Evolution of Rural Poverty in Indonesia, the Philippines and Thailand

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This chapter is a brief survey on the changes in poverty over the last four decades in Indonesia, the Philippines and Thailand.   In the first section, we focus on *time trends* in rural poverty in the three countries; we will examine the pace of poverty reduction in the three countries between the 1960s and the 1990s drawing upon the existing sources.   The main question here is; which counties were more or less successful in reducing poverty?   For that purpose, we rely on income(expenditure) based measures of poverty and, in particular, focus on the headcount poverty ratio since it is the most commonly available poverty measure and a long time series is often not available for other poverty measures (such as the poverty gap or other measures in the Foster-Greer-Thorbecke family).   In the second section we will focus on the comparison of poverty *levels* among the three countries using internationally comparable poverty lines.   The main question in this section is; which country has higher incidence of poverty, and how such relative positions in terms of poverty levels changed in the recent decade?   The third section discusses the comparative relationships between economic growth and poverty reduction as well as the role of agricultural sector growth in poverty reduction based on the experiences of the three countries under study.   The final section summarizes our findings and concludes the chapter.

1.   Rural Poverty Trends in Indonesia, the Philippines and Thailand

Consistently tracing the changes over time in poverty is not easy.   Each country has maintained a large-scale, nationally representative household survey scheme since the 1960s (SUSENAS for Indonesia, FIES for the Philippines, and SES for Thailand), from which comparable household welfare measures could potentially be extracted.   However, such surveys are not regularly collected in some cases (e. g., no FIES data in the Philippines are available between 1971 and 1985), and constructing poverty measures that are consistent, within the country and over time, is not an easy task for various reasons.   While the level of standard of living at the poverty line would ideally need to be fixed over the entire period for which poverty trends are examined, the 'official' poverty lines have sometimes been re-defined across different survey rounds; since, for example, people tend to substitute more expensive food for cheaper food to fulfill a given caloric requirement as their income rises, the level of the standard of living implied by the poverty line tends to shift upward (and the poverty measures thus obtained could increasingly overestimate poverty incidence) as the poverty lines are re-defined, even with the same caloric requirements, using newer household consumption data containing the food menu when people's incomes are higher than earlier days.[1]   In addition, when poverty measures are compared across different survey years for a

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[1] Furthermore, in constructing a poverty line, if poverty lines are based on local food menu corresponding to a certain minimum nutritional requirement, the standard of living implied by such poverty lines for different localities could differ systematically (or, such poverty lines may not be 'consistent.').   (Balisacan 1999; Ravallion and Bidani 1994)

given poverty line, price adjustments are required; the baskets used for typical price indices (such as CPI), however, may not be close to the consumption basket around the poverty line.[2]

Furthermore, an additional issue arises when examining time trends in *rural* poverty. For one thing, whenever the definition of urban (or rural) areas changes, interpreting a change in rural poverty measures over time (during which such definition also changed) as 'time trend' is obviously problematic.   In addition, given the way urban/rural areas are typically defined, even if the definition of rural areas is fixed, the physical areas classified as 'rural' change (shrink) over time as 'urbanization' progresses in some of the initially 'rural' areas. The changes in the rural poverty measures thus indicated reflect the changes in poverty in the shrinking and relatively slower growing (to the extent growth is correlated with the speed of urbanization) areas, which exclude poverty reduction outcomes in the initially rural but subsequently urbanized localities.[3]

All of these considerations affect how we interpret the changes in poverty measures over time as we collect them from existing sources.   To the extent data are available some of these issues are addressed in each country context before making statements about our interpretations on the trends in rural poverty.

1-1. Rural Poverty Trends in Indonesia

Data sources and poverty lines:

The main source for assessing poverty in Indonesia is the National Socio-Economic Surveys (*Survey Sosial Ekonomi Nasional* or SUSENAS) which include detailed information on household consumption expenditures.   The 1996 SUSENAS survey, for example, covered 209 food items and 103 nonfood items in its consumption module, collected over a sample of 206,000 households (Surbakti 1997).   SUSENAS data containing household consumption expenditure data are available for the years 1963, 1967, 1970, 1976, 1980, 1981, 1984, 1987 1990, 1993, 1996, 1998 and 1999.

The national poverty line devised by the Central Bureau of Statistics (BPS) is based on a food consumption package satisfying a daily caloric requirement of 2100 calories per day plus allowances for nonfood necessities obtained separately for each province and between urban and rural areas.   As pointed out by Ravallion and Bidani (1994), the implied welfare levels of the 'official' poverty lines thus derived are not consistent across regions or between rural and urban areas, in the sense that the different consumption bundles are implied in the poverty lines for different regions (or between urban and rural areas).   While consistent poverty lines using a fixed consumption bundle across regions and between urban and rural areas (with adjustments for the cost of living across locations) were applied for the 1990

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[2] A dramatic example is found in Suryahadi, *et. al*. 2000.
[3] See Appendix I in the chapter by Balisacan, Fuwa and Debuque (2001) for a more detailed discussion using the Philippine example.

SUSENAS data by Ravallion and Bidani (1994)[4], poverty measures using their poverty lines for other data years are not available.   For our current purposes, therefore, we have to rely on the poverty measures using the 'official' (BPS) poverty lines, keeping in mind that the poverty lines used in our discussion are not consistent across regions and between rural and urban areas and poverty levels in wealthier regions and/or urban areas are relatively overstated (and the pace of poverty reduction could be understated if the implied standard of living changes as poverty lines are re-defined for different survey rounds).

In addition, as we noted earlier, the estimated poverty rates in rural areas could partly depend on the way the 'rural areas' are defined.   In Indonesia, the urban/rural classification is conducted when population census is undertaken, and there was a major change in the urban/rural classification scheme prior to the 1980 census; since the 1980 census the urban/rural classification has been based on population density, the share of 'agricultural households' and the number of urban-associated facilities available (Surbakti)[5].   As a result, the 'rural' definitions before and after the 1980 SUSENAS are thus not quite comparable. Even with the definition of the rural areas kept constant (say, after the 1980s SUSENAS), the actual physical areas classified as 'rural areas' obviously change as the urban/rural classification is updated for each community based on the most recent population census. This means that the physical areas classified as 'rural' are not the same between the data from the 1980s and those from the 1990s.   While some alternative poverty estimates by fixing the physical rural areas are available in the case of the Philippines (see below), none of the poverty estimates obtained from Indonesian sources makes such adjustments.   We should thus keep in mind in the following discussion that the 'rural' areas do not mean the same physical areas when comparing the rural poverty measures across the 1970s, the 1980s and the 1990s.

Rural Poverty Trends in Indonesia:

Table 1 and Figure 1 summarize headcount poverty ratios during the period from the 1960s through the 1990s taken from various sources.   The data for 1963, 67 and 1970 were not nationwide surveys (Bevan *et al*. 1999, Booth 1993)[6].   Furthermore, the CPI increase during this period was implausibly high (541 times) so that Bevan, *et al.* (1999) calculated the poverty ratios assuming that the per capita consumption expenditure was constant throughout (main rationale for this assumption being the finding based on data that the per capita rice consumption remained almost constant during the period) and thus the only source of the change in the estimated poverty incidence was the change in the expenditure distribution; the

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[4] Ravallion and Bidani (1994) find, for example, that povery incidence was higher in rural areas than in urban areas using their 'consistent' poverty lines while the reverse was true using the official poverty lines, and also that there was no correlation between the regional rankings of poverty incidence using the alternative poverty lines.

[5] A community (village) is classifed as urban if it has a population density of at least 5000 per square kilometer, 25 percent of less of its households are engaged in agriculture, and it has at least eight 'urban facilities' (hospitals, clinics, schools, etc.). (Tjondronegoro, et. al.)

[6] The 1963 and 67 data covered only Java and Madur while the 1970 data were nearly natiowide except the provinces of Maluku and Irian Jaya.

results of such calculation indicate that rural poverty increased by more than 20 % between 1963 and 1970.   Strictly speaking, Bevan, *et al*. (1999)'s series is not quite comparable between the 1963-1970 period and the 1976-1984 period due to both the change in the area coverage (the geographical coverage was expanded to nationwide since the 1976 SUSENAS) and the peculiar assumption of no growth in consumption expenditure between 1963-70; to the extent these series are comparable, however, the data indicate a modest decline (by 7%) in poverty incidence in the early 1970s.

While the level of poverty incidence differs across various data series (reflecting different poverty lines adopted), available data all show a very sharp decline in the headcount poverty ratio in rural areas between the mid-1970s and the mid-1980s; the data series using the official poverty lines indicates that poverty incidence fell by 60% between 1976 and 1987. While the speed of rural poverty reduction slightly slowed down after the mid-1980s as indicated by the official poverty incidence series, the poverty ratio continued to decline until 1996, the year before the outset of the Asian crisis.   The rural poverty incidence declined from 40% in 1976 to 12% in 1996, a 70% decrease.

Then came the Asian financial crisis in the mid-1997.   The changes in the level of poverty during the crisis in Indonesia have been well monitored.   Since there were large changes in relative prices during the 'crisis' years (e. g., food prices increased at twice as fast as did non-food prices between 1996 and 1999), poverty estimates are quite sensitive to alternative uses of different price indices and of different budget shares of food versus non-food expenditures in deflating poverty lines (Suryahadi, *et. al.* 2000).   Using the series of estimates by Suryahadi, *et al*. (2000), the headcount poverty ratio continued to decline after 1996 (when the last full SUSENAS survey was conducted prior to the crisis) until around the third quarter of 1997, after which it rose sharply.   The nationwide poverty incidence jumped by 164% between the mid-1997 and the middle of the second half of 1998, when the level of poverty incidence apparently peaked during the crisis.   The trend in the nationwide poverty incidence indicates that, as of August 1999, the level of poverty incidence came down to the same level as that in February 1996, but it was still about 50% higher than the level of poverty immediately before the crisis broke (Suryahadi, *et. al.* 2000).

Overall, the rate of rural poverty reduction in Indonesia was very impressive during the last four decades.   While the poverty incidence possibly increased during the 1960s in Java and Madur, all the available studies show a consistent decline in rural poverty incidence from the mid-1970s through the 1990s.   This is despite the potential inconsistencies in poverty measures, possibly overstating rural poverty incidence and understating the pace of rural poverty reduction.   While the estimated rates of poverty reduction depend on the specific poverty line used, based on the poverty measures using the 'official' (BPS) figures the headcount poverty ratio in rural Indonesia fell by as much as 70% between the mid-1970s and the mid-1990s.   Despite the sharp increase in the poverty incidence in the wake of the Asian crisis during 1997-1998, the level of poverty recovered (fell) back to the 1996 level by the mid-1999.

1-2. Rural Poverty Trends in the Philippines

Data sources and poverty lines:

The main data source for assessing poverty in the Philippines is the Family Income and Expenditure Surveys (FIES) conducted by the National Statistical Office.   Conducted every three years since 1985 (and a few additional earlier data being also available), the most recently available round in 1997 covers a sample of 39,520 households and uses urban and rural areas of each province as principal domains.   The survey instrument for consumption expenditures runs over 20 pages with over 400 expenditure items (Balisacan 1999).   FIES data are available for the years 1961, 1965, 1971, 1985, 1988, 1991,1994 and 1997.   A major difficulty in examining the poverty trend in the Philippines is the absence of the FIES data between 1971 and 1985, a fourteen year interval.   We therefore supplement FIES data with Labor Force Surveys (LFS) for the years 1977, 1978, 1980, 1981, 1982 and 1983.   We need to recognize, however, that the levels of poverty estimated using FIES and LFS data are not directly comparable with each other; while FIES collects both income and expenditures LFS collects only incomes, and income data from FIES and LFS are collected with different survey instruments.

The poverty line set by the Philippine government is based on the minimum nutritional requirement of 2,000 calories per person per day using representative local food menus for urban and rural areas in each region, and different sets of food menu were used before and after 1988 (Balisacan 1999).[7]   Then the expenditure pattern of households within the ten percentile of the food threshold in income distribution is used to determine the poverty line.   Since the official definition of poverty line involves local food menu, and since the non-food expenditure shares within the poverty line also differ across regions (non-food expenditure shares tend to be higher in high-income regions), the standard of living implied by the 'official' poverty line tends to be higher in wealthier regions, as we discussed earlier, and thus the estimated rates of poverty are likely to be overestimated among higher income regions compared to those based on a 'consistent' poverty line (i. e., a poverty line implying the same standard of living across regions).[8]   Another issue in the inter-temporal comparability of poverty estimates is the fact that for the data years 1961, 1965 and 1971 only grouped data (the number of households belonging to particular income brackets) are available while individual household observations are available for the data year 1985 and thereafter.

In addition, when comparing the rural poverty measures over time we should keep in mind that the 'official' definition of the 'rural areas' changed in the 1965 and 1971 rounds of FIES.[9]   In addition, as we noted earlier, while the definition of the 'rural area' remained

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[7] The following discussion is based on Balisacan (1999).

[8] Indeed, Balisacan (1999) finds that the poverty line using the 'fixed-level-of-living' (FLOL) approach for each region is lower than the 'official' poverty line, and the gap between the two poverty lines tends to be slightly higher in higer-income regions than in lower-income regions.

[9] The 1971 definition of 'urban areas' includes Metro Manila, chartered cities, provincial capitals and all town centers of municipalities as well as any town with a population density of 500 per square kilometer plus any of

constant since 1971, to the extent that income growth and poverty reduction are faster in more rapidly urbanizing areas, the rural poverty reduction performances thus indicated by such poverty trend measures likely understate the rural poverty reduction performances than the implied poverty reduction performances if rural areas were defined as geographically fixed areas.   For this reason, we examine, in addition to the poverty estimates based on the 'official' definitions of the rural areas, alternative rural poverty estimates based on the definition (of the rural areas) based on a fixed geographical areas for the years such data are available.

Rural Poverty Trends in the Philippines:

Table 2 and Figure 2 summarize various headcount poverty ratios over the past four decades using both FIES (for 1961, 65, 71, 85, 88, 91, and 94) and FLS (1977-83) data.   We have constructed a 'preferred' series of rural poverty rates over the entire period based on FIES income data (except for the years 1994 and 1997 when consumption expenditure rather than income is used), applying a fixed poverty line (but *not* 'consistent' across regions) for 1961-91 and another fixed poverty line (which is consistent across regions) for 1994 and 97. The 'fixed physical rural' definition (see Appendix in Balisacan, Fuwa and Debuque) are used for years between 1961 and 1991 but the 'official' (i. e., physically not fixed) rural definition is used for the data in 1994 and 1997.

With all the data inconsistency in mind, we can see that, after the notable decline during the early half of the 1960s, the level of rural poverty incidence remained relatively stable during the 1960s through the 1970s; the headcount poverty ratio in the rural area stayed at the level between 55% and 60% up to 1978.   As discussed in the chapter by Balisacan, Fuwa and Debuque (this volume) this appears to suggest that there was relatively little reduction in rural poverty incidence in most of the 1960s and 1970s not only despite the respectable performances in the national income growth but also despite the relatively high aggregate growth in agricultural production during the period.   As noted earlier, however, given the absence of a consistent series of data on poverty that are comparable throughout the 1970s and the 1980s, it is not possible to draw a definitive conclusion about whether and to what extent there was poverty reduction in the Philippines in response to the aggregate growth during the 1970s; as pointed out in the chapter by Balisacan, Fuwa and Debuque (this volume), a possibility cannot be ruled out, for example, such that the estimated poverty levels based on LFS are overestimated vis-à-vis FIES based poverty measures, which implies that there possibly was substantial poverty reduction during the rapid (by the Philippine standard) growth episode in the 1970s.

The poverty estimates based on LFS data show that the headcount poverty ratio started to decline sharply during the period between 1978 and 1980, but that rural poverty increased rapidly again between 1980 and 1983 during the early period of the economic and political crises in the 1980s.   Using the FIES data again for the period after the mid-1980s, the

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its contiguous villages having at least 2,500 inhabitants or any district with at least six (commercial, manufacturing, recreational or personal services) establishments (regardless of population density).

headcount poverty ratio declined between 1985 and 1997.   The pace of poverty reduction during the period, however, appears to be quite sensitive to the choice of poverty line and of the definition of the rural areas even using the same database.   Based on the 'official' poverty estimates the level of rural poverty declined only slightly from 64% in 1985 to 60% in 1997, a 5% decline.   On the other hand, using our 'preferred' series which combines estimates using consistent poverty lines and the 'fixed-physical' rural definition *whenever available (these adjustments are not available on a consistent basis, however)*, the headcount poverty ratio fell from 56% in 1985 to 31% in 1997, a 44% decline.

Unfortunately, there is not (yet) a data set that allows us to examine the change in the level of poverty during/after the Asian crisis, during which the country was affected also by the El Niño phenomenon (at least for some regions).   While there have been Annual Poverty Indicator Surveys (APIS) conducted also by NSO since 1998, expenditure or income data from APIS are not comparable to those from the 1997 FIES (Balisacan 1999).   It has been documented based on APIS, however, that in the wake of the Asian crisis and of the El Niño poorer households were more likely than richer households to make such 'adjustments' as changing eating habits, increasing work hours, migrating to other places, and, most importantly, withdrawing children from school (Balisacan 1999).

In sum, using our composite 'preferred' series, the headcount poverty ratio declined from 60% in 1961 to 37% in 1997, a 48% decrease over the 36 year period.   A striking observation in the trend in the Philippine poverty is that the level of rural poverty incidence in the mid-1980s was not too much lower than the level in the early 1970s.   The available data are not conclusive, however, as to whether it was because there was little poverty reduction during the 1970s despite the rapid growth (both in national aggregate and in the agricultural sector), or because the poverty reduction resulting from the growth in the 1970s was completely wiped out during the period of political and economic crises in the early 1980s. After the mid-1980s rural poverty reduction apparently made a major progress through the 1990s; the rate of poverty reduction between the mid-1980s and the mid-1990s appears to be quite sensitive to the use of poverty line and of the adjustments due to the changing physical areas of the defined 'rural areas,' however, ranging between 5% and 44% decline over the period between 1985 and 1997.

1-3. Rural Poverty Trends in Thailand

Data sources and poverty lines:

The main data source for poverty analysis in Thailand is the Socio Economic Surveys (SES) conducted by the National Statistical Office since 1962.   SES typically have a sample size of about 25,000 households (e. g., the 1998 SES contained 23,549 households) and obtain information on household income and household expenditure, household consumption patterns, changes in assets and liabilities, ownership of durable goods, and other housing characteristics (e. g., Krongkaew, et. al. 1994, Deolalikar 2001).   SES were conducted in every 5 years between 1957 and 1986 and have been conducted in every two years since 1986. While SES contain comprehensive consumption expenditure data, they have used two types

of food consumption questionnaires, the short-form and the long-form; in order to contain costs, the short-form food consumption module was used every four years since 1988.   The short-form food consumption module typically asks for the consumption of 15 to 20 major food categories in a typical week while the long-form food consumption module typically asks about 140 food items on a daily basis for a week (Ahuja, *et. al*. 1997).

Since the published estimates of poverty started in 1962, the definition of the official poverty lines drawn by the National Economic and Social Development Board (NESDB) have changed several times.   Estimation of poverty incidence for Thailand using a poverty line definition based on a nutritional requirements started with Meesook (1979), using the estimated minimum caloric intake for a 'typical' Thai of 1,978 calories per day.[10]   A revised poverty line was developed by Krongdaew, *et. al*. (1994) with a slightly higher nutritional requirement (2,034 calories per day) and with a revised food and non-food consumption patterns.   In 1996, the NESDB developed a yet new poverty line that was officially accepted by the Thai cabinet.   A new feature of this official poverty line is that it accounts not only for the difference between rural and urban areas and for the difference in the cost of living across five regions, but also for the differences in the sizes and the demographic composition (i. e., age and sex) among households (Deolalikar 2001).

One major difference in the existing poverty studies in Thailand, in contrast with those in Indonesia and in the Philippines, is that all available poverty studies in Thailand, except for Deolalikar (2001), are based on household incomes rather than household expenditures.   It has been generally recognized among analysts of poverty-related data that the use of consumption expenditure data are more desirable than the use of income data as an indicator of the household (or individual) welfare levels due to, among others, the smaller measurement errors and the greater consistency with the permanent income hypothesis of consumer behavior (e. g., see Deaton 1997).   One of the major drawbacks in our present context is that the income data could be more susceptible to temporary fluctuations than the consumption expenditures data, making it potentially more difficult to draw a definitive inference about changes in welfare levels over time.

Rural Poverty Trends in Thailand:

As shown in Table 3 and Figure 3 (taken from Shigetomi's chapter in this volume), there have been several separate studies tracing rural poverty trends in Thailand for certain time periods.   All are based on household income data series obtained from SES but use different poverty line definitions.   In a recent paper, Warr (2001) constructed a single time series of the nationwide rural poverty incidence between 1962 and 1999 by splicing together various estimates from the existing studies.[11]   Typically when a poverty line is revised over

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[10] A subsequent study by Hutaserani and Jitsuchon (1988) also used the same poverty line (Krongkaew, et. al. 1994).

[11] One technical issue in estimating rural poverty in Thailnad should be noted in passing.   The geographical location of a household in SES data are classified into 'municipal areas,' 'sanitary areas,' and 'villages.'   While it has been a common practice to aggregate both the 'sanitary areas' and 'municipal areas' as the 'urban' areas

time the new poverty line tends to reflect the level of living standards that is higher than that reflected by an old one; as average real incomes rise, the earlier levels of the poverty line come to be deemed insufficient.   Warr (2001)'s exercise shows such tendency.   That is, the estimated poverty incidence in a given year becomes larger when more recent data are spliced together that use a newer poverty line (which reflects a higher living standard than does the original poverty line)—as a result, when the newest poverty trends are backcast to earlier years using Warr's splicing technique, the re-estimated poverty incidence for earlier years of the series become very large.

All the series exhibits similar time trends in the headcount poverty ratio; poverty incidence in Thailand declined consistently until the eve of the Asian crisis except for the rather sharp increase in the period between 1981 and 1986.   The increase in the rural poverty incidence from 43% to 56% during the 1981-86 period has mainly been attributed to the significant drop in agricultural prices in 1986 (e. g., Shigetomi, this volume, Krongkaew, *et. al*. 1994).   Despite such a temporary hike in the poverty incidence in the early 1980s, the overall poverty reduction performance in Thailand from the early 1960s until the mid-1990s is spectacular; using Warr (2001)'s series, the headcount poverty ratio declined from 96% in 1962 to 15% in 1996—an 84% reduction in poverty incidence over a thirty year period. Poverty incidence declined by 74% between the mid-1970s and the mid-1990s, which is a similar pace of poverty reduction as the one in Indonesia during the same period.   While both the Philippines and Thailand experienced sharp increases in poverty incidence during the early 1980s, the pace of subsequent poverty reduction between the mid-1980s and the mid-1990s was faster in Thailand than in the Philippines; poverty incidence declined by 74 % in Thailand while it declined by 44% (at most) in the Philippines during the period.

As was the case in Indonesia, the Asian financial crisis starting in 1997 hit hard the Thai economy.   The headcount poverty ratio increased by 44% in rural areas and by 40% in the national aggregate during the period between 1996 and 1999.   The patterns in the increase in poverty incidence in the wake of the Asian crisis, however, appear to be different between Indonesia and Thailand.   While in Indonesia poverty incidence increased very sharply between 1997 and 1998 by 164% but then declined quickly in the subsequent year, and the level of poverty incidence as of 1999 was about 50% higher than that in 1996 before the crisis.   In contrast, the increase in poverty incidence in Thailand was much more gradual; the nationwide poverty incidence rose by a modest 13% between 1996 and 1998[12] and then increased further by 23% in 1999.   As of 1999, two years after the outbreak of the Asian crisis, the level of poverty incidence was roughly the same as the one in 1996 in Indonesia while poverty incidence in Thailand was 44% higher than it was in 1996.

In sum, the rural poverty reduction performance in Thailand in the past four decades

and 'villages' as the 'rural areas' when estimating urban or rural poverty measures, whether the 'sanitary' areas should be considered as more 'urban' or 'rural' has been debated (e. g., Krongkaew, *et al*. 1994: 647).

[12] We do not have a 1997 pre-crisis estimate of poverty incidence for Thailand.   In fact, the post-crisis increase in poverty incidence is likely to be larger than the 13% increase between 1996 and 1998 since poverty incidence is likely to have declined further between 1996 and 1997 up until the crisis broke out, as was the case in Indonesia.

has been very impressive.   Based on the long time series constructed by Warr (2001), the headcount poverty ratio declined by 84% between 1962 and 1996.   The pace of rural poverty reduction at over 70% between the mid-1970s and the mid-1990s (before the Asian crisis) was roughly comparable to the similarly rapid reduction in rural poverty observed in Indonesia.   While both the Philippines and Thailand experienced similarly sharp increases in poverty incidence during the early 1980s, the pace of poverty reduction subsequently observed after the mid-1980s until the mid-1990s was much higher in Thailand (over 70%) than in the Philippines (over 40%).   Furthermore, the immediate impact on poverty incidence of the Asian crisis appears to have been milder in Thailand than in Indonesia.

2.   Comparing absolute Poverty levels among three countries

In the previous section, we examined the time trends in poverty incidence in each country using country specific poverty lines.   In this section, our main focus is on the comparison of the level of poverty among the three countries.   We use the World Bank database that contains per capita expenditures using PPP dollars, poverty measures using internationally comparable poverty lines, and Gini ratios of expenditure (income) distribution. The original data sources are the same as those we examined above (i. e., SUSENAS for Indonesia, FIES for the Philippines, and SES for Thailand), but the same poverty lines converted with PPP dollars are applied in estimating poverty measures.   Since the World Bank data base does not include any urban/rural disaggregation, however, our discussion in this section focuses on the nationwide aggregate.

The international poverty lines used here have been chosen as representative of the poverty lines found among low-income countries; the equivalent of US$1.08 per day (US$32.74 per month) in 1993 Purchasing Power Parity (PPP) was obtained as the median of the lowest ten poverty lines in a set of countries collected by the World Bank (Chen and Ravallion 2000).   We compare the level of absolute poverty in the three countries using the $1 a day poverty line thus obtained, which can be interpreted as the standard of living deemed as 'poor' by perceptions found among the poorest countries as of the early 1990s.   We also compare the poverty measures using this poverty line with an alternative series obtained earlier, which also uses US$1 per day poverty line but taking 1985 as the reference year for converting the household expenditures (incomes) in local currency unit into the PPP dollars—amounting to a different level of the poverty line (taken from Ahuja, *et. al.* 1997). We also examine poverty comparisons using the poverty line twice the US$1 a day (at 1993 PPP dollar) poverty line, the US$2 a day poverty line, which can be seen as a poverty line more typical of low-middle income countries (Chen and Ravallion).   The international poverty lines are converted into local currency units at PPP exchange rates in 1993 and country-specific Consumer Price Index (CPI) is used to adjust the price level to various survey data years.   We should keep in mind, however, that the weights used in the country specific CPIs are not necessarily close to the budget shares at the poverty lines (Chen and Ravallion 2000).   Additional issues that potentially make the international comparison of the *levels* of poverty incidence difficult include (but not limited to): the difference across countries in the household survey design (e. g., the questionnaire design), the methods of valuing in-kind consumption or income, and the use of consumption expenditure versus

income as a measure of household welfare (see, for example, Ravallion and Chen 1997).

Comparing the levels of these welfare measures among the three countries, we can see in Table 4 that Thailand outperformed both Indonesia and the Philippines in terms of the level of poverty throughout the period after the mid-1970s.   It is quite puzzling, however, that emerging pictures are rather different depending on whether the 1993 PPP dollar exchange rates or the 1985 PPP dollar exchange rates are used to convert the household expenditure measures.   Based on the series using the 1993 PPP dollars, as of the late 1980s (in 1987 or 1988), the level of poverty measures was very similar between Thailand and the Philippines while the level of poverty in Indonesia was substantially higher; for example, the head count poverty ratio was 18% in both Thailand and the Philippines as of 1988 while it was 28% in Indonesia as of 1987.   On the other hand, using the 1985 PPP dollar conversion, the levels of poverty in Indonesia and the Philippines (the headcount ratio of 32%) are the same while that of Thailand is substantially lower (the headcount ratio of 10%).   After the late 1980s through the mid-1990s, however, the relative position in terms of the level of poverty among the three countries converges between the two data series; the Philippines had the highest incidence of poverty, Indonesia had substantially lower poverty incidence than the Philippines', and Thailand had substantially lower poverty incidence than Indonesia's. Using the 'dollar a day' poverty line the same general observations emerge from the series using the poverty gap measures as those from the headcount poverty ratios.   While the relative ranking among the three countries is clear during the 1990s, it is rather ambiguous for the 1980s.   This indicates that the choice of the reference year for the PPP dollar exchange rates in obtaining the poverty line could potentially make a substantial difference in poverty comparisons across countries.

Poverty estimates using a $2 a day poverty line are available only for the series using the 1993 PPP dollar exchange rates (but not for the 1985 PPP dollar exchange rates).   The general picture is similar to the ones we obtain from the $1 a day poverty line above (using 1993 PPP dollars).   The ranking of poverty comparisons between Indonesia and the Philippines as of the late 1990s (before the Asian crisis), however, diverges between the $1 a day versus the $2 a day poverty lines.   Using the $1 poverty line (with 1993 PPP $), poverty in Indonesia (in 1996) was lower in terms of both the headcount ratio (7.8%) and the poverty gap (1%) than in the Philippines in 1997 (14% and 3%, respectively).   Using the $2 poverty line, however, poverty in Indonesia was slightly higher using the headcount ratio (51% in Indonesia and 45% in the Philippines) while the ranking reverses using the poverty gap measure (15% in Indonesia and 16% in the Philippines).   On balance, before the outset of the Asian crisis in 1997, poverty reduction performances appear much more impressive in Indonesia than in the Philippines, which is consistent with our observations from the poverty trends using national sources.

The Asian crisis apparently hit Indonesia particularly hard although comparable data for the Philippines are not yet available; while there is little increase in the level of poverty in Thailand between 1996 and 1998, the level of poverty shot up sharply during the same period in Indonesia; the headcount poverty ratio rose by more than threefold using the $1 poverty line and by 50% using the $2 poverty line.   In light of our discussion above on Indonesian

poverty trends, however, the magnitude of the increase in poverty is likely to be overestimated, perhaps due to the use of CPI as the deflator for the poverty line; the estimates by Bevan, et al. 2000 show that the increase in poverty incidence between 1997 (the lowest point in poverty level) and the late-1998 (at the peak in the poverty level during the crisis) was around 160% rather than 300%.   Given the fact that the headcount poverty ratio in Indonesia had dropped back to its 1996 level by the mid-1999, it is likely that the relative position (ranking) among the three countries in terms of the level of poverty incidence at the turn of the century was the same as that prevailed before the Asian crisis.

The comparison of the per capita expenditure measures among the three countries (using the 1993 PPP dollar exchange rates) show similar patterns; Thailand was the best performer throughout the period while Indonesia caught up with the Philippines at some point between the late 1980s and the mid-1990s before the crisis, and Indonesia being the hardest hit by the Asian crisis.   As of 1988, the per capita expenditure of Thailand (U$90) was slightly higher than that of the Philippines (US$83) and much higher than Indonesia's (US$56, as of 1987).   The per capita expenditure in Thailand increased by 59% between 1988 and 1996 (or 6% annually on average) before declining after the Asian crisis by 3.5%, while Indonesia's per capita expenditure grew by 56% between 1987 and 1996 (5% annually on average) before declining by 30% between 1996 and 1998 and the Philippines' increased by 33% between 1988 and 1997 (or 3% annually on average).   As a result, as of the mid-1990s (before the crisis) the per capita expenditure of Thailand, US$144, was much higher than that of the other two countries while Indonesia (US$87 as of 1996) had virtually caught up with the Philippines (US$89 as of 1994).   In terms of the impact of the Asian financial crisis, again, Indonesia was hardest hit by the crisis in terms of the per capita expenditure.

In contrast with the change in the poverty measures, the gini ratios of per capita expenditure remained quite stable in all three countries during the period between the mid-1980s and the late 1990s.   The nationwide income inequality (proxied by the gini ratio of the per capita expenditure) was substantially lower in Indonesia (between 32 and 36 during the period 1987-1999) than in the other two countries, and the level of the gini ratios of the Philippines (between 41 and 46 during the period 1985-1997) and of Thailand (between 42 and 46 during the period 1988-1998) was quite similar.   As of the mid-1990s, Thailand had much lower ratio of poverty than did the other two countries but the level of inequality was higher than that of Indonesia; Indonesia, on the other hand, (before the onset of the crisis) had the ratio of poverty higher than Thailand's but slightly lower than the Philippines' and the level of inequality was the lowest among the three countries.   On the other hand, the Philippines, as of the mid-1990s, had the highest rate of poverty and also a higher level of inequality than Indonesia's (and similar to Thailand's).

3. Growth, Poverty Reduction and the Role of the Agricultural Sector

In the previous sections, we have compared both the trends and the levels of poverty incidence among Indonesia, the Philippines and Thailand.   In this section, we make a crude attempt to search for some proximate causes for the differential poverty reduction performances among the three countries.   For that purpose, we briefly examine the

differences among the three countries in the responsiveness of poverty reduction to the aggregate income growth, and also in the relative role of the agricultural and non-agricultural sector growth in poverty reduction.

Growth and poverty reduction

It is now widely recognized that aggregate income growth is a necessary condition for persistent poverty reduction.   As we saw earlier, during the period between the mid-1980s and the mid-1990s, the growth rate of per capita income was highest in Thailand and lowest in the Philippines and the rate of poverty reduction among the three countries ranked also in the same order.   Does this mean that the faster poverty reduction in Thailand vis-à-vis the other two countries under study was solely due to the higher aggregate income growth?   In fact, country experiences have varied as to how much poverty reduction accompanies with a given rate of economic growth; while economic 'growth is good for the poor' (e. g., Dollar and Kraay), every economic growth episode is not equally good for the poor.   Such variations across growth episodes could be captured by comparing the 'growth elasticities of poverty reduction,' i. e., the rate of poverty reduction accompanying a one percent growth in aggregate income.   For example, using national aggregate data during the period between 1985 and 1995, the growth elasticities were estimated as 1.86, 1.42 and 0.67 for Thailand, Indonesia and the Philippines, respectively (Ahuja, *et. al*. 1997).   Using a cross-country regression analysis, Ravallion (2001) estimated an international average growth elasticity as 2.5.   Applying a similar regression analysis to sub-national level data (rather than national aggregate data), the growth elasticity for Thailand has been estimated as 2.2, which is close to the international average (Deolalikar 2001), while the one for the Philippines has been estimated as 1.6 (Balisacan and Fuwa 2001).   There has been no equivalent estimate for Indonesia to this author's knowledge, but a recent study finds that the income growth of the poor is slightly more responsive to the aggregate income growth in Indonesia than is in the Philippines (Balisacan 2002).   Another study focusing on Southeast Asian countries (plus China) indicates that the growth elasticity in Indonesia and in the Philippines is just around the average across the Southeast Asian countries but the growth elasticity in Thailand is well beyond such an average (World Bank 2001: 48, Figure 3.4).

Evidence generally supports a view, therefore, that the growth elasticity of poverty reduction has been highest in Thailand and lowest in the Philippines, with Indonesia lying somewhere between the two; that is, a one percent growth in aggregate income in Thailand had a larger impact on reducing poverty than did a one percent growth in the Philippines or in Indonesia.   This means that the faster poverty reduction in Thailand and the slower poverty reduction in the Philippines were due not only to the faster growth in the aggregate income in Thailand but also to the greater responsiveness of poverty reduction to the aggregate income growth.   In other words, economic growth in Thailand was better for the poor than it was in the other countries under study.

The role of the agricultural sector in poverty reduction

Not only did the poverty reduction impacts of aggregate growth vary across countries,

but also varied across country experiences is the impact of sectoral composition of the income growth.   Cross-country regression analyses tend to find that agricultural sector growth has somewhat stronger poverty reduction impact than does non-agricultural sector growth *unless* income distribution is highly unequal (e. g., Gugerty and Timmer 1999).   Based on sub-national data from India, Ravallion and Datt (1996) similarly find that output growth in the primary and tertiary sectors reduced poverty while growth in the secondary sector did not contribute much to poverty reduction.   As in the case of the 'growth elasticity of poverty reduction,' however, country experiences appear to vary as to the role of agricultural versus non-agricultural sector growth in poverty reduction.   The cross-country regression results as noted above appear to break down once cross-country data are disaggregated by regions; the results of a stronger poverty reduction impact of agricultural sector growth vis-à-vis non-agricultural sector survive only in Africa, and very weakly in Southeast Asia (Akiyama: this volume).

Among the three countries under study, observers tend to agree that poverty reduction in Thailand was mainly driven by non-agricultural sector growth.   For example, the aggregate cash income of farm households from agriculture actually declined in real terms between 1980 and 1995 and the rapid increase in the real cash income of farm households was solely due to the increase in the off-farm incomes (Shigetomi, this volume).   It has also been observed that income disparity widened between urban and rural areas, across educational attainments and across occupational categories during 1975-1992, and that poverty was increasingly concentrated in rural areas and among those relying on agricultural incomes, i. e., farm operators and farm laborers (Ahuja, et al.).   These observations all suggest that the growth in the agricultural sector was not likely to be the main driving force in rural poverty reduction in the case of Thailand.   Furthermore, recent experiences from the Asian financial crisis also appear to support the view that the growth in non-agricultural (urban) sector had played the major role in the poverty reduction prior to the crisis in Thailand; recent data indicate that the largely rural Northeastern region of Thailand was not only the poorest across Thai regions but the region also experienced the largest decrease in income shortly after the outbreak of the financial crisis, presumably due to the decrease in the remittances that migrant workers in Bangkok sent to their households back in the Northeast (Deolalikar 2001).   This suggests that the rapid reduction in rural poverty in Thailand resulted from the increasing reliance by the rural households on urban sector incomes through migration.

In the case of the Philippines as well, some micro-level studies similarly find the major role of the non-agricultural sector growth in poverty reduction in the 1990s.   Hayami and Kikuchi (2000) observed that the poverty reduction during the 1990s, despite a sharp increase in the inequality in land distribution, was mostly due to the expansion of the employment opportunities in non-agricultural sectors in their study village located in a suburban Metro Manila area.   On the other hand, however, it is not yet clear whether the same can be said about the other parts of the Philippines.   A recent study finds that a sharp increase in the share of the non-agricultural income among rural households was accompanied by an increasing disparity between farming and landless households in the non-agricultural income in an outer island while such a sharp increase in inequality in the non-agricultural income was not observed in the Central Luzon—suggesting that the growth of the

non-agricultural sector was not as 'pro-poor' in outer islands as in the surrounding provinces of Metro Manila (Estudillo, Quisumbing and Otsuka 1999).   Another study based on provincial data further finds that the estimated growth elasticity of poverty reduction is positively related to the share of agricultural income and negatively related to the share of non-agricultural income, suggesting that the poverty reduction impact of aggregate income growth is larger when the share of agricultural income is larger and that the trends observed in the surrounding provinces of Metro Manila may be geographically quite limited (Balisacan and Fuwa 2001).   These findings appear to be consistent with the cross-country evidence on the larger role of agricultural sector growth on poverty reduction.   The evidence from the Philippines regarding the relative role of the agricultural sector growth vis-à-vis the non-agricultural sector growth thus seems to be rather mixed and not as clear-cut as it is from Thailand.   The situation might be similar in Indonesia as well.   On the one hand, some studies have found that the rapid growth in the availability of off-farm wage employment for rural households resulted in a rapid poverty reduction in Java, which in turn led to the shift of the main location of the rural poor in Indonesia from Java to outer islands.   On the other hand, however, some doubts have also been expressed as to whether a growth in the non-agricultural sector in outer islands necessarily leads to a similarly rapid poverty reduction as observed in Java (e. g., Booth 1993).

The poverty reduction impact of agricultural sector growth can vary due to the differences in the agrarian structure in rural areas with historical roots (see Hayami this volume).   In addition, variations in the relative role of the agricultural sector vis-à-vis the non-agricultural sector growth could also arise from the variations across countries in the labor absorptive capacity by the industrial sector growth.   One way of approaching this issue is to compare across sectors the 'weighted employment elasticities (with respect to income growth),' defined as $[G(L_i)/G(Y_i)](L_i/L)$, where $G(L_i)$ stands for the growth rate of the labor force employed in sector i, $G(Y_i)$ the growth rate of the value added in sector i, L_i the number of employees in sector i and L the total number of employees in all sectors (Watanabe 1998, chap. 4).   The results of such comparisons across the three countries under study as well as two East Asian countries, Korea and Taiwan, are shown in Table 6.   We can see that the relative labor absorptive capacity of the industrial sector was much smaller than that of the agricultural sector during the period between the 1960s through the 1980s in all of the three countries under study.[13]   As observed earlier by Watanabe (1998, chap. 4), this is in sharp contrast with Korea and Taiwan where, during the same period, the employment elasticity of the industrial sector was much larger in absolute value than those in the Southeast Asian countries and the labor force employed in the agricultural sector decreased (in absolute terms) while the sectoral value added grew.   Compared to the East Asian 'tigers' the labor absorption of the industrial growth was smaller in the three countries under study up to around 1990.   A massive shift in the labor force out of agriculture accompanied by increasing

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[13] In the case of the Philippines, the figures for the 1980s are based on the period 1985-1990, instead of 1980-1990.   This is due to the sharp decline in the output of all sectors in the first half of the 1980s.   Due to the artifact of the negative growth during the early 1980s the employment elasticities for the period 1980-1990 become artificially large with the calculated elasticities for the agricultural and industrial sectors of 0.60 and 1.14, respectively.

agricultural productivity is typical of the agricultural transformation in the process of dynamic economic development (e. g., Timmer 1988), and likely to contribute to a rapid poverty reduction.

In the 1990s, however, both in Indonesia and in Thailand the patterns of sectoral employment elasticities became more like those in the East Asian tigers.   In both countries, the labor absorption capacity in the industrial sector increased and the growth in the agricultural value added achieved with a declining labor force.   In the Philippines, on the other hand, while the relative magnitude of the employment elasticities between agriculture and industry reversed the labor force employed in the agricultural sector kept increasing. These results suggest that the growth in the agricultural sector perhaps played an important role in poverty reduction up to the 1980s due to the relatively weak labor absorptive capacity of the industrial sector growth vis-à-vis that of the agricultural sector growth in the three Southeast Asian countries (in contrast with the East Asian counties during the same period), but that the relative importance of the industrial sector growth in poverty reduction likely increased sharply after the 1990s due to the increase in the labor absorptive capacity of the industrial sector growth.   Among the three countries under study, however, both Indonesia and Thailand show similar patterns as those observed earlier in the East Asian countries while in the Philippines the role of the agricultural sector growth might still be relatively larger than that in Indonesia or in Thailand.   Such differences in the labor absorptive capacity of the industrial sector across the three Southeast Asian countries appear consistent with the observed patterns of poverty reduction in the 1990s where rural poverty reduction progressed faster in Thailand and in Indonesia than did in the Philippines.   However, the seemingly similar patterns of the labor absorptive capacity of the industrial sector between Indonesia and the Philippines during the 1970s do not explain the marked contrast in the poverty reduction performances between the two countries during the period.

4. Summary and Conclusions

In the last four decades, incidence of rural poverty fell substantially in Indonesia, the Philippines and Thailand.   The degree of such success is not uniform across the three countries, however.   In terms of both the pace of poverty reduction and the level of poverty incidence as of the end of the 1990s, Thailand was the best performer among the three and the Philippines the worst.   The headcount poverty ratio in rural Thailand declined by 84% between 1962 and 1996 and the level of rural poverty incidence using an internationally comparable poverty line was lowest among the three countries as of the mid-1990s.   One conspicuous feature of the poverty trends in the Philippines, in contrast with those in Indonesia or in Thailand, is the absence of poverty reduction during the 1970s through the early 1980s.   The level of rural poverty incidence as of the mid-1980s was not much different from the level observed in the mid-1960s.   In contrast, there was persistent poverty reduction between the mid-1960s and the early 1980s both in Indonesia and in Thailand.

Rural poverty incidence declined from the mid-1980s through the mid-1990s in all of the three countries under study.   The growth elasticity of poverty reduction appears to vary, however, across the three countries; the observed elasticity was highest in Thailand and

lowest in the Philippines, with Indonesia somewhere in between.   Thus, the faster poverty reduction in Thailand and the slower poverty reduction in the Philippines were due not only to the faster growth in the aggregate income in Thailand but also to the greater responsiveness of poverty reduction to the aggregate income growth.

While the incidence of rural poverty did increase following the Asian financial crisis (although appropriate data are not yet available for the Philippines), most of the achievements in poverty reduction during the previous thirty years were not reversed.   The level of the rural poverty incidence as of two years after the outbreak of the Asian crisis was roughly the same level as the one in the mid-1990s in both Thailand and in Indonesia.

The relative role of the agricultural sector growth vis-à-vis the non-agricultural sector growth could vary across countries depending on the relative labor absorptive capacity across sectors.   There was a sharp contrast between East Asian countries and Southeast Asian countries during the 1960s and the 1970s when the relative labor absorptive capacity of the industrial sector was much higher in the former group of countries than in the latter.   Among the three Southeast Asian countries under study, however, the patterns of the labor absorptive capacity across sectors diverged in the 1990s; a higher labor absorption in the industrial sector than in the earlier periods was accompanied by a declining (in absolute terms) labor force in agriculture, despite the continuing growth in the value added in the sector, both in Indonesia and in Thailand, following the earlier East Asian pattern.   In contrast, the labor force in agriculture continued to grow in the Philippines although the labor absorptive capacity in the industrial sector did increase as well.   Such a contrast suggests that the industrial sector growth likely played a major role in the observed poverty reduction in the 1990s in Indonesia and Thailand while the role of the agricultural sector growth, vis-à-vis that of the industrial sector, might still have retained its relative importance in rural poverty reduction in the Philippines.

References

Ahuja, Vinod, Benu Bidani, Francisco Ferreira, and Michael Walton (1997).   *Everyone's Miracle?: Revisiting Poverty and Inequality in East Asia*.   World Bank.

Akiyama, Takamasa (this volume).   "Agricultural Sector Growth: any peculiarities with Southeast Asia?" in this volume.

Balisacan, Arsenio. (1994).   "Philippines."   In Quibria (ed.) *Rural Poverty in Developing Asia*.   Asian Development Bank.

Balisacan, Arsenio, and Shigeaki Fujusaki (eds.) (1998). *Causes of Poverty: Myths, Facts and Policies*.   University of the Philippines Press.

Balisacan, Arsenio (1999).   "Poverty Profile in the Philippines: An Update and Reexamination of Evidence in the Wake of the Asian Crisis."   Mimeo.

Balisacan, Arsenio, Nobuhiko Fuwa and Margarita Debuque (this volume). "The Political Economy of the Philippine Rural Development since the 1960s." in this volume.

Balisacan, Arsenio, and Nobuhiko Fuwa (2002). "Going beyond Cross-country Averages: Revisiting Growth, Inequality and Poverty Reduction in the Philippines." Mimeo.

Balisacan, Arsenio (2002). Personal communication.

Bevan, David L., Paul Collier, and Jan Willem Gunning (1999). "Nigeria and Indonesia." *The Political Economy of Poverty, Equity, and Growth*. Oxford University Press.

Bidani, Benu, and Martin Ravallion (1993). "A Regional Poverty Profile for Indonesia." *Bulletin of Indonesian Economic Studies*. 29:3.

Booth Anne (1993) "Counting the Poor in Indonesia" *Bulletin of Indonesian Economic Studies*. Vol.29 No.1 April 1993, pp.53-83.

Chen, Shaohua and Martin Ravallion (2000). "How did the world's poorest fare in the 1990s?" mimeo. World Bank.

Dollar, David and Aart Kraay (2000). "Growth Is Good for the Poor." World Bank Policy Research Working Paper 2587.

Estudillo, Jonna, Agnes Quisumbing and Keijiro Otsuka (1999). "Income Distribution in Rice-Growing Villages During the Post-green Revolution Periods: The Philippine Case, 1985 and 1998." A paper presented at American Agricultural Economics Association Meeting, Nashville, Tennessee, August 1999.

Gugerty, Mary Kay and C. Peter Timmer (1999). "Growth, Inequality and Poverty Alleviation: Implications for Development Assistance." Mimeo.

Hayami, Yujiro (this volume).

Krongkaew, Medhi (1996). "Thailand: Poverty Assessment Update." Research Report No. R02-01-39. Economic Research and Training Center. Thammasat University.

Krongkaew, Medhi, Pranee Tinakorn and Suphat Suphachalasai. (1994). "Thailand." In Quibria (ed.) *Rural Poverty in Developing Asia*. Asian Development Bank.

Quibria, M.G. (ed.) (1994). *Rural Poverty in Developing Asia*. Asian Development Bank.

Ravallion, Martin (2001). "Growth, Inequality and Poverty: Looking beyond Averages." *World Development*.

Ravallion, Martin and Benu Bidani (1994).   "How Robust Is a Poverty Profile?"   *World Bank Economic Review*.   Vol. 8, No. 1.   pp. 75-102.

Ravallion, Martin and Shaohua Chen (1997).   "What Can New Survey Data Tell Us about Recent Changes in Distribution and Poverty?"   *World Bank Economic Review*.   Vol. 11, No. 2.   pp. 357-382.

Ravallion, Martin and Gaurav Datt (1996).   "How Important to India's Poor Is the Sectoral Composition of Economic Growth?"   *World Bank Economic Review*.   Vol. 10, No. 1.   pp.

Shigetomi, Shin'ichi (this volume). Thai Country paper

Surbakti, Pajung (1997).   *Indonesia's National Socio-Economic Survey: A Continual Data Source for Analysis on Welfare Development*.   Jakarta: Central Bureau of Statistics.

Suryahadi, Asep, Sudarno Sumarto, Yusuf Suharso and Lant Pritchett (2000).   "The Evolution of Poverty during the Crisis in Indonesia, 1996-99."   Washington, D.C.: World Bank Policy Research Working Paper 2435.

Timmer, C. Peter (1988).   "Agricultural Transformation."   Hollis Chenery and T. N. Srinivasan (eds.) *Handbook of Development Economics Vol. I*.   Elsevier Science Publishers B.V.

Tjondronegoro, Sediono M.P, Irlan Soejono and Joan Hardjono (1994).   "Indonesia."   In Quibria (ed.) *Rural Poverty in Developing Asia*.   Asian Development Bank.

Warr, Peter (2001).   "Poverty Incidence and Decentralization in Thailand."   Mimeo. Australian National University.

Watanabe, Toshio (1998).   *Kaihatsukeizaigaku* (*Development Economics: Economics and Contemporary Asia*), 2nd ed.   (in Japanese).   Tokyo: Nihon Hyoronsha.

World Bank (2001). http://www.worldbank.org/research/povmonitor/

World Bank (2000).   Indonesia Accelerating Recovery in Uncertain Times.   World Bank.

_____ (1998).   *East Asia: The Road to Recovery*.   World Bank.

_____ (1996).   *The Philippines: a Strategy to Fight Poverty*.   World Bank.

Table 1. Poverty Incidence (Headcount Poverty Ratio) in Indonesia

	1963	1967	1970	1976	1978	1980	1984	1987	1990	1993	1996	1998 (Dec)	1999 (Feb)	1999 (Aug)
nationwide														
(1) BCG	51.8	58.5	57.1	50.1	48.5	39.8	22.7							
(2) official				40.1	33.3	28.6	21.6	17.4	15.1	13.7	11.3			
(3) official											17.7	24.2	23.5	
(4) WB						39.8	33.0	21.6						
(5) WB-SMERU											9.75	12.33	16.27	9.79
Rural														
(1) BCG	47.9	60.4	58.5	54.5	54.0	44.6	26.9							
(2) official				40.4	33.4	28.4	21.2	16.1	14.3	13.8	12.3			
(3) official											19.9	25.7	26.1	
(4) WB						44.6	39.4	26.8						
(5) WB-SMERU											13.10		20.56	

(1): Bevan, Collier and Gunning (1999); 1963-1970: Java and Madura only, 1976-: nationwide; a fixed poverty line due to Rao (1984); official rural definition; per capita consumption.   See text for the way poverty ratios were calculated for 1963-1970.
(2) official poverty line; official rural definition; per capita consumption.
(3) official 'new' 1998 poverty line; official rural definition; per capita consumption.
(4) poverty line due to World Bank ; official rural definition; per capita consumption.
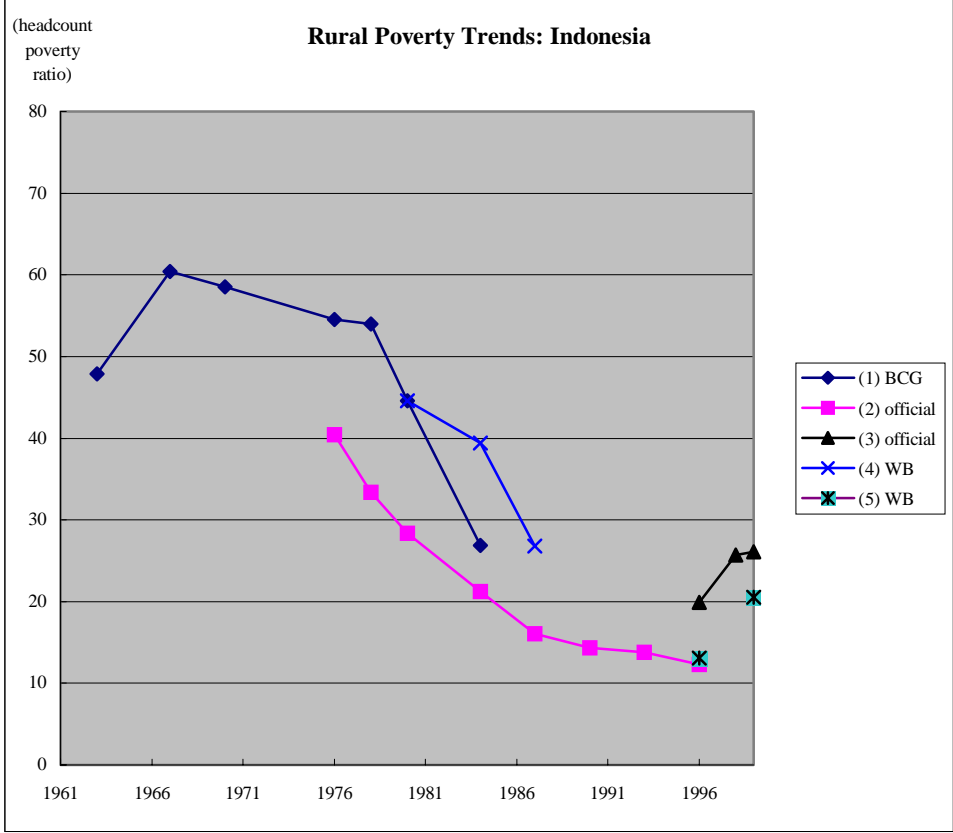(5) poverty line due to World Bank's SMERU ; official rural definition; per capita consumption.

Rural Poverty Trends: Indonesia

(headcount poverty ratio)

Legend:
- (1) BCG
- (2) official
- (3) official
- (4) WB
- (5) WB

Table 2. Poverty Incidence (Headcount Poverty Ratio) in the Philippines

	1961	1965	1971	1977	1978	1980	1981	1982	1983	1985	1988	1991	1994	1997
nationwide														
FIES-WB	59	52	52							44	40	39		
FIES (4)										49.2	45.4	45.2	40.6	37.4
FIES (5)										40.9	34.4	34.3	32.1	25.0
Rural														
FIES-WB	64	55	57							49	46	47		
FIES (1)										63.7	61.7	63.7	62.0	60.3
FIES (2)	64.5	68.7	69.6							61.4	62.1	50.4		
FIES (3)	**60.3**	**55.5**	**58.7**							**55.9**	**48.3**	**41.1**		
LFS (1)				56.2	55.7	48.6	49.4	57.1	60.6					
FIES (4)										56.4	52.3	55.0	53.1	51.4
FIES (5)										**53.1**	**45.7**	**48.6**	**45.4**	**36.9**
FIES Preferred	**60.3**	**55.5**	**58.7**							**55.9**	**48.3**	**41.1**	**38.4**	**31.2**

FIES-WB: **TWG 1988 poverty line (province specific menu) (1961-71), NEDA 'new official line (1985-91)**; official rural definition; family income; group data(??) [source: World Bank 1995]

FIES (1): official poverty line; official rural definition; income [source: Table 9 in Balisacan, Debuque and Fuwa]

FIES (2): **TWG 1988 poverty line (province specific menu)**; official rural definition; per capita income; group data [source: Table 11 in Balisacan, Debuque and Fuwa]

FIES (3): **TWG 1988 poverty line (province specific menu)**; **fixed physical rural definition**; per capita income; group data [source: Table 11 in Balisacan, Debuque and Fuwa]

FIES (4): 'official' poverty line; official rural definition; per capita income; unit observation (not group data) [source: Table 13 in Balisacan, Debuque and Fuwa]

FIES (5): **constant 'preferred' poverty line**; official rural definition; per capita expenditure; unit observation (not group data) [source: Table 13 in Balisacan, Debuque and Fuwa]

LFS (1): **TWG 1988 poverty line (province specific menu)**; official rural definition; per capita income; unit observation (not group data) [source: Table 12 in Balisacan, Debuque and Fuwa]

Preferred: 1961-1971, 1985-1991: same as FIES (3); 1994 and 1997: extraporated the FIES (3) series using the rate of poverty reduction found in the FIES (5) series.
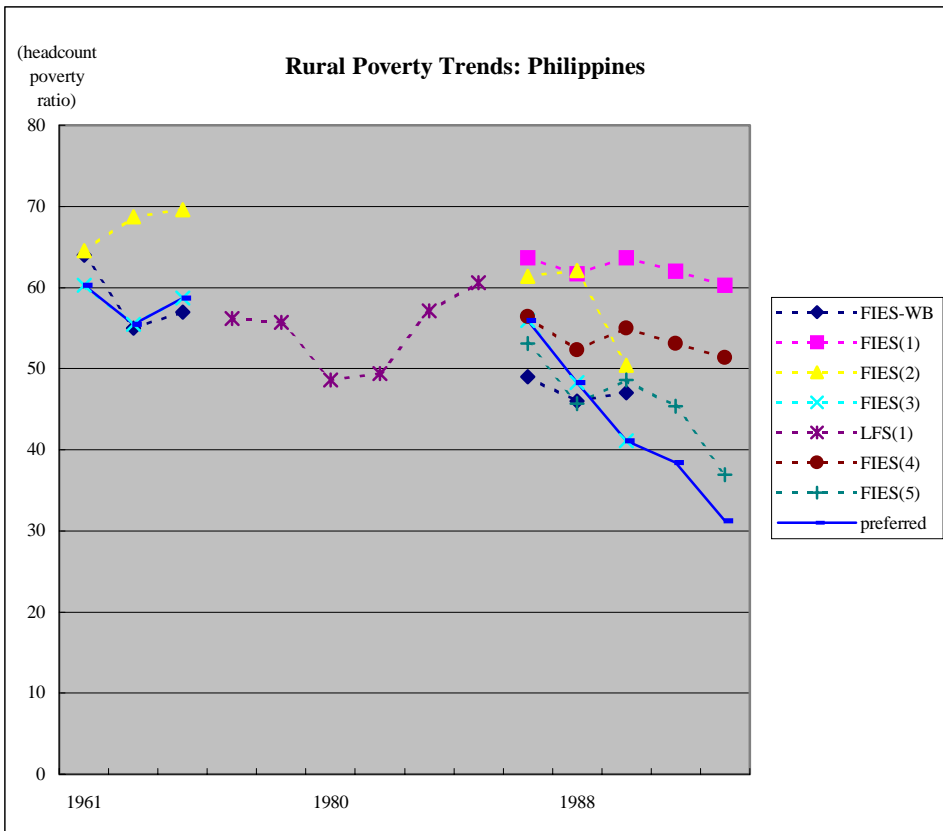
Rural Poverty Trends: Philippines

(headcount poverty ratio)

Legend:
- FIES-WB
- FIES(1)
- FIES(2)
- FIES(3)
- LFS(1)
- FIES(4)
- FIES(5)
- preferred

Table 3. Poverty Incidence (Headcount Poverty Ratio) in Thailand

	1962	1969	1975	1981	1986	1988	1990	1992	1994	1996	1998	1999
Nationwide												
Warr	88.3	63.1	48.6	35.5	44.9	32.6	27.2	23.2	16.3	11.4	12.9	15.9
Ahuja,.1997			41.80	30.36	33.80			15.69				
Rural												
Warr	96.4	69.6	57.2	43.1	56.3	40.3	33.8	29.7	21.1	14.9	17.2	21.5
Meesook 1979	61	43	37									
H & J 1988			36.16	27.34	35.75	29.43						
Lim 1980	57	37	28									
S &S 1988			36.16	27.34	30.60							
Krongdaew 1996						25.51	20.5	15.49				

Source: Shigetomi (this volume)   H & J 1988: Hutaserani and Jitsuchon 1988; S & S 1988: Suganya and Somchai 1988;
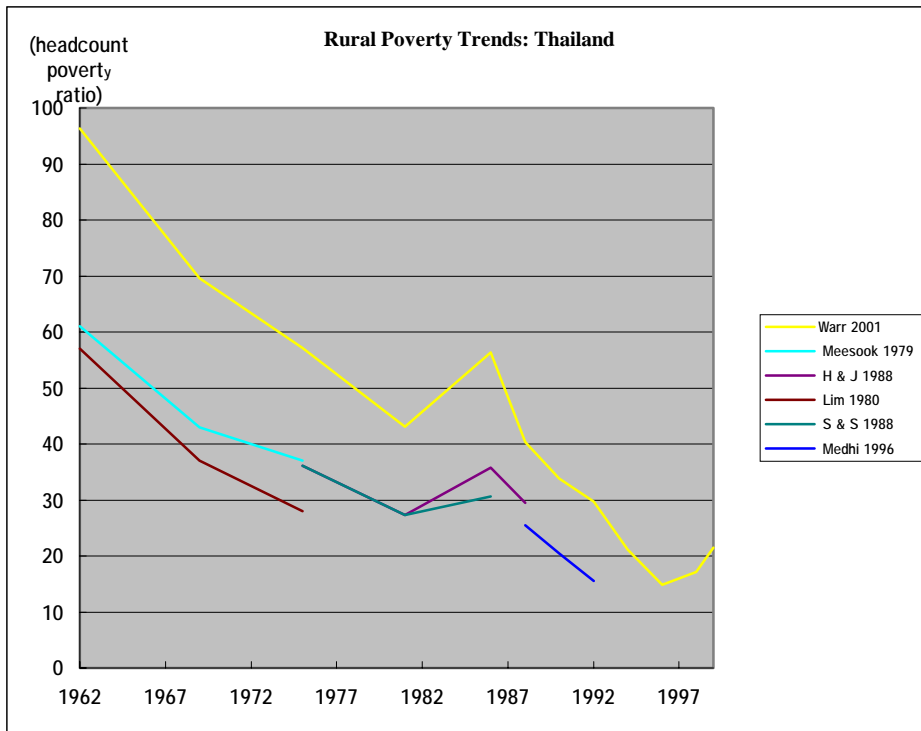A 85% reduction between 1962 and 1996

Rural Poverty Trends: Thailand

(headcount poverty ratio)

Legend:
- Warr 2001
- Meesook 1979
- H & J 1988
- Lim 1980
- S & S 1988
- Medhi 1996

25

Table 4. Poverty comparison using common poverty lines, 1985-1998 (Ravallion-Chen estimates)
(source: http://www.worldbank.org/research/povmonitor/)

Table 4-1. Mean Expenditure per capita

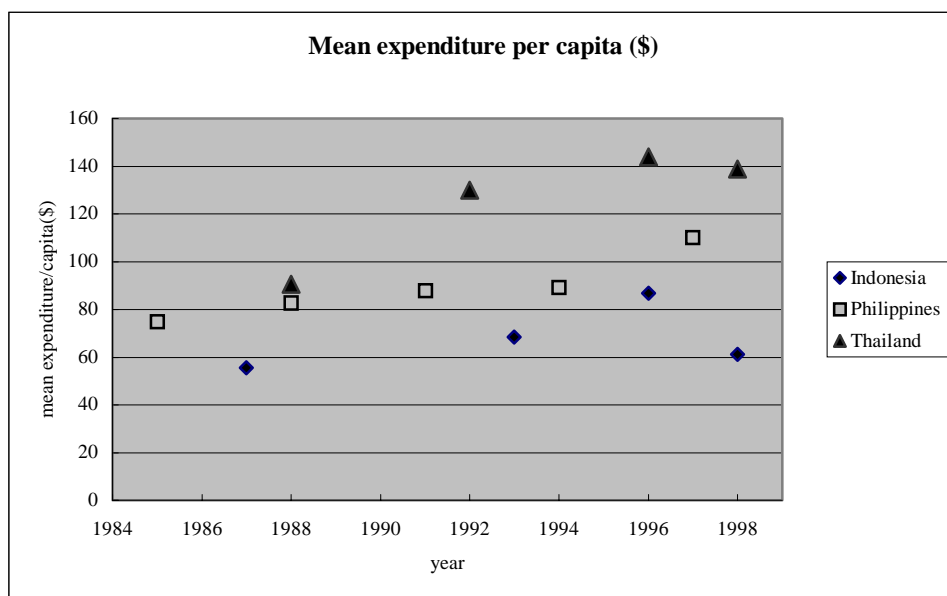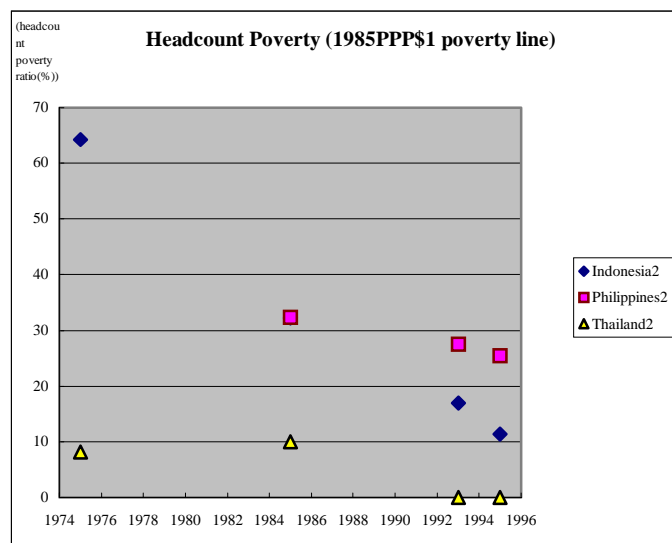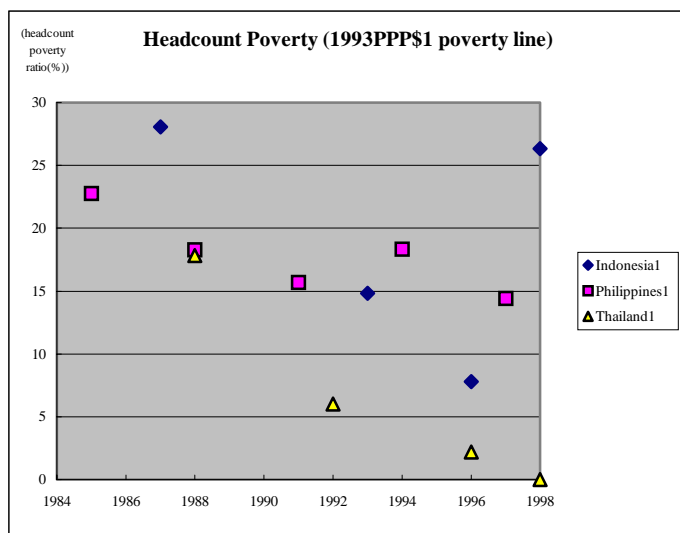|	country	1985	1987	1988	1991	1992	1993	1994	1996	1997	1998
Mean	Indonesia	---	55.67				68.54		86.62		61.19
Expenditure	Philippines	74.98		82.79	87.75			89.1		110.2	
($/Person/Mth)	Thailand			90.46		129.8			143.9		138.9

Mean expenditure per capita ($)

Table 4-2. U$1/day poverty line ((1)=U$32.74/capita/month; (2)=)

poverty measure	country	1975	1985	1987	1988	1991	1992	1993	1994	1995	1996	1997	1998
Headcount ratio	Indonesia				28.08			14.82			7.81		26.33
(1)	Philippines		22.78		18.28	15.7			18.36			14.4	
(%)	Thailand				17.85		6.02				2.2		0
Headcount ratio	Indonesia	64.3	32.2					17.0		11.4			
(2)	Philippines	(35.7)	32.4					27.5		25.5			
(%)	Thailand	8.1	10.0					<1.0		<1.0			
Poverty Gap	Indonesia				6.089			2.085			0.957		5.435
(1)	Philippines		5.329		3.599	2.797			3.849			2.85	
(%)	Thailand				3.637		0.482				0.145		0
Poverty Gap	Indonesia	23.7	8.5					2.6		1.7			
(2)	Philippines	(10.6)	9.2					7.3		6.5			
(%)	Thailand	1.2	1.5					<1.0		<1.0			

Headcount Poverty (1993PPP$1 poverty line)

(headcount poverty ratio(%))

Headcount Poverty (1985PPP$1 poverty line)

(headcount poverty ratio(%))

Poverty gap (1993 $1 poverty line)

poverty gao (%)

year

- ◆ Indonesia1
- ☐ Philippines1
- △ Thailand1

Poverty Gap (1985PPP$ 1 poverty line)

poverty gap (%)

- ◆ Indonesia2
- ☐ Philippines2
- △ Thailand2
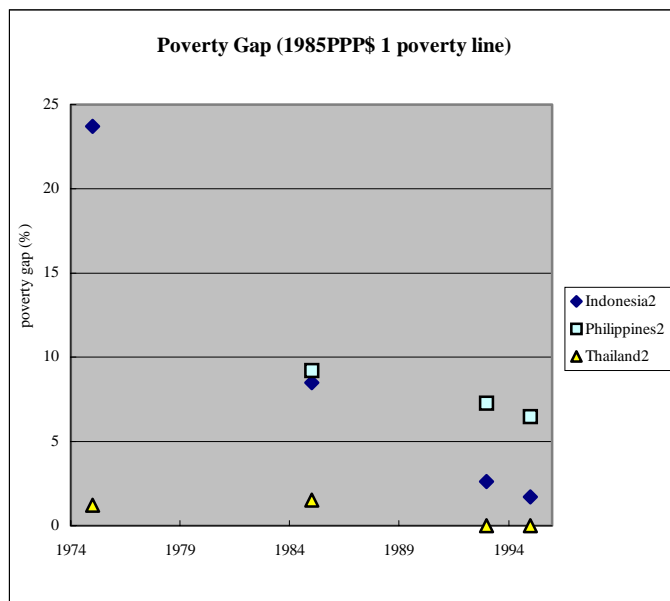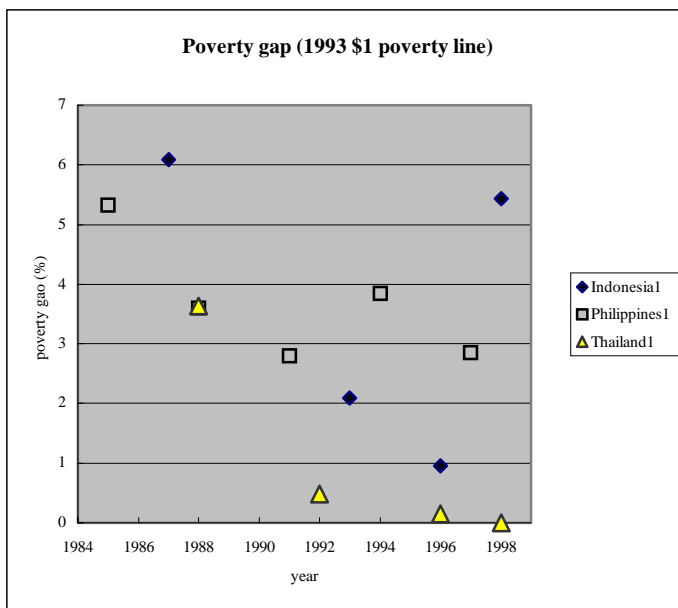
Table 4-3. U$2/day poverty line (U$65.48/capita/month)

poverty measure	country	1985	1987	1988	1991	1992	1993	1994	1996	1997	1998
Head Count	Indonesia		75.84				61.55		50.51		75.95
(%)	Philippines	61.28		55.54	54.98			53.06		45.05	
	Thailand			54.04		37.48			28.25		28.15
Poverty Gap	Indonesia		30.84				21.04		15.34		30.54
	Philippines	24.56		21.01	21.57			20.46		16.45	
	Thailand			20.27		11.59			7.287		7.109

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Head count poverty (1993PPP$ 2poverty line)

Poverty gap (1993PPP$ 2poverty line)
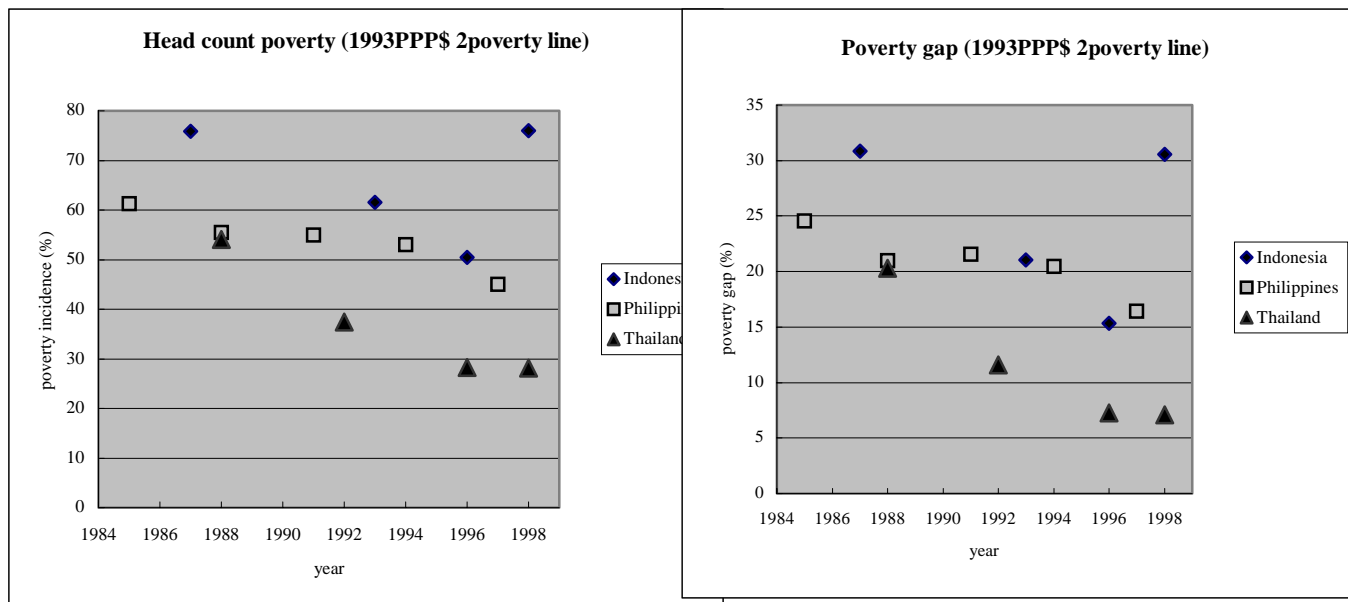
Table 4-4. Income inequality: Gini ratio of mean per-capita expenditure

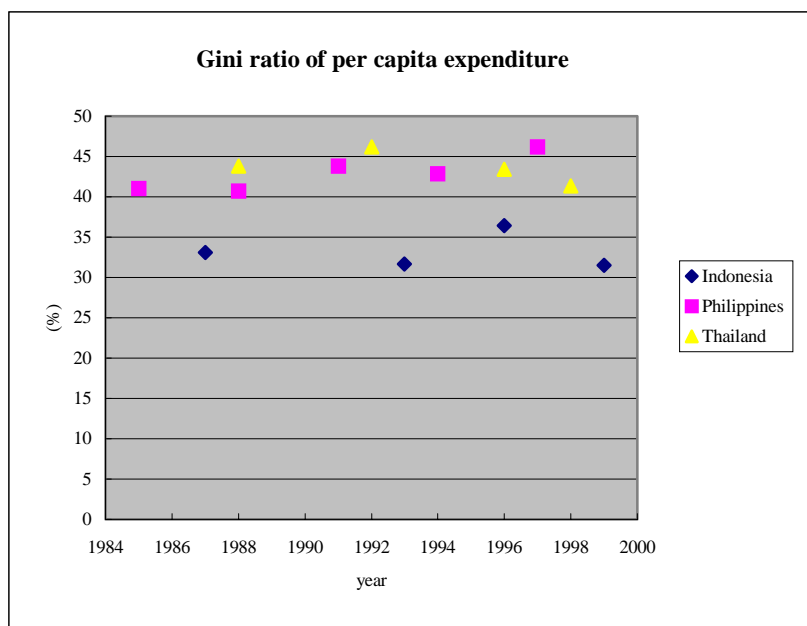|	1985	1987	1988	1991	1992	1993	1994	1996	1997	1998	1999
Indonesia		33.09				31.69		36.45			31.51
Philippines	41.04		40.68	43.82			42.89		46.16		
Thailand			43.84		46.22			43.39		41.36	

Gini ratio of per capita expenditure

Table 5. Indicators of Human Development

	Life expectancy at birth (years)		Infant Mortality Rate (per 1999 live births)		Gross Primary School Enrollment (%)	
	1970	1996	1970	1996	1970	1996
Philippines	57.2	66	66	37	108	113
Indonesia	47.9	64.6	118	49	80	115
Thailand	58.4	69.1	73	34	83	99

(source: World Development Indicators)

Table 6.. Weighted Employment Elasticities With Repect to Income Growth across Sectors

	Philippines				Indonesia				Thailand				Korea	Taiwan
	1960-70	1970-80	1985-90[*]	1990-97	1960-70	1970-80	1980-90	1990-97	1960-70	1970-80	1987-90	1990-97	1963-80	1960-80
agriculture	0.294	0.308	0.233	0.022	0.191	0.164	0.397	-0.519	n.a.	n.a.	0.383	-0.209	-0.044	-0.151
Industry	0.084	0.058	0.074	0.127	0.053	0.044	0.066	0.091	n.a.	n.a.	0.068	0.122	0.148	0.189
services, etc.	0.265	0.282	0.234	0.453	0.253	0.141	0.120	0.234	n.a.	n.a.	0.033	na	0.173	0.173
ag/ind ratio	3.50	5.31	3.15	0.17	3.60	3.73	6.02	-5.70	n.a.	n.a.	5.63	-1.71	-0.30	-0.80

[*]The figures for the 1980s are based on the period 1985-1990, instead of 1980-1990.   Due to the sharp decline in the output of all sectors in the first half of the 1980s, the employment elasticities during the period 1980-1990 become artificially large with the calculated elasticities for the agricultural and industrial sectors are 0.60 and 1.14, respectively.

(source: for Philippines, Indonesia and Thailand, author's calculation based on the World Bank's *World Development Indicators*; for Korea and Taiwan, Watanabe 1998)