3673.96	3533.72

Source: Calculated from National Accounting System Survey, 1997 and 1998

While average wage per employment equivalent had declined, there was a corresponding decrease in real wages. Partly due to the rise in inflation (by an average of 78 per cent), average real wages per hour decreased from Rp 1,724 in 1997 to Rp 969 in 1998 (Table 13).

Table 13.
Average Real Wage per Equivalent per Hours Work
By Sector, 1997 and 1998 (In Rp.)

Sector	1997	1998
1. Agriculture, Livestock, Forestry and Fisheries	1050	568
2. Mining and Quarrying	6740	5193
3. Manufacturing Industries	2169	1531
4. Electricity, Gas and Water Supply	2856	2027
5. Construction	2403	1555
6. Trade, Hotel and Restaurant	1792	1128
7. Transportation and Communication	1477	874
8. Financial, Ownership and business	11342	5801
9. Services	1629	777
Average	1724	969

Source: Calculated from National Accounting System Survey, 1997 and 1998

It is evident that the economic crisis in Indonesia created a serious problem of unemployment. In theory, depreciation makes tradeable export goods of the country more competitive with the world. However, the economic crisis was characterized by: very high interest rates, an unstable exchange rate, widespread buying and selling of foreign exchange, letters of credit not being accepted overseas, and the partial breakdown in law and order which threatened the viability of many industries in the country. The situation in Indonesia highlighted the importance of preventing the collapse of industries in the short run to preserve employment trends. At the same time, small- and medium-sized enterprises (SMEs) and cooperatives emerged as important vehicles for absorbing unemployment. The role of SMEs in employment generation should therefore be given greater consideration in future.

4. GOVERNMENT PROGRAMMES TO OVERCOME CRISIS-INDUCED UNEMPLOYMENT

Social Safety Net programmes for overcoming unemployment were actually introduced by the government following the first Five Year Development Plan (1968-1972). However, they were withdrawn at the end of the Fifth Five Year Development Plan in 1996 due to government budget limitations. The target groups of labour intensive public works programmes since the first Five Year development plan (PELITA I) were the unemployed and under-employed workers, and assistance was given by employing them in building

sewerage, roads and similar activities. In 1996, the term 'public works' was replaced by the term 'productive economic activities programmes', such as fisheries and other agricultural activities.

At the end of 1997, the government reintroduced public works programmes for overcoming crisis-induced unemployment. The target groups of these programmes were not only the unskilled unemployed workers, especially construction workers and factory workers, but also skilled workers retrenched from firms and/or industries.

Three main programmes to overcome crisis-induced unemployment were implemented by the government - public works programmes for the unskilled unemployed (PDKMK), public works programmes for the skilled unemployed (P3T) and sectoral labour intensive programmes (PPKS). The first two programmes were implemented by the Department of Manpower, while the PPKS programme was managed by five departments, namely the Department of Public Works, Department of Agriculture, Department of Forestry, Department of Transmigration and the Department of Industries and Trade. These programmes were part of the general Social Safety Net programme which amounted to Rp. 18 trillion (the details of budget allocation under the Social Safety Net programme are given in Table 14).

Table 14.
Activities and Budget Allocation for the Social Safety Net Programme

Type of Activity	Purpose	Budget Allocation (Rp. billion)
Manufacturing	To support development of household industries, handicraft, and SMEs	65.7
Agriculture	To increase food production and provide appropriate technology	1 031.0
Forestry	Labour intensive forestry programme	513.0
Irrigation	Maintenance and rehabilitation of irrigation to support agriculture development	1 017.0
Employment	Labour intensive public works programmes	1 010.0
Domestic Trade	To improve market distribution of basic needs	15.9
International Trade	To increase exports	21.8
Cooperatives and Small scale units	To develop cooperatives and small scale activity	1 472.0
Roads and Infrastructure	To rehabilitate roads and other economic infrastructure (including buildings)	1 339.9
Energy	To develop rural electricity	336.8
Regional Development	To develop social facilities in the regions	2 918.0
Education	To support educational facilities and other related needs	4 514.0
Welfare of Society	To assist social welfare	124.1
Health	To develop and improve health facilities, and	

	children's health	2 412.4
Housing and Resettlement	To provide and build housing and for Resettlement	1 315.0
Religion	To assist religious training and scholarship for poor students	229.3
Law	To assist legal development	183.3

Note: excluding budget allocation provided by Consultative Group on Indonesia (CGI) donors.

Source: National Planning Board (Bappenas), 1998

The purpose of the labour intensive public works programmes was to address four central problems faced by the country - food insecurity, growing unemployment, environmental degradation and poor infrastructure. Furthermore, the design of such programmes was aimed at facilitating direct and sustainable poverty alleviation, and the strengthening of individual capacities.

In addition to the stated main goal of reducing unemployment, the programmes also clearly incorporated developmental goals of a long-term nature such as facilitating empowerment. Under the public works programmes, the government set criteria for deciding the types of jobs that should be implemented under the programme. Some of the criteria were that the jobs should be able to absorb a large number of unemployed, they should be productive and useful for the unemployed workers and the local community, and they should have the ability to empower the unemployed and create economic activities for the local community.

With regard to employment creation through establishing new economic activity, there were three other criteria that had to be satisfied. First, the new type of economic activity had to have good market prospects or market opportunity. Second, the new activity had to result in a quick yield and be marketable, and finally, the new economic activity should use locally appropriate technology and be easy to manage, given the limitations faced by the local community.

The public works programmes provided by the government covered 215 Regencies in all 27 provinces in Indonesia. The budget allocated for this programme in the fiscal year 1998/1999 was about Rp. 1.010 trillion, or about 5.6 per cent of the total budget allocated under the Social Safety Net Programmes (Table 14). The aim of the public works programmes was to absorb 28 million man-working days or about 116,700 people per day. The wage provided by the government under this programme was about Rp. 7500 per person per day, or alternatively, it was subject to a minimum wage according to region. This programme was implemented until 31 March 1999, which covered the worst period of the crisis.

5. ASSESSMENT OF PUBLIC WORKS PROGRAMMES FOR UNSKILLED WORKERS

The rescue programmes which fell under the ambit of the Social Safety Net programmes, including public works programmes for the unskilled and skilled unemployed due to the economic crisis had been subject to intense criticism. While some argued that public works programmes could benefit only a small number of the unemployed and constitutes a form of charity for unemployed workers, others argued that this programme could give long-term developmental benefits (from investments in public assets and skills) along with short-term income transfer benefits. To reconcile these differing views, an assessment of public works programmes is discussed in the following section, using case studies in three villages in three districts in West Java Province. The villages surveyed are Krasak village in Indramayu District, Harapan Jaya village in Bekasi District, and Noroktog village in Tangerang District. There were only 25 respondents who were interviewed in these villages. This limited response was mainly due to the uncertain political situation at the time of the survey.

The above three districts were selected based on the following considerations: first, there were a significant number of unskilled unemployed persons in these districts. Moreover, the reasons for this unemployment could be directly traced to the effects of the crisis, such as firm bankruptcies and closures. Second, these three districts are relatively close to the capital city of Jakarta. Third, public works programmes for the unskilled unemployed had been implemented in these districts since the end of 1997. A detailed background of the number of workers who were unemployed due to the crisis in these three districts is given in Table 15.

Table 15.

Number and Proportion of Unemployed Due to PHK (termination of work relationship) by Sector and Educational Level

District/ Sector	Educational Level				
	Senior High School	Diploma	Bachelor's degree	Total	Percentage of total for each district
Tangerang:					
• Agriculture	45 (60)	20 (27)	10 (13)	75 (100)	11
• Manufacturing	268 (78)	50 (15)	24 (7)	342 (100)	51
• Services	206 (80)	25 (9)	28 (11)	259 (100)	38
Total	519 (77)	95 (14)	62 (9)	676 (100)	100
Bekasi:					
• Agriculture	46 (72)	6 (9)	12 (19)	64 (100)	4
• Manufacturing	502 (86)	28 (5)	55 (9)	585 (100)	40
• Services	587 (71)	137 (17)	103 (12)	827 (100)	56
Total	1 135 (77)	171 (12)	170 (12)	1 476 (100)	100
Indramayu:					
• Agriculture	112 (87)	13 (10)	4 (3)	129 (100)	20
• Manufacturing	117 (76)	18 (12)	9 (12)	154 (100)	24
• Services	282 (81)	38 (11)	29 (8)	349 (100)	55

Total	511 (81)	69 (11)	52 (8)	632 (100)	100
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Note: Figures in brackets are in percentage.

Source: Manpower Office in West Java Province, 1998.

The focus of assessment is limited to the following aspects: first, in relation to the programme's preparation; second, in relation to activity determination and programme implementation; and third, in relation to post construction management. Aspects evaluated in the preparation stage include programme socialization, the formation of an organizing committee, and the planning or selection of public works. In the implementation stage, aspects assessed include modes of labour mobilization, sources of labour mobilization, the honorarium and wages system and the transfer of skills. In the post construction management stage, the ways the related parties were involved in the maintenance of the constructed infrastructure was one of the aspects evaluated.

5.1 Evaluation of Programme Preparation

5.1.1 Programme Socialization

The process of socialization was facilitated by ensuring the provision of information about the programme to the selected village. This information was then disseminated to community members. In general, this information was first received by the village head when she/he was invited to a coordination and orientation meeting at the sub-district office. Following this meeting, and after receiving this information, a formal meeting was then organized at the village level with a facilitator (Konsultan pendamping). In this meeting, all village leaders were invited and sometimes officials from the sub-districts and districts offices were also invited to attend. In some villages, the meeting was followed by another meeting at RW (hamlet) and RT (neighbourhood)² level to ensure all the unemployed were well-informed.

However, during the interviews conducted during this study, respondents stated that the information about public works programmes did not go beyond the village leaders' level. Only a small proportion of unemployed workers received information about this programme. This indicates that socialization of the programme was very poor with respect to the unemployed people in the village surveyed. There is also a possibility that the programmes did not go to the unemployed in the village (Table 16).

² Indonesia is divided into provinces for the purposes of administration. Each province is divided into *kabupaten* or *kotamadya* (regency/municipality). A further sub-division occurs at the district, or *kecamatan* level. Then, each *kecamatan* is divided into villages. Villages in rural areas are called *desas*, and villages in urban areas are called *kelurahan*. Every village has the RW (*Rukun Warga*) or hamlet, which comprises several RT (*Rukun Tetangga*) or neighbourhood associations of about 20 to 100 households each.

Table 16.
Were the public works programmes ‘socialized’ to unemployed workers
in the Villages Surveyed?

Description	Proportion of Respondents who stated their views (per cent)
Yes	3 (12)
No	19 (73)
Don’t know	4 (15)

Note: Figures in brackets are percentage.

Source: Calculated from small survey in three villages.

5.1.2. Formation of Organizing Committee

The formation of an organizing committee was a central element of the implementation of a public works programme. In the villages surveyed, it was found that all the villages applied the programme guidelines to form an organizing committee. The general chairman of the organizing committee was the village head, while other members of the team were chosen from among the LKMD (Village Community Resilience Institution) members rather than outside of the LKMD, or other parties chosen on the basis of the village's interests. The Deputy Chairman of the LKMD was generally chosen as the Head of the Organizing Committee, the LKMD secretary as the team's secretary, and the LKMD treasurer as the team's treasurer.

From interviews with the respondents and from observations in the villages surveyed, it appears that most of the appointments to the organizing committee were conducted through a selection process. However, the process of selection was still not adequate, at least in the villages surveyed, particularly with regard to the formation of the organizing committee. The main reasons tended to be that the criteria used to select the organizing committee were not based on transparency and individual ability. There also seemed to be an absence of community involvement. The unskilled workers in the villages surveyed felt that the community should be more involved in the formation of the organizing committee for the programmes, as indicated in Table 17.

Table 17.
Unemployed workers’ Expectations of community participation in
the formation of the Organizing Committee in the programmes

Description	Percentage of respondents who stated their views (N=25)
Community should participate in formation of organizing committee	18 (72)
Community should not participate in formation of organizing committee	2 (8)
Don’t know	5 (20)

Note: Figures in Brackets are percentage.

Source: Calculated from small survey.

5.1.3 Programme Planning and Selection of Public Works

The lack of community involvement was also observed in other aspects of the programme. In the villages surveyed, programme planning and the selection of public works were decided by the ruling or dominant class. A striking feature was the minimal participation of the community in the decision making process. Nonetheless, the community in most cases supported the public facilities selected by the village officials. One reason for this was because the public facilities selected by the village officials were mostly suited to local conditions and village needs in terms of economic activities.

On the basis of the information collected, it could be concluded that the most important factor considered by the village officials in the selection of public works was not how to involve the community, but how the programmes selected satisfied the village's needs. However, for the programmes to be truly reflective of the community's needs, it is necessary to ensure that the concerns of all members of the community, both men and women, are voiced. To do so would require increased community participation and access to public works programmes.

The prevalence of the above-mentioned practice (both one-way and no consultation process) in the process of programme decision-making can be traced to several reasons. First, it may be because the community itself is ignorant. This ignorance may occur as the community felt that such planning decisions did not need their involvement, or because of the lack of information given to the community. Other cultural issues (patron-client relations or a culture of feudalism) may also have been a factor. Second, it may be related to the interests of the village officials. In other words, a one-way consultation process or a no consultation process were intentional on the part of the village officials to ensure control of the programmes.

Although the survey findings indicate that the bottom-up village development planning structure did not seem to be working as it was expected, this does not necessarily imply that such a process should be removed, but that it should be reviewed. Therefore, much remains to be done to encourage the bottom-up planning process, at least in the villages surveyed.

5.2 The Programme Implementation Stage

In evaluating programme implementation, three main aspects were analyzed. First, the source of labour mobilization was examined - whether unemployed workers were recruited from the village or from another village. Second, the mechanism of labour mobilization in relation to the project's objectives – whether village institutional strengthening could be achieved – was reviewed. Third, the honorarium or wage system was considered – whether cash payment to the unemployed workers were met.

5.2.1 Sources of Labour Mobilization

In terms of sources of labour mobilization, it was found that most of the programme participants were from the village itself. This was not only confirmed by the programme participants, but also by the non-participants in the villages surveyed. However, there were

also a number of unemployed participants who were not from the village itself. The recruitment of outside-village participants was usually due to the unavailability of skilled workers locally, especially for activities like road construction. This recruitment was made for only a short period to facilitate local people absorbing knowledge and techniques of road construction (Table 18).

Table 18.

The proportion of Respondents from the villages and from outside the villages surveyed who were involved in the programmes

Description	Percentage of respondents N = 25
From villages surveyed	19 (76)
From outside villages	6 (24)

Note: Figures in Brackets are percentage.

Source: Calculated from small surveyed in the villages

However, it was also found that there were workers who were not unemployed who worked in this programme. Although this indicates that there were leakages in the programme, with benefits going to non-target group persons, the reasons for involving such workers was mostly due to the willingness of the organizing committee to minimize jealousy. Nevertheless, there was an effort to give priority to unemployed workers in the villages surveyed. In addition, a proportion of the programme participants was school children or the non-poor in the villages surveyed (Table 19).

Table 19.

The Proportion of Respondents by working status

Description	The proportion of respondents by employment status
Unemployed workers	17 (68)
Employed workers	5 (20)
Others (e.g. school children)	3 (12)

Note: Figures in Brackets are percentages.

Source: Calculated from villages surveyed

A gender disaggregation of the beneficiaries of the program reveals that most of the programme participants were men. The lack of involvement of women in the public works programmes was partly due to the local belief that women should not do heavy labour, and particularly not construction work. Another important factor was time availability. Women were generally required to be at home, and may have found it difficult to leave their children. However, the validity of these arguments could be questioned as there were a number of women who expressed the view that they would have been involved in the public works programmes if they were informed, or if the manner of programme implementation allowed them to be involved.

Therefore, it can be concluded that the implementation of the public works programmes in the villages surveyed required improvement particularly in relation to targeting and gender

balance. These programmes should have been targetted fully at the unemployed workers in the villages surveyed. Furthermore, greater attention should have been given to unemployed women workers in these villages. For this reason, it is suggested that the village should have data and information on the number of unemployed women in the villages surveyed.

5.2.2 Mechanism of Labour Mobilization

The mechanism adopted by the village officials to recruit unemployed workers was by first informing the village community about the programme. Such information was given in order to attract the unemployed in the village to work in the programme. Those unemployed villagers who were interested to work were then asked to apply for the jobs.

However, the above mechanism of labour mobilization was not always followed. It was found that many that were unemployed due to the crisis in the villages were not well informed. Most of the unemployed came to know of this programme through their neighbours or relatives or friends who were engaged in the programmes. As a result, there were a number of unemployed workers who could not take part in this programme, while others who should not have been engaged in this programme were employed. Consequently, the target group of this programme became biased against the needy (Table 20).

Table 20.

Response to the Question – “How did you know about the public works programmes in the villages?”

Description	The number and percentage of respondents who stated their views
From the village head	5 (20)
From the village officials	4 (16)
From relatives, friends and neighbors	10 (40)
Other sources	6 (24)

Note: Figures in brackets are the percentages

Source: Calculated from small sample surveyed

5.2.3. The Modes of Labour Payment and Wage Rates

Wage payments in the unskilled public works programmes were mainly for two activities - working in the project’s construction activities, and provision of construction material. These were project activities through which unskilled workers were recruited, and thereby, monetary inputs provided to the unemployed in the village. For both purposes, the mobilization of unskilled workers in particular was important as it was the job creation component of the project that brought in direct monetary input to the village poor and unemployed. Therefore, the appropriateness of the wage locally was an important issue.

Daily payment was mostly applied in the public works programmes as the programme was designed to use man-days for payment. The average wage rate per day provided by the programme was about Rp. 7,500 (equivalent to US \$ 0.75). However, in practice the wage rate varied depending on the type of work and on the local situation. It was found that some unemployed villagers received payment of less than Rp. 7,500. Those unemployed workers who worked less than five hours a day received an honorarium between Rp. 5,000 and Rp. 7,000. However, the number of unemployed working less than five hours a day was relatively small.

According to the respondents surveyed, the wage rate that was received by unskilled workers was not more than the project specification of Rp. 7,500. The wage rate of Rp. 7,500 per day was considered between normal and good (Table 21). They further considered that the wage they received could assist them to fulfill their basic daily needs. However, respondents with a larger family size and with school-going children tended to state that the wage rate was inadequate to fulfill their daily needs.

Table 21.
Response to the Question: “What is your opinion of the wage received from this programme?”

Type of Response	Number of respondents by their views N = 25
Good	6 (24)
Normal	12 (48)
Not so good	3 (12)
Don't know	4 (16)

Note: Figures in brackets are in percentage.

Source: Calculated from small sample surveyed

5.3 Post Construction Management

The public works programmes included the provision that the infrastructure built should be maintained. However, because the study took place while the programmes were still on going, information about maintenance provision that the community and/or the village head had made when the infrastructure programme was completed was difficult to obtain.

From past experience, the post-construction management of the infrastructure built has been difficult to maintain. This is simply because the public works programmes were intended to assist the unemployed villagers to have short-term jobs. The organizing committee in the village also did not include maintenance planning in the programme. Some examples of village projects that were not well maintained in the villages surveyed were piped water supply facilities and the village sanitation programmes. In this respect, the villages had already built piped water facilities, but the PDAM (the government water

drinking company) could not give any approval for the water connection because the village had not set up the water users organization that was conditional for PDAM's approval. As a result of careless planning for maintenance, the facilities remained wasted. Similarly, in the case of the sanitation project, it had been reported that sanitation facilities built two years ago had not been maintained, and hence they are now out of order.

These past experiences again indicate that the public works programmes did not adopt a community-based development strategy. The roles and responsibilities of stakeholders, especially the community, were not clarified from the beginning of the project. Hence, to oversee the management of the project in the post construction stage, in future the government should arrange for parties or the village community to maintain the facilities built. However, in order to be successful in maintaining the infrastructure built, financial assistance should be provided, especially for maintenance of roads or irrigation facilities. Without this, the long-term benefits of this programme for community development will not be achieved.

In conclusion, the findings of the rapid assessment survey on the public works programmes implemented in the three villages generally supports the view that there were still many weaknesses in programme implementation. First, the programme could only provide short-term employment opportunities. The type of jobs implemented were jobs which related mostly to rehabilitating infrastructure, such as roads, irrigation, markets and sewerage, while jobs aimed at creating new types of economic activity in the villages were few or non-existent. As a consequence, once the rehabilitation of the infrastructure is completed, the workers become unemployed again.

The second problem was the lack of programme socialization of the target group, namely, the unemployed. It was reported that many of the unemployed workers in the villages surveyed were not well informed about the programme. Most of the unemployed workers knew about this programme through their unemployed neighbours or relatives or friends who were by accident engaged in the programmes.

The third problem relates to the data accuracy of the target unemployed group in the villages surveyed. This problem occurred because the village head and his staff had difficulty recording the actual number of unemployed workers. They also often did not recruit the target group. It was observed that recruitment methods followed by the organizing committee were not in accordance with the criteria set. For instance, it was found that school children were involved in the programme. Also, it was found that there were a number of programme participants who were not unemployed. They were involved in the programme because they felt that they needed cash income.

The fourth problem relates to false working group determination. This problem arose as a result of a lack of good preparation by the organizing committee. Many of the persons in charge of the programme were high school graduates with no experience working in the programme. In addition, it was found that the village officials were sometimes inconsistent in determining the group participants in the programme. This condition further confused the *Tim Pendamping* (supervisor) in selecting and determining the unemployed target group. This sometimes created conflict between the *Tim Pendamping* and the unemployed workers. Finally, there was sometimes a mismatch between the jobs

provided and the worker's ability. Many of the unemployed workers were previously engaged in factories and industries, and hence they could not work well in jobs provided by the public works programmes.

6. CONCLUSION AND POLICY RECOMMENDATIONS

This study focused on the impact of the economic crisis on employment and evaluated the public works programmes for the unskilled unemployed, which were introduced in the fiscal year 1998/1999, taking three villages as case studies. The economic crisis had a serious impact on the Indonesian economy, of which one of the most significant was the rise in unemployment. This problem arose mainly as the result of a hyper-depreciation of the rupiah in relation to the US dollar, which triggered the collapse of many industries in the economy, especially in the construction, banking and other formal sectors. In addition, a higher interest rate further contributed to the increase in unemployment, as many industries could not continue their production.

In response to the problems of rising unemployment, the government implemented several public works programmes to mitigate the impact of the crisis on unemployment. However, this study, based on its small survey of three villages found that the implementation of the public works programmes seemed to be ineffective for direct and sustainable unemployment alleviation and strengthening of self-help capacities. Of the many issues observed from the small sample surveyed, it was found that not all the unemployed workers in the villages surveyed could take part in the programmes. This problem emerged partly as the result of a mismatch between the jobs provided in the programme and the ability of the unemployed to do the jobs. Furthermore, a decentralized targeting scheme seemed to be unable to achieve effective results, unless the local implementing body was fully empowered and administratively capable of implementing the scheme, which is difficult to achieve during an economic crisis. Hence, in future, the central government must undertake firm coordination and stabilization roles during a crisis.

Besides this, there were other problems in relation to the programme's socialization, the formation of an organizing committee, project planning and the selection of public works, the source of labour mobilization, the mechanism of labour mobilization, the modes of labour payment and wage rate, and post-construction management (especially the maintenance of infrastructure that was built).

In order to be successful and beneficial for those unemployed workers who participate in the programmes, the above problems would need to be addressed. One solution is that each stage of programme implementation should be monitored frequently by the government, although it would require higher administrative costs and capacity which may not be readily available in the location during a crisis. Second, the programme design should not be arbitrary. Instead, it should be on the basis of fixed selection criteria. Transparency in the selection of the target groups and villages should be ensured. For this reason, sufficient and reliable data on target groups and target villages (location) should be provided before the programmes are implemented. In the future, more discriminating selection criteria needs to be adopted in the design phase, and the

implementation phase should be conducted through sound institutional channels. It is not realistic to expect that village and other grassroots institutions can be created quickly enough to be effective in formulating and implementing public works programmes in the very short run. Therefore, in the interim period, the central government must assume its role of stabilization and coordination to protect the most vulnerable sections in the society while gradually helping to build the necessary institutional anti-unemployment stabilizer at the central, provincial, district and village levels.

Third, the public works programmes should avoid a bureaucratic approach. Instead, they should be designed and implemented with maximum community participation, managed by the local governments at the district and sub-district level, and implemented by small and medium size local contractors. Non-governmental organizations (NGOs) can play a critical role in providing assistance to the local government and in monitoring the implementation of the programme in the field. Fourth, the programmes should pay the participants in cash in accordance with market wage rates. Fifth, the programmes should focus on the target unemployed in need and avoid inflexible standard practices which are not suitable to local conditions and wages. To do so, an extensive campaign of information and dissemination in the media should be launched to attract the unemployed to the jobs. Finally, financial assistance should also be provided at the post-management stage. This is critical in order to maintain the sustainability of the benefits of the programmes in the future.

Apart from the short-term public works programmes, measures to consistently maintain the broader macro-economic environment, such as the strength and stability of the rupiah are required. In addition, the government should implement measures to promote employment-friendly economic growth. This can be achieved, for instance, by intensifying policies and programmes toward the agricultural sector and the expansion of small and medium enterprises in the manufacturing sector in general. The latter could be quite significant in employment policies as small and medium size enterprises (SMEs) tend to be labour-intensive. However, in order to compete in the global markets, the SMEs will need to be quite large to be able to supply competitively to the world markets with a sufficiently large variety of products and using adequate quality control.

Furthermore, the government should reintroduce policies and programmes to keep the interest rate low. The importance of the interest rate policy is mainly to encourage the industrial sector to expand its production in achieving economies of scale. At the same time, the interest rate policy should be carefully designed so as to mitigate its impact on the rupiah and on inflation.

The role of foreign investment needs to increase in the future. Capital is complementary to labour. During the crisis, tens of billion dollars were sent out of the country, causing a huge depreciation of the rupiah and domestic shortages of capital, partly causing the sharp rise in unemployment. Much of this domestic capital will never return. Therefore, direct foreign investment is needed to create income by employing the unemployed, to facilitate the continued production of the physical capital of bankrupt enterprises, to increase the utilization of capacity of manufacturing industries, to produce complementary producer

and consumer surpluses, to facilitate the transfer of needed technology and skills from overseas, to expedite exports, and to provide financial and other required services.

The future potential of conglomerates to contribute to economic development must not be squandered. However, the bad past practices of conglomerates, such as anti-competitive rent yielding and other special privileges granted by the government should be abolished so that these conglomerates can become efficient, competitive and socially productive enterprises. The rate and nature of the change in the business environment must be such that the potential of the conglomerates, as well as other large enterprises and SMEs can be realized. However, the malpractices of the conglomerates in the past should be recognized and steps taken to ensure that these are not repeated.

The success of the above policies and programmes in overcoming the unemployment problem due to the regional crisis is certainly subject to financial assistance from overseas and political stability within the country. Therefore, it is a must for the government to maintain political stability in the country, and seek international assistance to ensure that Indonesians do not fall more deeply below the poverty line. On the other hand, the government should renew its economic activity and investment to a sustainable level in the future as it was before the crisis.

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