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Chapter 6

FROM ACCESS TO INCOME: REGIONAL AND ETHNIC INEQUALITY IN INDONESIA

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Introduction

Apart from the well-researched relationship between inequality, growth, and poverty, another reason why inequality matters in development is because people incessantly compare themselves with their neighbors. A person's welfare is not solely determined by how many goods that person is able to buy but also how many goods he or she could buy *relative* to his or her neighbor. For this reason, high inequality has been blamed as one of the causes of social unrest in countries where economic growth is relatively strong and poverty is falling and considered manageable. This was the case in Indonesia over the years from 1976 to 1996 (Booth, 2000). Although most studies in Indonesia, as in other Asian countries, are concerned with income inequality, inequality in other aspects — for example in health, education, and access to infrastructure — also have the potential to cause income inequality and thus influence both growth and poverty.

In contrast to absolute poverty, which one day may be largely abolished, it is impossible 'to make inequality history' because differences will always exist between individuals. The difference between individuals,

for example in income, educational attainment, or health, is not an issue as long as it is the result of a person's individual preference and effort. It becomes a problem when an individual faces an unequal playing field or has to overcome more obstacles compared to others for reasons out of his or her control. This might be because of gender discrimination, racial discrimination, or because he or she was born into a poor family (World Bank, 2006). The obvious implication is that it is important to reduce inequality in opportunity between individuals. Unfortunately, it is difficult accurately to measure inequality in opportunity. As a proxy, researchers mainly use indicators of inequality in outcome, for example in educational attainment or health status, that are disaggregated by different characteristics, such as gender, race, or income level.

It is well known that Indonesia is home to hundreds of ethnic groups, each with its own language and traditions. Given this heterogeneity, it is possible that people from different islands, regions, and ethnic groups face inequality in one form or another. Surprisingly, there has not been much research regarding inequality in Indonesia that goes beyond income and consumption. UNDP (2004) provides overall health and education indicators by provinces and, to a lesser extent, by gender. However, the discussion is often limited to national figures. The emphasis is on how far Indonesia is from meeting its MDG commitments. Inequality issues both within and between provinces and gender inequality are often overlooked. Lanjouw *et al.* (2001) have looked at inequality between the poor and the non-poor in terms of benefiting from public spending and find that public spending on health and education in Indonesia benefits both the poor and the non-poor at the basic levels (primary school, public primary health facilities) but is very skewed to the non-poor at higher levels.

This study contributes to the literature on inequality in Indonesia by calculating regional and ethnic inequalities in four dimensions that may indicate the existence of inequality in opportunity: access to education and health facilities, educational outcomes, health outcomes,

as well as income and consumption. We believe this is the first study in Indonesia that looks at inequality both within and between ethnic groups. The rest of the chapter is organized as follows. The next section describes the datasets that we use in this study, while the third section discusses the findings about the extent of inequality in Indonesia in the four dimensions set out above. The final section presents conclusions.

Data Used in the Study

We use two datasets in this chapter. The first one is from the *Susenas* (National Socioeconomic Survey), which is a nationally representative dataset collected annually by BPS (Statistics Indonesia). *Susenas* consists of two main components: the core survey and the modules. Susenas Core collects detailed characteristics for around 200,000 households and 800,000 individuals. The *Susenas* modules collect additional information on a subset of the sample core survey, around 65,000 households. There are three types of modules: consumption; housing and health; and culture and education. Thus each module is conducted triennially. In this chapter we use the consumption module carried out in 2002. This module records detailed food and non-food consumption as well as income data for the sample households.

In 2003 and 2004, the BPS selected around 10,000 households from the *Susenas* 2002 Module sample and revisited them. These households made up the new BPS *Susenas* Consumption Panel dataset. Merging between the *Susenas* 2002, and the panel data for 2003 and 2004 yields a total of 8,995 households. In this chapter we use *Susenas* 2002 and 2004, both the core data, which contains observations for around 200,000 households and the Panel Consumption Module, which contains income and consumption data for 8,995 households. The second dataset that we use is the *Podes* (Village Potential), which is also published by BPS. *Podes* is a complete enumeration of every village in Indonesia. It records information on the characteristics of each village (i.e. land size, population, and water supply) and available infrastructure in that village

(i.e. numbers of schools, hospitals, doctors, markets, transportation modes, and financial institutions). It is collected three times every decade, usually before the population census and major surveys. We use *Podes* 2003, which has data on 68,819 villages.

Various Dimensions of Inequality in Indonesia

We use three types of regional segregation in Indonesia: urban versus rural, Java/Bali versus outside Java/Bali, and Western Indonesia versus Eastern Indonesia. Western Indonesia consists of Java, Bali, Sumatra, and Kalimantan, while Eastern Indonesia is made up of Sulawesi, East and West Nusa Tenggara, Maluku and Papua. Western Indonesia, especially Java and Bali, is ahead of Eastern Indonesia in terms of economic activity, infrastructure, and population. In terms of ethnicity, we look at ethnic groups that are widely scattered throughout the country. Selecting an ethnic group that is mostly living in one island, for example Dayak or Sundanese, would confuse the location effects and the ethnicity effects. For this reason, we select four main ethnicities: Javanese, Malay, Bugis, and Chinese. In 2004, these four ethnic groups make up 54percent of the Indonesian population and are found to be living in most major islands in Indonesia. We determine a person's ethnic origin according to his or her father's ethnic origin.

Access to Basic Services: Many factors, from lack of information to preferences about household resource allocation could cause poor health and low education attainment. However, in a developing country like Indonesia, it is very likely that lack of access to health and education facilities plays a major role. Inequality in access to basic services occurs when people living in different regions or in households of different ethnic origin have different access to basic services. Lack of access could result from several causes, including unavailability of a health or education institution, or prohibitively high fees charged by such institutions.

Access inequality in education and health translates into inequalities in education and health outcomes. Mejia and St-Pierre (2005) develop

a general equilibrium model that explores the relationship between inequality in educational opportunity, inequality in education outcomes, and human capital formation. They find that higher inequality in opportunity leads to lower average human capital accumulation in society, higher inequality in the distribution of human capital, and higher wage inequality. In this subsection, we compare the availability of healthcare and education facilities between urban and rural areas and also between regions in Indonesia. Then, in the next two subsections, we look at indicators that show the magnitude of education and health inequality in Indonesia. Table 6.1 shows the availability of basic health and education facilities in Indonesia in 2003. Since *Podes* contains information on the availability of facilities in every village in Indonesia, the table shows the percentage share of villages in respective areas that have the relevant facility. The facilities whose availability we examine are basic facilities and, given the size of Indonesian villages both in terms of area and population, should be available in every village.

Nationally, the discrepancies in school availability across levels are very apparent. While 89 percent of villages had a primary school, only 31 percent had a junior secondary school, and 14 percent had a senior secondary school. When disaggregated into urban and rural areas, 96 percent of villages in urban areas had at least a primary school, 59 percent had a junior secondary school, and 44 percent had one or more senior secondary school. In contrast, while 88 percent of villages in rural areas had a primary school, only 26 percent and eight percent had junior and senior secondary schools respectively. Although it is possible that secondary level schools provide services to more than one village, the very low rates still show that the gap in school availability between urban and rural areas is very marked. The gap at the secondary level, however, is less apparent when we disaggregate the regions into Java/Bali and off-Java/Bali. But the gap at the primary level is more pronounced. Almost 20 per cent of villages off-Java/Bali had no primary school. Meanwhile, more than a quarter of villages off-Java/Bali had junior secondary schools,

while almost 40 per cent of villages in Java/Bali had them. The gap was even smaller at the senior secondary level. The smallest inequality in terms of school availability, however, occurs between Western and Eastern Indonesia.

After assessing the difference in availability of education facilities, we now turn to health facilities. *Puskesmas* clinics are government-run public health facilities that serve several villages, while a *pustu* is a *puskesmas* outpost that should be available in villages where there is no *puskesmas*. In Table 6.1, the availability of *puskesmas* includes the availability of *pustu*. The second indicator of healthcare availability is the existence of private practices staffed by physicians and nurses. These practices usually take place in the physician's or nurse's residence. Although private practices are heavily regulated in urban areas, where a doctor must have a permit to open a practice, there is less control in rural areas, which means even a nurse can open a private practice.

We first look at the differences in healthcare facilities between urban and rural areas. Sixty percent of urban villages had a *puskesmas* while only 41 per cent of rural villages had one. Regarding private practices, 81 per cent of urban villages had at least one private practice, while they were only available in 34 per cent of rural villages. Meanwhile, between Java/Bali villages and those off-Java/Bali, the difference in *puskesmas* availability (46 percent compared with 44 percent) is much less apparent than in the availability of private practices (69 percent compared with 26 percent). Similarly, when we compare western and eastern regions, 46 percent of villages in Eastern Indonesia have a *puskesmas* and 44 percent of villages in Western Indonesia have one. However, only 16 percent of villages in Eastern Indonesia have a private practice, which is a much smaller percentage than in Western Indonesia where half of villages have one.

Table 6.1 shows that people living in rural areas off-Java/Bali have more restricted access to both education and health facilities. Lack of facilities entails higher costs, both pecuniary and also opportunity costs

in terms of lost time travelling to facilities. People living in areas with fewer facilities face unequal opportunities in accessing those facilities. To see whether access inequality actually translates into outcome inequality, the next two subsections discuss education and health inequality.

Education: We now look at inequalities in the outcome indicators of education. Education inequality implies unequal education outcome in a society and is usually indicated by standard deviation of years of schooling or enrollment rates at different school levels.[1] The first indicator of education inequality that we look at is directly related to the accessibility of education, that is the net enrollment rate. According to Jones (2003), there are three reasons why children face unequal opportunity for schooling in Indonesia. First, there are economic reasons. Children from poor families often cannot pay for transportation, uniform and other directs costs. In addition children can, from a young age, be an extra income earner for their family. Hence, economic factors play a crucial role. Second, there is still relatively low recognition among parents in some parts of the country, for example in Lombok Timur, of the importance of education. Third, cultural factors also play an important role. For example, Madurese in Pontianak traditionally arrange for their daughters to be married as soon as they finish primary school.

Table 6.2 shows the primary, junior secondary, and senior secondary school net enrollment rates in 2002 and 2004. Nationally, the primary school net enrollment rate was quite stable at 92 per cent between 2002 and 2004. In contrast, there were quite noticeable increases in both secondary levels, from 61 percent to 65 percent at junior secondary level and from 40 percent to 45 percent at the senior secondary level. Between urban and rural areas, there is no difference at the primary level. However, there was a 13-percentage point gap at the junior secondary level in 2004, although this was much smaller than the 18-percentage point gap in 2002. The gap was even more apparent at the senior secondary level, 26 percentage

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1   There are studies that construct Gini ratio for education, for example Thomas, Wang, & Fan (2000).

points. The between-level drop in enrollment rates was also larger in rural areas, where net enrollment rates went from 93 percent at the primary level to only 34 percent at the senior secondary level, a difference of around 60 percentage points. The difference between primary and senior secondary enrollment rates in urban areas was only 32 percentage points.

At the primary level, there was a relatively small difference between Java/Bali and the other islands. But the difference between Western and Eastern Indonesia in 2004 was larger, around three percentage points, although it was smaller compared to 2002. The gap was much larger at the junior secondary level, with western-eastern differences larger than those between Java/Bali and the other islands in 2004. At the senior secondary level there was only a one percentage point difference between Java/Bali and off-Java/Bali in 2004, while Eastern Indonesia's enrollment rates were nine percentage points below Western Indonesia. Furthermore, the gap between the western and eastern regions increased between 2002 and 2004, while between the gap between Java/Bali and other islands has decreased.

Across ethnic groups, the differences in enrollments at the primary level are small. The Javanese had the highest enrollment rate in 2004, and along with Malays had higher rates than the national rate. In contrast, the Bugis and Chinese were lower, as much as two percentage points lower than the Javanese. In terms of trends between 2002 and 2004, the Chinese were the only ethnic group that registered a decline in net enrollment rates, while the Bugis experienced the highest percentage point and proportional increase. At the junior secondary level, in 2004 Chinese and Javanese had the highest rates, around five to six percentage points higher than the national rate. Meanwhile, the Malay rate was only slightly less than the national average, although about seven percentage points lower than that of the Chinese. The Bugis had the lowest rate, with only 61percent net enrollment rate in 2004. Between 2002 and 2004, Malays experienced the highest percentage point increase (eight percentage points), followed by Bugis and Javanese, while the Chinese

rate actually decreased. Between primary and junior secondary levels, the Chinese registered the lowest drop, only 21 percentage points, while the Bugis experienced the largest, as much as 30 percentage points. At the senior secondary level, the Chinese had much higher enrollment rate compared to the other ethnic groups, while the Bugis again had the lowest. Only 40percent of senior secondary school age Bugis children were in school in 2004. Between junior and senior secondary levels, the Chinese again had the least drop, while the Malays had the highest.

The second indicator of education inequality that we use is the standard deviation of the educational attainment of the working age population.[2] Since educational attainment is the end product of the education system, its use gives an approximate estimate of the educational inequality that has taken place in previous decades. It also allows comparison with the current state of education inequality indicated by net enrollment rates. Moreover, the standard deviation of attainment is an indicator of inequality within each category rather than between categories. Table 6.3 provides the national and disaggregated means and standard deviations of education attainment by region and ethnicity. Nationally, in 2004 the mean educational attainment was 7.7 years, while the standard deviation was very large at four years. The mean showed an increasing trend, while the standard deviation showed a decreasing trend. This means that the country has achieved a higher mean educational attainment accompanied by lower dispersion, at least over these two years.

The difference in attainment between urban and rural areas, on the other hand, is still very high. In 2004, mean years of education in urban areas was 2.5 years higher than in rural areas, almost the difference between only graduating from primary school and finishing junior secondary school. Furthermore, education dispersion in urban areas was only slightly higher. Comparing 2002 and 2004, average education

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2 Working age population includes everyone 15 years old or older.

attainment increased and dispersion decreased in urban areas. In rural areas, both the mean and standard deviation of education increased slightly. Although the gap in average education between urban and rural areas decreased by 0.4 years between 2002 and 2004, the findings shown in Table 6.3 reinforce the finding from Table 6.2 that education inequality between urban and rural areas is still a serious issue in Indonesia.

Comparing Java/Bali with the other islands, the results are rather surprising. In both 2002 and 2004, mean education attainment in islands outside Java/Bali was higher, albeit only slightly, with a lower standard deviation. Determining the causes of this phenomenon requires further investigation. Most people would argue that since Java and Bali are the two most developed islands in Indonesia, education attainment should be higher in these islands for two reasons. First, there are more jobs that require higher education, and hence the educated are concentrated in Java. Second, the region has better education infrastructure compared to other islands. These arguments probably explain the fact that Western Indonesia still has higher average education attainment and a lower standard deviation than Eastern Indonesia. This means that among islands in Western Indonesia, Sumatra and Kalimantan have higher education attainment than Java/Bali, while Eastern Indonesia is still lagging behind.

Meanwhile, among various ethnic groups, Malays, Javanese, and Bugis all had similar average educational attainment, while the Chinese had much higher average education attainment, as much as 3.1 years higher than Bugis (Table 6.3). The gap in average education, however, has been diminishing over the years. The Bugis had the lowest average education attainment in 2004, and the highest standard deviation, which means that education inequality among the Bugis was worse than for other ethnic groups. Given that the Bugis also had the lowest net enrollment rates (Table 6.2), it is important to find out why this ethnic group lags behind the others in education.

In conclusion, we find that highest gaps in terms of education attainment exist between people living in urban and rural areas. Together with the evidence from Table 6.2, we can conclude that inequality between regions, especially between urban and rural areas, was still very prevalent even in 2004. It is also striking that the Bugis ethnic group had systematically lower average education attainment and net enrollment rates, and higher dispersion in education attainment, while the Chinese have the highest average education attainment and the highest senior secondary net enrollment rates. But they also had the second highest standard deviation in attainment. The evidence suggests that systematic educational inequality in Indonesia currently exists mainly between regions at the secondary level. Thus policymakers must strive to make secondary education more accessible in rural areas and in Eastern Indonesia. Based on results from Filmer (2004) and Duflo (2001), it can be argued that opening more schools would have only limited success in reducing education inequality. Therefore, policies designed to increase enrollments, and eventually average educational attainment should also include programs to increase demand for schooling. These could include providing cash incentives to parents who send their children to school. Although increasing average education attainment is a long process, ensuring that every child has equal access to education is the crucial first step that must be taken.

Health Starting from the premise that everybody deserves a healthy life, Gakidou, Murray, and Frenk (2000) state that the average health condition of a country is no longer a sufficient tool to measure the performance of a country's health system. They measure health inequality by looking at the distribution of people's health expectancy. In contrast, Pradhan, Sahn, and Younger (2003) use the height of pre-school children across the world to decompose world health inequality into within-country and between-country components. They find that the within-country component dominates total health inequality. In this chapter, we employ two steps in determining the extent of health inequality. First,

we evaluate people's health. Then, we relate this to healthcare facility usage to get an indication as to whether those with poorer health go to a healthcare facility more often. We do not aim to establish causality, but rather only to look at the relationship, if any.

The first indicator of health inequality is taken from the *Susenas* data, and indicates whether a respondent experienced disruptive morbidity in the last month prior to the *Susenas* enumeration. Disruptive morbidity is sickness that interrupts one's ability to perform daily tasks, such as working or going to school. From an economic point of view, people who are often sick are in a disadvantaged position because of earnings forgone, and the money that must be spent to get well. Although we recognize the criticisms targeted at this indicator,[3] we choose it for several reasons. First, the purpose of this chapter is to compare health levels across different groups of people rather than across individuals. We argue that the 'different perception bias' is equally distributed within each group. Second, this is the only recent indicator that is available. The dataset on Indonesia used by Pradhan, Sahn, and Younger (2003) was collected in 1994 and there has been no survey that records people's perception of their health in Indonesia. Furthermore, life expectancy and infant mortality figures are not available at household level.

The second indicator we use is healthcare facility usage (days in the past year). We include every healthcare facility, from *puskesmas* to major hospital. Low usage may very well be caused by lack of access to a facility. Assuming a similar prevalence of disruptive morbidity by region, we should observe higher usage in urban areas and Western Indonesia, where access is better. A comparison of healthcare facility usage must be accompanied by comparison of the prevalence of disruptive morbidity. Table 6.4 shows both indicators. Nationally, 15.6 percent of Indonesians

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3 According to Pradhan, Sahn, and Younger (2003), the main pitfall in using morbidity lies in the fact that people have different perceptions of morbidity. Perception is strongly associated with education level, which means more educated people recognize illness much better, and consequently report more, than uneducated ones. This entails a non-random bias when researchers use this health indicator.

were sick in 2004, which was higher than 2002. Healthcare facility usage was 1.55 days in 2004, slightly lower than 2002. This trend is also found in most categories. People in rural areas experienced higher morbidity compared to those living in urban areas. Surprisingly, there is almost no difference in terms of usage, which may indicate the existence of barriers faced by those living in rural areas in receiving treatment for their sickness.

We observe the opposite when we disaggregate by Java/Bali and the other islands. People living in Java/Bali experience higher disruptive morbidity than those living outside the two islands, and the gap was quite large. However, perhaps unexpectedly, those living outside Java/Bali use healthcare facilities more often. When disaggregated into western and eastern regions, on the other hand, the gap was even wider, with those living in Eastern Indonesia experiencing much higher rates of disruptive morbidity. In 2004, almost one-fifth of people living in Eastern Indonesia experienced disruptive sickness. Nevertheless, healthcare facility usage in Eastern Indonesia was almost the same as in Western Indonesia. When we compare across ethnic groups, in 2002 the Chinese had much lower morbidity rates compared to the other ethnic groups, with the Javanese having the highest rate. In 2004, the other three ethnic groups' rates have stayed relatively constant while that of the Chinese increased to almost 13 percent, higher than the Malays. In terms of usage there is not much difference, although the Javanese, who have by far the highest rate of morbidity, also have the lowest healthcare usage.

In conclusion, we observe health inequality in most categories, both in prevalence of sickness and, to a lesser extent, in healthcare facility usage, between urban and rural areas, between western and eastern regions; and between Javanese and the other ethnic groups. People living in rural areas or eastern region have much higher prevalence of sickness but equal usage of healthcare facilities compared to those living in urban areas or in the western region. In order to reduce health inequality, it is

important for the government to focus on providing greater access to healthcare facilities for people living in remote areas.

Income and Consumption Income inequality is a relatively well researched issue in Indonesia. A consensus has been reached regarding income or consumption expenditure inequality in Indonesia, that the overall inequality increased during the high growth period of the 1990s and decreased during the economic crisis (Tjiptoherijanto and Remi, 2001; Akita and Alisjahbana, 2002). However, when the sample is restricted solely to households below the poverty line, inequality during the crisis actually increased (Said and Widyanti, 2002). This increase was especially driven by inequality increases in rural areas. Inequality in urban areas slightly decreased (Skoufias, Suryahadi, and Sumarto, 2000). Akita, Lukman, and Yamada (1999) found that location, island of residence, age of household head, education, and household size significantly affect income inequality, while gender is an insignificant factor. Alatas and Bourguignon (2005) found that the relatively small increase in inequality during the period is the net effect of various forces working in opposite directions. For example inequality increases caused by the increase in male-female and urban-rural wage differentials were offset by decreases caused by a reduction in Java and off-Java income differentials.

In this subsection we discuss income and consumption inequality both within each classification, for example within urban areas, and between classifications, such as between urban and rural areas. We use the Gini ratio in calculating the former simply because it is the most common inequality measure and has a straightforward interpretation. We also calculate how total income and consumption is distributed between the groups in each category to see how much wealth is concentrated in a group. This method has two advantages. First, its interpretation is straightforward. Second, it achieves our goal of measuring income and expenditure inequality between households in a category. For the Gini ratio we use per capita monthly household income and consumption data, while for the distribution of income and consumption we use total monthly household income and consumption data. The data on both income and consumption are obtained from the *Susenas* Panel Consumption Module 2002 and 2004.

Rather than using nominal values like most studies, we deflate the values to ensure similar purchasing power across regions in Indonesia. This was also done by Skoufias, Suryahadi, and Sumarto (2000). We use the provincial urban and rural poverty lines calculated in Pradhan *et al.* (2001) as the deflator. The poverty lines in their study are calculated from the same basket of goods; hence the difference between them only reflects the regional price differences. By deflating nominal income and consumption by the poverty lines, we have consistent data whose differences exclusively show disparities in income and consumption, and exclude the impact of regional price disparities. Table 6.5 provides the Gini ratio of income and consumption distribution nationally and for different groups.

It is widely acknowledged, income inequality is usually higher than consumption inequality. This was the case in Indonesia in 2002 and 2004. In 2004, the Gini ratio for consumption was 0.35, while the Gini ratio for income was nine points higher at 0.44. However, their trends between 2002 and 2004 have been the same. Over these two years, national inequality increased slightly, by three points and one point for income and consumption respectively. Inequality appears to have been increasing in the post-crisis period. Between 1999 and 2002, inequality had also increased after declining during the crisis (Suryadarma *et al.* 2005). Comparing urban and rural areas, inequality within urban areas is much higher than within rural areas. In 2004, the difference was as much as nine points for the Gini ratio of income. Furthermore, inequality in both areas also increased between 2002 and 2004. The increase in income inequality was much larger in urban areas. Rural areas experienced only a slight increase in income inequality.

In 2004, the income Gini ratio in Java/Bali was 0.46, which was higher than the national measure. Between 2002 and 2004, income

inequality increased in Java/Bali by four points but remained constant elsewhere, while consumption inequality in both Java/Bali and the outer islands experienced a one-point increase. Eastern and Western Indonesia had the same Gini coefficients for income in 2002, but in 2004 inequality in Eastern Indonesia had decreased while it had increased in Western Indonesia. Hence, by 2004 there was a five-point difference between the Gini ratio for income in eastern and western regions. This pattern is also found for consumption inequality. When we look at income inequality by ethnicity, in 2004 the Malays had the lowest inequality while the Javanese had the highest. The Chinese and the Javanese had the highest consumption inequality, and the Malays had the lowest. It is interesting to note that the Gini for income and consumption inequality was quite low among the Chinese. Between 2002 and 2004, income inequality decreased among Malays, increased among Javanese, and was constant among the Bugis and the Chinese. Consumption inequality increased among the Chinese and the Javanese, and fell among the Bugis and the Malays.

We now turn to an examination of the share of income and consumption of the population in each category. We have to control this by the share of population of each member in a category to get an objective measure of distribution of income and consumption. Table 6.6 provides the results for income distribution while Table 6.7 provides the results for consumption distribution. When we separate income into urban and rural areas, 59 percent was concentrated in urban areas in 2004. However, only 43 percent of the population lived in urban areas. This means that rural areas experienced a deficit in their share of income relative to their share of population. This is shown in the income to population ratio, which was 1.36 in urban areas and 0.73 in rural areas. The ratios were worse than in 2002, which were 1.25 and 0.79 respectively for urban and rural areas (Table 6.6). Thus, between 2002 and 2004 income inequality between urban and rural areas had worsened.

The worsening income inequality between rural and urban areas was not repeated in inequality between Java/Bali and other islands. The income to population ratios in 2004 were closer to unity than they had been in 2002. Perhaps surprisingly, the Java/Bali ratio was below unity in both years. In 2004, 61 percent of Indonesians lived in Java/Bali while only 57 percent of income was generated there. There was little income inequality between Eastern and Western Indonesia in 2004, although in 2002 the income/population ratio was over unity in Eastern Indonesia. From the evidence in Table 6.6, we can conclude that there are not large inequalities in income between regions in Indonesia, but there are inequalities between urban and rural areas.

When we look at income distribution by ethnicities, the Chinese earned three percent of income in 2004 although only made up one percent of the population. Looking at the other three ethnic groups, however, we see that the Malays and Bugis also had a ratio of income to population above unity, although nowhere near the Chinese ratio of 2.72. The Javanese had a ratio of close to unity. Since all four groups had a ratio of greater or equal to one, we could argue that there is greater inequality between these four ethnic groups, rather than within them. Consumption distribution exhibits the same patterns as those shown by the income data. In 2004 the ratio of consumption expenditure to population was much higher for the Chinese than for other ethnic groups, especially the Javanese where the ratio was below unity (Table 6.7).

Conclusion

This study has provided an overview of inequality in Indonesia in four dimensions, using various measures of well-being. We have looked at the difference in access to basic services; at education outcomes; at health outcomes and at income and consumption inequalities between people based on region of residence and ethnicity. We find that, in every indicator, the highest inequality persists between urban and rural areas.

Those living in rural areas have lower access to education and health facilities, the children have lower net enrollment rates, and the adults have lower average education attainment, with similar dispersion to adults in urban areas.

Furthermore, although rural residents are sick more often, their usage of healthcare facilities is less. This probably reflects lower incomes. The share of both income and consumption expenditure is much lower than the share of population living in rural areas. On the other hand, our examination of inequality between ethnicities does not reveal any systematic inequality. Therefore, we believe that Indonesians do not receive differential treatment based on their ethnic background, at least regarding the four indicators that we assess. Similarly, the inequality between the western and eastern regions are not systematic, and, in any case, is not as pronounced as the urban-rural disparities.

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