

Institute of
Social Studies

INCOME DISTRIBUTION IN INDONESIA
WITH SPECIAL ATTENTION TO JAVA
1978 - 1987

A Research Paper presented by

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MASTER OF ARTS IN DEVELOPMENT STUDIES

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The Hague, December 1991

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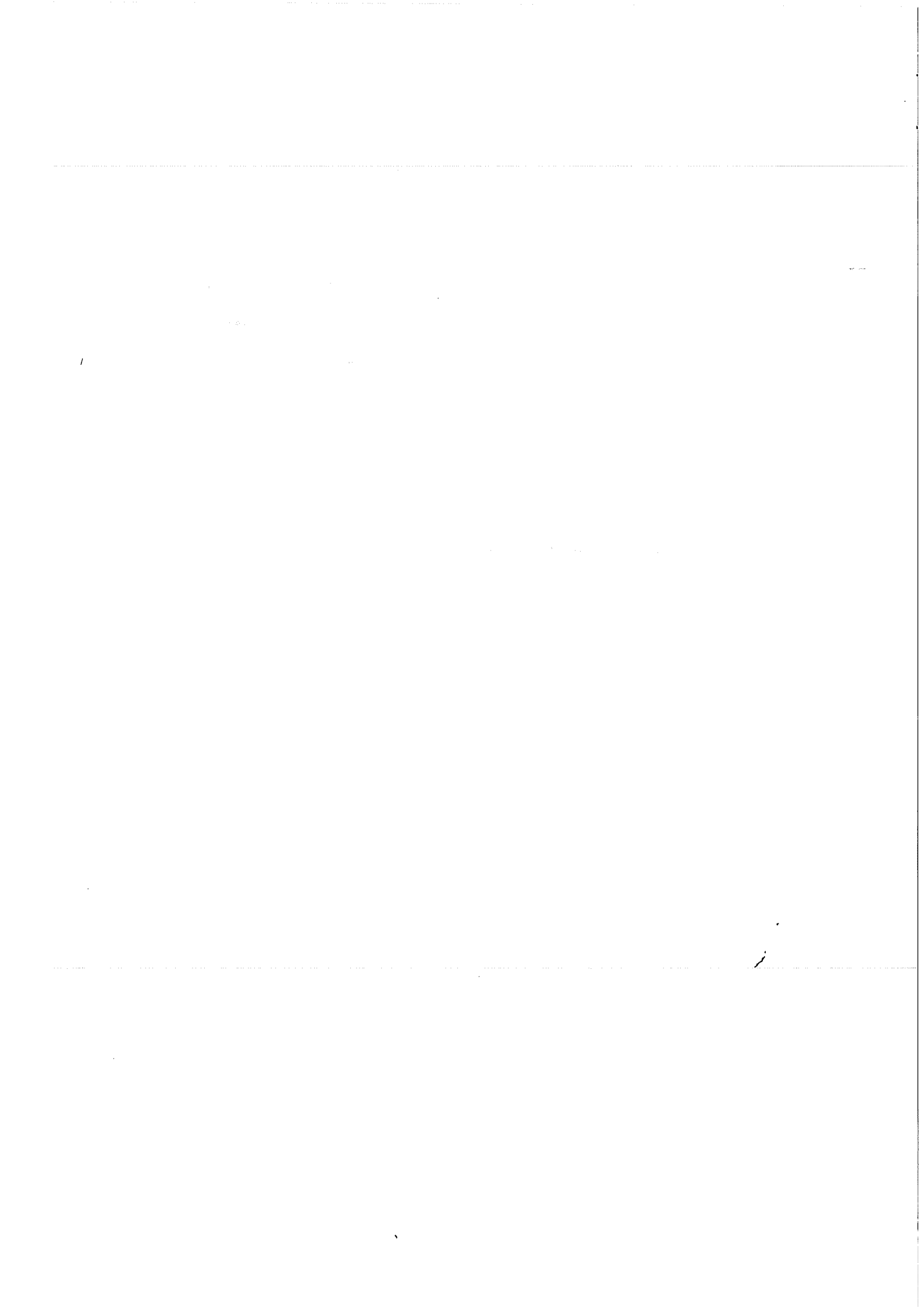
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to my lovely wife and my mother

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Chapter O N E

I N T R O D U C T I O N

1.1. General Background and the Relevance of the Study

The over increasing income gap between the rich and the poor has attracted a growing concern in development literature and government interventions, especially after the Second World War. It has been recognized that the wide differences between incomes of the rich and of the poor are no longer held to be unavoidable. This argues against what is commonly treated as the Pareto's Law; that is, income distribution does not change across regions and times. According to Pareto's view, one may not be better off without making at least another person worse off. There are some doubts on the belief that people are poor because they were born from poor families. Governments may play important roles in increasing the income of the poor by introducing such policies which are likely to improve the welfare of the lowest income class of the population.

The earliest studies and models of income distribution (classical theories including Marx, neo-classical, etc.) were concerned with the 'functional' distribution of income and they attempt to explain the way in which national incomes (or outputs) are to be distributed throughout the primary factors of production: land, labour and capital in the forms of rents, wages and profits, respectively. This approach assumed that the distribution of income among individuals or households depends on the ownerships of those factors of production, their productivity and their scarcity. Many theories, therefore, cannot explain the present situation in which individuals or households derive incomes from various income sources, including a combination of productive factors as well as interest, dividend, and inherited incomes.

The other approach, that is the 'personal or size' distribution of income, has drawn interest in explaining the distribution of income among individuals or households. The reasons behind this interest in the Developed Countries (hereafter DCs) differ from those in the Less Developed Countries (hereafter LDCs). In the DCs, it has been realized that government's intervention could influence the works of distributional mechanisms of economic growth and could be altered somehow in favour of them (especially those of the lower income classes). Such direct and indirect government transfers as the provision of public services (health,

education, etc.) could play important roles to modify the status of the poor. On the contrary, the LDCs have struggled to alleviate the existence of large proportion of the population who live under poverty line. The economic growth they achieved, if there were, was seen not to successfully reduce the number of the poor. The research problems in DCs, therefore, differ to those in LDCs.

Regarding policy formulation, the research about the distribution of income in LDCs, like Indonesia, would be more valuable than that in the DCs. The study of income distribution in the country would give more informative background for the policy formulation of the country's development, especially as regard to the poverty alleviation programmes. 'In fact, development is viewed by some writers primarily in terms of securing a more [equal] distribution of income' (Sundrum, 1990: p. 2).

Two general distinctions are commonly considered in explaining the persistence of wide poverty in LDCs. The first approach holds that it is the low level of total national income which contributes to the wide existence of mass poverty. The policy following this approach emphasized the strategy to achieve high economic growth which is assumed to trickle down to the entire population in the later stage of the development paths. Many evidences, however, showed that the number of the poor remained the same, or even increased during the periods of rapid economic growth. Due to this fact, many scholars believe that uneven distribution of income becomes the major reason of the existing mass poverty in LDCs. If incomes are proportionately in favour of the small part of the population, the bulk of the population will remain poor. As an alternative, development economists have considered the evenness of distribution of national incomes among individuals and household as a promising way of alleviating poverty. When incomes are equally distributed to the entire population, the majority of the people increase their income. This would eventually result in the sum of increases in national income. The policies which follow this thought, therefore, emphasize more equitable distribution of income and participation of individuals or households in the development process.

The New Order Government of Indonesia has also shifted the policy strategy from emphasizing economic growth to more equally distributed development gains. The fundamental objectives of the first short-term development policy (1969/1970 - 1973/1974)¹, included: i).

1) After the violence of the Communist Party in 1965, the New Order under the Soeharto's Presidency has governed the country. The most fundamental economic differences between the new government and the older one is that, the New Order government give more chance to the private sector to take advantage from the economy. In 1967 and 1968, for instance, the government issued the Foreign Investment Law and Domestic Investment Law, respectively. Starting in 1969, the New Order Government also adopted the short term development policy covering 5 fiscal years (REPELITA, Five-Year Development Plan), in which each year

a sound and dynamic national stability, ii). a sufficiently high economic growth, and iii). a more equitable distribution of development gains, leading to the welfare of the entire population. This **Trilogi Pembangunan** (Three Fundamental Objectives) changed the order in the second REPELITA (1974/1975 - 1978/1979), whereby the first and the second changed the order. During these two REPELITAs the country achieved remarkable economic growth: over 7% annual growth of GDP at 1973 constant prices. The exploration of natural resources and promotion of industrial activities as the major engine of economic development resulted in high growth in these sectors during the decade: 8.23% annually for mining and quarrying sector, and 14.17% for manufacturing industry². Another factor contributing to economic growth during that decade was the increase in government revenues as a result of increases in oil prices in 1973 and 1979. This made possible to the government to invest in public infrastructures, such as roads, education and health services to support the development efforts in the economy.

It was found, however, that this remarkable economic growth was not followed by the reduction of income inequality, as found by Hughes and Islam (1981); Oshima (1982); Yoneda (1985); and Asra (1989), just to mention a few. This pattern also holds true in a regional context, in which higher income inequality emerged in urban areas than that in rural areas. Other information also suggests that the number of the poor increased during the period, especially in rural Java (World Bank 1990).

Cognizant of this problem, the government has shifted the emphasis of the national development plan from growth and stability in the first two REPELITAs to equitable distribution and growth in the third REPELITA (1979/1980 - 1983/1984). In order to implement this change in priority, the government introduced eight "paths to equal distribution" (**delapan jalur pemerataan**), which presumably will improve the welfare of the lower income population in the country better than the previous periods. The eight paths to equal distribution of development gains are as followed:

1. an equitable distribution of access to means of fulfilling basic human needs, particularly food, clothing and shelter;
2. an equitable distribution of access to education and health services;
3. an equitable distribution of income;
4. an equitable distribution of employment opportunities;
5. an equitable distribution of access to business opportunities;

starts in April and ends in March of the following year, and long term development policy covering 25-30 years.

2) Calculated from Biro Pusat Statistik (BPS): Laporan Perekonomian Indonesia 1982, Biro Pusat Statistik, Jakarta, August 1983 (Table 4, p. 8).

6. an equitable distribution of access to participation in development, particularly of the young generation and women;
7. an equitable distribution of development efforts throughout the various regions of the country;
8. an equitable distribution of justice.

A few studies have been made in measuring income distribution during the last decade, especially with regard to the patterns of intra-regional income distribution, within and between sectors of the economy. Generally, as a rule, the size distribution of total income among individuals or households depends on three principal factors: the levels of average incomes in the various sectors of the economy, the importance of the sector as indicated by the share of population engaged in each sector, and the distribution of income within a sector (Kuznets 1963; Adelman and Morris 1974; Lydall 1976; Lecaillon et.al. 1984; Sundrum 1990). By dividing the economy into two sectors: agricultural (A) and non-agricultural (non-A) sectors, they found that the former had a lower level of average incomes than the latter one. In a number of cases, the rate of returns in the "A" sector tends to be less than that in the "non-A" sector. Secondly, given the differences in average income between the sectors, the reallocation of labour from agricultural to non-agricultural activities led to unequal distribution of income in the early stage of economic development. They also found that income distribution within the agricultural sector tends to be less unequal than that in the non-agricultural sector, especially in the LDCs; while in developed countries, there is a tendency of decreasing overall income inequality due in part to the reduction in inequality within the non-agricultural sector.

Based on these findings, it would have been desirable to attempt a parallel analysis of the distribution of incomes within and between sectors of the economy in a single country by interregional analysis, or in a single region by intraregional analysis. The study will focus on the assessment of income distribution in a single region in Indonesia, i.e., Java region (hereafter including Madura island), since the intraregional income differential in LDCs is more crucial than interregional differential (Richardson 1980).

During the development process, interregional inequality may decrease due in part to increases in regional comparative advantage. Each of the regions becomes specialized in its production activities of which it has more advantage than the other activities. However, this may not effectively result in intraregional parity. The growth achieved by each region usually takes place in few urban centres within a region, and may not be enjoyed by the poor especially those who live in rural areas. Consequently, intraregional inequality cannot be resolved even though each of the regions achieve high economic growth.

1.2. The Scope and Limitation of the Study

The main aim of this study is to analyze trends in personal or size distribution of income in Java region during the period of 1978-1987. Because of the limited data available on individual and household incomes (in the sense of time-series data) the paper is limited to the discussion on the measurement of the pattern of personal income distribution in 1978 and 1987, both in rural and urban areas. It is assumed that the assessment would show changes that occurred in terms of income distribution prior to the introduction of "eight path" to equitable distribution strategy and after the implementation of the policy during the third and fourth REPELITAs.

The reason for taking Java as the focus of the study is that it has become the most densely populated region, covering some 61% of the 1985 population located in some 6.9% of the total land areas of the country. Any analysis concerning this region, therefore, will show general condition of the majority of the people in the country. Furthermore, the development of the island has started long before that of the outer islands, or even before the independence of the country, which resulted in better facilities including infrastructures and the institutions to support its development. This situation makes the region become more attractive, leading to the flow of people and capital into the region. As shown in Table 1.1. the distribution of regional population, investment, employment in agriculture and manufacturing industries, and the distribution of regional Gross Domestic Product (GDP) are more concentrated in the region.

The concentration of people and investment in the region influences the diversity of economic activities in the region. Though manufacturing industries have been concentrated in the region, agricultural activities, rice farming in particular still dominate the Javanese economy. In other words, Java can be characterized with the existence of dualism, especially between agricultural activities with their inherited-traditional method of production, and non-agricultural activities which employ modern production technology, i.e., more capital intensive than labour intensive.

Many studies on income distribution in Indonesia, and in Java region to a lesser extent, use various methods of measurement. In most cases, the studies use single measure separately, like Gini Coefficient, Kuznets Total Disparity Measure (TDM), Theil Index, etc., while others employ a family of indices. Hughes and Islam (1982), Islam and Khan (1986) use

Table 1.1:

**Distribution of
Selective Socio-Economic Indicator
in Java and Indonesia
(%)**

Selective Socio-economic Indicators	Java Region	Outer Islands	Total Indonesia
(1)	(2)	(3)	(4)
1. Population (1985)	60.87	39.13	100.00
2. Investment approved			
- Domestic investment (1968 up to 1988)	60.29	39.71	100.00
- Foreign investment (1967 up to 1988)	62.27	37.73	100.00
3. Population 10 years of age and above who work in			
- Agriculture	53.42	46.58	100.00
- Manufacturing industry	75.78	24.22	100.00
4. Distribution of GDP 1988			
- Current prices	56.13	43.87	100.00
- Constant 1983 prices	51.49	48.51	100.00

Source : 1) BPS: Statistical Yearbook of Indonesia 1988
 2) and 3) BPS: Indikator Ekonomi; Monthly Statistical Indicator, April 1989 (re-calculated)
 4) Calculated from BPS: Statistical Yearbook of Indonesia 1990 (pp.574-75).

such indices as Gini Coefficient, Theil Index, Atkinson Index, etc., and combine them to give an overview on the pattern of income inequality within the region. BPS (1987) and Asra (1989) used Gini Coefficient and TDM index separately in order to show the pattern of income distribution in Java, Outer Island and Indonesia.

Almost all of the studies, however, did not take into account such factors as intra- and inter-sectoral inequality which are expected to contribute in shaping personal income distribution. Even though decomposition analysis has been done by many authors, they are merely concerned with the measures separately. BPS (1987), for instance, analyzed the

distribution of income within sectors of the economy, although it did not look at these factors to indicate overall inequality.

Given the above accounts, the study will compare different methods of measurements. On the one hand, the study will measure overall income inequality indices directly among income classes in both urban and rural areas. On the other hand, it will also assess the present situation of income distribution in Java by taking into account such factors as intra sectoral inequality, intersectoral inequality as well as intra regional inequality.

Based on the previous calculations, the study will also attempt to answer the following questions:

1. Whether income inequality within a sector in the region decreased over the period under study, indicating the positive effects of priority change in Three Fundamental Development Objectives (Trilogi Pembangunan) on income distribution in the region.
2. Whether or not intersectoral income concentration decreased during the period under study.

1.3. Data Sources and Method of Analysis

In order to answer these questions, secondary data on household surveys conducted by Central Bureau of Statistics (CBS) will be used as the major data sources. However, information concerning per capita incomes are very limited, in the sense that there is no time series data. Furthermore, data on incomes have been reported under-estimated due to many reasons, including the bias of the information taken from respondents. The population in the upper income classes tend to underestimate their incomes in order to avoid the envy of the others, or for fear of raising their tax liabilities, or provoking government policies that might affect them adversely. On the other hand, the lower income group tends to report their incomes more than that of the actual earnings so as not to reveal the extent of their poverty. Furthermore, the lower income groups usually have various income sources³ as the supplementary sources of income, so it is difficult to account for incomes they received during the survey periods. Yet, in a number of cases incomes from subsistence activities, especially in rural areas, were not enumerated, leading to under-estimated the rural income.

For the above reasons many analysts suggest the use of expenditure as a proxy variable for individual or household incomes, or adjusting the income level to fit the consumption data. In the Indonesian case, the income data on household survey have been adjusted with the level of expenditure data. The data, however, do not avoid the bias of the information at all. In many cases, the propensity to consume in the upper income classes tends to be lower than that in the lower groups, especially regarding food expenditure. As a consequence, expenditure data tend to under-estimate the upper income clusters. 'But, if the saving behaviour is [relatively] stable, the trends of expenditure [or adjusted income] share should

3) Many studies show that the lower income classes like small farmers in rural areas also derive income from non-farm employment, especially from the wage labour in small urban centres. More study in rural Javanese economy can be found in Benjamin White (1986).

still be satisfactory indicators of changes in income distribution' (Uppal 1985: 326). In this paper, therefore, adjusted income data will be used.

In order to analyze the trends of income distribution, the assessment of any change in income within the lower income group seem to be more favourable. Whether or not the lower income level benefits from the policies, and whether or not the poor increase their income, may be indicated by the measures which explain more changes in the lower income brackets. Therefore, one has to take into account the effects of any changes in the lower part of the population.

1.4. Organization of the Paper

This research paper is structured in five chapters. Chapter one presents an Introduction which emphasizes the general background and the relevance of the study for policy formulation. Chapter Two deals with outlining the theoretical framework of the study. As various theoretical models of income distribution have been built around the concept of "functional" distribution, while the study is concerned with the "personal or size" distribution of income, Chapter Two starts with the general view on income distribution theories with emphasis on the weakness of the functional distribution theories to explain the patterns of personal income distribution in LDCs. It will be seen that functional distribution theories require various assumptions which are hardly being met in the present situation in LDCs. Yet, it is recognized that individuals or households receive their income from various sources, including from various productive activities as well as inheritance or gift. Moreover, this Chapter will look at the general patterns of income inequality usually found in LDCs. It starts with the discussion on the patterns of income differential, accompanied by the factors underlying different patterns of inequality with emphasis on different sectors of the economy and different regions (urban and rural areas). Departing from the pattern discussed earlier, the framework of the analysis will be built-up around them.

In Chapter Three, the paper will take a look at the development process in Java region, by investigating such development achievement as regional incomes (output) and employment creation, the pattern of industrialization, agricultural development, and finally the spatial development.

In Chapter Four, the study will put emphasize on the results of the models (or calculations), and show whether or not the outcome of the methods of calculation will differ

from one another. It will also look at the trend of income inequality within sectors of the economy, then the intersectoral income concentration.

Finally, conclusions derived from the previous chapters will be presented in Chapter Five. This chapter will also give some policy recommendations based on the previous conclusions.

Chapter T W O

THEORETICAL FRAMEWORK

2.1. Theories of Income Distribution

Two distinctions are commonly considered in the theories of income distribution, namely functional or factor share and personal or size distribution of income. The functional distribution of income seeks to explain the share of total national income that each primary factor of production (land, labour and capital) receives. The labour earnings are determined by the level of wages, the returns of land are measured by the rates of rents, and the returns of capital are set by the rates of interest and profit. On the other hand, theories on the personal distribution of income attempt to explain the size of income acquired by various income classes, regardless of the sources of incomes received by the recipients. The recipients can be classified as individuals, households, or group of society. Whether incomes are received primarily from one of the productive factors or a combination of various factors of production is not the concern of the personal or size distribution theory. Some writers adds to these two distinction with the extended functional distribution of income, which attempt to link the relationship between the functional and personal distribution.(see, for instance, Adelman and Robinson 1989).

A sizable body of distribution theory has been developed around the concept of functional income distribution. The models built up around this concept try to explain the share of incomes that goes to the factors of production in the country and assume that supply and demand curves determine the unit prices of each productive factor. The differences among schools of thought lie on the basic assumptions underlining the models. However, in general they have similar assumptions with some adjustment to the earlier developed theories. To mention a few, the classical theories (Ricardo's corn model, Marx's model and Lewis's dualistic model) and the neoclassical theories assumed the existence of diminishing returns due to the fixed supply of land. By such conditions they assumed, they also believed that they have explained the size distribution of income (See: Ahluwalia and Chenery 1974; Lydall 1979; Brenner 1988; Adelman and Robinson 1989; Hilhorst 1990; Sundrum 1990).

Most of the theories assume that the use of factors of production tends towards full employment, and factors of production as well as prices paid to them are homogeneous. In other words, the owners of the factors of production have the same rates of return to their ownerships of these factors. In this view, if the unit price of the factor of production is multiplied by the amount of each factors of production in the country, one can get measure the share of each factor of production. The theories, therefore, cannot explain the present situations, especially in LDCs, such as a widespread open and disguised unemployment, and the existence of disproportionate ownership of productive factors.

Moreover, most of the theories of functional distribution were based on the assumption of perfect market competition (Lydall 1979:2; Sundrum 1990:7), in the sense that only demand and supply behaviour do determine the unit price of each productive factor. In practice, especially in LDCs, there are many market institutions which influence the different prices of the same factor of production⁴, so that individuals receive different rates of return for each factor they own. Since the market competition is very imperfect in these countries, 'persons supplying the same factor of production receive very different prices for it' (Sundrum 1990:175). In other words, individuals receive different income level over time, even though they work at the same sector and have the same level of education and length of works. Luck, chance, ability, thrift and fraud modify individuals incomes over time. (c.f. Adelman and Robinson 1989).

On top of the above weaknesses, the theories of functional distribution cannot explain the fact that individuals earn income from various sources, because they are 'linking a higher wage share with increases in relative equality' (Adelman and Robinson 1989:971). In other words, most of the functional distribution theories assume that increasing wage share reflects the rise of individual income of the majority of population, because they also assume that a stable relationship exists between functional and size distribution. A reasonable explanation for this proposition is that, in most cases, the majority of people are assumed to enter the economy as wage labourers, while only the small parts of the population provides capital and land. If the large share of increasing income accrues to the proprietors of land and to the owners of capital, there will be a tendency towards disequalizing income distribution (Lydall 1979:2), because individuals owned these factors would share disproportionately the generating incomes.

4) We may take an example of differences in wage labour received by individuals in different economic activities, and in different places of the jobs, even though they may have the same education level and length of works.

In practice, however, the recipient units derive income from a variety of assets: land, privately owned capital, access to public capital goods, and human capital embodying varying degrees of skills. (See Ahluwalia and Chenery 1974). As far as the distribution of incomes among individuals is concerned, many income sources such as those from property accrues to the retired people. In a number of cases, even in DCs, their incomes are higher than the people in employment who are capable to derive income from productive sector.

Furthermore, the wage labourers in a number of cases are also in the middle income classes. So any change in wage earnings only explains change in the upper end of the distribution. The available evidences show that half of the poor are self-employed and do not enter the wage economy. In other words, the emphasis of income distribution among wage, profit and rent does not take into account the share of lower end of income distribution. In addition, the theories which concern mainly on the distinction of shared incomes among factors of production do not explain the nature of the size distribution of income in the present LDCs, where uneven distribution of property, as well as the degree of labour supply and capital exist.

Finally, empirical models from the extended functional distribution of income, models which attempt to link the functional and size distribution, find no stable relationship between functional and personal distribution of income. In this case, the assumption of explaining the relationship between factor share and personal distribution of income cannot be held true. Consequently, when the size distribution is concerned, one has to analyze it directly (Adelman and Robinson 1989: 971).

Direct analysis of personal distribution of income can be classified into two schools of thought. The first approach may be called as the "theoretic statistical" groups which seek to explain the generation of income with the help of certain stochastic models. This approach states that chance, luck, and random occurrences are the main factors causing the skewed shape of income distribution. This school of thought, however, fails to explain the pattern of personal distribution of income in the present situation in LDCs, because it explains only partial factors contributing to income distribution. Mincer, for instance, claims that this approach does not take into account the economic of the distribution process (1958:p. 167-68).

The second group is the so-called "socio-economic school" of thought, which attempts to illustrate the distribution of income by decomposition analysis. In this view, sex, education, age, occupation, regional differences and the distribution of wealth are the major factors explaining different levels of average income between income classes. Belonging to this group

is the theory of human capital, which was started by Mincer (1958). He explains that income inequality is the result of differences in life time of their work, and of schooling and training. He observed that differences in income according to occupation is due in part to differences in education and age. This approach, however, has a limitation as it is mainly concerned with the supply side of the market, such as labour supply according to the level of education. The other scholars also attempt to explain the pattern of income distribution from the demand point of view. According to this group, the production function is assumed to determine demand for labour. The last approach attempts to build up the models by integrating supply and demand of the productive factors in the economy. The "price" associated with such attributes as race, sex, social status, geographical location, and aptitudes, is determined by the interaction of supply and demand forces. The applied general equilibrium model using Social Accounting Matrix (SAM) is developed based on the this spirit. (see, Kakwani 1980; Adelman and Robinson 1989).

To sum up the discussions, we may consider the specific policies that follow both functional and personal theories of income distribution. In the functional distribution theory, capital accumulation and economic growth are assumed to generate equitable distribution of incomes. It is assumed that growth will trickle down and spread out from such potential sectors as manufacturing industry and agricultural sectors to the rest of the economy. "Growth oriented" strategy, therefore, becomes a major drive in government policy that presume to generate more employment. According to this strategy, growth is assumed to generate more saving, hence the availability of funds for further investment.

The relevance of this policy strategy, however, has been argued since the mid 1960s (Chenery et.al. 1974; Todaro 1982; Adelman and Robinson 1989; Sundrum 1990). The wide poverty in LDCs remained the same, if not increased during the periods of the rapid economic growth, indicating insufficient results of the strategy to achieve high economic growth. The questions posed to this occurrence include, first, what rate of growth should be achieve and secondly how long this rate should be maintained to reach the stage of declining income inequality (Saith 1989).

On the other hand, the personal distribution theory has implication on the roles of equitable distribution of income to generate more rapid growth. The equitable distribution of wealth, and participation of individuals or households in the development process have been seen as promising ways to alleviate poverty. The improvement on socio-economic condition of the lower income classes, such as education, health, and employment opportunities, etc. have been the concerns of government policies in many developing countries. It is assumed

that increasing welfare condition of the lower income classes would result in better quality of labour forces who enter the market. Therefore, the chance to have job would increase, which in turn would also generate more individual income. In sum, national income would also grow without leaving aside the ultimate problem of development, i.e. unequal distribution of income and the existence of mass poverty.

2.2. General Patterns of Income Distribution

Before developing the framework of analysis, it seems important to note the common patterns of income distribution found in the analysis on personal income distribution. The reason is that the factors associated with observed inequality can be taken into account before the data can be put into any use.

Various studies, both inter-country and within country analysis, suggest that general pattern of income distribution during the development course depends on three main factors: intersectoral inequality indicated by the relative average income between sectors; the importance of the sector in the economy as measured by the share of population engaged in the sector; and, intrasectoral inequality or differences among income classes within a sector (see, e.g. Kuznets 1963; Lecaillon et.al. 1984; and Sundrum 1990). Under the assumption of the dominance of agricultural sector in rural areas and of non-agricultural sector in urban area, the first two factors affect the pattern of urban-rural or interregional income inequality⁵. Yet, when this assumption holds true, the last factor determines different pattern of income distribution within urban and rural areas. Subject to these reservations, the general distribution of income can best be viewed from the combination between rural-urban disparity and intersectoral inequality on the one hand, and intrasectoral income differentials on the other hand.

2.2.1. Urban-Rural and Intersectoral Income Differentials

The common feature of income distribution in a single country is the fact that average urban incomes are higher than average rural incomes. This interregional imbalance is one, and

⁵ The original hypothesis of this proposition is based on the patterns of income distribution in developed and less developed countries. Kuznets (1963) argues that in a single country this pattern can be applied in the differences between more developed region and less developed region. Moving to intraregional analysis, this hypothesis can be applied to the pattern of urban-rural income disparity.

probably the most marked phenomenon in the regional development of the country, as Williamson (1965) stated:

Economists have long recognized the existence and stubborn persistence of regional dualism at all level of national development and throughout the historical experience of almost all presently developed countries (p.4).

This spatial inequality, is among other things, a consequence of spatially segregated functions within the economic system during the development process, which may eventually lead to a spatially differentiated quality of life. In this regard, Hirschman stated:

... we may take it for granted that economic progress does not appear everywhere at the same time and that once it has appeared forces make for a spatial concentration of economic growth around the initial starting points. (1958: p.183).

In the early stage of the development, Hirschman further argues, growth tends to concentrate within some region, and the result is 'the split of the country into progressive and backward regions' (ibid: p.184). When the development proceeds, different types and size of sectoral activities emerge in each region. Increasing returns to scale exists in the more progressive region, leading to better exercise on entrepreneur, capital and labour in the region by opportunities to expand economic activities, compare to those in the backward region. Kuznets (1963), for instance, pointed out that agricultural (A) sector dominates underdeveloped (or backward) region, while non-agricultural (non-A) sector operates in the more developed region. He takes one example of the patterns of personal distribution of income in Italy, and finds that average incomes in the less industrialized region keep lower than that in more industrialized one. Moreover, activities which are relatively dynamic, use modern technology, and are relatively big, tend to emerge in the more prosperous region, while those in the backward region tend to be among the activities that use inherited-traditional method of production, and relatively small in size and market scale. This structural dualism has been considered as an overriding factor used in many studies to explain the presence of regional imbalance.

This structural dualism is characterized by rapid economic growth in the industrial sector, in which modern technology is developing more rapidly than in the dominant agricultural sector, where conventional techniques of production prevail. This fact has a consequence on the presence of intersectoral differences in factor productivity, hence the differences in average income accrues from each sector. As modern industrial activities tend to cluster in urban area, while traditional agricultural activities and small-scale industries tend to dominate rural area, this consequently leads to differences in average income between urban and rural areas.

Moreover, different response to economic opportunities, such as price changes and increases in supply and demand, result in different level of income between the two sectors (Lewis 1976). The modern sectors tend to take up these opportunities faster than the traditional sector, which in turn lead to different rates of growth of these activities. Whereas the incomes in modern sector grew more rapidly, those in the traditional sector remained the same. As a consequent, individuals and households engaged in this dualistic economy accrued different level of income across times. For these reasons, Lewis argues that 'the tremendous regional differential are not the failure of the benefits of development to 'trickle down' ... vertically, [but because of] the failure of horizontal spread from enclave to the traditional sectors' (1976: p.28).

Finally, differences in unit prices paid to the products of each sector also influence the average incomes in each activity. On the one hand, price of food is kept artificially low by price control in many developing countries, to subsidize the urban consumer -- especially the wage labourers. Highly protected industrialization strategy adopted in these countries usually influences the low wage rates in urban areas. When the food price is low, the wage labour in urban manufacturing industry could also be kept low. On the other hand, the prices of urban manufactured goods are held artificially high as a result of tariffs to stimulate import substitution and of other forms of protection. Consequently, when the quantity of agricultural produce required by the accumulation of non-agricultural products increases over the years, the terms of trade for agricultural produce worsen. Furthermore, the relative purchasing power of the farmers declines relative to those of the urban inhabitants (cf. Lecaillon et.al., 1984). In other words, farm incomes are lower relative to non-farm incomes, especially to those of in manufacturing sector. This situation induces rural households to migrate or send their family members to take job opportunities in urban area.

The process of rural to urban migration also affects the presence of rural-urban imbalance, especially in the early phase of the migration process (Lecaillon et.al., 1984: 60). The example from Colombia described by Fields and Schultz (1980) suggests that the migrants are among those of the better-off rural population. If rural production (outputs) increases or even remains unchanged due to this out migration, income per capita in rural area will be higher than in the earlier periods, so the gap between average urban income and rural income would decrease. On the other hand, it is also likely that labour force left in rural area has a negative effect on rural production. Low level of labour productivity tend to emerge in the area, because they are among the less productive persons, such as women, and old people.

To these economic factors, addition can be made with regards to the bias of government policies. In most cases, the policies tend to be bias against the traditional sector such as agricultural activities in rural areas. Taxes are levied on the exportable agricultural goods or on goods and services consumed by farmers, but these revenues are used widely to finance investment benefiting non-agricultural sectors. Consequently, income in rural traditional society tends to be lower than that in urban area. Moreover, the development of such infrastructure as roads, health service centre, and education facilities tend to concentrate in urban centres. This also prevent the ability of rural people to increase the human capital, and consequently leads to relatively lower quality of labour force. This situation eventually results in the difference between the rates of labour earnings in urban and rural areas.

Lastly, different forces that influence income generation also exist between the two sectors. Whereas market forces are quite powerful in affecting the generation of income in modern activities, social forces are quite dominant in traditional sector (Sundrum 1990). In this regard, Cromwell (1977) points out that 'the social relations of production concomitant with the introduction of large scale capital are clearly different from those in the traditional (agriculture and handicrafts) sectors' (p.299).

To sum up: it is obvious that if intersectoral dualism and market imperfection exist, inequalities in terms of income between sectors and areas will also be present, given the intra-sectoral inequality is nil. However, this situation may only explain partial situation of general pattern of income distribution, because it was assumed that any person engaged in each sector derived income at the same level. When the development proceeds, for instance, with the introduction of new production techniques, and when the economy becomes integrated sectorally and spatially, there is no doubt that individual firms within the same sector does not respond at the same rates. In other words, intra-sectoral income inequality also exist during the course of economic development.

2.2.2. Intra-sectoral Income Inequality

Income generation in such sectors as manufacturing industry and agriculture, varies across the size of the firms. In the manufacturing sector, the mix of traditional, semi-modern, and modern technologies exist. Large scale manufacturing industry uses more capital and modern technology, while those of the small scale units hire more labour and traditional method of production. Similarly, are those in the agricultural sector when the large plantation uses more capital and small farmers hire more labour. This differences in technological uses, indeed, will

generate different level of average incomes. Consequently, people engaged in each productive sector derive different level of income depending upon the modes of production; whether they are employed in capitalist mode of production or pre-capitalist mode of production.

Cromwell (1977) shows how the division of activities according to the mode of production gives different pattern of income distribution across the countries. 'Incomplete spread of capitalist sector to a few industry', he argues, 'shows the disequalizing impact on the size distribution of income in underdeveloped countries'.(p.301). Lydall (1979) also came to the similar conclusion in the case of manufacturing industry. He found that different level of output per worker exist across the size distribution of the firms in both developed and underdeveloped countries.⁶

More explanation of this pattern can be found in Helmsing (1987) and Hilhorst (1990). They highlight the existence of two types of competition; horizontal competition among firms at the same degree, and vertical competition among different degree or size of the firms. In order to show the effects of these types of competition, Helmsing (1987) distinguishes activities at the micro level into four major groups with different characteristics in the size, type of labour, and more importantly the market scale. The first category is "household units" which hire mainly family labour and only have local market scale. The second typology is "Owner-Operated" units, enterprises which employ family labour and some third persons, and have wider markets than the former one (local and regional market scale). The third degree is "Owner-managed" firms which hire non-family labour, and have both regional and national markets. The last category is "manager-managed" corporation which have national and international market scale. What distinguishes the last type to the third one is that the hierarchical salaried managers in the last category of the firms alter the decision-making process of such units in a bureaucratic direction, while in the third category the family play more role in last decision.

For Helmsing (1987), the horizontal competition, both in terms of demand and supply sides, exists among various firms at the same level. This type of competition tends to generate the equalizing effects on income distribution, in which every firm in the same degree will specialize its activities in producing the most productive goods and services. What has been seen as a major problem affecting income differential within the same sector is the vertical competition, that is competition among classes of the firms which produce the same goods and

⁶ For more exploration of the models and the results, see Lydall (1977): Income Distribution During the Development Process, WEP working paper, ILO; and Lydall (1979): A Theory of Income Distribution, Clarendon Press, Oxford; Chapter 13 onward.

services, such as the firms which produce man-made clothing and those which provide factory clothing. This type of competition affects imbalance development among firms at different degree, and income accrued by the participants engaged in each firm category. The higher the degree of organization of the firms, the more likely the increasing market scale it gains. Consequently, this gives more opportunities for people engaged in the higher firm category to derive higher income than those employed in the lower units.

In addition, the availability of capital across regions and sectoral activities is also less possible for the smaller firms (Gertler 1984, and Hilhorst 1990). The capital is immobile in the sense that different prices (interest rates) exist across the regions and the size distribution of the firms. In the rural backward region, capital is less available than in the urban areas. Even though the costs of transporting the capital decrease as the rural region integrated into the national economy, there are some doubt that smaller firms operated in rural region are able to gain smaller amount of capital. Indeed, for the largest firms capital may be fully available across the space, but for the smaller firms this simply is not so (Gertler 1984: p.53).

This situation worsens by the effects of rural to urban migration, which changes the demand patterns for different goods and services produced by each size of the firms. Helmsing (1987: p. 72-78) show how the distribution of demand, accompanied by the distribution of condition for profitable production, and of conditions for exchange and coordination influence to the development of microeconomic organizations. Such conditions are more favourable to the firms which operate in urban areas; especially for those which have national as well as international market scales. As the migration process tend to be step-wise, that is from rural to small town and from small town to the larger cities, rural to urban migration does not guarantee any increase in demands patterns for goods and services provided by household units and owner-operated firms located in rural areas and small urban areas (cf. Helmsing 1987; and Hilhorst 1990).

All in all, the differences in the size of the production units, reflecting differences in technology they use and in their market scale; the availability of capital across these units; and rural to urban migration, affect different level of incomes in each mode of production. Consequently, intra-sectoral income inequality exist, and it would shape the patterns of general personal income distribution. If the assumption of two sector model between agriculture and non-agricultural sectors (Kuznets hypothesis) holds true, there is no doubt that intrasectoral effects generate different pattern of personal distribution of income within urban and rural area.

2.3. Framework of the Analysis

As pointed out earlier, the general pattern of income distribution depends upon three principal factors, namely the levels of average incomes in the various sectors of the economy or intersectoral effects, the relative importance of the sector in the economy shown by the share of population or labour engaged in the sector, and differences in relative incomes within the sector or intra-sectoral effects. The intersectoral effect is caused by the differences in productivity, structural dualism, policy bias, and different intensity of various factors of production (capital/labour ratio) used in each sector. The second factor is more pronounced when the economy is developing and labour is reallocated from the traditional to the more modern sector, which in turn resulted in the expansion of modern sector while the more traditional sectors shrink.

In a society in which the share of population is highly concentrated in agricultural sector, income distribution is less unequal. Assuming that the agricultural average income is the same for all persons, the higher the proportions of the population in the sector resulted in relatively equal distribution of income. When the dualism between agricultural and non-agricultural sectors exists, income may be less equally distributed, since labour is spread in different sectors with different level of average income. Yet, when the non-agricultural sector is predominant in the economy, income may be more equal as the same level of incomes is assumed to be derived from the same sector. Finally, intrasectoral effect can be caused by various causative elements, but its principal cause is heterogeneity of firm sizes within a sector leading to differences in market scale and investment accessibility. The intensity of technological uses and factor of production in a given sector are varied depending upon the microeconomic units in each sector. The greater the size of enterprises, the less the labour uses, and conversely the higher the capital uses. Therefore, the rates of return of factors of production in the sector differ from the traditional activities to those of the modern units. The distribution of firm size as described earlier plays important roles in shaping different level of income among the firm size, hence the individuals and households engaged in each categories of the firms.

For these reasons, 'income distribution analysis in LDCs need to be disaggregated. As long as the great differences among sectors in productivity and in other aspect remain, these cannot be aggregated, since that would make the differentiation, which really is the object of the analysis' (Bigsten 1983:37). In other words, decomposition analysis has to be done in order to give more precise indicator of income inequality.

To fulfil this end, decomposition analysis has to be done at least between rural and urban areas. Furthermore, as within the area various sectoral activities exist, it would be desirable to decompose the analysis according to the sectoral activities. Bigsten also argues that the distinction between two activities is too simple to give overall views on the nature of intersectoral income distribution in LDCs (ibid). Keuning (1985) further suggest the needs for decomposing income recipients into more broad categories, at least according to one digit U.N. International Standard Industrial Classification (ISIC).

Decomposition according to one digit ISIC has been done, for example in Hong Kong, by Hsia and Chau (1978). They argue that the decomposition into three broad sectors (agriculture, industry proper and service sectors) does not show the precise indicator on intersectoral inequality. Within each sector, agricultural sector for instance, heterogeneous average income exist between fishery and farm household. The same pattern holds to be true among activities within other two sectors.

In the case of Indonesia, Keuning's (1985) study is in agreement with the case of Hong Kong. His further analysis on the functional distribution of income shows that the share of each productive factor (profits, and wage incomes) differs across sectors under one digit ISIC. He also found the differences in the patterns of value added distribution within the sectoral activities across the ownership of capital in each sector, of which is assumed to give indication on differences in technological uses. In other words, intrasectoral inequality also exist in the Indonesian economy.

Departing from these phenomena, it is necessary to decompose the individuals income not merely on the basis of sectoral dualism, but also into more broad category. Instead of dividing the economy into two activities (Agriculture and Non-agriculture), it is necessary to cluster households and individuals in both urban and rural areas into their main income sources according to one digit ISIC: i). Agriculture; ii). Mining and Quarrying; iii). Manufacturing; iv). Electricity, Gas and Water; v). Construction; vi). Trade, Restaurant and Hotel; vii). Transport and Communication; viii). Finance, Real Estate and Business Services; ix). Community and Personal Services; and x). Others (Non-classified). Moreover, as many households and individuals have main income as transfer receipts, the classification of individuals and households advances with "Transfer Income" category. In sum, individuals and households are classified into 11 categories according to their main income sources.

The second step is to calculate intrasectoral income inequality or distribution within a sector; i.e., income differences among income classes within a sector. The same calculation will be done in accordance with income distribution among income classes of the overall

population⁷. The study will use the Gini Index (Coefficient) for income group data. This assessments will be done separately in both rural and urban areas, and (Urban + Rural) area.

The Gini coefficient is the measure based on the differences between the quantities Q (the cumulative share of income received by each income classes) and the proportion of income they would have under an egalitarian distribution P (Sundrum 1990). In this study the Gini index will be calculated at the "lower bound" of the inequality index for the group data; that is by calculating the area under the Lorenz curve first, and subtracting the result from the egalitarian distribution (the area under the diagonal line, equal to 1). The Lorenz curve is the line drawn by joining the plotted points of each individual observations. The X-axis indicates the cumulative proportion of population in each income classes, while the Y-axis corresponds to the cumulative share of income received by each income classes (see Figure 1). The data used to draw the curve can be either individuals or a group of household or individuals.

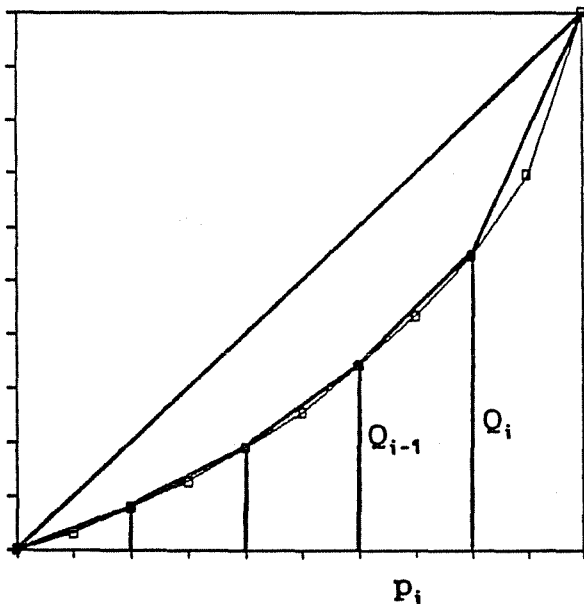


Figure 1: The Lorenz Curve

In a simple equation the Gini index for the group data can be approximated as follows:

$$G = 1 - \sum [P_i(Q_i + Q_{i-1})]$$

where: p_i : the share of population in each income classes

Q_i : the cumulative share of incomes received up to the i^{th} income class

Q_{i-1} : the cumulative share of incomes received up to the $(i-1)^{\text{th}}$ income class

(Quoted from Sundrum 1990:68).

The reason in choosing this index is that, first, the Gini index is commonly used in many countries. Secondly, this index can be

used with the group data, even though the result would be smaller than that of using the individual data. 'However', Sundrum argues, 'this method does not make much difference if data are available for 10 or more income group' (1990:52). Finally, the Gini index also has

7) For the rest of the paper this outcome will be called as "the direct measure or estimates" interchangeably, that is the distribution among income classes without any sectoral allowance.

an interesting economic interpretation. This index is about a transfer from the rich to the poor in order to make all incomes equal⁸.

The second step is to estimate the overall income distribution in the respective areas (Urban, Rural and Urban + Rural), with the weighted average of intra-sectoral inequality, the weight being the share of income in each sector to total incomes in the respective areas. The weights, therefore, indicate the share of population in the respective sectors, and the relative differences among average income in each sectors. Sundrum (1990) shows in his three sectoral model (Agriculture, Industry and Services) that 'overall inequality is the weighted average of the sectoral inequalities, [where] the weights being the respective shares of total output'.(p.239). This estimate, therefore would indicate intersectoral inequality with intra sectoral allowance.

The following formula will be used to derive overall income distribution in the respective areas within the regions.

$$G_j = \sum w_{ij} * G_i$$

- In which :
- G_j : Rural and Urban Gini coefficient (j= 1 for rural area, and 2 for urban area).
 - w_{ij} : Weights (=Share of income of category i in region j, reflecting the share of population in each sector and intersectoral differences in average income)
 - G_i : Sectoral Inequality in category i
 - i : 1,2,....,11

Moreover, in order to show whether the outcomes of the "weighted index" will differ to the "direct measure" of income distribution in the respective areas, the study will also use the Kuznets Total Disparity Measure (TDM) which was refined by Harry T. Oshima, for both intrasectoral and intersectoral inequality indices. This index is simply the sum of the difference between the share of income received by each decile of population and the proportion of incomes they would have received if incomes are equally distributed, that is equal to 10. In mathematical terms, the TDM index for intrasectoral inequality measure can be written as follows:

$$TDM = \sum [(Q_i - 10)/100]$$

- where:
- Q_i : The share of incomes received by i^{th} decile.
 - i : 1,2,3,....,10.

⁸) For the proof see for instance, Sundrum (1990); Chapter 3: Measurement of Income Inequality and Poverty, pp. 36-70.

In order to measure an intersectoral inequality, the weighted TDM index will also be estimated. The same formula as in the case of the weighted Gini index will be employed to arrive at this proposition.

The reason for taking the TDM index as the comparative study include the ease in calculating and interpreting this index. After grouping the households or individuals according to their share of incomes into 10 classes (or decile), it is easy to calculate this index even with a pocket calculator (Oshima 1982). It is also easy to interpret the outcomes as it shows the differences between the share each decile of population received their income and the share they would have under the egalitarian distribution.

These purposed study, however, cannot be applied completely for the whole inquiry in the rest of this research paper. The available data used in this study are not properly compatible with what have been discussed, especially as regard to the trends analysis of intraregional income inequality within the regions in Java. The household sample in each of the regions did not support the framework of the analysis, so, in order to test the outcomes of the proposed method of measurement, the study will emphasize in analyzing the pattern of intraregional income distribution within Java, Outer island and Indonesia, for Urban, Rural and (Urban + Rural) areas.

Furthermore, for the purpose of intraregional analysis within the regions in Java, the study will limit on the comparison between the direct method of calculation (the distribution among income classes within the region, without any sectoral allowance) and the weighted indices with the weights of income share in the "A" and "Non-A" sectors. This limitation, however, would not lessen the relevance of the study for policy formulation, since the study will also compare this method with the proposed framework of the study for the Total Java.

In order to support intraregional analysis within Java, the five provinces in the island will be clustered into three broader regions. Many studies of personal income distribution based on the cross country analysis indicates that both within and between country inequality contribute to overall inequality in the non-socialist developing countries as a group. 'Within country inequality is the most important factor in explaining total inequality, but the reduction in either source of inequality can make important contributions to reducing poverty in these economies' (Adelman and Robinson 1989:963). It is likely that within a country, intraregional inequality would play more roles in shaping overall inequality. If intraregional inequality is narrower, it is plausible to say that income inequality in the country will tend to decrease.

The first region is Western region, which covers the national capital city, Jakarta, and West Java provinces. The reasons to combine these two provinces are many. In a number of cases, the development in Jakarta spills over through the West Java province. Many of the large infrastructure projects in the West Java province have been developed primarily for the needs of Jakarta (Hardjono and Hill 1989). Moreover, a greater Jakarta planning region has existed with the acronym Jabotabek (Jakarta, and three other kabupaten in West Java, Bogor, Tangerang and Bekasi, plus the municipality of Bogor) since 1977 (Castles 1989). The Jakarta industrial and service economy might be expected to spread to neighbouring kabupaten in West Java, as due to its close proximity to a rapidly expanding high-income capital city.

In terms of out migration from Jakarta, West Java province becomes the major destination. It is found that some 66 per cent of the 1980 West Java population was born in Jakarta, indicating out migration from this capital city to the surrounding areas. Another evidence shows that a large number of West Java population derive income in Jakarta on the basis of daily commuting migration, and circular migration (Castles 1989).

The most striking feature of these two provinces relationship lies in the foreign trade sector. Due to lack of seaport, the West Java goods, such as oil and manufactured-goods, are exported via Jakarta, the seaport Tanjung Priok, and the airport Cengkareng. Though oil and gas sector from the southern coast of Java accounted in West Java province, the value exports of these commodities recorded in Jakarta. Imported goods in Jakarta, then would also spill over through the West Java province, the closest region to the administrative centre of the country.

Meanwhile, the Central Java province and Special Region of Yogyakarta (Daerah Istimewa Yogyakarta) are combined in the Central region. These two regions have similar characteristics in terms of manufacturing activities. While the small scale industry are more prevalent in these two regions (UNIDO 1987; Hill 1990a), there existed less industrial concentration as regards to large and medium scale industry (Jones 1984). In these two provinces, employment in large- and medium- scale industry in 1980 was located in the kabupaten distant from large cities (over 150,000). In terms of poverty problems, the two provinces recorded highest proportion of population live under poverty line than the majority of other provinces in Indonesian (World Bank 1990; Both and Damanik 1989). Similarity between these two provinces also shown in terms of income per capita in 1988 as recorded in the regional account statistics, i.e., Rp. 363,306 in Central Java and Rp. 322,069 in Yogyakarta. Accounted to these dimilarity, income distribution in these two provinces can be expected to have similar pattern.

Besides, Yogyakarta is being transformed increasingly into a post industrial stage, centred on its tourism, health and education service industries (Hill 1990a:105). This situation would be expected to affect the population in Central Java, the closest province to Yogyakarta. Tourism in the Central Java has also play role in generating regional income. In this regards, household transfers from the rest of the countries and trade sectors could be expected to play important roles in contributing to regional income. Moreover, the two regions has been a most densely populated regions, becoming a major source of migrants to the rest of Java and the outer island.

The last region, Eastern Region, covers the East Java province. The characteristic of this province is similar to that of the Western region. The main industrial development takes place in the area between Surabaya, the second important port of Indonesia, Kediri and Malang. In the peripheral part of the province, like the north-west limestone area, the Madura island and the southern area the economic development lags far behind those three kabupaten (district) in relative terms, partly due to physical conditions (less fertile soils) and partly due to the location and lack of transport connections. This means that East Java alone can be qualified as a region with large contrasts between prosperity and poverty. So, the study of income distribution pattern within the East Java province alone would be interesting and relevant for policy formulation.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for ensuring the integrity and reliability of financial data. This section also outlines the various methods and tools used to collect and analyze data, highlighting the need for consistency and precision in all reporting.

2. The second part of the document focuses on the role of internal controls in preventing fraud and errors. It details the various checks and balances implemented within the organization to ensure that all activities are conducted in accordance with established policies and procedures. This section also discusses the importance of regular audits and the role of the internal audit function in identifying and addressing any weaknesses in the control system.

3. The third part of the document addresses the issue of transparency and accountability. It stresses the need for clear communication and reporting to all stakeholders, including shareholders, management, and the public. This section also discusses the importance of providing timely and accurate information to support decision-making and ensure that all parties are kept informed of the organization's performance and financial position.

4. The fourth part of the document discusses the impact of external factors on the organization's financial performance. It examines the various risks and opportunities that can arise from changes in the market, industry, and regulatory environment. This section also discusses the importance of monitoring and responding to these external factors to ensure the organization's long-term success and sustainability.

5. The fifth and final part of the document provides a summary of the key findings and recommendations. It highlights the areas where the organization has performed well and identifies the key areas for improvement. This section also provides a clear and concise overview of the overall financial performance and the steps that will be taken to address any identified issues and ensure the organization's continued growth and success.

Chapter T H R E E

GENERAL POLICY AND SPATIAL DEVELOPMENT EFFORTS IN JAVA

3.1. The Policy towards the Development of the Key Sectors

Macro policies towards Indonesian development can be differentiated into two major era: the Old Order started at the time of independence in 1945 and the New Order begun in 1966. In the earlier periods, Government played important roles in the economic activities, especially with regard to the investment in the sectors producing essential goods and services needed by the entire population. The needs for foreign exchange earnings encouraged the Government of Indonesia to invest in the Mining sector in order to explore the natural resources such as oil, coal, tin, etc. Moreover, the role of government can also be seen from such activities as electricity, water supply, oil and gas, and communication (Post and Telecommunication), and financial sectors. These sectoral activities were operated under the government enterprises called **Badan Usaha Milik Negara (BUMN)** in the national level, and **Badan Usaha Milik Daerah (BUMD)** in the regional level.

Yet, the New Order Government increased the roles of private investors, both foreign and domestic ones, especially regarding the development of manufacturing industries. This was marked by the introduction of three sets of policy reforms. Firstly, the foreign trade regime was liberalized and simplified and imports of raw materials and capital goods became more easily available. Secondly, the role of state enterprises in the producing sectors was reduced, and lastly two important policies towards private sectors' development were launched: Act No. 1 of 1967 that regulates foreign investment, and Act No. 6 of 1968 that directs domestic investment (Mynt 1983).

To this industrial development policy, a strategy has been added, emphasizing supports for the development of the agricultural sector. As the majority of the population derive incomes from this sector --rice farming in particular-- the government intended to accelerate the rate of growth of its output and to support the industrialization strategy. While the Old Order Government implemented the land-reform policy, the Government of New Order introduced Green Revolution Technology (the introduction of high yielding variety (HYV),

fertilizer, pesticide and some irrigation) through the programmes such as **BIMAS (Bimbingan Massal, Mass Guidance)** and **INMAS (Intensifikasi Massal, Mass Intensification)**⁹.

These two basic development elements of the key sectors (manufacturing and agriculture) will be presented separately. Their effects on the structural transformation of the economy and on the spatial patterns of development will be treated as the main feature. Moreover, as the mining sector, especially the oil/gas sector) plays important roles in Indonesian economy, this sector will also be seen as to give more picture on the over all development patterns in Indonesian. To mention a few, the main products of this sector (oil and gas) contribute some 60 per cent of government revenue and some 70 per cent of the total exports (Tampubolon et.al. 1986).

3.2. Manufacturing Development

Regarding the development of manufacturing industry, the Government of New Order introduced three sets of policy reforms: trade liberalization, reducing the roles of state enterprises, and the introduction of new investment laws. These three policy instruments, coupled with oil boom in 1973/74 and 1979 have resulted in the success story of industrial development in the country during the 1970s and the beginning of the 1980s. This sector's value added increased annually at 12.26 per cent (at 1975 constant prices) during the period of 1975-1983, leading to an average increase in the Indonesian economy to achieve 7.93 per cent during the period (see Table 3.1.). This sector contributed 14.08 per cent annually to average national growth during the period (see Table 3.2.).

The nature of manufacturing industry during this period, however, was mostly based on the highly protectionist Import Substitution Strategy (Mynt 1983; UNIDO, 1987; Thee, 1989). To a large extent, the high industrial growth rate during the 1970s was due to the fact that the initial industrial base in the 1960s was still small. Secondly, there were high potential domestic markets due to the severe shortage in the previous decade. To these condition, additional demand from the government sector took place during the periods, as a result of increases in oil prices in 1973/1974 and 1979, influencing the rise of government revenue. The questions then are posed to what extent the development of this sector has been during

⁹ See for instance Loekman Soetrisno (1981): *Agrarian Problems and Rural Development; the Case from Central Java*; Eddy Lee (1983): *Agrarian Change and Poverty in Rural Java*; Benjamin White (1986): *Rural Non-farm Employment in Java; Recent Developments, Policy Issues and Research Needs*; Benjamin White (1989): *Java's Green Revolution in Long Term Perspective* (PRISHA No. 48, December); and Sediono H.P. Tjondronegoro (1990): *Revolusi Hijau dan Perubahan Sosial di Pedesaan Jawa* (PRISHA No.2, Vol. 19, 1990).

the 1980s, when the economy was affected by world recession during the first half of the decade, and when the oil prices continuously decreased until it was less than US\$ 10 per barrel in August 1986.

During the last decade, the industrial policy in Indonesia has shifted to export-oriented industrial strategy (UNIDO, 1987; Thee, 1989; Pangestu, 1990). Such policy instruments as trade policy, monetary policy and fiscal policy¹⁰, were introduced to support this changing priority. The effects of these policy packages appeared to have increased industrial value added, as shown in Table 3.1. This sector's value added grew at 12.84 per cent (at 1983 constant prices) during the period 1983-1988, slightly lower than the rate in the first period. This influenced Indonesian economy to grow at 6.01 per cent annually during the period, of which the manufacturing sector contributed to 30.40 per cent annually (see Table 3.2.).

Many reasons were underlying the lower growth rate during the second period under study. In the first place was the differences in the demand patterns. While in the first period large potential domestic demand existed, the purchasing power of fixed income earners such as wage labourers and the oil prices decline during the first half of the decade. These can be expected to reduce the demands for industrial products, particularly from the government sector.

The effect of devaluation in March 30, 1983 (28%) and September 12, 1986 (31%) which were not followed by such policies until 1986 (Pangestu 1990) were also likely to contribute to the slowing down of the growth rate of manufacturing value added. In the first instance, devaluation increased prices of the imported intermediate inputs (in Rupiah terms). Secondly, it also resulted in more burden for the firms that borrowed money from abroad, because they needed more rupiahs to pay their debt. Consequently, they tended to increase their product price that would cause the decline of domestic demand. At the same time, the real purchasing power of fixed income earners such as wage labourers, especially the civil servant, also declined due to this devaluation.

Besides, the reduction and eventually the removal of subsidies on domestic fuel could have also contribute to the increases in production costs. Immediately after the policy implementation, domestic fuel prices raised. Coupled with increasing transportation fare, this policy led to the rise of intermediate inputs, hence reduce the profits and value added.

¹⁰ These policy instruments include: Devaluation of the Currency in March 1983, and September 1986; Foreign Trade Policies launched in January 1982, and custom reforms in April 1985, Simplification of Textile quota in July 1987, etc; Banking Deregulation in June 1983; rescheduling such government big projects, etc. For more information about these policy reforms during the New Order Government, see: Anwar Masution (1990): "Recent Economic Reforms", in *The Indonesian Quarterly*, Vol. XIX, No. 1.; and Mari Pangestu (1990): "Economic Policy Reforms in Indonesia".

Table 3.1.

**Annual Growth Rate of Sectoral Value Added,
Java and Indonesia
(Average Current Prices, 1975 - 1988)**

AVERAGE 1975-1983 (Constant 1975 prices)					
SECTORS	WESTERN REGION	CENTRAL REGION	EASTERN REGION	TOTAL JAVA	TOTAL INDONESIA
(1)	(2)	(3)	(4)	(5)	(6)
1 AGRICULTURE	4.83	5.18	5.12	4.99	5.31
2 MINING	5.24	3.93	31.84	5.87	3.37
3 MANUFACTURING	15.22	12.67	11.45	13.18	12.26
4 UTILITIES	22.68	18.31	18.36	21.30	20.76
5 CONSTRUCTION	20.06	19.37	15.28	19.31	18.40
6 TRADE	4.88	9.08	11.34	7.44	7.74
7 TRANSPORT	12.01	14.46	9.40	11.34	12.03
8 FINANCE	18.52	13.59	8.85	15.86	13.81
9 SERVICES	14.03	11.16	6.90	11.21	10.94
10 Oil/Gas GDP	5.07	0.00	0.00	5.07	3.26
11 Non-oil/gas GDP	10.07	9.04	8.15	9.22	9.09
12 GDP Total	9.74	9.04	8.15	9.08	7.93

(Continued)

AVERAGE 1983-1988 (Constant 1983 prices)					
SECTORS	WESTERN REGION	CENTRAL REGION	EASTERN REGION	TOTAL JAVA	TOTAL INDONESIA
(1)	(7)	(8)	(9)	(10)	(11)
1 AGRICULTURE	5.98	5.72	4.04	5.11	5.53
2 MINING	3.81	13.60	6.26	4.04	0.65
3 MANUFACTURING	12.93	14.14	9.20	11.98	11.69
4 UTILITIES	14.15	16.67	4.49	12.59	12.84
5 CONSTRUCTION	5.91	6.69	4.15	5.64	4.85
6 TRADE	7.61	5.10	7.19	6.97	7.04
7 TRANSPORT	7.81	6.53	4.88	6.80	6.76
8 FINANCE	7.90	5.46	10.52	7.81	7.71
9 SERVICES	4.89	6.31	3.88	4.95	5.27
10 Oil/Gas GDP	3.74	31.27	8.37	6.99	2.71
11 Non-oil/gas GDP	8.03	6.40	5.91	7.02	6.91
12 GDP Total	7.62	7.02	5.91	6.99	6.01

Note: - Western Region covers Jakarta and West Java provinces.

- Central region covers Central Java and Yogyakarta provinces.

- Eastern Region included Madura island.

Source: Calculated from Bappenas: DATA BANK FILES.

Similar patterns of industrial development appeared to have taken place in Java island, in which the majority of manufacturing firms have operated. Industrial concentration in the region are high, leading to uneven distribution of industrial activities. The 1986 Economic Census recorded that 70.29 per cent of industrial firms located in Java island. Moreover, some 53.5 per cent of industrial output in 1985 (large/medium- and small-scale units) were generated in Java island. Further information concerning industrial employment also suggests that 78.2 per cent of manufacturing employment in Indonesia was sited in Java island alone (Hill 1990a:102). Departed from the above account, the development of manufacturing industry

Table 3.2.

**Sectoral Share to Regional Growth
in Java and Indonesia
(Average 1975-1988)**

AVERAGE 1976-1983 (Constant 1975 prices)					
SECTORS	WESTERN REGION	CENTRAL REGION	EASTERN REGION	TOTAL JAVA	TOTAL INDONESIA
(1)	(2)	(3)	(4)	(5)	(6)
1 AGRICULTURE	8.26	19.14	15.38	14.51	17.90
2 MINING	2.65	0.03	1.35	2.14	7.40
3 MANUFACTURING	17.13	14.64	16.58	16.37	14.08
4 UTILITIES	3.12	0.76	1.76	2.17	1.70
5 CONSTRUCTION	10.61	10.95	2.23	8.13	7.70
6 TRADE	14.09	19.34	35.40	20.56	18.36
7 TRANSPORT	7.64	7.00	12.82	7.63	8.80
8 FINANCE	16.96	8.36	5.64	11.46	9.08
9 SERVICES	19.54	19.71	8.84	17.03	14.97
10 Oil/Gas GDP	2.46	0.00	0.00	1.69	7.80
11 Non-oil/gas GDP	97.54	100.00	100.00	98.31	92.20
12 GDP Total	100.00	100.00	100.00	100.00	100.00

(Continued)

AVERAGE 1984-1988 (Constant 1983 prices)					
SECTORS	WESTERN REGION	CENTRAL REGION	EASTERN REGION	TOTAL JAVA	TOTAL INDONESIA
(1)	(7)	(8)	(9)	(10)	(11)
1 AGRICULTURE	9.55	26.14	20.97	15.77	20.98
2 MINING	-0.49	0.84	0.45	0.76	-3.10
3 MANUFACTURING	31.99	28.68	26.72	29.58	30.40
4 UTILITIES	4.49	1.55	0.62	2.77	2.43
5 CONSTRUCTION	6.34	4.47	3.31	4.89	4.09
6 TRADE	22.81	14.60	24.52	21.49	21.24
7 TRANSPORT	9.91	4.27	5.33	7.14	7.27
8 FINANCE	7.36	4.75	8.60	7.67	6.45
9 SERVICES	8.04	14.64	9.47	9.91	10.24
10 Oil/Gas GDP	-0.68	11.47	0.11	2.95	4.14
11 Non-oil/gas GDP	100.68	88.53	99.89	97.05	95.86
12 GDP Total	100.00	100.00	100.00	100.00	100.00

Note : As Table 3.1.

The share was calculated from the absolute increases in each sector
divided by the absolute increases of Total GDP

Source : As Table 3.1.

in Java (especially those producing non-oil/gas) would reflect the bulk of Indonesian manufacturing industries.

In Java, the regional account statistics recorded 13.18 per cent annual increases in manufacturing value added during the periods of 1975-1983 (at 1975 constant prices), little bit higher than the national average. Yet, this sector's value added increased annually at 11.98 per cent (at 1983 constant prices) during the periods of 1983-1988, more slowly than the previous period but still higher than the national growth rate. (see: Table 3.1.)

Meanwhile, the contribution of this sector to overall increases in the economy of Java region, is slightly different to that of in Indonesian case. During the first period (1975-1983) this sector endowed 16.37 per cent to total Java economic growth, slightly higher than the national figure. However, in the second period it only supported annually 29.58 per cent, a little bit lower than the national annual average.

The arguments of declining industrial performance presented above seemed to be the major reasons for lowering share of this sector to contribute to the Javanese growth rate. Besides, in this region, especially in Jabotabek, the structure of the manufacturing industries are highly concentrated in producing consumer goods such as food, beverage and tobacco, and those of producing goods for domestic demands like motor vehicle, chemical products, paper, etc. While in the Outer Islands they are more natural based in nature, such as fertilizer, oil refinery, gas processing, wood processing, etc., which are to a large extent used for exports. In this regards, Tampubolon et.al. (1986) argues:

... a depreciation of the rupiah in terms of non-US dollar currencies does not affect the dollar exports earnings from the oil/lng provinces and 'agricultural' oriented provinces, since most of the export commodities of these provinces are traded for in US dollars, but it can affect [adversely] the export earnings of the 'manufacturing' provinces, which export a considerable part of their exports to the Western Europe and Japan. (p. 6).

As a manufactured-goods producing region, Java were much more affected by such decreasing value of Rupiahs against the non-US dollar currencies.

The question then arise to the extent of spatial distribution of this sector development within the island. The investigation of this patterns will be presented in Section 3.5.

3.3. Agricultural Development

bulk of Indonesian population live in rural areas. The 1980 Population Census recorded 73.8 per cent rural population in that year, while Intercensal Survey 1985 accounted them to 73.8 per cent. They are predominantly engaged in agricultural sector, of which rice farming is a dominant activity. The government policy has intended to support the development of this sector, in order to support economic growth and to sustain industrial growth. Increasing rice production became the priority of the policies, in order to relieve rice imports which amounted to some 628 thousand tons in 1968 and about 955 thousand tons in 1970 (Affandi 1987:23). The policy instruments also aim at augmenting the yields and quality of production in order to meet the needs of foods and raw materials for industries, boost exports, improve

income of farmers, expand employment and business opportunities, and also to support regional development.

As mentioned in the first part of this Chapter, the development of agricultural sector in Indonesia, in Java and Bali to a greater extent, can be characterized as the introduction of green revolution technology. Many have noted the success story of this strategy to increase its production, leading to high economic growth in the country. (Lee 1983; White 1986 and 1990; Affandi 1987; Tjondronegoro 1990). Table 3.1. also shows that agricultural value added in Indonesia grew at 5.31 per cent annually during the periods of 1975-1983 (at constant 1975 prices), contributing 17.90 per cent to absolute growth of the national economy. Meanwhile, those in Java increased at 4.99 per cent annually, resulting in its share to contribute 14.51 per cent to Javanese economic growth.

Moreover, the growth rate of agricultural value added during the period of 1983-1988 appeared to be slightly higher than the first period, that was 5.53 per cent annually at constant 1983 prices. Similar situation was observed in Java where this sector's value added increased at 5.11 per cent annually. These patterns influenced the absolute growth of this sector to contribute 20.98 per cent to the national economic growth, and 15.77 per cent annually to Javanese growth, respectively. Besides, these annual increases allowed Indonesia to become a self-supporting country in terms of food production in 1986, especially regarding to rice production (Affandi 1987:23).

These progresses affected an increase in rice consumption, and its extension to regions where rice has not been the staple food. In view of the efforts to diversify staple food, this situation were considered contrary to the idea. The government policies then were formulated to promote food diversification, to encourage people to use more frequently non-rice carbohydrate such as corn, cassava, etc., and to use animal and vegetable protein from the domestic markets. This policy package was also likely to improve value added of the livestock, as about 11.7 per cent annually during the periods 1987 to 1983, and more than 6 per cent annually during the period 1983 to 1988. The development of this sub-sector seems to be higher in Java, in which its value added annually increased at average 15.7 per cent and more than 7 per cent, respectively, during the same periods.

Before going further to the effect of this pattern in the context of balance development between region and within the region, their effects on the structural transformation of the economy will be presented first. The discussion will limit with the context of the share of each sector in incomes and in employment.

3.4. Structural Transformation

The process of economic development in Indonesia aims at transforming the economy from predominantly traditional agricultural activities into more balanced development between this sector and the rest of the economy, especially manufacturing industry. Increasing value added of agricultural and manufacturing sectors as already investigated, led to the structural transformation in the national economy, as shown in Table 3.3. The share of agricultural sector's value added decreased during the periods, while the share of value added of the combined sectors (manufacturing and mining) increased.

For over all Indonesia, the share of agricultural value added decrease from 28.11 per cent (average 1975-1983) to 23.11 per cent (average 1983-1988). Meanwhile, the share of the other two sectors (mining and manufacturing) increased from 31.30 per cent to 31.24 per cent. The lower share of the last two sectors was due to decreasing share of mining sector (minus 5.28 per cent point), while for the manufacturing sector, the share of its value added to total Gross Domestic Product (GDP) increased 6.72 per cent point. The continuous decline of oil prices during the second periods was the main reason why the mining sector decreased its value added share. Increasing share of non-oil/gas sector (line 11) support this argument. The last category increased its share from 76.71 per cent to 80.96 per cent, while the share of value added share of oil/gas sector (line 10) decreased from 23.29 per cent to 19.04 per cent.

This structural transformation has also taken place in Java. The share of agricultural sector decreased from 29.43 per cent to 22.27 per cent, while manufacturing sector increased its share from 12.30 per cent to 17.28 per cent (increases in 4.02 per cent point). The overall non-oil/gas sector, however, decreased during the same periods. The major reason for this decline was decreasing share of the trade sector, from 24.04 per cent to 20.85 per cent.

Declining share of trade sector in Western and East regions seems to be the ultimate reason. In these two regions indeed, the first and second major seaport of Indonesia are sited, i.e., Jakarta in the West and Surabaya in the East Region. As the national capital city, Jakarta becomes the main port of such goods and services to be imported from and exported to the rest of the worlds. Similarly is Surabaya, the second largest urban centre to Jakarta which used to be the main seaport during the colonial periods. Moreover, Jakarta also play important roles in distributing such goods and services to the western part of Indonesia (Sumatera island in particular). Similarly is Surabaya, which is as the main port of goods distribution from and to Eastern Indonesia.

Table 3.3.

**The Distribution of Sectoral Value Added
in Java and Indonesia
(Average 1975-1988)**

SECTORS	AVERAGE 1975-1983				
	WESTERN REGION	CENTRAL REGION	EASTERN REGION	TOTAL JAVA	TOTAL INDONESIA
(1)	(2)	(3)	(4)	(5)	(6)
1 AGRICULTURE	17.88	41.29	38.62	29.43	28.11
2 MINING	7.77	0.38	0.37	3.87	21.19
3 MANUFACTURING	12.53	9.90	13.71	12.30	9.11
4 UTILITIES	1.15	0.31	0.54	0.78	0.50
5 CONSTRUCTION	5.04	3.63	0.84	3.45	2.90
6 TRADE	26.80	19.77	23.04	24.06	18.10
7 TRANSPORT	6.14	4.40	6.50	5.86	5.33
8 FINANCE	9.54	4.92	3.48	6.67	4.71
9 SERVICES	13.14	15.39	12.90	13.58	10.04
10 Oil/Gas GDP	7.60	0.00	0.00	3.59	23.29
11 Non-Oil/Gas GDP	92.40	100.00	100.00	96.41	76.71
12 GDP Total	100.00	100.00	100.00	100.00	100.00

(Continued)

SECTORS	AVERAGE 1983-1988				
	WESTERN REGION	CENTRAL REGION	EASTERN REGION	TOTAL JAVA	TOTAL INDONESIA
(1)	(7)	(8)	(9)	(10)	(11)
1 AGRICULTURE	13.04	32.48	30.74	22.27	23.11
2 MINING	7.60	0.52	0.41	4.03	15.41
3 MANUFACTURING	18.00	15.70	17.20	17.28	15.83
4 UTILITIES	2.23	0.68	0.87	1.51	1.04
5 CONSTRUCTION	7.30	5.17	4.62	6.08	4.52
6 TRADE	21.44	19.52	20.84	20.85	17.38
7 TRANSPORT	7.81	4.31	6.77	6.76	6.21
8 FINANCE	11.74	5.58	4.88	8.46	6.20
9 SERVICES	10.84	16.04	13.67	12.77	10.30
10 Oil/Gas GDP	7.43	4.31	0.06	4.67	19.04
11 Non-Oil/Gas GDP	92.57	95.69	99.94	95.33	80.96
12 GDP Total	100.00	100.00	100.00	100.00	100.00

Note : As table 3.1.

Source : As Table 3.1.

Again, the adverse effect of such policy instruments as the devaluation of the Rupiah against the US dollar and other foreign currencies on March 1983 and on September 1986; and trade policy introduced in April 1985 and October 1986, can be expected to contribute to this pattern. Even though these policy packages had positive outcomes in reducing the deficit current account of Balance of Payments (Nasution 1990), it was likely that these policy instruments affected adversely the trade sector. During the first three years of REPELITA III

(1984/1985 - 1986/1987), the values of both exports and imports continuously declined.¹¹ Thus, the trade activities during the second period under study were affected adversely, leading to relatively slower growth rate of the value added of the sector in both regions than the previous period.

The structural transformation also took place in relation to employment. Table 3.4. shows this transformation from predominantly agricultural activities in 1970s to more balance between agriculture and non-agriculture. Whereas agricultural employment in 1971 was recorded at 66.3 per cent, it decreased considerably until it reached 54.9 per cent in 1985.

Table 3.4.

**The Structure of Employment in Indonesia
1971 - 1987
(Per Cent)**

Sectors	Population Census 1971	Labour Force Survey 1976	Population Census 1980	Intercensal Survey 1985
(1)	(2)	(3)	(3)	(4)
1. Agriculture etc.	66.3	61.6	55.9	54.9
2. Manufacture	6.8	8.4	9.1	9.3
3. Trade etc.	10.8	14.4	13.0	15.0
4. Transport & Communication	2.4	2.7	2.8	3.1
5. Services	10.3	10.7	13.9	13.3
6. Others	3.4	2.2	5.3	4.3
Per cent	100.0	100.0	100.0	100.0
TOTAL Million	40.34	48.43	52.43	62.46

Note: Sector 1 included Livestock, Fishery and Forestry
Sector 3 included hotel and restaurant
Sector 6 included utilities, construction and unclassified workers
Source: Mananto Sigit (1989): "Transformasi Tenaga Kerja di Indonesia Selama Pelita", in PRISHA, No. 5, Vol.18, Table 1, p. 5.

However, manufacturing industry which has been hoped to contribute to employment transformation has not gave any indication on it. It is shown that in Indonesia as a whole, labour force absorbed in this sector only increased from 6.8 per cent in 1971 to 9.3 per cent in 1985. Meanwhile, among the "non-A" sector, the trade sector (including hotel and restaurant) absorbed 10.8 per cent employment in 1971 and 15.0 per cent in 1985, respectively.

¹¹ The following figures show what was happening in the foreign trade sector during this periods (in Million US\$).

	1984/1985	1985/1986	1986/1987
Export Value	19,901	18,612	13,697
Import Value	14,427	12,552	11,451

Further information suggests that agricultural employments who were transformed into the non-A sector were among the farm labourers (Sigit 1989). It is plausible to say that some of them could have migrated to urban areas. While in 1976 urban active population recorded at 1.6 million, in 1985 they were accounted to 2.9 million (Hasibuan 1990:7B).

The most striking feature in this process is the role of informal sectors, which absorbed the majority of increasing labour supply. Among these sectors, trade and service sectors were dominant. In 1982 for instance, informal sector in the trade sector in urban Indonesia accounted to 43.29 per cent, while those in the service sector amounted to 17.27 per cent.¹² In other words, the formal sector in urban areas has limited impact on increasing rural labour supply. The requirement of the formal sector to absorb employment, such as high education and value skilled, limit its capacity to absorb rural labour migrants who have limited education and skill.

3.5. Spatial Development Patterns

The regional development of the country aims at equalizing the distribution of development and its yields throughout the country, enhancing auto activities and participation of the people in development activities, improving the people's capacity to utilize natural resources and to maintain their preservation, overcoming various urgent problems especially in relatively backward regions, and improving relations between towns and its surroundings¹³.

Departed from the above policy description, interregional and intraregional balance development should take place in the country. The first proposition can be seen from the development patterns across regions, while the second feature can best be viewed from the pattern of development taken place in urban and rural areas.

In relations to the development of manufacturing industries, many have noted the achievement of this strategy to influence high economic growth of the country. However, they tend to concentrate in the island of Java of which historically, politically, culturally and economically the centre of archipelago, and which has better infrastructure and administrative institutions, even before the country's independence. To a lesser extent, the development of industry in outer islands seem to concentrate in few regions in which natural resources, such

12) For more information about informal sector in Indonesia see for instance; BPS: Pekerja Sektor Informal di Indonesia, Biro Pusat Statistik, Jakarta, February 1986.

13) Quoted from: Department of Information Republic of Indonesia; Indonesia 1990. An Official Handbook, p. 68.

as oil and gas is located, like Aceh with its natural gas, Riau and East Kalimantan with their oil and gas in the latter province. In other parts of the country, Kalimantan in particular, also existed such type of wood processing industry as those producing sawmill and plywood.

In Java island itself, the development of industries has been concentrated in few urban centres. Table 3.5. shows that output of large- and medium-scale industries in Indonesia are concentrated in a bi-polar location in Java; Jabotabek and Surabaya and its surrounds. Some 36 per cent of the output of non oil/gas industry in Indonesia was generated in Jabotabek in 1985, and 11.1 per cent output in Surabaya and surrounds. In sum, 70.3 per cent of the output of non oil/gas industry was generated in only 8 locations (Hill 1990:107), in which 5 of them were in Java, i.e. Jakarta and Bandung in the Western region, Surabaya and surrounds as well as Kediri in Eastern Region, and Semarang and their surrounds in the Central region. When the analysis included oil and gas, it is shown that 82.7 per cent of output of large-and medium-scale industry is concentrated in 13 major centres, of which Jabotabek, and Surabaya and surrounds accounted for 22.7 per cent and 6.9 per cent, respectively (ibid).

Table 3.5.

Major Industrial Concentration in Java, 1985
(% age Output)

Regions	Excluding oil and gas	Including oil and gas
(1)	(2)	(3)
WESTERN:		
- Jakarta and surrounds	36.2	22.7
- Bandung and surrounds	6.7	4.2
CENTRAL:		
- Semarang and surrounds	1.9	1.2
- Cilacap	n.a	5.9
EASTERN:		
- Surabaya and surrounds	11.1	6.9
- Kediri	6.7	4.2

Note : The large- and medium-scale only (firms employed \geq 20)
Percentage to respective classification in Indonesia.
Source: Hal Hill (1990a), Table 11, p. 107.

On the aspect of small-scale industry distribution, UNIDO (1987) found that, though they are spread throughout the country, they are more prevalent in some provinces, e.g. Aceh, Central Java, Yogyakarta, Central Kalimantan, North and South Sulawesi (Hill 1990a:29). Further evidence indicates that the Central regions of Java (Central Java and Yogyakarta) have become a heartland of this type of manufacturing industry (Hill 1990a; Tambunan 1991). The 1986 Economic Census also recorded that some 30.44 per cent of the 1985 Indonesia small-

scale industries are located in the Central region, while those in Western and Eastern regions accounted to 26.47 per cent and 20.48 per cent, respectively¹⁴.

In sum, though there was a tendency towards decreasing industrial concentration, Java and some resource-based provinces become a predominant regions. Even though the development of industrial plants in the outer island has considerably decreased the concentration of industry in Java since 1963, especially during the last two decades (Hill 1990a:103), some 53.5 per cent of the output and some 78.2 per cent of employment of the firms employed ≥ 5 workers are sited in Java island. While in the Outer Islands, they were more prevalent in a few resource-based province; namely Aceh, Riau, and East Kalimantan which generated some 32.2 per cent output of total manufacturing industry in 1985 (Hill 1990a).

These activities are in a number of cases located in large urban centres, such as provincial capital cities and the city treated as a "growth poles or centres". Though the strategy of industrialization led to high economic growth of the country, this growth were much enjoyed by urban dwellers (World Bank 1990). Meanwhile, rice production --the main sources of the bulk of the rural poor-- grew slowly during the decade, and coupled with rapid growth of the population, they resulted in increasing the rural poor, at least prior to the 1980s. In other words, the strategy of industrialization alone would result in urban-rural imbalance.

The strategy of agricultural development has also resulted in Indonesian good performance, as it became a self-supporting country in terms of rice production in 1986. However, many have also noted that this growth resulted in relatively stagnant income distribution in rural areas during the 1970s, if not widened the gap between the rich and the poor in rural region. Lee (1983) for instance, argues that in the scarcity of land (in Java particularly), increases in output per hectare could be expected to lead to a decline in the income share of labour (p.243-44). White (1989) further argues that the rural labours (both men and women) have been affected by such technical changes in ground preparation, planting, harvesting and processing. In most places there were replacements of "fingerknife" (*ani-ani*) by the sickle in harvesting, rotary or toothed weeders in place of hand weeding, in other diesel-powered rice hullers in place of hand pounding, in some areas tractors in place of the hand hoe or animal-drawn plough. These situations coupled with shifting the system

¹⁴) Calculated from Biro Pusat Statistik, Hasil Pendaftaran Perusahaan/Usaha, SE'86 Seri AA (angka Tetap).

of labour recruitment, from the traditional open labour market to the more exclusionary practices, have resulted in the uneven distribution of agricultural incomes. During the periods of rapid growth of production (1970s), the share of output received by hired labour decline, proportionately, to the much more rapid growth in farmer's net income from crop production (p.76).

White (ibid) also concludes that only a small but politically important minority of rural population who accrued the main benefits of intensification (p. 74). In the similar direction, Tjondronegoro (1990) says that the Green Revolution was much more in favour of large farmers than to those of the small ones. The large farmers were more able and willing to involve in the BIMAS and INMAS programmes by using such modern technology as HYV, fertilizer, pesticide and tractors due to the ability of their funds. Meanwhile, for those of the small farmers this case was unlikely to be so. They were afraid of taking risk by investing their money to involve in the programmes, and they also require more cash for their consumption, while the rice floor-price were not ensured at the time of first implementation of this policy.(p:6).

In sum, the growth-oriented development strategy adopted in Indonesia was unlikely to balance the development gain and to reduce income inequality and mass poverty, especially during the 1970s and the beginning of the 1980s. In this regards, Harry T. Oshima argues:

... the introduction of economic growth is likely to widen the distribution. If modernization begin in the urban areas with modern industries (e.g., for processing and transporting traditional exports), income inequality may widen because the share of mercantile groups may increase faster than the incomes of others. In the rural areas, the increase in the demand for agricultural products for processing and exports may benefit the farm in upper income brackets. Thus only the higher income groups in both rural and urban areas will be favourably affected by initial modernizations.

Or modernization may begin in the rural areas. New agricultural technologies such as higher-yielding and new varieties of cereals, plantation and industrial crops may lead to higher income for those able and willing to adopt them. At the outset, only a small group of farmers will be adopting the new varieties, i.e., those better situated towards the markets and with financial and physical resource required by the technologies, as well as with the capabilities and information to take advantage of government services and inputs which are likely to be at the outset severely limited in quantity. They are likely to be the farmers with the large income, and not the small, subsistence peasants remote from the markets and government agencies. The share of the upper groups will rise but not those of others. (1982:102).

Did this statement hold true for the Indonesian case, especially in Java? This study will try to investigate the patterns of personal income distribution in Indonesia, with special attention to Java during the 1980s. Before going further to this subject, Table 3.6. shows the factor share distribution of development gains in Indonesia as a whole. It was likely that Oshima's statement was holding true in Indonesia, at least until the end of the 1970s, when such modernization were implemented and high economic growth was taken place. Both peasant families (those who owned ≤ 1 Ha) and farm labourers decreased their income share, from some 28.58 per cent in 1975 to some 26.83 per cent in 1980. This information was in

Table 3.6.
Household Income Distribution Patterns in Indonesia
1975 - 1985

Household group	1975	1980	1985
(1)	(2)	(3)	(4)
Agriculture			
1. Employee	6.30	5.21	4.08
2. Operator, landowner ≤ 0.500 Ha	12.95	13.74	13.16
3. Operator, landowner 0.501 - 1 Ha	9.33	7.88	6.54
4. Operator, landowner > 1 Ha	15.92	14.56	12.92
Non-agriculture, Rural Areas:			
5. Lower Level: Non-agricultural self-employed, Clerical, Retail sales, personal service and transport & manual workers	11.85	14.42	9.85
6. Non-labour force and unclassified households	2.61	2.80	3.76
7. Higher level: Non-agricultural self-employed, Clerical and sales, services, manager, supervisors, technicians, teachers and non civilians	6.57	6.32	10.02
Non-agriculture, in Urban Areas:			
8. Lower Level: Non-agricultural self-employed, Clerical, Retail sales, personal service and transport & manual workers	14.63	16.67	16.46
9. Non-labour force and unclassified households	2.60	3.66	5.26
10. Higher level: Non-agricultural self-employed, Clerical and sales, services, manager, supervisors, technicians, teachers and non civilians	17.24	14.74	17.94
TOTAL	100.00	100.00	100.00

Source: Slamet Sutomo and Nina Suri Sulistiani; "Distribusi Pendapatan dan Pola Pengeluaran Rumah tangga: Pengamatan Berdasarkan SNSE Indonesia 1975 dan 1980", in *Ekonomi dan Keuangan Indonesia*, Vol. 35, No.2, 1987, Table 7, p. 231

For 1985 figures are calculated from: BPS, "Social Accounting Matrix Indonesia 1985", Paper presented in the Seminar on Integrated Accounts of Indonesia, Jakarta March 6, 1991, Table 3.2.4., p. 47.

agreement with what World Bank (1990) found, i.e., the poorest people in Indonesia was among the farmers who owned land (0.1 - 0.5) Ha.

Among the households in this group, the farmer households who owned land ≤ 1 Ha decreased their income share from some 22.28 per cent in 1975 to 21.62 per cent in 1980. The 1985 Social Accounting Matrix (SAM) also indicates decreasing income share of this group, i.e., to become 19.70 per cent.

Similarly was for those of the farm labourers, whose income share fell from 6.30 per cent in 1975 to 4.08 in 1985.

The unexpected figures are for the farm households who owned land more than 1 ha. Their share decreased considerably during 10 years, from 15.92 per cent in 1975 to 12.92 per

cent in 1985. Increases in income share of non-farm¹⁵ higher income level in both rural and urban areas (line 7 and 10) would be a reason for decreasing share of the whole farm households. The share of higher income level in rural areas increased from 6.57 per cent in 1975 to 10.02 per cent in 1985, though it decreased slightly in 1980 (6.32 per cent). Similar patterns took place for those in urban areas, whose income share increased from 17.24 per cent to 17.94 per cent. The last figure was much higher than that in 1980 (14.74%).

Another interesting feature is the fact that the income shares of non-labour and unclassified households have increased during the periods. The income share of those in rural areas increased from 2.61 per cent, 2.80 per cent and 3.76 per cent during the periods, respectively. While the increases income share of those in urban areas were faster, as it inclined from 2.60 per cent (1975) to 3.66 per cent (1980) and 5.26 per cent (1985). Increasing share of transfer from government, corporate and household sectors to these households can be expected to influence this pattern.

The question then arises to the extent of the patterns of income distribution among individuals. Chapter Four will deal with this subject. While the above pattern was merely based on the "functional or factor share" distribution of income, Chapter Four will concentrate in the "personal or size" distribution of income.

15) Included in the non-farm population are people who work outside agriculture. Therefore, those engaged in agricultural labours are not included in this category.

Chapter F O U R

THE PATTERNS OF INCOME DISTRIBUTION

4.1. Introduction

This chapter deals with the analysis of personal income distribution in Indonesia, with special attention to the patterns in Java island. The first part of this chapter concerns with the problems commonly faced by practitioners, in choosing measures to provide reasonable indicator of the pattern of personal income distribution. This part will be followed by analysis of income distribution patterns based on the measurements discussed in Chapter Two.

Before arriving at these two subjects, it is important to note the concepts of income and of area in which the study is concerned. All of the measures used in this research paper are based on the average per capita income. It was individuals not households who suffer from hunger and poverty. So, the use of per capita incomes would give more information about the patterns of income distribution rather than those of the household income distribution.

To arrive at this figure, first, all incomes of the household members were combined. Secondly, total household incomes were adjusted by level of household consumptions. Thirdly, these adjusted incomes were divided by the household size. Based on the adjusted average income, all households were classified into 11 income classes according to the average per capita income. Besides, all households were classified into 11 categories, i.e. 10 sectors of one digit ISIC plus Transfer Incomes, according to the main income sources of the households. This was done based on the largest income sources of the household members.

Lastly is the concepts of urban and rural areas. Central Bureau of Statistics¹⁶ classified urban village (*desa urban*) based on three major indicators. "Desa" is classified as Urban if it has:

1. population density $\geq 5,000$ people per square kilometre.
2. ≤ 25 per cent of farm households.
3. certain score of numbers of "urban facilities", such as education, health centre (Hospital), etc.
4. certain score of the average distance between the village and the "urban facilities".

16) For more information about Urban and Rural Division, see: Hananto Sigit and Agus Sutanto (1983): "Desa dan Penduduk Perkotaan Menurut Definisi Perkotaan Sensus Penduduk 1971 dan 1980".

Based on this definition, there would be a number of urban households who derived incomes from farm activities, both within urban areas and rural surrounding areas. Besides, rural households also derived incomes from non-farm activities in both urban and rural areas. The outcomes of the measurements, therefore, should be interpreted as the distribution of average income among individuals who live in the respective areas without paying any attention to the place where they derived their income.

4.2. Problems of Measurements

In order to analyze the size or personal distribution of income, one usually faces the problems to provide a rationale for choosing one measure, or a class of them, rather than another. A huge number of measures in the study of personal income distribution, in which each has its own advantages and disadvantages, gives different indicators of the patterns of income distribution in a single country or region. In a number of cases, the studies of personal income distribution use an index separately, such as Gini Coefficient, Kuznets Total Disparity Measures (TDM), Theil Index, Atkinson Index, etc., while others employ a family of indices.

The importance of choosing the measure is the fact that many factors contribute to the pattern of income distribution in a single country or region. As already discussed in the first and second chapters, three broad factors affect the overall size distribution of income: the differences in average incomes within a sector, the importance of the sector as measured by the share of population involved in each sector, and the differences among average incomes between sectoral activities. These situations influence the needs for proposing such measure which explains the effects of the above factors.

Furthermore, the differences in prices paid by the population who live in urban and rural areas also affect income distribution measures in the respective areas. In other words, inequality indices using current price data will result in different outcomes to those of employing constant prices. In Indonesian case, this price effect has been proved by Asra (1989)¹⁷. He confirmed that different prices paid by each decile of population in urban and rural areas resulted in different Gini and TDM indices. He also found that price adjustment resulted in different trend of inequality indices, thus the conclusion of income distribution patterns during the period under study.

¹⁷ Asra used household expenditure data to measure the Gini and TDM indices in those years. For more explanation about the uses of current and constant prices, see his article in Bulletin of Indonesian Economic Studies, Vol.25, No. 2, August 1989.

In this research paper the study only employs the measure of inequality indices based on the current price data, though the study will be more interesting if price adjustment are also employed. It was proved that the differences in the prices paid by individuals in the respective areas appeared to have contributed to the patterns of income distribution within an area of the region. There are two major reasons why the study use current price data. Among other things, no price data are available to adjust the average income of each income class (or each decile of population) within a single sector in both urban and rural areas. This limitation is the subject of caution in interpreting the outcomes. Secondly, by using current price data, the study will reduce the complexity of the outcome interpretation. If the study also employs price adjustment, the factor contributed to such differences in the outcomes will be unclear, whether because of the price adjustment or due to the sectoral allowance.

As discussed in Chapter Two, the study will employ two different methods of measurements: the "weighted indices", reflecting the effects of intrasectoral and intersectoral inequality; and the "direct measure" or "unweighed indices", i.e., the distribution of average income among income classes for the whole population in the respective areas. Table 4.1. indicates that the weighted indices appeared to have differed from those of the unweighed indices. Comparing these two different measures, the table shows that the weighted indices (both Gini and TDM) were lower than those of the unweighed indices, though the absolute differences between the two measures are very small. The comparison has also to be done very carefully, as they cannot be compared directly.

Table 4.1.

**Different Types of Inequality Measures
in Java, 1987
(Intra- and inter-sectoral Effect)**

Area	Index	Unweighed	Weighted Index	
		Index	Based on 2 sectors	Based on 11 Sectors
(1)	(2)	(3)	(4)	(5)
Urban +				
Rural	Gini Coeff.	0.3848	0.3554	0.3457
	TDM Index	0.5535	0.5110	0.5006
Urban	Gini Coeff.	0.3842	0.3799	0.3658
	TDM Index	0.5642	0.5505	0.5284
Rural	Gini Coeff.	0.3221	0.3087	0.3042
	TDM Index	0.4609	0.4355	0.4343

Note: - 11 sectors of the one digit ISIC (10), plus Transfer Income
- 2 Sectors of the "A" and "Non-A" Sectors

Source: Calculated from SUSENAS data, Central Bureau of Statistics, Jakarta, (unpublished).

The fact that weighted indices are lower than the direct measures can be illustrated by the following example. If a group of people moved from one sector to another sector carrying the same level of income, it could result in different value of weighted indices, but the direct measures. Partly, it is due to the differences in the weights, as explained by the change in the share of population in the respective sectors. It also can be a result of the change in intrasectoral inequality measures, because total population in the income class within the sector of origin decreased, while those in the same income class within the second sector the number of people increased. Even if the measure of inequality within the sector remained the same, any change in income differentials among sectors as shown by the weights could affect the weighted indices. Meanwhile, the outcomes of the direct measurement will not change as the population and the average income in each income class did not change. This indicates that the study of income distribution should consider the sectoral inequality.

Yet, the figures in the last two columns suggest that the more aggregated the economy the higher the inequality measure. The outcomes of the two-sector model appeared to have been higher than those of the 11-sector model. In other words, the measures of inequality indices should be calculated as little aggregated as possible, in order to introduce the various factors contributing to income distribution.

Table 4.2. also shows the effect of these factors to contribute to income distribution within the area of each region. The outcomes of weighted indices suggest that the patterns of inequality in each area of the regions appeared to be less unequal than using the direct method of calculation. By comparing the outcomes of each method of calculations, it appears that unweighted indices tend to be lower than those of the direct method of calculation.

However, the differences between the weighted and unweighted indices appeared to be small. In order to see whether these differences are resulted from the introduction of intra- and inter-sectoral inequality, it is necessary to compare the outcomes within each method of calculations. In a number of cases, the two methods cannot be compare directly. Take an example of the case of the two-sector model. In the extreme condition when intrasectoral inequality in each sector is the same, either equally or unequally distributed, the weighted indices might be either zero or one. In this case, the weights (or intersectoral inequality) do not affect the results of the calculations, as the weights are multiplied by the same level of intrasectoral inequality indices while the sum of the weights is equal to one. On the other hand, the outcomes of the direct method of calculation might be less than one when incomes in each sector are unequally distributed, or more than zero when there exists egalitarian distribution within each sector. If the population in the two sectors belong to

different income classes, the direct measures would indicate the existing income inequality in the area, which are not equal the pattern of income distribution within each sector. They could be close to zero or to one. However, this case would never be taking place in any country or region within a country. So, in any case by weighting income inequality within a sector with the relative differences in incomes among sectors would shape different patterns of income distribution within the area.

Table 4.2.

**Intraregional Inequality Indices in
Indonesia, Java and Outer Island
(Weighted and Unweighted)
1987**

Region and Indices		Urban + Rural Areas	Urban Areas	Rural Areas	
(1)		(2)	(3)	(4)	
Indonesia	Unweighted	Gini	0.3704	0.3711	0.3230
		TDM	0.5286	0.5382	0.4618
	Weighted	Gini	0.3313	0.3577	0.3071
		TDM	0.4788	0.5147	0.4401
Java	Unweighted	Gini	0.3848	0.3842	0.3221
		TDM	0.5535	0.5642	0.4609
	Weighted	Gini	0.3457	0.3658	0.3042
		TDM	0.5006	0.5284	0.4343
Outer Islands	Unweighted	Gini	0.3471	0.3443	0.3193
		TDM	0.4907	0.4947	0.4454
	Weighted	Gini	0.3150	0.3455	0.3010
		TDM	0.5430	0.4779	0.4330

Note : The weighted indices were calculated by weighting intrasectoral based on 10 sectors of one digit ISIC, plus Transfer Incomes.
Source: Calculated from SUSENAS data, Central Bureau of Statistics, Jakarta, (unpublished).

By comparing the indices in urban and rural areas of the respective regions, it appears that the weighted urban Gini index over the weighted rural Gini index tend to be higher than the comparison between direct measures¹⁸. Take an example of the comparison between the Gini index in rural areas and that in urban areas of Java. It appears that the direct Gini

¹⁸ To show the differences between the two methods of calculations, the indices within one method of calculation (e.g., unweighted Gini index) in urban are compared with that in rural areas. The comparison has been done by dividing this index in urban areas with the same index in rural areas. The same calculation is made in the case of the direct measure, and compare all the results. If the result is different, it indicates the differences in the change weighted method of measurements, as it means that the change in each area is not at the same degree. The outcome might be small, because the values that was compared also small.

index in urban Java is 1.19 as high as that in rural areas. Yet, the comparison between Gini indices derived from weighted measures shows slightly higher than that of the direct measures, i.e. 1.20. On the contrary are the case of the TDM indices. It found that the weighted TDM index in urban Java is 1.21 as high as that in rural Java, while the TDM index of direct

Table 4.3.

**Intraregional Inequality Indices in Java
(Weighed and Unweighed)
by Region
1981 - 1987**

Region	Weighted Unweighed	Year	Urban + Rural		Urban		Rural	
			Gini	TDM	Gini	TDM	Gini	TDM
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Western Region:	- Unweighed Index	1981	0.4047	0.5872	0.4057	0.5787	0.3421	0.4711
		1987	0.3908	0.5671	0.3791	0.5392	0.3791	0.5392
	- Weighted Index	1981	0.3878	0.5604	0.4040	0.5763	0.3389	0.4828
		1987	0.3630	0.5269	0.3724	0.5338	0.3916	0.5651
Central Region:	- Unweighed Index	1981	0.4108	0.5914	0.3831	0.5560	0.3975	0.5864
		1987	0.3419	0.4855	0.3499	0.5068	0.3499	0.5068
	- Weighted Index	1981	0.3948	0.5771	0.3796	0.5507	0.3903	0.5669
		1987	0.3207	0.4592	0.3453	0.4967	0.3594	0.5135
Eastern Region:	- Unweighed Index	1981	0.4550	0.6511	0.4163	0.5998	0.4208	0.6090
		1987	0.3806	0.5419	0.3789	0.5482	0.3789	0.5482
	- Weighted Index	1981	0.4395	0.6403	0.4096	0.5932	0.4370	0.6321
		1987	0.3553	0.5129	0.3749	0.5452	0.4014	0.5255

Note : Unweighed Index indicates the measure of indices without sectoral allowance
Weighted index indicates intersectoral inequality

measure is 1.22 as high as that in rural Java. These outcomes suggest that there is no general pattern in differences between the weighted and unweighted measures. However, the differences between the relative value of urban-rural comparison of the weighted indices from that of the unweighted ones, indicates different degree of the changes of indices in rural areas compare to that in urban areas.

However, when the analysis moved to the smaller region, it appears that the two methods of measurements resulted in different conclusion about the patterns of income distribution. By employing unweighted method of calculations, it shows that income inequality measures in all areas within the region in Java give different levels of income inequality compare to those of unweighted ones, especially in rural areas (See Table 4.3.). In rural areas of all regions in Java, for instance, all the two-sector weighted indices in the respective areas in 1987 appeared to have been higher than the direct measures. The same situation have taken place in 1981 where all weighted indices in rural areas of the Eastern Region and the TDM index in Western Region were higher than those of employing direct method of calculation.

Departed from the above accounts, the conclusion that can be drawn is the fact that the introduction of sectoral inequality affects the patterns of personal income distribution in both urban and rural areas within a single region. As will be seen in Section 4.3., intrasectoral income inequality vary from region to region, even within the region as they vary from area to area. Besides, the importance of the sectors in each areas of the respective regions as indicated by the share of population in each sector, and the relative differences in average income among sectors, all influenced the pattern of income distribution in the respective areas within the region.

This conclusion was supported by the differences between two-sector model and 11-sector model. The fact that income inequality measures based on two-sector model appeared to have been higher than those of employing 11-sector model, indicated the existing income variation within the Non-A sector. In other words within the Non-A sector existed intersectoral inequality. Moreover, it was indicated that the changes of indices resulted from weighing intrasectoral inequality in which the weights are intersectoral income differentials, issued different conclusion of the pattern of income distribution in each area within the regions. Therefore, the comparison between areas within and between regions should have employed the weighed method of measurements so as to give more precise pictures about the patterns of income distribution in the respective areas of the regions.

4.3. Urban-Rural Income Differentials

As a rule, urban average incomes is generally higher than the average rural incomes. Table 4.4. shows that average urban income in Java was recorded at Rp. 39,491 per capita per month in 1987, while that in rural areas was accounted to Rp. 20,506. In relative terms, the average urban income was 1.92 times the average rural income. This pattern also took place in the Outer Islands, though it was smaller than that in Java. The average urban incomes in this region was 1.69 as high as the average rural income. These situations influenced the average urban income in Indonesia as a whole to be 1.82 as high as the average rural incomes.

The fact that the higher figure occurred in Java island indicates the more divergence of the development pattern in the region than in the Outer Islands. The differences between average urban income and average rural income in Western Region appeared to have contributed to this patterns. In this region, the average urban income was 1.97 times average rural incomes.

Table 4.4. also shows increasing urban-rural imbalance in the Western Region. This region is characterized as the most industrialized region, with high concentration of manufacturing activities in a few urban centres, Jabotabek, and Bandung (the West Java provincial capital city). In a number of cases, industrial zones in Indonesia has been operated as an enclave that had little downstream linkages and processing little local raw materials. Manufacturing activities in these zones tend to employ little labours but capitals (Hilhorst 1989; Hill 1990a). The fact that Central Region had the smallest figure of urban-rural income differentials, could have explained this situation. In terms of manufacturing activities, this region is characterized as the least concentrated region within the island of Java, and even compare to some regions in the Outer Island¹⁹.

Table 4.4.

**Urban-Rural Income Differentials
in Indonesia, 1981-1987
(Monthly Per Capita Income, Rp.)**

Regions	Urban	Rural	Urban+ Rural	Urban income Over Rural Income
(1)	(2)	(3)	(4)	(5)
-Indonesia 1987	39,346	21,625	26,306	1.8195
-Total Java 1981	20,221	11,094	13,436	1.8227
1987	39,493	20,506	26,341	1.9259
-Western 1981	22,533	12,081	15,864	1.8652
1987	44,808	22,742	31,749	1.9703
-Central 1981	16,503	10,326	10,326	1.5982
1987	30,339	18,561	21,574	1.6345
-Eastern 1981	18,701	10,921	12,449	1.7123
1987	37,616	20,184	24,234	1.8637
-Outer Islands 1987	38,997	23,103	26,252	1.6880

Source: Calculated from SUSENAS data, Central Bureau
of Statistics, Jakarta (Unpublished).

However, this conclusion might be misleading as it did not take into account the differences in the average incomes among individuals or among groups of population. Later, it will be seen that inequality in income distributions in rural areas is less unequal than that in urban areas. Besides, the differences in prices paid by individuals in each area also differ. Asra (1989), for instance, found that urban price index in Java was higher than that in rural areas. On the contrary, price in urban areas of the Outer Island was lower than that in rural areas. If the study considered the differences in unit prices in each area, the conclusion would have differed from the present conclusion.

¹⁹ For more explanation about industrial concentration refers to Chapter Three, Hill (1990a), and Jones (1984).

4.4. Intrasectoral and Intraregional Income Inequality

The size of enterprises and such socio-economic conditions as the demand patterns, the ability of firms to respond to the changes in government policy, etc., could be expected to contribute to the patterns of intrasectoral income distribution. As shown in Table 4.5. and ANNEX IV.1A - IV.2D, the patterns of income distribution vary across sectoral activities. The differences among labour engaged in each sector (their sex, ages, education, etc.) will affect different rate of returns among income classes within a sector. The opportunities also vary across different size of firms, even within a single sector. This would also result in the divergence of income within a sector, as incomes accrued to the population engaged in each size of the firms also differ within a sector.

Table 4.5.

Intra-sectoral inequality in Indonesia
(Gini Coefficient)
(Based on Monthly Per Capita Income)
1978 - 1987

(Urban + Rural)			
Main Household Income Sources	1978	1982	1987
(1)	(2)	(3)	(4)
1. Agriculture 1)	0.5018	0.4419 (-)	0.2803 (-)
2. Mining and Quarrying	0.3893	0.4658 (+)	0.3876 (-)
3. Manufacturing Industry	0.4197	0.4214 (+)	0.3462 (-)
4. Electricity, Gas and Water Supply	0.4297	0.3662 (-)	0.2552 (-)
5. Constructions	0.3851	0.3656 (-)	0.3453 (-)
6. Trades, Hotels and Restaurant	0.4411	0.4033 (-)	0.3796 (-)
7. Transport, Storage and Communication	0.3851	0.3652 (-)	0.3437 (-)
8. Financing, Insurance, Real estate and Service	0.3861	0.3981 (+)	0.3990 (+)
9. Community, Social and Personal Services	0.4122	0.3650 (-)	0.3488 (-)
10. Others	n.a.	n.a.	0.4276
11. Transfers	n.a.	n.a.	0.3624

Note : 1) Including Livestock, Forestry and Fishery
(-) indicates decreasing value from the previous periods
(+) indicates increasing value from the previous periods

Sources: 1978 and 1982: BPS; Tingkat dan Perkembangan Distribusi Pendapatan Rumah tangga 1978-1984, BPS, Jakarta 1987.

1987: Own calculation based on the SUSENAS data, BPS, Jakarta (unpublished).

In sum, many factors contribute to shape income distribution within a sector. In Indonesia as a whole (Urban+Rural), for instance, intrasectoral inequality indices during the periods 1978-1987 tended to decrease, except the for Financial sector (line 8 in Table 4.5.).

The more interesting features are the patterns of income distribution in 1982. Income inequalities in three sectors, i.e., Mining and Quarrying, Manufacturing Industry and Financial sectors appeared to have increased from those in the previous periods. The effect of Devaluation in 1978 could be expected as a major reason to contribute to the increase in manufacturing sector inequality. It was argued that this policy instrument would affect the more industrialized region, than the less industrialized one (see Chapter Three). Moreover, it was argued that the devaluation of the currency of November 15, 1978 was in favour of highly capital intensive industries, which among them were the joint venture companies who had already experienced in exports in the previous years (Tjiptoherijanto eds., 1983:227-29; Mynt 1984). This indicates the differences in each firm's ability to take up the opportunities. The effects of world recession in the beginning of 1980s, and the continuous declines of oil prices leading to the fall of government revenues has also contributed to the patterns of income inequality within this sector. The large enterprises could be able to manage this situation, but those of the other firms. In sum people who engaged in the different firms also derived different average incomes.

Decreasing oil prices also could influence the increase in inequality of income within the mining and quarrying sector, though the effects could be indirectly. Due to decreasing government revenue from oil and gas sector, the government subsidy of domestic oil price decreased during that periods. Besides, the rescheduling of government projects have also implemented in that periods (Tjiptoherijanto, eds. 1983), which might reduce incomes of the lower income classes who engaged in the quarrying activities. Thus, these conditions resulted in the more unequal distribution of income within the sector.

For the last sector, financial sector, the reasons can be expected from all of the above reasons. Oil price decline reduced the government revenues, hence the government saving. Coupled with the rescheduling government projects influencing the flow of fund from the government, it would contribute to the decline of financial activities. Lastly is the effect of devaluation, which reduced the purchasing power of fixed income earners. The patterns of household as well as corporation and government savings would affect adversely the financial sector, especially for those of the small banks, and other financial institutions, which faced problems in the existence of imperfect market competition. The fast growing Village Cooperatives (KUD) in that periods could also be expected to contribute to the patterns of income inequality within this sector. In general, the wage bill in these activities are lower than those of the bank, insurance company, and other financial activities. The disparity of average incomes among individuals engaged in the this sector, therefore, influenced the increases in

income inequality measure within the financial sector.

This can be seen by further imbalance income distribution among individuals engaged in the sector as recorded in 1987. During the last periods, the government policy instrument such as devaluation in 1983 and 1986, the banking system deregulation in 1983, the introduction of new tax regulation, and rescheduling of government projects, etc., may affect distributional mechanisms within the financial sector. These policy instruments seemed to contribute to the patterns of income inequality within this sectors, as in a number of cases the private and leading bank give higher salaries to their employee than those of the small and local banks. The effect of banking deregulation was the rise of competition among banks, which might effect adversely the small banks and cooperatives in the regions remote from the national capital city. The spread of private bank offices throughout the country would be in favour of the leading banks, due to the existing imperfect market competition. Such monopolistic competition cannot be handled by the weak institutions existing in the regions (Kompas, the Indonesian Newspaper, April,7 1990). In a number of cases, the private firms pay their employees more than those of the state enterprises. Thus, the spread of the private banks into more broad regions affected the inequality in income distribution.

The patterns of inequality in other sectors, however, decreased during the periods under study, indicating the positive impacts of changing priority in the **Trilogy of Development Plan**. In 1979 and 1980 indeed, the government of Indonesia introduced the policy instrument to improve the activities of small and informal business. The policies were included in the Presidential Instructions (Keppres) No.14 (1979) and No. 14a.(1980). These two policy instruments were expected to reduce the monopolistic competition between those of the large firms and the small ones, and to give more chance to the small and informal business to make use the opportunities.

These patterns, however, were not in the case of every region within the Java island, especially in urban areas. As shown in ANNEX IV.2A - IV.2D, the trends of inequality measures in the "A" sector in all urban areas of Java increased during the period 1981-1987. The roles of the non-farm activities could be expected to affect the distributional patterns in the "A" sector. Many studies indicated that the members of farm households derived incomes from other non-farm activities. The possibility of getting these jobs are much in favour of the large landowner farmers, as they are more able to finance their members to wait for the jobs in the non-farm activities (see: White 1986; Manning 1987). These findings were in agreement with what has been discussed in Section 4.2., that weighted income inequality in urban Java tend to be higher than urban areas of the Outer Islands.

The patterns of intrasectoral inequality in both urban and rural areas in turn affect the patterns of intraregional inequality, because they reinforce the pattern of income distribution within the respective areas (urban and rural). Table 4.6. shows the indicators of income distribution trends, within both urban and rural areas. The figures in the last column also indicate intersectoral inequality, as they were derived by weighting intrasectoral inequality with intersectoral income differentials.

Table 4.6.

**Trend of Intraregional Income Inequality Indices
in Indonesia
(Gini Coefficients)
(based on monthly per capita income)
(1978 - 1987)**

Region	Unweighed Gini Index			Weighted
	1978	1982	1987	Gini 1987
(1)	(2)	(3)	(4)	(5)
Urban + Rural				
Indonesia	0.4738	0.4448 (-)	0.3704 (-)	0.3313 (-)
Java	0.4811	0.4320 (-)	0.3848 (-)	0.3457 (-)
		(0.4105)(-)		
Outer Island	0.4196	0.4661 (+)	0.3471 (-)	0.3150 (-)
Urban				
Indonesia	0.4075	0.3799 (-)	0.3711 (-)	0.3577 (-)
Java	0.4409	0.3833 (-)	0.3842 (+)	0.3658 (-)
		(0.4046)(-)		
Outer Island	0.3440	0.3720 (+)	0.3443 (-)	0.3345 (-)
Rural				
Indonesia	0.4764	0.4353 (-)	0.3230 (-)	0.3071 (-)
Java	0.4586	0.4114 (-)	0.3221 (-)	0.3042 (-)
		(0.5632)(+)		
Outer Island	0.4351	0.4602 (+)	0.3193 (-)	0.3010 (-)

Note: (-) indicates decreasing value from the previous periods
(+) indicates increasing value from the previous periods
Figures within brackets are weighted Gini (two sector) in 1981.

Source: 1978 and 1982: BPS; Tingkat dan Perkembangan
Distribusi Pendapatan 1978 - 1984, BPS,
Jakarta 1987

1987: Own calculation based on SUSENAS data,
BPS, Jakarta (Unpublished)

In Java as a whole, the size distribution of income declined considerably from 0.4811 in 1978 to 0.4320 (1982) and to 0.3457 in 1987. The same patterns was held true for rural areas of Java. The most striking feature is the trends of income inequality in urban Java. It appears that during the first period the value of Gini index decreased from 0.4409 (1978) to 0.3833 (1982), but increased thereafter to become 0.3842 in 1987.

This patterns was not held true when the analysis based on the two-sector weighted Gini. It was found that income inequality in rural Java increased during the first periods (to become 0.5632 in 1981) and decline thereafter. Meanwhile, income inequality in urban Java

decreased during the periods 1978-1987. Again, it indicates that a weighted index gives different a picture of income distribution patterns within a country or a region.

The fact that income distribution patterns in rural areas of Java increased, while that in urban Java increased during the first periods is in agreement with Asra's (1989) study with current price data. During the same period, however, he estimated that income inequality in Java as a whole increased, while the present study has shown decreasing income inequality. Departed from these patterns, it appears that weighted measures give more precise indicators about income distribution patterns in the region. Further investigations suggest that income inequality in all areas of Java decreased during the second periods, while the unweighted Gini index show increasing income inequality in urban areas of Java.

Different patterns of income inequality appeared to have occurred in all areas of the Outer Islands. Income distribution in each area increased during the first period, and decreased during the second periods (1982-1987). In a number of cases, the development of the Outer Island lags behind that of the island of Java. In the late 1970s and the beginning of 1980s indeed, the Outer Islands' economy started to become more diversified, leading to more unequal distribution of income. The exploitations of natural resources in the Outer Islands, such as oil and gas, were taking place during the second half of the 1970s. These activities were concentrated in a few urban centres, leading to more concentration of the economic activities in urban areas of Outer Island. In most cases, these exploitations were in favour of a few urban dwellers, as seen in the cross country studies for the resource rich country like Indonesia. (see: Adelman and Morris 1973, and Cromwell 1977). Such resettlement programmes (Transmigration) would also affect the diversity of rural economy in the Outer Islands, hence the divergence between incomes of the indigenous people and those of the migrants.

The same case in the late 1970s was found in Java by Yoneda (1985). In this region, income inequality in both urban and rural areas increased from 1976 and 1978²⁰. At that time, the Indonesian economy was in the early stage of her development process, after the rehabilitation of the economy during the previous periods. At the same time, the process of industrialization in Indonesia was immature, leading to concentration of economic activities in a few urban centres, especially in Java island. This could be expected to influence unbalanced development, especially within urban areas. He argued that highly protected industrial structure in that periods 'increased the inequality in personal income distribution

20) His analysis was based on household expenditure data.

even though it widened the opportunity of employment' (ibid:422). Proportionate gains of increasing returns to both labour and capital seemed to be much in favour of the employers, leading to the more skew distribution of income. His conclusion was called for the measure of manufacturing inequality that appeared to during the period, contrary to the rest of the economy (ibid:419-20). Similar patterns could be in the case of the Outer Islands during the first periods under study (1978-1982).

Thus, the evidence is in agreement with the cross country studies as found by many authors. More equal distribution of income is being a characteristic of both underdeveloped and more developed countries (Adelman 1976). Among these countries (especially those of the LDCs), more equal distributions of incomes have occurred in the lower income countries, then become higher in that of the middle income, and again lower in the upper income countries. These patterns led to the conclusion on the existing inverted-U shape of income distribution patterns during the process of economic development.

The conclusion that can be drawn from the above patterns is that, income inequality in all areas in Indonesia have decreased during the periods under study. The introduction of "eight paths" to equitable distribution of development gains since 1979 have contributed to increase the incomes of the majority of population. This progress, however, seemed to happen just after long periods of the policy implementation. Besides, income inequality within urban areas was still higher than that in rural areas, reflecting unbalanced distribution of development gains within the area.

This conclusion, however, cannot be held true in the case of intraregional inequality within Java regions. As can be seen in Table 4.3. income inequality in rural areas of Western Region increased during the periods 1981 to 1987. In rural areas of Western Java, incomes in both sectors (A and Non-A) appeared to have increased during the periods as indicated by both Gini Index and TDM index. The Gini Index in this area increased from 0.3389 (1981) to 0.3916 (1987). The same pattern appeared to have occurred when the analysis uses the TDM index. This index increased from 0.4828 in 1981 to 0.5651 in 1987.

However, as the proportions of population in the area was small relative to Java population in those years, the overall indices in all areas, including rural areas, of Java decreased during the periods. Total population in rural areas of Western Region were recorded at 23,177,112 compared to 70,195,851 in rural areas of Java as a whole (1987)²¹. Besides, the

21) These figures were based on the SUSENAS data used in this study. The figures might not the same as other sources as due to differences in coverage and the period of the survey.

patterns of income inequality in other regions declined during the periods.

Moreover, the average incomes in the rural areas of Western Java were higher than those in rural areas of other regions. They increased from Rp. 12,081 in 1981 to Rp. 22,742 in 1987 (see Table 4.4.). These three factors resulted in decreasing income inequality in Java as a whole, even those in rural areas of Java. This indicates the existing intrasectoral and interregional income inequality, even among rural areas within the island of Java.

4.5. Intersectoral and Interregional Inequality

To the above patterns, an additional description can be made regarding to the patterns of intersectoral inequality. Generally, the average incomes within a single sector differ from those in other sectors. The differences between indices calculated by employing two-sector differentials and those of 11-sector differentials found in Section 4.2. suggested the existence of intersectoral inequality. Beside any difference in intrasectoral inequality, these indices reflected the differences in both average incomes among sectors and number of population in the respective sectors. Within all areas, income inequality based on the two-sector weighted indices appeared to have been higher than the other method of calculation. This shows the existing income inequality among sectoral activities, not only between the A and Non-A sectors but also within the Non-A sectors.

Some differences in average incomes and population in the respective sectors influenced the overall income inequality within each area. Take an example in rural areas of Western Java, where inequality measures indicated increasing patterns. Both the A and Non-A sector inequalities in this area increased during the periods. This situation resulted in increasing overall income inequality in this area. Meanwhile, income inequality in urban areas of this region decreased, even though intrasectoral inequality in the A sector inclined. The reason is the fact that only 5.75 per cent population of urban areas of this region who engaged in the A sector. Again, this situation reflects the importance of the sector to contribute to the patterns of income distribution in the respective areas within a single region.

Comparing income distribution patterns within the region in Java, all areas of Eastern Region appeared to have the highest inequality. It also found that income distribution patterns in all areas of the Central Region were the least unequal.

Chapter F I V E

CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The development literature and governments have drawn more attention to the study of the size or personal distribution of incomes. The weaknesses of the traditional theories, such as classical theories including Marx, and neo-classical theories, to explain the present situation of personal distribution of incomes in Less Developed Countries (LDCs) have attracted the interests in the 1960s. The assumptions they made have been seen to be hardly being met in the situation of presently LDCs.

To fulfil the gap between theories and practical implications, then, development economists increased their concerns about the distribution of income among individuals. Based on cross country and within country studies, many authors have developed such measures that indicate the patterns of personal distribution of incomes rather than functional distribution. These growing studies made practitioners difficult to choose the measures that would explain and provide reasonable indicators. Whereas some use a single measure, others employ a family of the indices.

In order to provide reasonable indicators of income distribution patterns in a single country or region, one has to consider that many factors contribute to the overall income distribution. In this Research Paper, this issues have been emphasized.

It was found that three major factors contribute to income distribution: the differences in average income between sectors, the importance of the sector in the economy as shown by the share of population in each sector, and income differentials within a single sector. Considering these three factors, this Research Paper provided the weighed Gini and TDM indices to estimate the patterns of income distribution within urban and rural areas as well as within the regions (Urban + Rural areas).

Some conclusion can be drawn based on these methods of calculations:

1. Intrasectoral income inequality varies from sector to sector, even within urban and rural areas in the region (Java, Outer Islands, and Western ,Central and Eastern Regions of Java island). It appears that the financial sector is the crucial sector, as

each individual in this sector received income disproportionately. In addition, income inequality in this sector appeared to have increased during the periods under study (1978-1987). Meanwhile, income inequality in other two sectors, i.e., Mining and Quarrying sector, and Manufacturing sector appeared to have increased during the first periods (1978-1982) and decreased there after (1982-1987). For other sectors, however, all measures indicate decreasing income inequality. The above patterns are different when the analysis carried in the smaller regions. Income inequality in all sectors in rural areas of the Western Region appeared to have increased during the same period (1981-1987). Similarly, so was the patterns of income inequality within the "A" (agricultural) sector in urban areas of this region. On the other hand, all measures indicated decreasing income inequality in other parts of Java.

2. The pattern of intrasectoral inequality appeared to have contributed to the patterns of income distribution within the area. Besides, the divergence in income between sectors play important role in shaping income distribution pattern within urban and rural areas in each region. The weighted indices show the differences in inequality measures to the outcomes of direct measures.
3. Comparing two weighing methods of calculations in Java, it is found that the more aggregated the individuals and households the higher the inequality measures.
4. The above conclusions influenced different interpretation of the outcomes. By employing direct method of calculations, the inequality in the distribution of incomes in urban Java appeared to have increased during the periods of 1982-1987. On the contrary, the patterns of income inequality based on weighted indices have shown declining tendency, which appeared to have decreased form 1981 to 1987.
5. Intraregional and interregional inequalities in Java appeared to have occurred during the 1981-1987 periods. The pattern of income inequality in rural areas of Western Region increased during this period, while those in other parts of Java declined. Among these regions, the Eastern Region appeared to have the most unequal distribution of incomes.

5.2. Policy Recommendations

Departed from the above conclusions, some recommendations can be raised.

1. In order to provide a more reasonable indicators of income inequality in a single country or region, one has to consider three factors that contribute to the overall

income distribution pattern within urban and rural areas, i.e., intrasectoral inequality, intersectoral inequality, and the importance of the sector as indicated by the distribution of population in each sector. To arrive at this stage, the less aggregated the individuals or households will give better picture of income distribution patterns than the more aggregated one's, as it reduces intrasectoral inequality. Moreover, the less aggregated the region, the more precise the pictures of income distribution patterns can be provided.

2. For policy formulation, the emphasize of urban lower income classes seemed to be the most crucial part of the development efforts. The policy should be addressed to these groups, especially those of the rural migrants. The fact that the least concentrated region (Central Region) had better performance in its income distribution pattern compared to the other regions within Java indicates that the development of small town and secondary city would be an alternative policy in order to distribute the development gains more equally.
3. As the Eastern Region appeared to have the highest inequality in income distribution, the government intervention should pay more attention to this region. Moreover, it is also found that rural population in Western Region received their income disproportionately. The government has to pay more attention to the development of both agricultural and non agricultural sectors in rural areas of this region, as income inequality in both sectors (A and Non-A sectors) appeared to have increased during the 1981-1987 periods.

A P P E N D I X

1. The first part of the document is a list of names and titles.

2. The second part is a list of dates and times.

3. The third part is a list of locations and addresses.

ANNEX IV.1A.
The Distribution of Personal Income
Per Decile of Population, Gini Ratio and
TDM Index, Indonesia (1987)

(Urban + Rural)

Household main Income Sources												
Decile	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	Total
1 st	4.04	2.83	3.61	3.97	3.96	3.32	3.68	2.18	3.17	3.08	3.01	3.13
2 nd	5.69	4.20	4.34	5.49	4.82	4.09	4.28	3.66	4.52	4.29	4.39	4.78
3 rd	6.75	4.39	5.62	6.13	5.82	5.31	5.77	5.06	5.54	4.29	5.16	4.78
4 th	6.75	5.87	5.94	8.21	6.54	5.72	6.34	5.46	6.78	5.36	6.56	6.30
5 th	7.67	7.57	7.77	8.67	6.54	7.55	8.04	7.25	6.78	6.12	6.56	6.59
6 th	9.33	8.24	8.37	8.70	9.02	7.55	8.04	7.25	8.69	8.00	9.07	8.74
7 th	9.53	8.39	9.02	12.14	9.05	9.00	9.21	9.15	9.43	8.00	9.10	9.25
8 th	12.96	11.54	11.79	12.14	9.98	10.84	11.36	11.52	12.66	10.12	12.76	11.05
9 th	13.10	15.59	15.88	13.84	13.09	14.67	14.84	20.53	13.83	13.88	13.68	15.06
10th	24.19	31.37	27.66	20.70	31.17	31.95	28.45	27.94	28.70	36.87	29.72	30.32
Gini Index	0.2803	0.3876	0.3462	0.2552	0.3453	0.3796	0.3437	0.3990	0.3488	0.4276	0.3624	0.3704
TDM	0.4049	0.5701	0.5066	0.3765	0.4853	0.5492	0.4929	0.5998	0.5028	0.6173	0.5231	0.5286

(Urban)

Household main Income Sources												
Decile	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	Total
1 st	2.95	3.16	3.34	4.43	3.48	3.05	3.37	2.57	3.29	1.88	3.06	2.95
2 nd	4.85	5.11	4.60	6.14	4.45	4.23	4.84	3.87	4.70	3.09	4.22	4.31
3 rd	4.85	5.67	5.46	8.28	5.31	5.75	5.57	5.01	5.94	3.95	5.82	5.47
4 th	5.96	5.67	6.89	8.53	6.09	6.01	7.21	6.12	5.94	5.54	5.82	6.27
5 th	6.75	7.61	6.89	8.53	7.21	6.14	7.21	6.91	7.59	6.17	7.84	6.27
6 th	7.43	8.18	8.69	9.36	7.21	8.40	7.55	6.98	8.19	6.17	8.14	8.69
7 th	9.41	10.49	9.69	11.70	8.78	9.09	10.11	9.73	10.25	8.47	10.70	9.12
8 th	9.58	10.49	12.82	11.70	10.33	11.71	10.93	12.50	11.43	10.30	11.31	12.25
9 th	13.47	15.00	14.22	12.01	14.21	13.75	14.20	21.78	13.81	12.20	13.66	13.85
10th	34.77	28.61	27.40	19.33	32.92	31.87	28.99	24.53	28.87	42.23	29.43	30.81
Gini Index	0.3960	0.3406	0.3384	0.2060	0.3776	0.3760	0.3419	0.3749	0.3435	0.4878	0.3539	0.3711
TDM	0.5646	0.4919	0.4889	0.2948	0.5493	0.5467	0.4847	0.5763	0.4872	0.6947	0.5048	0.5382

(Rural)

Household main Income Sources												
Decile	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	Total
1 st	4.01	3.32	4.04	4.28	4.42	3.86	4.09	1.99	3.51	4.26	3.35	3.64
2 nd	5.62	5.11	5.33	4.28	5.72	4.96	4.79	3.06	4.59	5.36	4.38	5.43
3 rd	6.71	5.41	5.33	5.44	5.84	5.51	5.42	4.20	5.63	5.36	5.59	5.80
4 th	6.71	5.53	7.23	6.29	7.72	6.75	6.64	5.87	6.65	5.83	6.11	6.04
5 th	7.52	7.50	7.34	6.29	7.72	6.75	7.23	5.97	8.00	6.85	7.91	8.00
6 th	9.27	8.59	8.52	8.13	7.94	9.02	9.17	7.94	8.00	7.97	7.91	8.00
7 th	9.35	10.55	10.35	11.09	10.81	9.55	9.17	8.50	9.85	9.74	10.27	10.61
8 th	12.88	10.55	10.35	13.30	10.81	10.31	11.26	10.40	11.60	9.74	10.86	11.19
9 th	12.90	13.64	14.45	16.92	12.71	14.27	14.54	11.75	15.42	13.57	15.10	13.86
10th	25.04	29.78	27.06	23.98	26.32	29.01	27.68	40.32	26.75	31.33	28.51	27.42
Gini Index	0.2874	0.3488	0.3139	0.3266	0.2914	0.3369	0.3292	0.4564	0.3332	0.3465	0.3509	0.3230
TDM	0.4163	0.4906	0.4441	0.5058	0.4129	0.4719	0.4697	0.6494	0.4753	0.4980	0.4947	0.4618

Note : The sum are not equal to 100 due to rounding error

Source: Calculated from SUSENAS data, Central Bureau of Statistics, Jakarta, (Unpublished).

ANNEX IV.1B.
The Distribution of Personal Income
Per Decile of Population, Gini Coefficient,
and TDM index, Java (1987)

(Urban + Rural)

Household main Income Sources												
Decile	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	Total
1 st	4.05	3.06	3.67	4.00	4.03	3.52	3.78	2.08	3.05	2.55	2.92	3.08
2 nd	5.27	4.58	4.40	5.63	5.01	4.20	4.30	3.46	4.15	3.94	4.24	4.68
3 rd	6.97	5.27	5.51	6.29	5.54	5.57	5.63	4.94	4.88	4.29	4.84	4.77
4 th	6.97	5.27	6.00	8.13	6.79	5.71	6.02	5.86	6.70	4.54	6.36	5.86
5 th	6.97	5.71	7.53	9.19	6.79	7.70	7.97	7.15	6.70	5.58	6.39	6.55
6 th	8.84	7.21	8.45	9.19	7.94	8.09	8.35	7.43	8.08	7.31	8.81	8.14
7 th	9.62	9.31	9.12	12.64	9.46	8.67	8.81	9.89	9.34	8.00	8.81	9.25
8 th	11.56	10.35	11.93	12.67	9.46	11.37	11.88	12.99	12.49	9.74	12.25	10.94
9 th	13.45	14.85	16.00	12.67	13.17	15.08	14.96	22.14	13.97	13.29	13.67	15.15
10th	26.30	34.40	27.40	19.58	31.80	30.08	28.30	24.07	30.63	40.76	31.73	31.59
Gini Index	0.2996	0.4047	0.3450	0.2381	0.3496	0.3631	0.3455	0.3842	0.3736	0.4718	0.3817	0.3848
TDM	0.4262	0.5919	0.5065	0.3513	0.4995	0.5307	0.5028	0.5839	0.5419	0.6810	0.5528	0.5535

(Urban)

Household main Income Sources												
Decile	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	Total
1 st	2.95	2.16	3.34	4.33	3.51	3.03	3.39	2.36	3.06	1.60	2.99	2.94
2 nd	4.84	3.73	4.59	6.41	4.06	4.33	4.71	3.69	4.36	2.34	4.03	4.14
3 rd	4.85	5.98	5.40	8.21	5.41	5.65	5.31	4.63	5.80	3.38	5.57	5.12
4 th	5.53	6.06	6.95	8.21	5.51	6.16	7.35	6.38	5.80	5.25	5.63	6.26
5 th	6.70	6.30	6.95	8.21	7.31	6.16	7.35	6.38	7.29	5.58	7.56	6.26
6 th	6.70	9.81	8.75	11.18	7.31	8.27	7.55	7.81	8.01	6.17	7.85	8.30
7 th	9.32	10.46	9.77	11.25	8.18	8.91	10.41	10.58	10.12	7.77	10.43	8.77
8 th	9.38	10.46	12.82	11.25	10.57	12.05	11.28	13.89	11.18	9.95	10.90	12.25
9 th	13.33	17.33	14.40	12.38	13.83	13.84	14.56	22.14	13.86	10.90	13.80	14.07
10th	36.39	27.71	27.04	18.57	34.30	31.60	28.09	22.14	30.52	47.06	31.23	31.89
Gini Index	0.4092	0.3692	0.3365	0.2007	0.3922	0.3741	0.3396	0.3711	0.3624	0.5349	0.3711	0.3842
TDM	0.5945	0.5192	0.4851	0.2926	0.5741	0.5498	0.4868	0.5750	0.5136	0.7592	0.5273	0.5642

(Rural)

Household main Income Sources												
Decile	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	Total
1 st	4.14	3.62	4.26	6.40	4.48	4.25	4.26	2.50	3.43	4.30	3.37	3.79
2 nd	5.32	5.63	5.62	6.40	5.90	5.66	5.13	3.44	4.28	6.78	4.21	5.40
3 rd	7.16	6.76	5.62	6.40	5.90	5.66	5.13	5.29	5.54	6.87	5.59	6.11
4 th	7.16	6.76	7.00	7.91	7.69	7.68	6.83	6.95	5.80	6.87	5.59	6.11
5 th	7.16	6.76	7.69	9.29	7.98	7.69	7.10	7.53	7.77	7.30	7.90	7.60
6 th	8.82	7.43	7.72	9.29	7.98	8.58	8.69	9.49	8.32	8.71	7.94	8.40
7 th	9.87	9.25	10.84	9.29	9.68	10.83	9.76	10.99	8.69	9.19	10.03	9.55
8 th	11.52	11.17	10.84	9.29	11.31	10.83	10.38	14.26	11.72	12.30	10.89	11.81
9 th	13.80	12.89	14.12	13.84	12.18	14.34	14.10	15.39	15.57	13.04	13.82	13.58
10th	25.06	29.73	26.30	21.90	26.90	24.47	28.61	24.15	28.87	24.62	30.66	27.66
Gini Index	0.2879	0.3281	0.3018	0.2121	0.2912	0.2857	0.3274	0.3414	0.3575	0.2684	0.3661	0.3221
TDM	0.4075	0.4758	0.4419	0.3147	0.4078	0.4095	0.4619	0.4959	0.5233	0.3994	0.5080	0.4609

Note : The sums are not equal to 100 due to rounding error

Source: Calculated from SUSENAS data, Central Bureau of Statistics, Jakarta, (unpublished).

ANNEX IV.1C.

**The Distribution of Personal Income
Per Decile of Population, Gini Ratio and
TDM Index, Outside Java (1987)**

(Urban + Rural)

Decile	Household main Income Sources											Total
	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	
1 st	3.86	3.09	3.40	3.92	3.85	2.97	3.54	2.69	3.67	4.16	4.16	3.35
2 nd	5.89	4.64	4.39	5.27	4.79	4.18	5.04	4.05	4.90	4.25	4.25	4.80
3 rd	6.25	5.93	5.74	6.30	6.08	4.63	5.71	5.36	6.66	5.25	5.25	5.17
4 th	6.50	7.05	6.26	7.75	6.49	6.58	7.39	5.71	6.93	5.96	5.96	6.64
5 th	8.65	7.05	8.06	7.75	8.28	6.58	7.39	6.40	6.93	7.66	7.66	7.01
6 th	8.65	7.75	8.06	7.89	8.28	7.10	7.39	7.62	9.48	7.97	7.97	9.25
7 th	10.95	9.86	8.68	11.13	8.28	9.11	9.90	7.62	9.61	7.97	7.97	9.25
8 th	11.94	11.52	11.32	12.09	11.40	11.32	10.39	8.95	12.95	10.56	10.56	11.23
9 th	13.32	14.05	15.49	15.50	14.28	13.38	14.53	10.92	13.53	14.48	14.48	14.93
10th	23.99	29.06	28.58	22.39	28.27	34.15	28.72	40.67	25.36	31.73	31.73	28.37
Gini Index	0.2824	0.3441	0.3492	0.2808	0.3277	0.3981	0.3332	0.4291	0.3033	0.3623	0.3169	0.3471
TDM	0.4041	0.4926	0.5078	0.4222	0.4790	0.5770	0.4726	0.6318	0.4367	0.5355	0.4515	0.4907

(Urban)

Decile	Household main Incomes											Total
	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	
1 st	2.94	3.79	3.35	5.11	3.45	3.09	3.52	3.41	3.82	3.90	3.24	3.23
2 nd	4.82	5.40	4.64	6.84	5.11	4.24	4.88	4.93	5.43	4.03	4.92	4.49
3 rd	5.12	5.50	5.75	7.33	5.23	5.71	6.17	6.55	6.25	5.70	6.35	6.21
4 th	6.86	6.15	6.60	9.07	7.02	5.71	6.93	6.84	6.25	6.46	6.35	6.35
5 th	6.86	7.63	6.60	9.87	7.02	6.85	6.93	7.63	8.27	7.94	8.61	6.81
6 th	9.50	7.63	8.39	9.87	7.02	7.91	7.51	9.15	8.59	7.94	8.96	8.83
7 th	9.50	10.37	9.31	9.87	9.69	9.45	9.51	9.15	10.54	8.45	11.42	9.34
8 th	10.24	10.56	12.84	9.87	10.68	11.00	10.21	11.33	11.99	11.64	12.41	12.32
9 th	13.74	15.29	13.39	12.72	14.46	13.57	13.48	13.16	13.64	15.79	13.20	13.59
10th	30.42	27.68	29.14	19.43	30.32	32.46	30.87	27.85	25.23	28.14	24.54	28.83
Gini Index	0.3578	0.3258	0.3474	0.1903	0.3500	0.3787	0.3457	0.3174	0.2996	0.3417	0.3027	0.3443
TDM	0.4880	0.4780	0.5072	0.2430	0.5092	0.5408	0.4910	0.4468	0.4279	0.5114	0.4313	0.4947

(Rural)

Decile	Household main Income Sources											Total
	Agricul- ture	Mining	Manuf.	Electri- city	Construc- tion	Trades	Trans- port	Finan- cial	Services	Others	Trans- fer	
1 st	3.89	3.38	3.50	3.25	4.32	3.27	3.82	1.77	3.64	4.28	3.54	3.50
2 nd	5.92	4.46	4.62	4.30	5.32	3.95	4.97	2.28	5.31	4.37	4.67	5.45
3 rd	6.29	6.23	6.03	5.75	6.36	5.28	5.79	3.32	6.10	4.90	5.60	5.45
4 th	6.48	7.18	6.53	6.13	7.16	5.43	7.42	3.82	7.61	5.65	6.99	6.92
5 th	8.71	8.76	7.82	9.39	8.41	7.54	8.00	4.33	7.61	7.21	7.85	7.53
6 th	8.71	8.76	9.16	9.67	9.76	7.54	8.00	5.02	8.26	8.05	7.85	8.87
7 th	10.92	8.76	9.16	11.94	9.76	7.86	9.54	5.02	10.62	8.05	10.64	10.46
8 th	12.01	11.72	10.57	13.33	9.91	10.42	11.38	5.02	11.97	10.03	12.55	10.46
9 th	13.30	14.26	14.68	15.37	13.92	13.91	15.19	7.13	14.81	14.05	15.24	14.20
10th	23.78	26.48	27.94	20.86	25.07	34.79	25.90	62.28	24.07	33.42	25.06	27.14
Gini Index	0.2798	0.3173	0.3333	0.2963	0.2806	0.3988	0.3132	0.6175	0.2963	0.3750	0.3204	0.3193
TDM	0.4002	0.4490	0.4638	0.4302	0.3798	0.5825	0.4493	1.0455	0.4293	0.5500	0.4699	0.4454

Note : The sums are not equal to 100 due to rounding error.

Source : Calculated from SUSENAS data, Central Bureau of Statistics, Jakarta (Unpublished)

ANNEX IV.2A.

Intra regional inequality indices 1981 and 1987

(Western Region)

(Urban+Rural)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	4.20	4.16	2.65	3.16	2.89	3.26
2nd	4.20	6.09	3.80	4.26	3.95	4.00
3rd	6.21	6.47	4.74	4.69	4.70	4.93
4th	6.36	6.47	6.07	6.62	5.64	5.46
5th	7.94	7.15	6.49	6.66	7.22	7.16
6th	8.62	8.85	7.18	7.95	7.68	7.74
7th	11.07	8.85	9.10	9.31	8.56	9.11
8th	11.07	12.06	11.57	12.00	10.81	10.95
9th	14.09	12.53	14.41	13.86	15.04	15.21
10th	26.25	27.36	33.99	31.47	33.51	32.20
Gini Index	0.3142	0.3003	0.4137	0.3773	0.4047	0.3908
TDM Index	0.4495	0.4391	0.5995	0.5468	0.5872	0.5671

(Urban)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	3.52	3.41	2.61	3.09	2.61	2.95
2nd	4.12	4.45	3.83	4.37	3.81	4.05
3rd	4.91	4.45	5.40	5.44	5.35	5.54
4th	5.79	6.06	5.41	5.44	5.49	5.54
5th	7.65	6.28	6.64	7.55	6.54	7.26
6th	9.02	6.28	7.54	7.58	7.63	7.71
7th	9.02	8.55	9.69	10.34	9.64	10.09
8th	11.48	9.57	10.58	10.61	10.71	10.81
9th	17.00	11.82	15.07	13.89	14.94	13.91
10th	27.49	39.14	33.22	31.68	33.28	32.15
Gini Index	0.3569	0.4249	0.4050	0.3705	0.4057	0.3791
TDM Index	0.5194	0.6193	0.5775	0.5306	0.5787	0.5392

(Rural)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	4.23	3.41	3.35	3.09	3.80	2.95
2nd	4.23	4.45	4.47	4.37	4.24	4.05
3rd	6.23	4.45	5.11	5.44	5.78	5.54
4th	6.42	6.06	6.51	5.44	6.33	5.54
5th	7.97	6.28	6.92	7.55	7.41	7.26
6th	8.57	6.28	8.80	7.58	8.88	7.71
7th	11.15	8.55	8.80	10.34	10.01	10.09
8th	11.15	9.57	10.86	10.61	10.12	10.81
9th	14.04	11.82	14.07	13.89	14.23	13.91
10th	26.00	39.14	31.11	31.68	29.20	32.15
Gini Index	0.3115	0.4249	0.3680	0.3705	0.3421	0.3791
TDM Index	0.4470	0.6193	0.5209	0.5306	0.4711	0.5392

Note: - The TDM (Total Disparity Measure) Index is the Total differences between the share of each decile to 10.

Source: Calculated from SUSENAS data, Central Bureau of Statistics, Jakarta (Unpublished).

ANNEX IV.2B.

Intra regional inequality indices 1981 and 1987

(Central Region)

(Urban+Rural)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	4.43	4.03	3.23	3.72	3.72	3.54
2nd	4.43	5.39	3.29	4.79	3.72	4.97
3rd	4.43	6.71	5.00	5.44	3.72	5.80
4th	4.43	7.46	5.49	6.53	5.76	5.80
5th	7.07	7.46	6.42	6.81	6.09	7.63
6th	7.35	8.32	8.72	9.15	7.77	7.98
7th	9.27	10.29	8.78	9.15	9.67	10.02
8th	11.40	10.94	11.66	11.29	10.59	11.19
9th	13.34	14.40	15.96	15.38	15.16	14.15
10th	33.84	25.00	31.45	27.74	33.81	28.92
Gini Index	0.3903	0.2906	0.3985	0.3395	0.4108	0.3419
TDM Index	0.5717	0.4125	0.5814	0.4884	0.5914	0.4855

(Urban)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	3.84	2.95	2.67	3.56	2.75	3.47
2nd	3.84	5.09	3.91	4.41	3.82	4.24
3rd	4.78	5.68	4.95	5.55	4.93	5.65
4th	6.37	5.68	6.39	6.57	6.14	6.03
5th	7.32	7.33	7.27	7.80	7.47	8.02
6th	8.41	7.50	7.27	7.80	7.47	8.02
7th	10.25	9.29	9.86	9.64	9.61	9.22
8th	10.29	10.29	12.74	11.57	12.47	11.34
9th	14.35	13.57	15.48	15.22	15.50	15.68
10th	30.56	32.63	29.46	27.89	29.84	28.31
Gini Index	0.3633	0.3730	0.3808	0.3426	0.3831	0.3499
TDM Index	0.5088	0.5297	0.5537	0.4935	0.5560	0.5068

(Rural)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	4.46	2.95	3.71	3.56	4.12	3.47
2nd	4.46	5.09	3.71	4.41	4.12	4.24
3rd	4.46	5.68	4.82	5.55	4.12	5.65
4th	4.46	5.68	5.74	6.57	5.28	6.03
5th	6.98	7.33	6.58	7.80	6.72	8.02
6th	7.41	7.50	7.41	7.80	7.54	8.02
7th	9.19	9.29	10.05	9.64	8.78	9.22
8th	11.29	10.29	10.75	11.57	11.74	11.34
9th	13.29	13.57	15.27	15.22	13.93	15.68
10th	33.98	32.63	31.96	27.89	33.65	28.31
Gini Index	0.3901	0.3730	0.3907	0.3426	0.3975	0.3499
TDM Index	0.5713	0.5297	0.5606	0.4935	0.5864	0.5068

Note: As ANNEX IV.2A
Source: As ANNEX IV.2A

ANNEX IV.2C.

Intra regional inequality indices 1981 and 1987

(Eastern Region)

(Urban+Rural)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	3.72	4.01	2.80	3.25	3.18	3.23
2nd	3.72	5.20	2.84	4.02	3.18	4.76
3rd	3.72	6.94	4.61	5.03	3.18	5.15
4th	3.88	6.94	5.21	5.50	5.38	5.31
5th	6.69	6.94	6.47	7.38	5.81	7.12
6th	6.90	8.74	8.10	7.82	7.17	7.34
7th	8.62	9.64	8.59	8.74	9.53	10.04
8th	11.20	11.69	11.39	10.96	10.12	10.04
9th	12.88	13.44	15.59	15.02	15.08	14.79
10th	38.67	26.46	34.40	32.27	37.36	32.22
Gini Index	0.4493	0.3026	0.4308	0.3891	0.4550	0.3806
TDM Index	0.6549	0.4317	0.6275	0.5651	0.6511	0.5419

(Urban)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	4.01	3.09	2.32	3.11	2.32	3.06
2nd	4.26	4.19	3.64	4.32	3.76	4.16
3rd	6.31	4.39	4.57	5.52	4.53	5.19
4th	6.31	4.95	6.23	6.40	5.89	6.56
5th	7.13	6.39	6.33	6.40	6.58	6.56
6th	8.08	7.78	8.13	8.22	7.73	7.83
7th	9.12	9.24	8.86	9.00	9.21	9.22
8th	11.00	9.24	12.07	12.00	11.90	11.85
9th	13.88	14.28	14.74	13.69	14.82	13.85
10th	29.90	36.44	33.12	31.34	33.26	31.72
Gini Index	0.3424	0.4229	0.4133	0.3718	0.4163	0.3789
TDM Index	0.4956	0.6143	0.5986	0.5408	0.5998	0.5482

(Rural)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	3.72	3.09	3.48	3.11	3.39	3.06
2nd	3.72	4.19	3.48	4.32	3.39	4.16
3rd	3.72	4.39	4.13	5.52	3.39	5.19
4th	3.72	4.95	5.72	6.40	5.49	6.56
5th	6.67	6.39	6.40	6.40	6.18	6.56
6th	6.83	7.78	7.66	8.22	7.71	7.83
7th	8.64	9.24	10.04	9.00	10.42	9.22
8th	11.17	9.24	10.36	12.00	12.43	11.85
9th	12.84	14.28	15.51	13.69	14.72	13.85
10th	38.97	36.44	33.22	31.34	32.87	31.72
Gini Index	0.4523	0.4229	0.4097	0.3718	0.4208	0.3789
TDM Index	0.6597	0.5143	0.5827	0.5408	0.6090	0.5482

Note: As ANNEX IV.2A
Source: As ANNEX IV.2A

final

ANNEX IV.2D.

Intra regional inequality indices 1981 and 1987

(Total Java)

(Urban+Rural)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	4.03	4.05	2.68	3.30	3.13	3.08
2nd	4.03	5.27	3.53	3.97	3.13	4.68
3rd	4.03	6.97	4.43	5.28	4.30	4.77
4th	5.54	6.97	5.42	5.68	5.18	5.86
5th	6.80	6.97	7.15	7.48	6.49	6.55
6th	7.88	8.84	7.42	7.48	7.94	8.14
7th	9.17	9.62	9.12	9.50	9.06	9.25
8th	11.84	11.56	11.29	11.31	10.81	10.94
9th	13.40	13.45	14.84	14.67	15.21	15.15
10th	33.29	26.30	34.12	31.34	34.73	31.59
Gini Index	0.3945	0.2996	0.4199	0.3786	0.4295	0.3848
TDM Index	0.5705	0.4261	0.6050	0.5463	0.6150	0.5535

(Urban)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	3.78	2.97	2.52	2.90	2.49	2.94
2nd	3.78	4.84	3.78	4.24	3.74	4.14
3rd	5.64	4.85	5.00	5.48	4.81	5.16
4th	5.83	5.53	5.95	6.04	6.10	6.24
5th	7.28	6.70	5.97	6.25	6.10	6.24
6th	8.16	6.70	8.29	8.47	8.10	8.43
7th	10.12	9.31	9.24	9.22	9.05	9.03
8th	10.57	9.38	11.64	11.93	11.93	12.22
9th	15.37	13.33	14.82	13.95	14.86	13.96
10th	29.47	36.39	32.77	31.51	32.80	31.64
Gini Index	0.3598	0.4089	0.4063	0.3783	0.4086	0.3842
TDM Index	0.5107	0.5943	0.5848	0.5478	0.5918	0.5642

(Rural)

Decile	A Sector		Non-A Sector		TOTAL	
	1981	1987	1981	1987	1981	1987
1st	4.05	4.14	3.47	3.80	3.77	3.79
2nd	4.05	5.32	3.47	4.99	3.77	5.40
3rd	4.05	7.16	5.23	5.73	3.78	6.11
4th	5.45	7.16	5.54	6.79	6.27	6.11
5th	6.84	7.16	7.02	6.79	6.38	7.60
6th	7.83	8.82	8.23	9.13	8.06	8.39
7th	9.11	9.87	9.54	9.60	9.78	9.55
8th	11.90	11.52	10.67	10.76	10.91	11.81
9th	13.36	13.80	14.85	14.41	13.87	13.58
10th	33.38	25.06	31.99	28.00	33.39	27.66
Gini Index	0.3951	0.2879	0.3897	0.3296	0.3982	0.3221
TDM Index	0.5727	0.4077	0.5501	0.4635	0.5636	0.4610

Note: As ANNEX IV.2A
Source: As ANNEX IV.2A

CHAPTER 10

THE HISTORY OF THE UNITED STATES

The history of the United States is a story of growth and change. From the first European settlers to the present day, the nation has expanded its territory and diversified its economy.

In the early years, the colonies were dependent on Britain for many goods and services. However, as the colonies grew, they began to develop their own industries and trade networks.

The American Revolution was a turning point in the nation's history. It led to the creation of a new government and the establishment of the United States as an independent nation.

The 19th century was a period of rapid expansion and industrialization. The discovery of gold in California and the opening of the transcontinental railroads were major events of this era.

The Civil War was a defining moment in American history. It resulted in the abolition of slavery and the preservation of the Union.

The 20th century has been a time of great progress and challenge. The United States has emerged as a world superpower, but it has also faced significant social and economic issues.

The future of the United States is uncertain, but one thing is clear: the nation's history is a testament to the resilience and ingenuity of its people.

This book provides a comprehensive overview of the history of the United States, from its beginnings to the present day.

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