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Abstract

This report reviews patterns and trends in human development (HD) in East and Southeast Asia (ESA) since 1990, analyzes causes and consequences of this development, highlighting both structural and institutional factors, and identifies the basic principles for durable enhancements in HD. The basic arguments are that most ESA economies have experienced rapid socioeconomic structural changes through industrialization and urbanization in the last two decades. From a HD perspective, these processes offer enormous room for expanding people's capabilities. However, to successfully seize such opportunities, appropriate institutions and public policies are needed, and so is public participation in policy making and implementation. Public policies are also important for equitable distribution of the expanded opportunities, which in turn contribute to the legitimacy of institutions and social cohesion. And while industrialization does often cause more environmental pollution, technological advances also offer the means to reduce such pollution, so long as appropriate environmental policies are implemented to ensure the use of such cleaner technologies. Subject to such appropriate public policies, in net terms industrialization and urbanization should expand people's capabilities and ensure sustainable HD. Six principles are critical to a successful HD strategy: agricultural and rural development to facilitate structural transformation and to increase employment; human capital accumulation to promote continued economic and income growth; inclusive urbanization to reduce dualism and enhance social integration; cleaner industrialization to ensure sustainability; people's participation and empowerment to improve decision making and governance; closer regional and international cooperation to ensure a better future for all on our fragile planet.

Keywords: Human Development, Structural Factors, Public Policy, East and Southeast Asia

JEL classification: O15, H11, O53

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1. Introduction

This paper reviews the patterns and trends in human development (HD) in the East and Southeast Asian (ESA) region in the past 20 years since 1990, analyzes causes and consequences of this development while highlighting both the structural and institutional factors, and identifies basic principles that can be used by societies to define strategies that generate durable enhancements in HD. The basic arguments are that most economies in the region (except Japan, Singapore, and perhaps South Korea, which have already largely completed the process at the start of the period) have experienced rapid economic and social structural changes through industrialization and urbanization. From a HD perspective, these processes offer enormous room for expanding people's capabilities, both in terms of the usual three dimensions that make up HDI, and beyond. However, to successfully seize such opportunities, appropriate institutions and public policies are needed, and so is public participation in the making and implementation of these policies. Public policies are also important for the equitable distribution of the expanded opportunities and benefits, which in turn contribute to the legitimacy of institutions and social cohesion. And while industrialization does often result in more environmental pollution, technological advances also offer the means to reduce such pollution, so long as appropriate environmental policies are implemented to ensure the use of such cleaner technologies and cleaner development. Subject to such appropriate public policies, in net terms industrialization and urbanization should expand people's capabilities and ensure sustainable HD. Six principles are critical to a

successful human development strategy: agricultural and rural development to facilitate economic and social structural transformation and to increase employment opportunities; human capital accumulation to promote continued economic and income growth; inclusive urbanization to reduce dualism and enhance social integration; cleaner industrialization to ensure sustainability; people's participation and empowerment to improve decision making and governance; closer regional and international cooperation to ensure a better common future for all on our fragile planet.

In what follows, Section 2 reviews the patterns and trends of HD in the ESA region since 1990, where it will be shown that even though regionally imbalanced and with serious interruptions, in HD terms rapid progress has been made. Section 3 and 4 analyze the causes and consequences of such development within a framework that recognizes the role of institutional and structural factors. Section 3 focuses on the unprecedented structural changes that have taken place in the region, propelled by the rapid industrialization in most ESA economies and the development of services in others, often through production agglomerations and clustering, which resulted in inevitable rapid urbanization in the region. All this, it must be said, has been further helped by an enhanced level of trade and investment, and in some cases the emergence of an ESA regional production network. Section 4 considers the role of national institutions and public policies. It could be said that it is the interplay of these institutions and policies, on the one hand, and the structural factors (the underlying forces that push for change), on the other, that has shaped the respective course of development in ESA economies and in the region. And while the ESA economies have been rather successful in applying public policies

to realize their chosen developmental objectives, weaknesses in certain important public policy areas, from the viewpoint of better advancing the course of human development, will be identified. Section 5 then draws on these analyses to identify principles that should define successful, durable HD strategies for the future, and concludes this report.

2. Patterns and Trends in HD in the ESA Region

Although uneven and with serious interruptions (especially due to the East Asian Financial Crisis in the late 1990s, and more recently the Global Financial Crisis that started in 2008), progress in HD in the ESA region has been rapid and substantial in the past two decades. Below, we first review trends and patterns in the overall progress of HD by considering the records of the aggregate human development indices (HDIs) of the ESA economies, before examining the three traditional dimensions – per capita income, health, and education – that make up the HDI. We also examine the patterns and changes in inequalities in these component dimensions, and the progress in governance that we believe has underlain the overall progress in human development in the region.

2.1 HDI and ESA Economies

While all economies in the region have recorded progress in HD in the last two decades (for those economies and periods for which we have data), they remain substantially different in the level of HD achieved. As can be seen from Table 2.1.1, Japan, Singapore, Korea (Rep) remain advanced in the level of HD they achieved, while Timor-Leste is at the bottom in the league in 2007. In that same year, the world's average level of human development was 0.753. Using this standard, eight ESA economies achieved a level of HD above the world's average in that year, while the other eight economies (for which we have data) had a level below it. China had just managed to surpass the world's average level.

As well as being substantially different in the starting level of HD achieved, and although all have made substantial progress over the two decades, these economies show marked differences in the pace of this progress. Being already high-achieving, Japan recorded a modest rate of growth of 0.26%, Singapore 0.61%, and South Korea 0.92%. This pattern appears to exactly mirror the pattern of difference in their initial, 1990 level of HD.¹ Improvements in other less developed ESA economies are mixed. While China was behind Indonesia and the Philippines in 1990, it overtook them in 2007. Viet Nam was behind China at the starting year, while its rate of growth is actually below that of China over the period. Malaysia was ahead of Thailand in 1990, but its rate of growth is actually above that of Thailand. These patterns indicate substantial differences in the progress in HD between the ESA economies.

Figure 2.1.1 below further compares the HDI levels and growth rates of some ESA economies with other economies of the world. The horizontal axis measures the average level of HDI attained of an economy in 1980, while the vertical axis its average annual growth rate of HDI during the period 1980-2007. As can be seen, at the start of the period, HDI levels across the world varied widely from a lower value just above 0.2 to one above 0.9. While indicating enormous variations among themselves, the ESA economies as a group are situated in the higher range of the initial value of HDI. As expected, across the world, the higher is the initial level of HDI of an economy, the slower is the growth rate. The ESA economies are no exception to this general pattern. However, as a group, their growth rates are also at the higher

¹ Understandably, the high is the level already achieved, the small is the extent of the progress we expect a country to achieve over a given period, other things being equal.

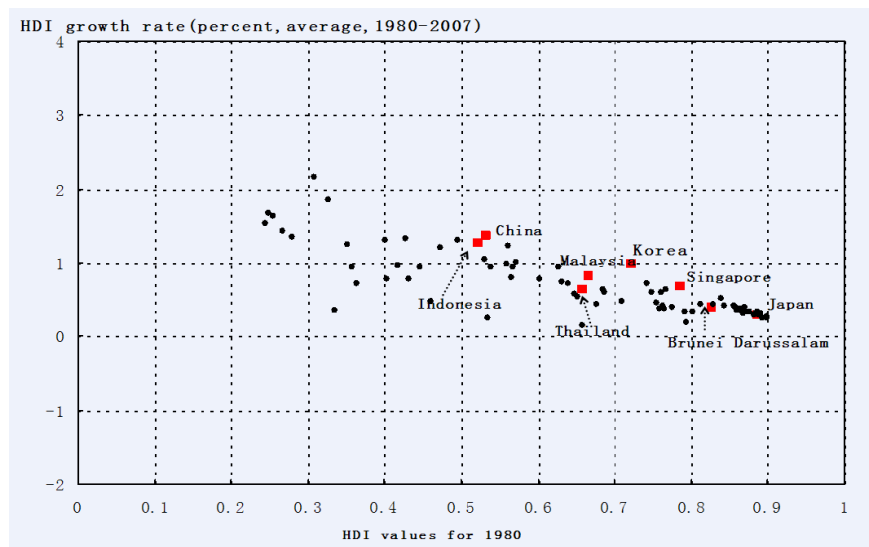
end of the spread.

Table 2.1.1 HDI Trends in the ESA Region

Country Name	1980	1990	2000	2007	Annual Growth Rate		
					Long Term 1980–2007	Medium-Term 1990–2007	Short-Term 2000–2007
Japan	0.887	0.918	0.943	0.96	0.29	0.26	0.25
Singapore	0.785	0.851	--	0.944	0.68	0.61	--
Hong Kong, China	--	--	--	0.944	--	--	--
Korea, Rep	0.722	0.802	0.869	0.937	0.97	0.92	1.08
Brunei Darussalam	0.827	0.876	0.905	0.92	0.39	0.29	0.22
Malaysia	0.666	0.737	0.797	0.829	0.81	0.69	0.56
Thailand	0.658	0.706	0.753	0.783	0.64	0.61	0.57
China	0.533	0.608	0.719	0.772	1.37	1.4	1
Philippines	0.652	0.697	0.726	0.751	0.53	0.44	0.49
Indonesia	0.522	0.624	0.673	0.734	1.26	0.95	1.25
Mongolia	--	--	0.676	0.727	--	--	1.02
Viet Nam	--	0.599	0.69	0.725	1.16	1.13	0.71
Lao PDR	--	--	0.566	0.619	--	--	1.26
Cambodia	--	--	0.515	0.593	--	--	2.01
Myanmar	--	0.487	--	0.586	0.79	1.08	--
Timor-Leste	--	--	--	0.489	--	--	--

Source: *Human Development Report 2009*.

Figure 2.1.1 HDI Growth in East and Southeast Asia, 1980-2007



Source: *Human Development Report 2009*, Table G.

2.2 Economy

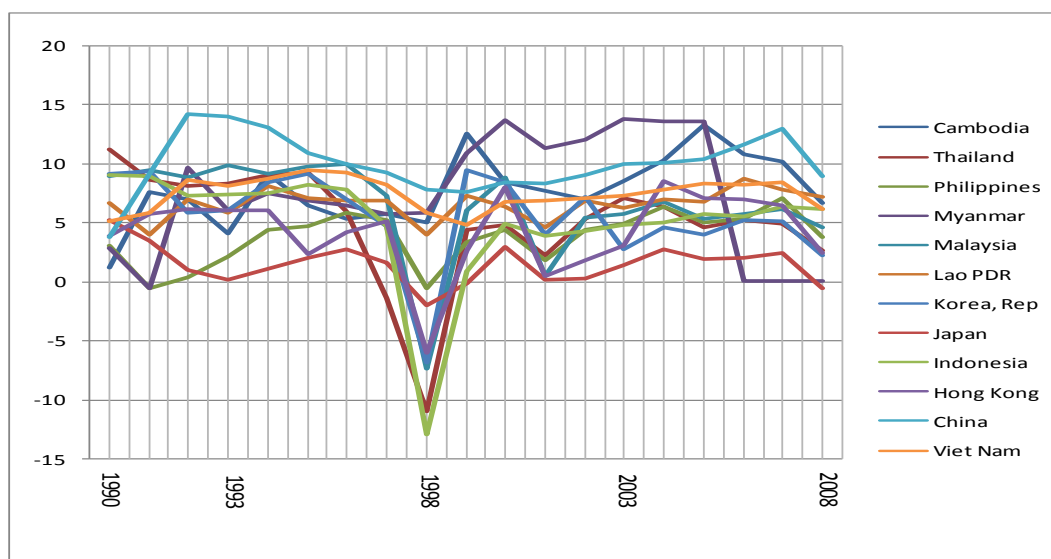
2.2.1 Economic Growth

Overall, the ESA economies achieved economic growth at a rate above that of all other regions in the world during the period. This progress was, however, severely interrupted in most of them during the regional financial crisis that started in 1997. In the ensuing few years, these economies took a severe nosedive, as shown in Figure 2.2.1. China largely escaped the impact of that crisis. The effect of the more recent international financial crisis on the region's economies is still not fully clear, but one expects it to be equally severe, if not severer.

Among the ESA economies, Japan maintained a high rate of economic growth from 1955 to the 1980s, and subsequently became one of the world's most developed economies. Since the early 1990s, however, its growth rate has markedly slowed down, and even went into negative during the East Asian financial crisis and again in the current global financial crisis. Hong

Kong (China), Taiwan (China), Korea (Rep), and Singapore are the so-called four Asian Dragons, as they had achieved very high rates of growth and had rapidly industrialized and even transformed themselves into services-oriented economies during the 1960s-1980s period, with rapid rises in per capita income. Entering the 1990s, these economies have by and large still maintained fairly high rates of growth (except during the two financial crises). Thailand, Malaysia, Indonesia equally experienced strong economic growth in the 1990s, and they too were severely affected (perhaps worst affected) by the East Asian financial crisis. While recovery followed after the crisis, on the whole their rates of growth have not gone back to the same high levels as before the crisis. The Philippines appears to have largely escaped the severe impact of the crisis, but its rate of growth has always been low in the region. Lao PDR, Mongolia, Myanmar, Viet Nam, Cambodia (countries that have experienced economic transition) suffered less severe negative impacts of the crisis, and have recorded no negative growth, during both financial crises (for the years for which we have data).

Figure 2.2.1 Annual GDP Growth Rates in the ESA Region (%)



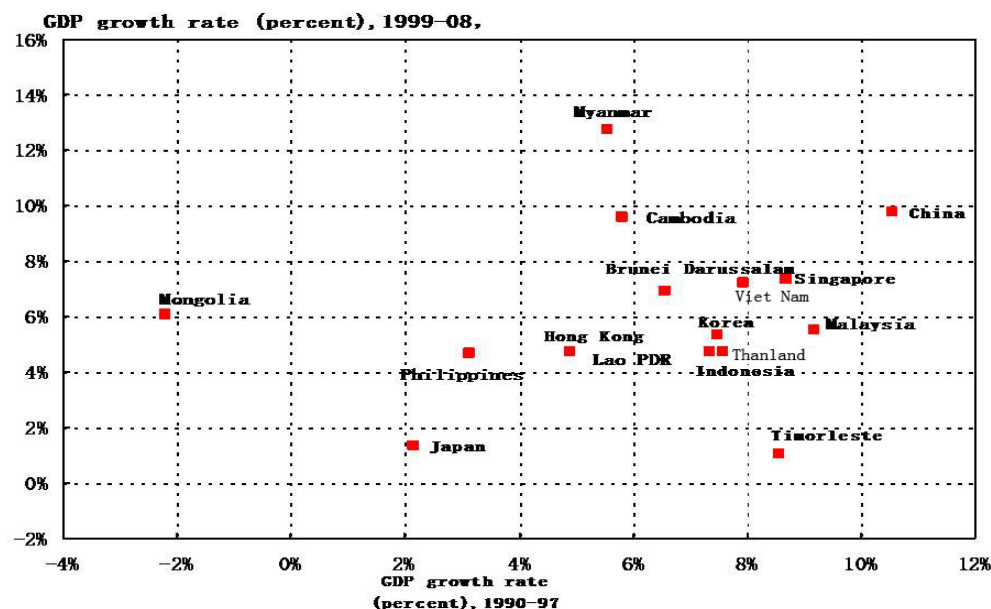
Source: *Asian Development Bank (ADB) Key Indicators for Asia and the Pacific 2009*, www.adb.org/statistics.

It may be worth examining the impact of the Asian Financial Crisis on the region's economies more closely. Figure 2.2.2 plots the average annual growth rates of the ESA economies for the pre-crisis period 1990-1997 (horizontal axis) against those for the subsequent period 1999-2008 (leaving out year 1998, when the impact of the crisis was at its worst). As can be seen, the crisis left a deep mark on the growth rates of the economies severely affected by it: Malaysia, Thailand, Indonesia, Korea (Rep), and to an extent also Singapore. On the other hand, the effect on other economies in the region is hardly noticeable.

The most far-reaching change in the ESA region over the last two decades took place in China. Since the Reform and Opening-Up in 1978, through successive phases of reform policies, China has by and large been transformed from a planned economy to a market-oriented one. Its economy has seen remarkable growth, with the average annual rate reaching 9.8% for the

last 30 years. Even during the two financial crises, growth remained strong. Today, China has become an important manufacturing base and a strong driving force for the world economy.

Figure 2.2.2 GDP Growth Persistence in the ESA Region



Source: *Human Development Report 2009*, Table M.

2.2.2 Income Inequality

Economic growth is an important dimension of and means to human development. However, as HDR (1991, p.13) points out, only when the following three conditions are met can it better and more effectively promote human development. They are: (1) participatory—allowing for private initiative and broad-based people's involvement; (2) distributed well—benefiting all people; (3) sustainable—since raising future production may demand current sacrifice. Therefore, it is also important to examine whether the substantial economic growth achieved in the ESA region has also benefited the majority of people.

Although income disparities between the region's economies may be shrinking, as implied by our review of the growth rates above,² disparities within an economy could remain high (indeed may even be rising). According to available evidence (Table 2.2.1), the Philippines, Thailand, China and Cambodia all had a Gini coefficient above 0.4 in the mid 2000s, implying an extremely high level of income inequality and above the internationally recognized warning level. Among them, the Philippines saw an increase in the value of the index from an already high level of 0.429 in the mid-1990s to a still higher level of 0.44 in the mid-2000s. Over roughly the same period, China experienced a similar increase in the value of the index, from 0.407 in 1993 to 0.415 in 2005. The rise in inequality for Cambodia is particularly rapid, from a Gini value of 0.318 in 1994 to 0.407 in 2007. Indonesia similarly saw a rapid rise over the decade in the Gini value to close to 0.4. On the other hand, over roughly the same period, Malaysia and Thailand underwent a rapid fall in income inequality, with the fall being particularly marked in the case of Malaysia. Other economies in the region for which a similar decadal comparison can be made experienced no marked change in their income inequality levels. While no strictly comparable data are available to allow a similar decadal evaluation for Singapore, Hong Kong, Japan and Korea (Rep), other studies (HDR, 2009) indicate that these economies experienced no material change in their income inequality over the period.

² However, regional income inequality within the ESA region may not necessarily fall, even if growth rates are converging, if the populations are pooled when measuring such inequality (see ADB, 2007). Pooled inequality estimates include both ~~within—~~and ~~between-economy~~” inequalities, while judgements on trends of regional income inequality made on the basis of the region’s converging growth rates only consider the ~~between-economy~~” component.

Table 2.2.1 Trends in Income Gini Indices in East and Southeast Asia

	Year	Gini Index	Year	Gini Index	Year	Gini Index
Cambodia	1967-1985		1994	0.318	2007	0.407
Thailand	1967-1985	0.47	1992	0.462	2004	0.425
Singapore	1967-1985	0.42	1998	0.425		
Philippines	1967-1985	0.45	1994	0.429	2006	0.44
Mongolia	1967-1985		1995	0.332	2005	0.33
Malaysia	1967-1985	0.48	1993	0.485	2004	0.379
Lao PDR	1967-1985		1992	0.304	2002-03	0.326
Korea, Rep	1967-1985	0.36	1998	0.316		
Japan	1967-1985		1993	0.249		
Indonesia	1967-1985	0.31	1993	0.344	2005	0.394
Hong Kong	1967-1985	0.45	1996	0.434		
China	1967-1985		1993	0.407	2005	0.415
Viet Nam	1967-1985		1993	0.357	2006	0.378
Taiwan, China			1993	0.313	2003	0.339

Source: 1967~1989: *Human Development Report 1990*, p.158-159; other data are from PovcalNet Database Online, World Development Indicators Online (World Bank 2009c).

An Asian Development Bank study (ADB, 2007b) took a closer look at the trends of rising income/expenditure inequality in the 1990s and at around the turn of this century, in the Asia-Pacific Region. According to its findings, income/expenditure inequalities measured by the Gini coefficient worsened in most economies in the region for the period for which there are data (see Figure 2.2.3). In the ESA Region, except for Thailand, Malaysia, Mongolia, and marginally Indonesia, other economies had seen a sharp rise in income inequality. The study also compares the rate and absolute size of increase in the per capita expenditure of the poorest and riches quintile of the population in selected economies (Figure 2.2.4). Except for Malaysia, Indonesia and Thailand (economies that also recorded a fall in the Gini coefficient for the

period), the rate of increase for the richest quintile exceeds that for the poorest quintile, in some cases by a huge difference. And even for these three countries, the absolute increase for the top quintile outpaces that for the bottom quintile, often by a huge margin. In the case of China, in absolute terms the rise of the per capita expenditure of the top quintile is close to 20 times that of the bottom quintile. These differences in the growth rates of per capita income/expenditure for different income groups are even more worrisome, as they are telltale signs of further deteriorating income distribution situation to come in the region.

Figure 2.2.3 Changes in Gini Coefficients in Selected Asian Economies, Expenditure and Income Distributions, 1990s-2000s (%)

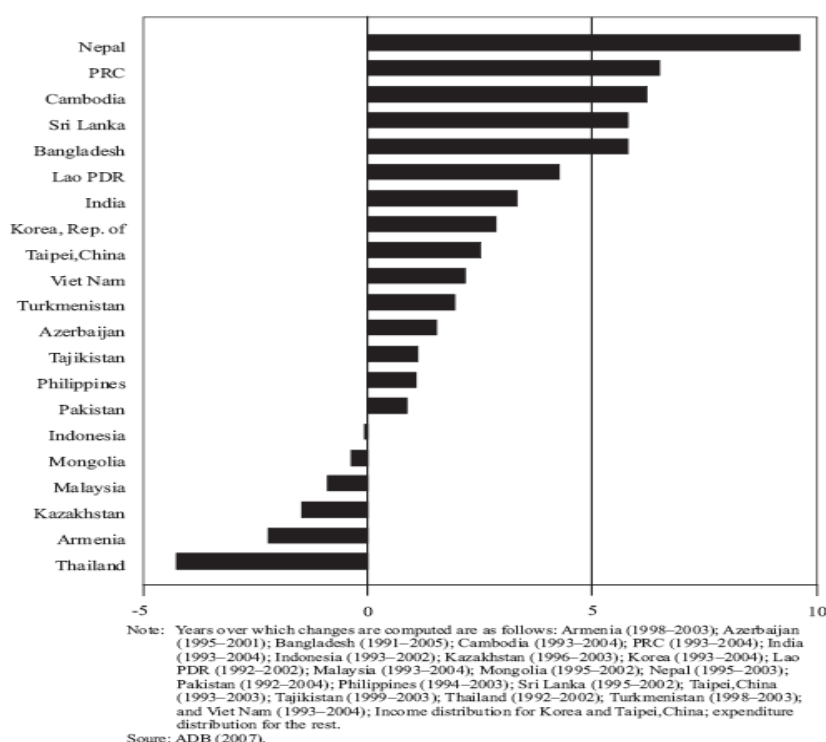
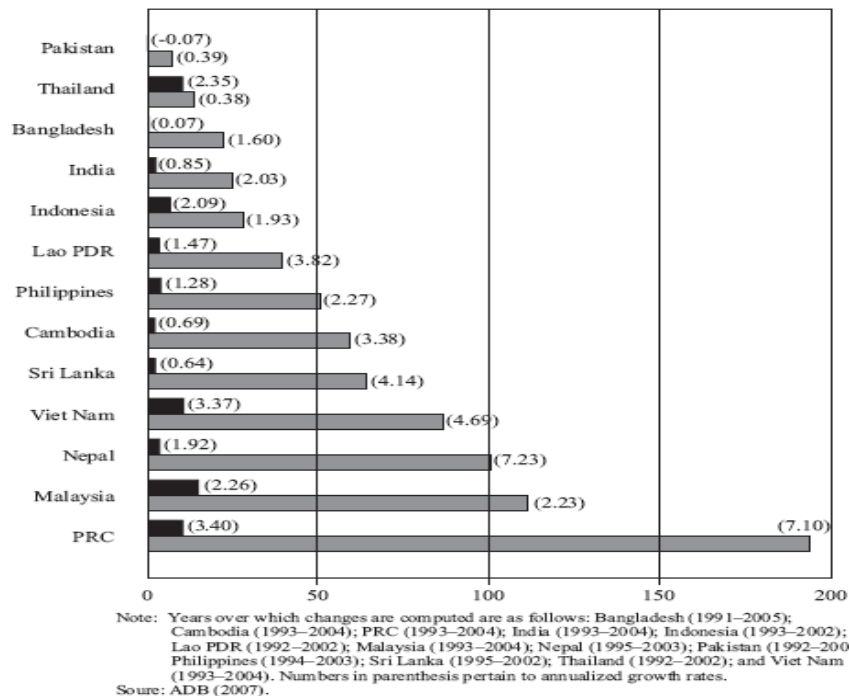


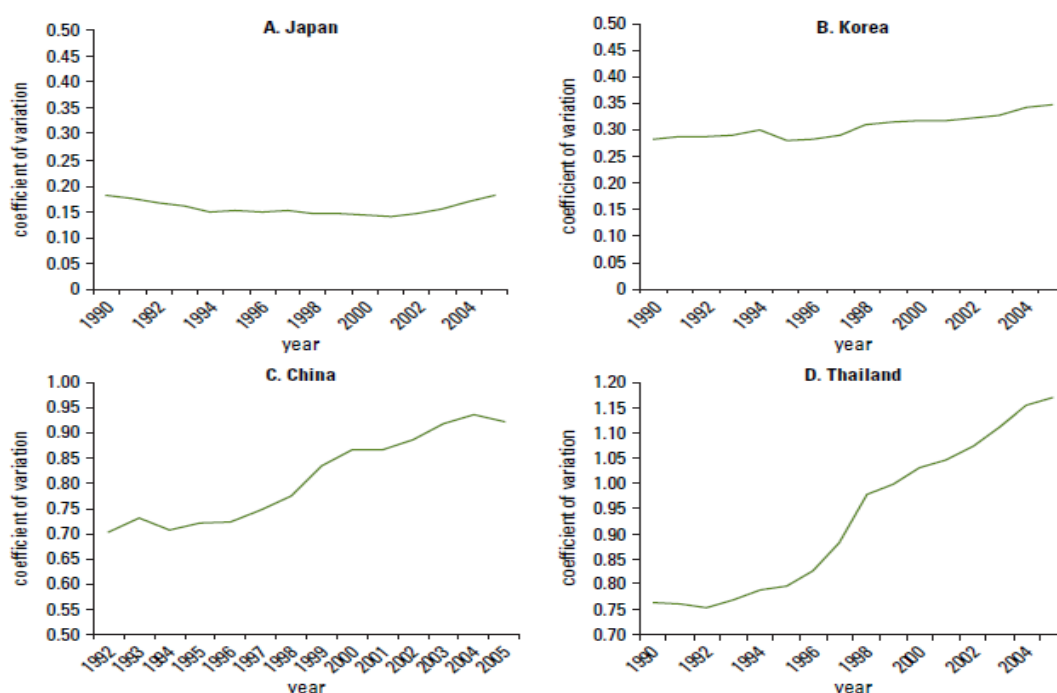
Figure 2.2.4 Changes in Per Capita Expenditures, Bottom and Top Quintiles, 1990s-2000s (1993 PPP Dollars)



The above concerns overall income inequality in an economy. Systematic inequality may in particular exist between particular sections of the population, sorted by region, the urban-rural divide, gender, education etc. It is not possible to consider all cases here (but see Section 4 for discussion of interactions of income, education and health inequalities). Below we consider regional income inequality. Using regional annual GDP per capita data, Hamaguchi (2009) calculates coefficients of variation for four economies: Japan, Korea, China and Thailand. The results are then plotted against the corresponding years for the period 1990-2004. Figure 2.2.5 reports the results. It shows a very low and stable value for Japan. South Korea has a slightly high but equally stable value. China had a much higher starting value, and it increased even further over the period at a rather sharp rate. Thailand started the period at a value close to that

of China and it climbed up over the period at an even sharper rate, in particular during the East Asian financial crisis. According to the author, these differences between Japan and Korean, on the one hand, and China and Thailand, on the other, are due to the fact that the latter group of economies were experiencing rapid economic growth and were being quickly integrated into a regional and world production network, inevitably with some regions undergoing the process ahead of others (an issue we will further consider in the next section), while Japan and Korea had already been mature industrial economies at the start of the period.

Figure 2.2.5 Regional Income Inequality Measured Using the Coefficient of Variation for Selected ESA Economies, 1990–2004



Source: Hamaguchi (2009).

2.2.3 Poverty Alleviation

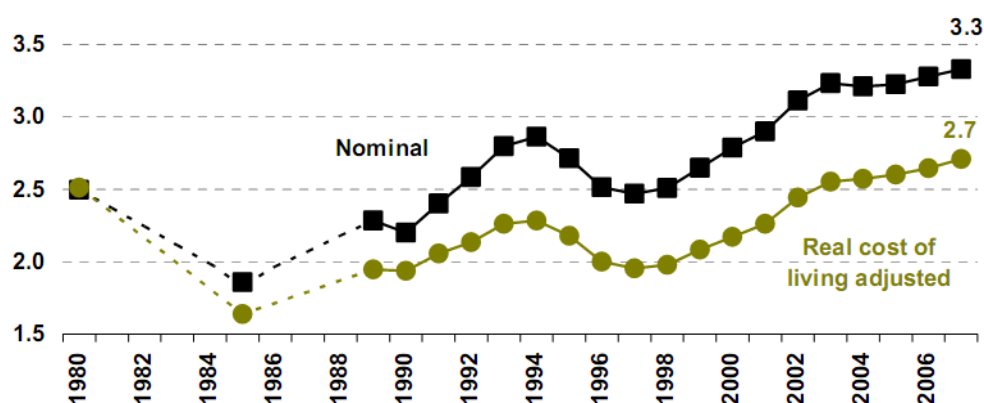
Since 1990s, the ESA region has made great strides in reducing poverty. From Table 2.2.2, we see that whether using the national poverty lines or the one dollar per person per day poverty

line advanced by World Bank, the population below the poverty line in many economies in this region has substantially declined.

Box 2.2.1 Changing Income Distribution Situations in China

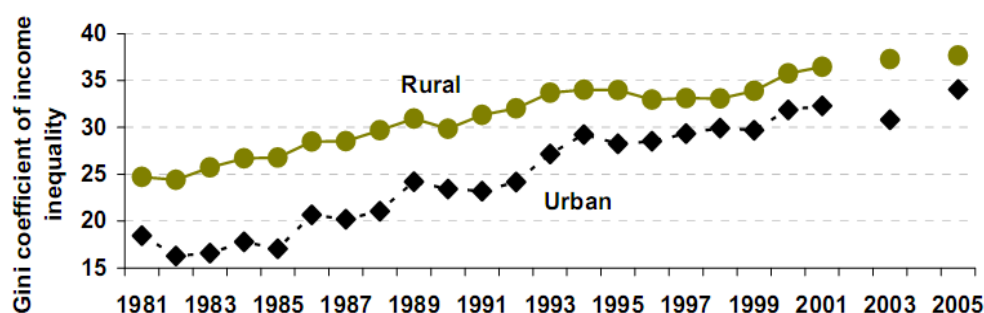
The particular case of China is of further interest here. At the start of the Reform and Opening-Up, income distribution in China had in fact been quite even, but the nation was generally poor, with a great many people in absolute poverty (by its own account, 250m, nearly a third of the whole rural population). Since the Reform and Opening-Up, the economy has grown remarkably rapidly, with rapid rises in per capita income, while the income gap has also sharply expanded. The Gini coefficient rose from 0.28 in 1981 to 0.415 in 2007 (World Bank, 2009). China's post-1978 income distribution has two distinct characteristics: (a) a widening disparity between the incomes of urban and rural residents, and (b) a widening disparity within rural and urban area. First, the rural-urban income gap in fact narrowed during the early years of the Reform and Opening-up, thanks to a range of agricultural support policies. However, it thereafter rapidly risen. Between 1984 and 2007, the ratio of nominal mean urban income to mean rural income rose from less than 2 to 3.3. When adjustments are made for inflation and cost-of-living differences between rural and urban areas, the trend is less strong, but the rural-urban mean income gap still increased significantly over the period (see Figure 1 below). Secondly, according to Chen and Ravallion (2007), as well as the rural-urban income gap increases, income inequalities within the rural and the urban sector also rapidly rose. Of these, the trend for the urban sector is particularly pronounced (see Figure 2 below).

Figure 1: Ratio of Mean Urban Incomes to Mean Rural Incomes from 1980 to 2007



Sources and notes: World Bank estimates based on published data from China Statistical Yearbooks (NBS).

Figure 2: Gini Index of Income Inequality within Rural and Urban Areas from 1981 to 2005



Sources and notes: Chen and Ravallion (2007) for all years except 2003; for 2003, World Bank estimates from NBS Rural and Urban Household Surveys.

Table 2.2.2 Poverty Alleviation in ESA (%)

Developing Member Country (DMC)	1. Proportion of Population Below the Poverty Line					
	\$1 (PPP) a Day			National		
	1990	Latest Year		1990	Latest Year	
East Asia						
China, People's Rep. of	32.5	10.8	(2004)	9.4	2.5	(2005)
Hong Kong, China	...	...		...	...
Korea, Rep. of	...	...		7.0	5.0	(2004)
Mongolia	27.3	11.0	(2002)	36.3 ^d	36.1	(2003)
Taipei,China	...	...		...	0.8 ^c	(2003)
Southeast Asia						
Brunei Darussalam ^d	...	...		...	...
Cambodia	32.5	18.5	(2004)	39.0 ^e	34.7	(2004)
Indonesia	20.5	7.7	(2002)	15.1	16.7	(2004)
Lao PDR	52.7	28.8	(2002)	45.0 ^f	32.7	(2003)
Malaysia	0.1	0.0	(2004)	16.5	5.1	(2002)
Myanmar	...	...		...	26.6	(2001)
Philippines	20.2	13.2	(2003)	33.0 ^g	30.0	(2003)
Singapore	...	...		...	...
Thailand	10.2	0.0	(2002)	18.0	9.8	(2002)
Viet Nam	50.7	8.4	(2004)	50.9 ^f	19.5	(2004)

Source: *Key Indicator 2007*(ADB, 2007b).

Compared with other regions of the world, poverty has declined a lot more in the ESA region over the last three decades. Table 2.2.3 gives changes in the proportion of the poor in total population for some selected developing regions. In the Table, the East Asia and Pacific region predominantly includes all ESA developing economies but excludes high-income ESA economies such as Japan and the Four Dragons. The overall level of poverty for this region can therefore be used as a close proxy for the poverty level in the ESA region. As can be seen, the overall level of poverty in the region has declined throughout the period. In 1981, the proportion of the poor in the region was as high as 77.67% of the total population, while in 2005 it dropped to 16.78%, a fall of close to 61 percentage points. At the same time, the world's poor fell from 52% to 25% of the total population, down by 27 percentage points. Note also that while at the start of the period, the proportion of the poor in the ESA region exceeded

the world average by a massive 25 percentage points, in around 2002 that proportion had fallen below the world's average. Thus, on the whole, the ESA region has changed over the period from being the largest concentration of the poor in the world to one with a relatively low rate of poverty. Section 4 discusses some of the public policies that have contributed to this rapid fall in poverty in the region.

Table 2.2.3 Trends in the Proportion of the Poor in Some Developing Regions (%)

	1981	1984	1987	1990	1993	1996	1999	2002	2005
East Asia and Pacific	77.67	65.50	54.15	54.72	50.77	36.00	35.51	27.59	16.78
South Asia	59.35	55.56	54.15	51.71	46.94	47.05	44.13	43.80	40.34
Sub-Saharan Africa	53.37	55.84	54.49	57.58	56.87	58.78	58.37	55.03	50.91
World	51.87	46.74	41.9	41.69	39.19	34.45	33.73	30.53	25.19

Note: poverty line is —\$25 a day” at 2005 purchasing power parity.

Source: *World Bank PovcalNet Report*. <http://iresearch.worldbank.org/PovcalNet>.

2.3 Health

2.3.1 Enhancement of the Health Level

In the past two decades, the health level of the population in the ESA region has markedly improved, as measured by increases in life expectancy and declines in under-five mortality. Life expectancy at birth is widely used as a comprehensive measure of health development. Over the 1990-2008 periods, life expectancy at birth in the ESA region has increased significantly (Table 2.3.1). Consistently above the global average, average life expectancy in the region in 2008 was 5 years longer than that in 1990, Except for North Korea, the other economies in the region all recorded a positive increase in life expectancy during this period. However, the increase varied in extent across the region. For understandable reasons, those

with a higher starting value recorded a relatively low average annual rate of growth, while those with a lower starting value achieved a higher rate. Thus, over the period, the average annual rate of growth was 0.21 year for Japan, but 0.83 year for East Timor (which had the lowest starting value of 46.18 in 1990!). Among the higher starters (with a starting value above 70), in addition to North Korea which actually recorded a negative growth, Brunei had the lowest rate of growth, and was in 2008 behind South Korea even though it had a high starting value. Both Lao PDR and Indonesia recorded very marked rate of growth, followed by Viet Nam. Indeed Viet Nam had been behind China in 1990 by over 2.5 year, but it overtook China in 2008 by over a year. The lackluster growth of China over this period is in sharp contrast to its remarkable growth before the reform period, and raises serious issues about the nature of its healthcare system since the economic reform. It indeed has spawned prolonged and widespread discussions and debates within China itself, culminating in the recent healthcare system reform initiative (Liu and Wang, 2009).

Another widely used indicator for health development of a population is the proportion of children not surviving to the age five, and there are specific targets to reach on this for each country in the Millennium Development Goal (MDG) 4. Target 5 of that Goal calls for a reduction of the under-five mortality rate by two thirds between 1990 and 2015, and Table 2.3.2 provides the specific target values for the ESA economies for the year 2006 and 2015. The value actually reached by 2006 for each economy is also included in the table, allowing an examination of the progress these economies have made to reach their respective targets for the year.

Table 2.3.1 Life Expectancy in East and Southeast Asia

Country	1990	1995	2000	2005	2008	Value Added	Annual Growth
High HD							
Japan	78.93	80.01	81.22	82.26	82.73	3.8	0.21
Hong Kong, China	76.78	78.79	80.87	81.93	82.29	5.51	0.31
Singapore	74.7	76.52	77.98	79.45	80.05	5.35	0.30
Korea, Rep.	71.05	73.45	75.91	77.94	78.76	7.71	0.43
Brunei Darussalam	73.88	75	75.91	76.74	77.19	3.31	0.18
Malaysia	70.12	71.32	72.5	73.66	74.33	4.21	0.23
Medium HD							
Thailand	66.79	67.42	67.91	69.59	70.68	3.89	0.22
China	67.98	69.55	71.29	72.54	73.08	5.1	0.28
Philippines	65.3	67.56	69.49	71.04	71.83	6.53	0.36
Viet Nam	65.32	69.36	71.99	73.73	74.4	9.08	0.50
Indonesia	61.46	64.37	67.41	69.7	70.83	9.37	0.52
Mongolia	60.78	62.43	64.37	65.91	66.96	6.18	0.34
Lao PDR	54.14	57.84	60.75	63.19	64.63	10.49	0.58
Cambodia	55.09	56.29	56.48	58.02	59.96	4.87	0.27
Myanmar	58.78	59.92	60.03	60.77	62.27	3.49	0.19
Korea, Dem. Rep.	70.6	68.89	66.98	66.82	67.34	-3.26	-0.18
Timor-Leste	46.18	51.91	56.53	59.68	61.12	14.94	0.83

Data source: United Nations Economic and Social Commission for Asia and the Pacific, Statistic Division.

As can be seen from Table 2.3.2, the starting values of the under-5 mortality rate in 1990 varied widely between the ESA economies, with Japan at 5 but Timor-Leste at a massive 177 per thousand, followed by Myanmar, Cambodia and Mongolia, all reaching over 100 per thousand. While Timor-Leste has made rapid progress since, already cutting the rate by over two thirds by 2006, Myanmar by the same year has made only very slow progress, and is the only country in the region to register a value over 100 in that year, failing to reach the target value for 2006 by a huge gap. Other economies that have failed to reach the 2006 target value included Cambodia, North Korea, Brunei and Japan, even though Japan's rate for 2006 was in

fact already at a very low level of 4 per thousand.³

Aside from the MDG targets, when one examines the evidence as presented in Table 2.3.2, it can be seen that enormous differences still remain between the ESA economies at the end year 2006, even though on the whole substantial progress was made in the region. It is urgent that not only Myanmar (which, with a very high starting rate, has even failed to meet the 2006 MDG target value!), but also other economies in the region which continue to record rather unacceptable high rates, undertake a major effort to further significantly bring down their under-5 mortality rates.

³ The case of Japan shows, in fact, the inadequacy of the Millennium targets, to the extent that they apply a uniform reduction rate of two thirds of the starting value to all economies, when it should have made allowance for the fact that the lower is the starting value, getting it still lower by the same proportion would be a lot harder than if one had a higher starting value. It may be argued that if all human lives are treated equally, we should then expect those countries with a high starting value (and especially those outliers) to make much greater proportionate reductions than the average.

Table 2.3.2 Under-Five Mortality Rate in ESA (Deaths Per 1000 Live Births)

Country	1990	1995	2000	2005	2006	2015 (Target 5 of MDG4)*	Expected Level In 2006 Based On MDG**
High HD							
Japan	6	6	5	4	4	2	3
Singapore	9	5	4	3	3	3	5
Korea, Rep	9	6	5	5	5	3	5
Brunei Darussalam	11	9	9	9	9	4	6
Malaysia	22	17	14	12	12	7	13
Medium HD							
Thailand	31	20	13	8	8	10	18
China	45	44	37	25	24	15	26
Philippines	62	49	40	33	32	21	36
Viet Nam	53	44	30	19	17	18	30
Indonesia	91	66	48	36	34	30	52
Mongolia	109	83	62	45	43	36	62
Lao PDR	163	131	101	79	75	54	93
Cambodia	116	123	104	85	82	39	67
Myanmar	130	117	110	105	104	43	75
DPR Korea	55	55	55	55	55	18	32
Timor-Leste	177	154	107	61	55	59	101

Source: United Nations Economic and Social Commission for Asia and the Pacific, Statistic Division.

* Under five mortality rate of 2015 (Target 5 of MDG4) = under five mortality rate of 1990÷3.

** The expected MDG level in 2006 = under five mortality rate of 1990 - under five mortality rate of 1990×(2/3)×(16/25).

2.3.2 Health Inequality

Overall, the evidence presented above suggests that significant health improvements have been made in the ESA region in the past two decades. However, significant health inequalities exist in the region (as already alluded to above). Below we further examine these inequalities, first between and then within some selected ESA economies. We also explore the possible causes of such inequalities.

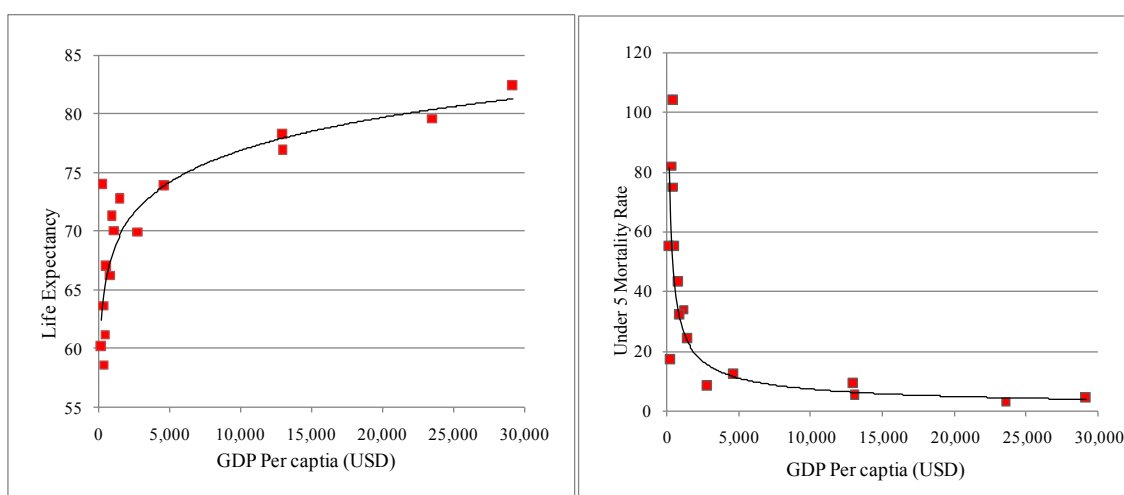
(1) Between-Country Inequality

Figure 2.3.1 re-presents the achieved levels of life expectancy and under-5 mortality in the ESA economies in the year 2006, plotted against their corresponding per capita income. As can be seen, substantial inequalities exist between the ESA economies.

In the existing literature on social and economic determinants of health, a factor which has been widely accepted to be of major importance is income. As can be seen from the figure, there exists a significant negative correlation between an economy's per capita income and its health level (as measured by the two indicators used here). Economies with high levels of per capita income tend to have both a higher life expectancy and a lower under-5 mortality rate, compared with those with a lower per capita income, in a non-linear fashion.

However, one needs to hasten to add that a country's health level cannot be taken care of entirely by its income. Many other factors are involved, education, life style, an efficient and effective healthcare system, etc. It so happens that all these other factors also strongly correlate with income, so that when these factors are missing from the equation, the role of income is magnified. But it would equally be a mistake to think that since all these other factors are associated with income, so all one has to do is, indeed, to wait for income to rise. An effective and efficient healthcare system is for one not entirely explained by income. Wang and Liu (2005) review the literature on social and economic determinants of health in some depth and discuss the underlying issues. In Section 4 below, we shall return to these issues.

Figure 2.3.1 Income and Health for East and Southeast Economies, 2006

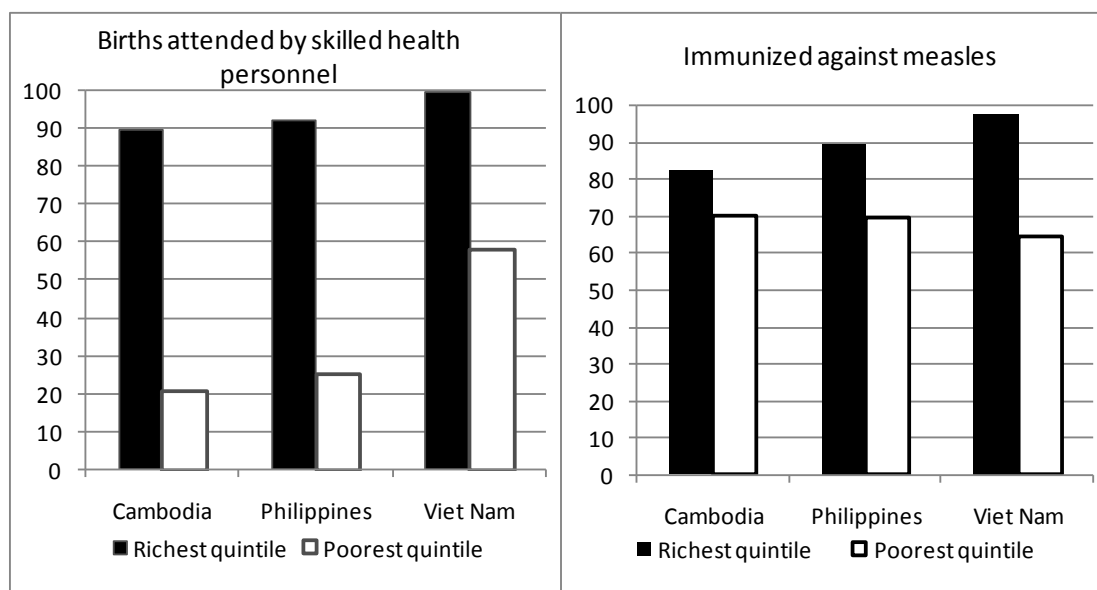


Source: United Nations Economic and Social Commission for Asia and the Pacific, Statistic Division.

(2) Health Inequality within Economies

Given the important role of income in determining health, it stands to reason that income disparities within a country can give rise to health inequality. Thus according to estimates provided by *United Nations Economic and Social Commission for Asia and the Pacific, Statistic Division*, for selected ESA economies, in Vietnam (2002), the Philippines (2003), and Cambodia (2005), infant mortality was 39, 42 and 101 per thousand, respectively, for the bottom income quintile of the population, and was 14, 19 and 34, respectively, for the top quintile. Differences in access to certain key services between the rich and poor groups may be an important reason for the observed differences. Figure 2.3.2 presents evidence on the difference in access to birth attended by skilled health personnel and immunization against measles, between the top and bottom income quintiles in the same three economies. It is clear that the differences in the former case are particularly pronounced, by as much as 70 percentage points in the case of Cambodia.

Figure 2.3.2 Maternal and Child Health Services for the Richest and Poorest Income Quintiles

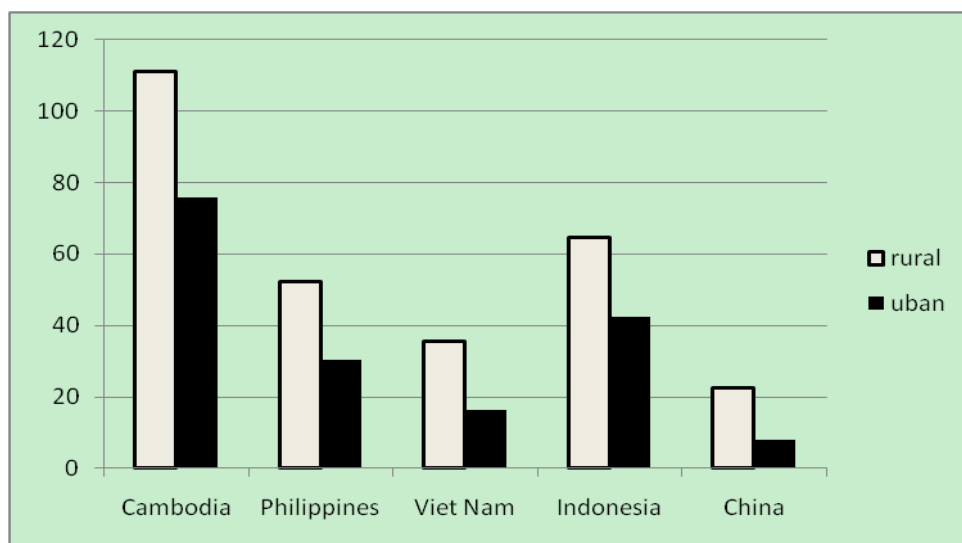


Year of Data: Cambodia (2005), Philippines (2003), Viet Nam (2002)

Source: United Nations Economic and Social Commission for Asia and the Pacific, Statistic Division.

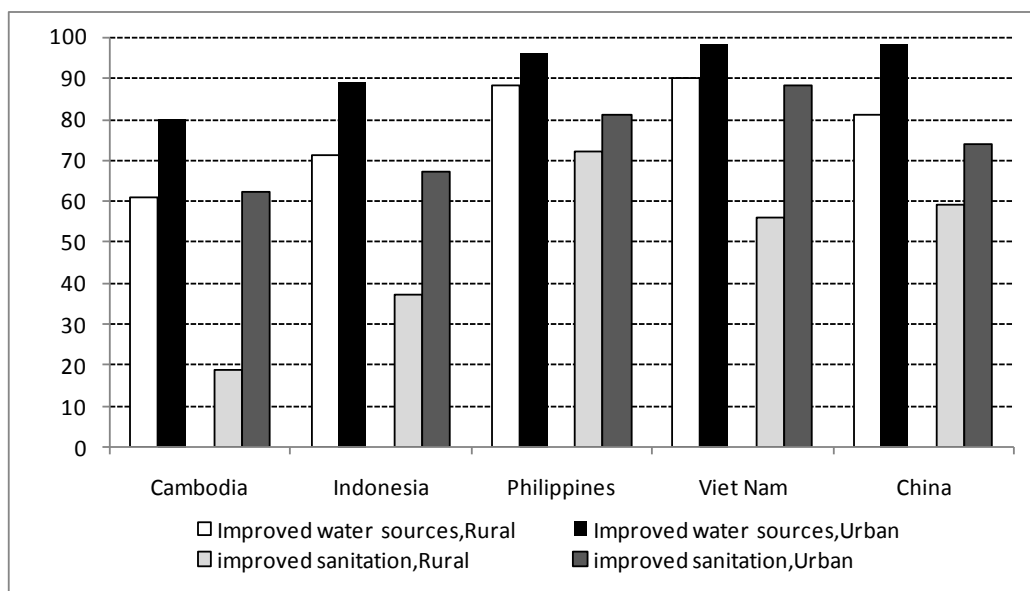
As well as sharp differences in important health outcomes between income groups, there also exists a marked rural-urban health gap in most developing ESA economies. Figure 2.3.3 presents this health gap for some selected ESA economies, again using the under-5 mortality rate as a measure. Sharp differences in rural and urban income levels may have been a major cause of this gap. However, differences in access to some critical public health services, including safe drinking water and modern sanitation, may also have significantly contributed to it. Figure 2.3.4 presents differences in access to improved water sources and sanitation between rural and urban areas for the same group of economies.

Figure 2.3.3 Rural and Urban Under-5 Mortality Rates for Selected ESA Economies



Note: Data for Cambodia (2005), Philippines (2003), Viet Nam (2002) and Indonesia (2003) are from WHO Statistical Information System (WHOSIS). Data for China (2008) are from *China Health Statistics Yearbook 2009*.

Figure 2.3.4 Share of Population with Access to Improved Water Sources and Sanitation, Selected ESA Economies, 2006



Source: United Nations Economic and Social Commission for Asia and the Pacific, Statistic Division.

2.4 Education

2.4.1 Enhancement of Universal Education

We consider the attainment of universal education in ESA economies by looking at two types of indicator. The first is the literacy rate, including the adult literacy rate and youth literacy rate,⁴ and the second is the enrollment rate, including primary school, secondary school and college enrollment rates.

Over the last twenty years or so, literacy rates in the ESA region have on the whole seen marked improvements. Table 2.4.1 provides data which allows a comparison of the performance of the ESA economies over time. In the period 1985-1994, adult literacy rates in the region had generally been below 90% (except for Japan, South Korea, Thailand and Mongolia), while in the following period (1995-2005), in most economies the rate increased to over 90% (except for Malaysia, Lao PDR, Cambodia and marginally Myanmar). The Philippines started with a very high rate of 93.6%, but then actually had a marginal fall of one percentage point between the two periods, the only country in the region to do so. The other two countries that saw almost no improvement between the two periods are Mongolia and Thailand. Youth literacy rates in the region are generally higher than adult literacy rates, as they should be. In this case, however, the Philippines again recorded a small fall of 1.5 percentage points, followed by Mongolia, which saw its youth literacy rate declining by 1.2 percentage points. The same rate for Thailand and Viet Nam almost stayed put. Except for

⁴ Adult literacy rate is the proportion of the adult population aged 15 years and over who are literate. Youth literacy rate is the proportion of the population at and between the age of 15 and 24 who are literate.

these economies, all other economies saw their youth literacy rates improving (unless it had already been close to its theoretical limit, as in the case of South Korea). Note that if compared with the world average, the ESA economies as a whole have nevertheless performed much better.

Table2.4.1 Adult Literacy and Youth Literacy Rates in ESA Economies (%)

HDI Rank	Adult Literacy Rate		Youth Literacy Rate	
	1985-1994 ^a	1995-2005 ^b	1985-1994 ^a	1995-2005 ^b
High HD				
Japan	99.0 ^f	99.0 ^g		
Hong Kong, China	89.7 ^d	93.5 ^e	98.2 ^c	99.4 ^e
Singapore	89.1	92.5	99	99.9
Korea, Rep	95.9 ^d	97.9 ^e	99.8 ^c	99.8 ^e
Brunei Darussalam	87.8	92.7	98.1	98.9
Malaysia	82.9	88.7	95.6	97.2
Medium HD				
Thailand	92.4 ^c	92.6	98.1 ^c	98
China	77.8	90.9	94.3	98.9
Philippines	93.6	92.6	96.6	95.1
Viet Nam	87.6	90.3	93.7	93.9
Indonesia	81.5	90.4	96.2	98.7
Mongolia	97.8 ^c	97.8	98.9 ^c	97.7
Lao PDR	56.5 ^c	68.7	70.1 ^c	78.5
Cambodia	62 ^c	73.6	73.5 ^c	83.4
Myanmar	80.7 ^c	89.9	88.2 ^c	94.5
East Asia and Pacific		90.7		97.8
World	76.4	82.4	83.5	86.5

Source: Unless otherwise stated, all data are from *Human Development Report 2007*, p.269-272.

Note: **a.** National literacy estimates from censuses or surveys conducted between 1985 and 1994, unless otherwise specified. Due to differences in methodology and timeliness of underlying data, comparisons across economies and over time should be made with caution. For more details, see <http://www.uis.unesco.org/>. **b.** National literacy estimates from censuses or surveys conducted between 1995 and 2005, unless otherwise specified. Again due to differences in methodology and timeliness of underlying data, comparisons across economies and over time should be made with caution. **c.** 1990 Data, source: HDR 2006, p.323, 325. **d.** 1990 Data, source: HDR 2004, p.176. **e.** 2001 Data, source: HDR 2003, p.270. **f.** 1992 Data, source: HDR 1995, p.155. **g.** 1995 Data, source: HDR 1998, p.128.

Table 2.4.2 provides data on enrollment. As can be seen, in respect of net primary school enrollment rate,⁵ economies with high levels of HD (Japan and Korea, Rep) did not show much change between 1991 and 2005. The rate consistently stayed high for these economies. Economies with medium levels of HD, however, did show marked progress. In particular, net primary school enrollment rate for Lao PDR and Cambodia rose, respectively, from 63% and 69% in 1991 to 84% and 99% in 2005. Over the same period, the percentage of first-grade pupils progressing to the fifth-grade in ESA economies also saw marked rises. In most ESA economies, this percentage exceeded 90% in 2004 (HDR 2007/2008, P269-272).

In respect of secondary school enrollment, because of a large number of missing data for 1991, only few comparisons can be made. For the economies for which we have data for both years 1991 and 2005, which include Japan, Korea (Rep), Brunei and Indonesia, net secondary school enrollment rates show significant increase. However, great disparities existed between these economies at the end as at the start of the period. Fuller data for 2005 enable us to see the extent of this disparity. While Japan registered a net enrollment rate of 100%, Cambodia recorded a mere 24%, and Myanmar and Lao's were only 37% and 38%, respectively. It needs to be noted that in 2005, the world's average secondary school net enrollment rate was 59%. Although the ESA regional average was 10 percentage points higher, this should not deflect us from the fact that there are economies in the region falling far behind even the world's average.

⁵ Net Primary/Secondary School Enrollment Rate = (Number of the enrolled primary/secondary school pupils in the age cohort / Number of the total population in that age cohort) * 100%.

Table2.4.2 Net Enrollment Rates of Primary and Secondary Schools and Gross College Enrollment Rates in ESA Economies (%)

Rank of HDI	Primary School Net Enrollment Rate ^a		Secondary School Net Enrollment Rate ^a		College Gross Enrollment Rate ^b	
	1991	2005	1991	2005	1991	2004
High HD						
Japan	100	100	97	100	29.6	54
Hong Kong, China		93		80		30.4
Singapore	96c				20.5	
Korea, Rep	100	99	86	90	38.6	88.5
Brunei Darussalam	92	93	71	87	71	87
Malaysia	94c	95		76	8.2	32
Medium HD						
Thailand	76	88		64		41
China	97	99 ^c	53		3	19.1
Philippines	96	94		61		
Viet Nam	90	88		69	1.9	16
Indonesia	97	96	39	58	9.2	16.7
Mongolia	90	84		84		
Lao PDR	63	84		38		
Cambodia	69	99		24		
Myanmar	98	90		37		
Timor-Leste		98				
East Asia and Pacific		93		69		
World	83	87		59		

Source: **a.** HDR 2007/2008, p.259-263; **b.** Asia and Pacific HDR 2008, p.214; **c.** China HDR 2007/2008 p.119.

Table 2.4.3 Percentage of Trained Teachers in Primary and Secondary Schools, Selected ESA Economies

	Primary		Secondary	
	2001	2008	2001	2008
Hong Kong, China	89.4	95.1		
Singapore		97.1		97.0
Malaysia	96.6		52.7	
Philippines	100.0		100.0	
Vietnam	84.9	98.6	91.4	97.7
Indonesia	93.5		53.0	
Mongolia	92.9	99.0		98.9
Lao PDR	76.2	96.9	95.8	87.3
Cambodia	95.9	98.2	99.6	99.4
Myanmar	60.4	99.0	65.1	97.1

Data Source: World Bank, Edstats Database.

As to college enrollment, the gross enrollment rate is generally used.⁶ As may be expected, this rate is more varied between economies. As can be seen from Table 2.4.2, although college enrollment rates rose in all economies for which a trend can be established, overall the differences between economies in the ESA region are great. In economies with high levels of HD, college enrolments are generally higher than in economies with low levels of HD. Thus in Korea (Rep), its college enrolment rate in 2004 was 88.5%, while in Viet Nam it was a mere 16%.

Having reviewed the achievements (or lack of them) in respect of the “quantity” of education, it is important also to examine its “quality”. Reliable measures of the quality of education are difficult to obtain. Most indicators used on this are only proxies, and sometimes rather remote proxies, for educational quality. Table 2.4.3 presents data on the proportion of “trained” teachers in primary and secondary schools in some selected ESA economies for which data can be found. As can be seen, except for secondary schools in Lao PDR, marked improvements have been made in all cases in the last decade (2001-2008). Again except for secondary schools in Lao PDR, the proportion of trained teachers has reached over 95% in all the economies for both primary and secondary schools.

2.4.2 Educational Inequality

Educational inequality is an important issue, as it implies, from a HD viewpoint, that some

⁶ Gross enrolment rate refers to the ratio of the number of enrolled students at a certain level of education (regardless of their age) to the theoretical maximum number of students at that level. As to college education, the population applied is those who are theoretically expected to enter college from an age cohort, plus those who are up to five years older.

sections of a population are discriminated against, on grounds of ability to pay or otherwise, in their acquisition of a basic capability—knowledge. And both historically and contemporarily one of the most pernicious forms of such discrimination is that based on sex. While other forms of education inequality are also important, below we focus on this particular form, by comparing levels of and changes in female and male literacy and enrollment rates.

Over the last twenty years, female adult literacy rates and female youth literacy rates have generally improved in the ESA region. For example, according to the findings reported in HDR 2006, China's female adult literacy rate in 1999 was 78.5%, but it rose to 86.5% by 2004. Other economies experiencing a significant improvement over the period (for which a trend could be established) are Myanmar, Indonesia and Malaysia. Viet Nam and Thailand actually recorded a substantial fall. So the regional picture of female adult literacy appears to be mixed.

Table 2.4.4 provides fuller evidence on the literacy rates. As can be seen, while China showed a significant increase in the female adult literacy rate over the 1999-2004 periods, the ratio of female to male adult literacy rate actually fell over the period. Singapore, Thailand, Viet Nam recorded a similar fall in this ratio. Only Indonesia and Malaysia showed a rise (for those economies for which a comparison can be made). Since male and female *adult* literacy rates have a lot to do with what happened to male and female education many years ago, an explanation of the observed pattern of change would require one to examine the relevant factors over many past decades. However, this is clearly not the place to pursue that enquiry. Rather, a more indicative measure of what has happened to female vis-à-vis male education

more recently is the youth literacy rate, and in terms of this indicator most economies appear to have made significant improvement, or at least have not slid back (except perhaps for Thailand; the change for Singapore and Malaysia are too insignificant for drawing any conclusion). So it looks that on this score gender equality in education has made progress. However, a value less than 100 percent for the ratio of female to male youth literacy rates for some economies, as can be seen from the table, also implies that gender discrimination against the female in education is still a problem (indeed, even a value of 100 percent for this ratio need not imply an absence of this discrimination).

Table2.4.4 Female Adult Literacy Rate in ESA Economies (%)

HDI Rank	Adult Literacy Rate (ALR)				Youth Literacy Rate (YLR)			
	Female ALR		Female ALR/Male ALR		Female YLR		Female YLR/Male YLR	
	1999	2004	1999	2004	1999	2004	1999	2004
High HD								
Japan								
Hong Kong, China	89.7		96.5		99.8		1.0	
Singapore	88	88.6	95.7	92	99.8	99.6	99.8	100
Korea, Rep	96.2		99.2		99.8		99.8	
Malaysia	82.8	85.4	91.0	93	97.4	97.3	97.4	100
Medium HD								
Thailand	93.5	90.5	97.4	95	98.3	97.8	100	100
China	78.5	86.5	94.6	91	96	98.5	100	99
Viet Nam	91.5	86.9	96.3	93		93.6		99
Indonesia	81.3	86.8	91.5	92	96.8	98.5	100	100
Lao PDR		60.9		79		74.7		90
Cambodia		64.1		78.9		90		96
Myanmar	80.1	86.4		92	90.2	93.4	90	98

Data Source: *HDR 2006*, p.371-373.

Levels of female enrollment rates and the ratios of these to male enrollment rates for primary,

secondary and tertiary education are provided in Table 2.4.5, for three consecutive time intervals. As can be seen, net female primary school enrollment rates in all economies (for which we have data) reached 85% and above in 2007. In the same year, the ratio of female to male enrollment rates in these economies is at or very close to 1. As one turns to secondary school net enrollment rates, gender inequalities begin to emerge. Thus in Lao PDR and Cambodia, the ratio of net female to male secondary school enrollment rate in 2007 was a mere 0.87 and 0.88, implying a net female enrollment rate much lower than that for the male, which in turn suggests the presence of significant gender inequality in secondary education. As to female tertiary enrollment, again there appears to be a significant gender bias in favor of male enrollment in Lao PDR and Cambodia. However, even in these economies, over time (roughly over the past decade), there appears to have been a significant reduction in the extent of gender discrimination in respect of both secondary and tertiary enrollment. In other economies, such a gender bias has been largely absent over the period.

Table 2.4.5 Female Enrollment Rates, Level and as a Ratio to Male Enrollment Rates, ESA Economies

	Net Primary Enrolment						Net Secondary Enrolment						Gross Tertiary Enrolment					
	Female Ratio (%)			Ratio of Female to Male			Female Ratio (%)			Ratio of Female to Male			Female Ratio (%)			Ratio of Female to Male		
HDI Rank	1999	2003	2007	1999	2003	2007	1999	2003	2007	1999	2003	2007	1999	2003	2007	1999	2003	2007
High Human Development																		
Japan									98.18			1.00	100.38	102.16	100.95	1.02	1.01	1.00
Hong Kong, China		92.34			0.97			74.38	76.31		1.01	1.02		66.03	74.98		1.00	1.05
Korea, Rep	97.97	96.64	97.44	1.00	0.97	0.98	96.94	89.41	94.65	0.99	0.98	0.97	99.95	90.03	94.73	0.98	0.98	0.98
Malaysia	96.7	96.08		0.98	1.00		67.56	75.2		1.08	1.12		48.1	57.94		1.18	1.24	
Medium Human Development																		
China														38.92	58.62		0.91	1.05
Indonesia		93.76			0.98			55.61	69.86		0.99	1.01		45.31	57.81		0.93	0.98
Lao PDR	74.08	76.72	77.76	0.92	0.93	0.95	22.74	30.78	33.46	0.79	0.83	0.87	15.9	25.56	30.01	0.66	0.70	0.76
Cambodia	79.29		87.78	0.91		0.96	10.77	19.86	31.82	0.54	0.64	0.88	7.28	9.13	19.07	0.53	0.51	0.70
Myanmar							30.56	36.1	46.42	0.98	0.93	1.00	29.14	31.69	35.54	1.15	0.98	1.05
Philippines	90.05	91.83	91.47	1.00	1.02	1.02	52.03	62.94	65.53	1.09	1.19	1.20	69.41	69.74	77.55	1.19	1.19	1.21
Mongolia	94.18	81.02	87.02	1.02	1.00	0.99	64.38	84.13	85.01	1.26	1.15	1.09	51.09	81.29	93.16	1.52	1.28	1.16

Source: UNESCO Institute for Statistics, <http://www.uis.unesco.org/>.

2.5 Environment

The term environment here is used in a broad sense to refer to both the ecological environment and the natural resources. Correspondingly, by “environmental sustainability” is meant not only the sustaining of the ecological environment but also a certain natural resource base, often for some purpose other than the sustaining of the environment itself, for the benefit of future generations. Below we first provide a brief review of the extent of the environmental problems that have accompanied rapid economic growth in the ESA region in the foregoing decades. This is then followed by a quick look at the discriminatory impact these problems have had on different sections of the population. Policies that ESA economies have or have not adopted to address these problems will be considered subsequently in Section 4.

2.5.1 Emerging Environmental Problems

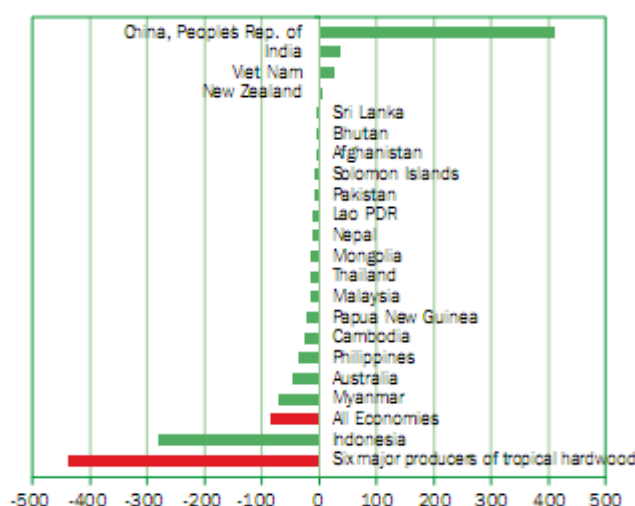
Environmental problems are often caused by economic activities of the human society. In recent years, along with rapid economic growth in the ESA region, problems of environmental pollution and ecological destruction have been rapidly rising. Below we briefly review the extent of the emerging environmental problems in the region from both a local and global perspective.

(1) Local environmental problems

In recent years, rapid economic growth along with population growth has brought about serious environmental problems in the ESA region, including land degradation, deforestation, loss of biodiversity, air and water pollution and other problems.

Forest area losses. Factors including population pressure, heavy dependence on fuel wood, timber and other wood products, and conversion of forests to agricultural, urban and industrial land have resulted in widespread deforestation in the region. Figure 2.5.1 shows the change in forest area from 1990 to 2005. As can be seen, with the exception of China and Vietnam, most ESA economies experienced extensive deforestation.

Figure 2.5.1 Change in Forest Areas between 1990 and 2005
(Thousand square kilometers)



Source: ADB (2009).

Biodiversity losses. According to WDI (1998 and 2009), the number of animal species on the brink of extinction has been on the increase. Thus over the period of 1996-2007, in all the economies reported in Table 2.5.1, there was a significant rise in the number of endangered animal species. The same period also saw the number of endangered plant species rising in China, Indonesia, Malaysia and Singapore, while that number fell in other economies. Deforestation, environmental pollution and climate change are the main factors that lead to

loss of biodiversity.

Table 2.5.1 Number of Endangered Animal and Plant Species

Country	Endangered Animal Species		Endangered Plant Species	
	1996	2007	1997	2007
China	165	351	312	446
Indonesia	232	464	264	386
Japan	62	190	707	12
Korea, Rep	25	54	66	0
Malaysia	76	225	490	686
Philippines	135	253	360	213
Singapore	15	44	29	54
Thailand	79	157	385	86

Data source: WDI (1998, 2009).

Water and Air pollution. Problems of water pollution have been on the rise in the region, and in many cases have seriously threatened human and animal life and health. Although through various policy measures some economies (including China, Japan, South Korea, Philippines) have in recent years managed to keep the problems under control, as a result of which total emissions of organic wastewater have somewhat declined, there are still many economies whose emissions of such organic wastewater have risen. They include Indonesia, Malaysia, Singapore and Thailand (Table 2.5.2).

Table 2.5.2 Emissions of Organic Wastewater in Major ESA Economies

Country	Emissions of organic wastewater (Kg / day)				
	1990	1993	1998	2003	2005
China	7038131	5339072	8491856	6088663	6088700
Indonesia	495594	537142	347083	720326	731000
Japan	1556648	1548021	1391281	1279287	1133100
Korea, Rep	369193	358610	317903	309517	317000
Malaysia	104728	136055	166577	170662	187600
Philippines	228301	181714	178239		98500
Singapore	32400	32410	28558	33644	34300
Thailand	291552	256930	213271	291552	333800

Source: WDI (1998, 2001, 2006, 2009).

As for air pollution, according to WDI (2009), even though emissions of most air pollutants decreased, including the total suspended particulates and the sulfur dioxide, a result which may be attributed to the control of emission source, changes in fuel consumption patterns, closure of old factories and so on, the concentrations of air pollutants in many urban areas are still quite high in the region (Table 2.5.3).⁷

⁷ According to Imura (2003), which provides a comparative assessment the air quality of 4 mega-cities in the ESA region, Tokyo, Seoul, Beijing and Shanghai, even though the concentration of some air pollutants (SO_x, dust, PM and CO) has to some extent declined in the past decades, the NO_x concentration, largely discharged from automobile exhaust gases, still remains at a substantial level. The municipal governments in these cities have made great efforts to encourage people to use public transportation and reduce the use of private passenger cars, but public transportation policy measures have had only a limited impact on people's modal choice and trip behavior.

Table 2.5.3 Air Pollutants Concentration in Main Cities of the ESA region

Country	City	Air Pollution					
		Particulate Matter			SO ₂		
		Concentration			(micrograms per cubic		
		(micrograms per cubic meter)			meter)		
		1995	2002	2006	1995	1998	2001
China	Beijing	377	99	90	90	90	90
	Shanghai	246	81	74	53	53	53
	Tianjin	306	139	126	82	82	82
Indonesia	Jakarta	271	115	84			
Japan	Osaka	43	37	33	19	19	19
	Tokyo	49	42	38	18	18	18
	Yokohama		32	29	100	100	100
Korea, Rep	Pusan	94	44	35	44	60	60
	Seoul	84	46	37	60	44	44
	Daegu	72	50	40	81	81	81
Malaysia	Kuala Lumpur	85	28	23	24	24	24
Philippines	Manila	200	42	28	33	33	33
Singapore	Singapore		48	41	20	20	20
Thailand	Bangkok	223	83	76	11	11	11

Source: WDI (1998, 2001, 2006, 2009).

(2) International environmental problems: climate change

The main cause of climate change is excessive green house gas (GHG) emission, which results from increased consumptions of fossil fuel. The main type of greenhouse gases is carbon dioxide (CO₂). With the exception of North Korea, Mongolia and Cambodia, most economies in the region have had rising amounts of CO₂ emission since 1990, among which China, Indonesia and Malaysia have figured particularly importantly. Across the world, per capita CO₂ emissions of developed economies have still far exceeded those in developing economies,

in terms of increases in the total world emissions, developing economies have nevertheless accounted for a disproportionately large share. Thus although China's per capita CO₂ emission has been low, its contribution to worsening global warming problems is nevertheless substantial (Table 2.5.4). Still, future increases in per capita CO₂ emissions by ESA economies would seem inevitable as the economies grow and their living standards rise.

Table 2.5.4 CO₂ Emissions in ESA Economies

Country	CO ₂ Emissions			
	(Total, Million Metric Tons)		(Per Capita, Metric Tons)	
	1990	2005	1990	2005
Cambodia	0.5	0.5	0.1	0.1
China	2398.9	5547.8	2.1	3.2
Hong Kong, China	26.2	38.6	4.6	2.1
Indonesia	165.7	419.6	0.9	1.9
Japan	1070.9	1230	8.7	9.6
Korea, Dem. Rep.	244.6	82.6	12.4	3.5
Korea, Rep	241.2	452.2	5.6	9.4
Lao PDR	0.2	1.4	0.1	0.3
Malaysia	55.3	239.8	3.1	9.3
Mongolia	10	8.8	4.7	3.4
Myanmar	4.3	11.3	0.1	0.2
Philippines	43.9	75	0.7	0.9
Singapore	45.1	56.3	14.8	13.2
Thailand	95.7	270.9	1.8	4.3
Viet Nam	21.4	101.8	0.3	1.2

Source: WDI (1998, 2009).

According to HDR (2007/2008), climate change can lead to human development reversals through the following channels: (1) reduced agricultural productivity; (2) heightened water insecurity; (3) increased exposure to coastal flooding and extreme weather events; (4) collapse

of ecosystems; (5) increased health risks. Moreover, these five drivers for major human development reversal cannot be viewed in isolation. They will interact with each other, and with pre-existing human development problems, creating powerful downward spirals. Therefore, climate change has become one of the most severe environmental problems confronting all of the human society.

There are two major factors causing the rise of GHG emission in the region. The first is the increasing demand for energy. Rapid population growth, rapid economic development and urbanization have brought about an ever-increasing demand for energy. According to the data from World Bank Development Indicators (2009), the demand for energy in the ESA region substantially increased from 1990 to 2006. Compared with 1990, a number of economies in the region, including China, Korea (Rep), Malaysia, Singapore, Thailand and Viet Nam, had more than doubled their amount of commercial energy use by 2006. All indications are that the region's demand for energy will further grow. In per capita terms, in 2006 the region's per capita energy consumption was still far below the world's average level, which was 1820 kilotons of oil equivalent in that year. As can be seen from Table 2.5.5, except for Hong Kong, Japan, Korea (Rep), Malaysia and Singapore, per capita consumptions of energy in other economies in the region were below the world's average level in that year. However, if one looks at the trend changes over the 1990-2006 period, even with the severe interruptions to energy use due to the East Asian Financial Crisis, with the exception of North Korea, per capita consumptions of energy in all ESA economies had experienced marked increases.

Table 2.5.5 Per Capita Commercial Energy Use in ESA Economies
(Kiloton of Oil Equivalent)

Country	1990	1995	1998	2003	2006
China	775	707	830	1094	1433
Hong Kong, China	1869	2212	2497	2428	2653
Indonesia	539	442	604	753	803
Japan	3605	3964	4035	4053	4129
Korea, Dem. Rep.	1670	1113		896	913
Korea, Rep	2161	3225	3519	4291	4483
Malaysia	1269	1655	1967	2318	2617
Myanmar	262	50	307	276	295
Philippines	428	307	526	525	498
Singapore	4384	7162	2656	5359	6968
Thailand	803	878	488	1406	1630
Viet Nam	367	104	364	544	621

Data source: WDI (1998, 2001, 2006, 2009).

The second factor is the structure of the energy demand. The region has mainly depended on fossil fuels, especially the use of coal and oil, which has caused severe strains to the local and, indeed, global environment. In 2005, coal accounted for 66.3% of the total energy use in the country, while in other ESA economies, oil has been their main source of energy (Table 2.5.6).

Table 2.5.6 Structure of Energy Consumption in Major ESA Economies

Country	Fossil Fuel						Renewable Energy			
	Coal (%)		Oil (%)		Gas (%)		Hydro, solar, wind and geothermal energy (%)		Biomass and waste (%)	
	1990	2005	1990	2005	1990	2005	1990	2005	1990	2005
China	61.2	63.3	12.8	18.5	1.5	2.3	1.3	2.0	23.2	13.0
Indonesia	3.8	14.2	33.2	36.6	17.9	17.1	1.5	3.7	43.6	28.5
Japan	17.4	21.1	57.4	47.4	9.9	13.3	2.3	2.0	1.1	1.2
Korea, Rep	27.4	23.1	53.6	45.0	2.9	12.8	0.6	0.2	0.8	1.0
Malaysia	4.4	9.6	55.8	43.3	29.2	41.8	1.5	0.8	9.1	4.5
Singapore	0.2		99.8	80.3	0.0	19.7	0.0	0.0	0.0	0.0
Thailand	8.7	11.2	45.2	45.5	11.6	25.9	1.0	0.5	33.4	16.5

Data source: (UNDP, 2008).

The worsening situation of CO₂ and other GHG emissions is deeply worrying, as it threatens to cause widespread human development reversals (HDR, 2007/2008). One hopes that a set of common but differentiated commitments to reduce such emissions can soon be accepted by all nations, although the recently convened Copenhagen Climate Change Conference does not appear to offer much optimism. But before we move on to look at ways and means to tackle these global and local environmental challenges, it is also important to recognize that the impact of such problems by no means falls uniformly on everyone, but in fact discriminatorily on those who are already vulnerable in other important respects. This both underlines the urgency to tackle the problems at hand, and forewarns the difficulties of doing so.

2.5.2 Discriminatory Impact of Environmental Pollution

Most environmental problems are a public bad, that is, the reach of their impact can be far and wide, if not globally then at least locally. But the capability of the people to combat these problems can differ widely. Thus a richer person may have the means to move away from the affected area of an environmental accident, but a poor person is unable to. Incomes are but one factor causing such differences in capability, status, gender, position, occupation can be important factors too. It is not possible to review how each of these factors causes or does not cause important differences in people's capability to combat environmental problems. In what follows we shall only consider a selected few of these.

(1) Environmental Pollution and the Poor

Environmental damage almost always hits those living in poverty the hardest. The overwhelming majority of those who die each year from air and water pollution are the poor in developing countries. So are those most affected by desertification, floods, storms, and harvest failures caused by global warming. Across the world, the poor generally live nearest to dirty factories, busy roads and waste dumps (UNDP, 1998, p.66). Poverty reduces the ability of individuals to respond and adapt to environmental change (NEAA, 2007).

The impacts brought about by environmental pollutions in the ESA region are particularly severe on the poor. According to one study (Wagstaff, 2001), in Cebu City, the Philippines, a significant poor-nonpoor inequality existed in child mortality from communicable diseases. Over the period 1981-1991, the poorest 20% of children accounted for 31% of the deaths from

four main communicable diseases, while the richest 20% accounted for only 10%. Environmental pollutions were an important cause of such deaths. Diarrhea, a water-born disease, was the second largest cause of child death, accounting for nearly 12% of total child deaths over the period. Malnutrition, and lack of access to proper medical care, were important contributing factors, both a consequence of poverty.

The reason why environmental pollutions impact the poor the hardest is easy to see. In the process of industrialization, the number of factories increases, multiplying the potential sources of air, water and soil pollution; the roads also become busy. At the same time, the poor tend to live, disproportionately, in such industrial areas or by the road side, thus falling victims to such industrial emissions and car exhaust.

But not only do the poor living in urban areas tend to suffer more from environmental pollutions, those who live in rural areas also do. Thus in the case of indoor air pollution, because they are poor, they tend to live at the bottom rung of the energy ladder, burning traditional fuels such as animal wastes, wood and crop residues for cooking and heating. Burning such fuels spreads the smoke with suspension of many toxic substances all over the room. According to an early study, this killed 2.2 million people every year, most of whom lived in rural areas (Streeten, 1994).

(2) Environmental Pollution and Women and Children

Other things being equal, the impact of an environmental pollution tends to be greater on

women, children, and the elderly. When this is combined with poverty, its effect can only be far worse. And yet the majority of ESA economies are still developing economies, with large sections of poor population. When a pollution occurs, the women, children and the elderly from these social groups are likely to be the worst affected (Dankelman et al., 1988; Hombergh, 1993; UNDP, 1998).

Generally, deterioration of the environment is likely to bring a disproportionate burden on women. Their social and economic roles force them to face more environmental hazards (UNDP, 1998). Thus, because of the gender division of labor, women tend to be more engaged in household chores, collecting firewood and water, and other tasks. However, as women prepare food for the family, they are exposed to high concentrations of smoke and dust over a long duration. Collecting water increases their health risks caused by exposure to contaminated water (Hombergh, 1993). In addition, physiological factors make women more susceptible to environmental impacts. Women during pregnancy and just after childbirth are particularly vulnerable to hazards, when they are more easily infected with diseases such as malaria (UNDP, 1998).

Children are another social group vulnerable to various hazards. According to Gordon et al. (2004), over ten million children under five years of age die every year, 98 per cent of them in developing countries. Widespread malnutrition hampers children's growth and makes them vulnerable to other risks: perinatal diseases, pneumonia, diarrhoea, and malaria. Among the risks that children face are fluoride and arsenic in drinking water, and the ingestion of lead.

Lead is still found as an additive to gasoline, an ingredient of paint and pottery glaze, and in old water pipes. Children are at the greatest risk because lead is more readily absorbed by their growing bodies while their tissues are more sensitive to damage. The threshold above which irreparable damage occurs is still exceeded around the world, particularly for children in cities in the developing world.

2.6 Governance

“Governance for human development”, according to HDR 2002 (p.51), is partly about having efficient institutions and rules that promote development by making markets work and ensuring that public services live up to their name, which includes transparency, participation, responsiveness, accountability and the rule of law. But it is also about protecting human rights, promoting wider participation in the institutions and rules that affect people's lives and achieving more equitable economic and social outcomes. Thus governance for human development is concerned not just with efficient, equitable outcomes but also with fair processes. Governance for human development must be democratic in substance and in form—by the people and for the people.” It may be added that since from the perspective of human development, the end of development is to expand people's capabilities to lead the lives they value, autonomy, agency and having control of one's own life are at the core of the ideal of human development. That being so, civic and political participation in major public decisions is crucial for this to happen, and empowerment of people to be able to do so is, therefore, fundamental to the process of human development.

At the start of the 1990s, an influential World Bank Report (1993, p.159) presented evidence that the leaders of the High Performing Asian Economies (HPAEs) “have been unusually successful in achieving shared growth. Growth-rate and income-distribution performance measures show that the HPAEs significantly outperformed other low-and middle-income economies.” They did this partly because they have institutions and mechanisms to share the benefits of growth. “To win the support of non-elites, the leaders of the HPAEs introduced mechanisms that drastically increased opportunities to share the benefits of growth. These mechanisms varied from economy to economy but included education (in all the HPAEs); land reform (in Japan, Korea, and Taiwan, China); support for small and medium-size industries (Hong Kong, Japan, Korea, and Taiwan, China); and government provision of such basic amenities as housing and public health services (Hong Kong and Singapore). Nearly all HPAE governments walked a delicate line regarding labor by limiting the power of unions and intervening to check labor radicalism, while at the same time encouraging a cooperative climate in which labor was rewarded for increases in productivity” (World Bank, 1993, p.160). These systems and measures by the ESA economies in question before the 1990s can be seen, in a broad sense, as governance improvements, but they were mainly related to the management of the economy and other supporting policies, and not so much in terms of civic and political participation, empowerment and agency.

Major strides have been made in the region since then, in the direction of good governance. While the last two decades have been a turbulent time for many economies, major progresses were achieved in the process of political democratization. And even in economies where

political democratization has not formally happened, important steps have also been taken in the direction of greater participation by civil society in policy making, better transparency of policy making rules and processes, better accountability of policy makers for their decisions, and a due emphasis on fairness and efficiency. Below, we first provide a broad review of the democratization process in the region, followed by an assessment of the achievements (or lack of them) in other major dimensions of governance.

2.6.1 Process of Democratization in ESA

The process of democratization in ESA may be divided, in general, into four phases. In the first phase, one witnesses a gradual collapse of the former authoritarian rule in an economy because of a legitimacy crisis. The second is a political transition phase in the narrow sense, or the phase that sees the initial establishment of a democratic system. At this stage, general forces for change subvert the authoritarian regime. This is followed by the third phase of democratic restructuring and consolidation. Consolidation of a democratic system involves a broad acceptance of the democratic ideals, and smooth operations of democratic institutions and mechanisms. The final phase is that of democratic maturity. After some periods of unrest and instability associated with democratic consolidation, many economies would then accept democracy as the proper regulatory mechanisms for various social groups and strata to resolve their differences of interests and of views.

Quite a few ESA economies underwent a critical transition from their former authoritarian systems to democratic ones in the 1980s and 1990s. Due to their different economic, political,

cultural, and historical conditions, these processes have demonstrated enormous differences. At the same time, there are also important common characteristics. Three types of transition can be identified: the bottom-up type involving a sudden collapse of the former authoritarian rule; the compromise type involving concessions and collaborations between the top and the bottom of the political pyramid; and the top-down type involving reforms by existing regimes in the direction of greater participation by the population in the economic and political decisions of the economy. Note that this classification provides only broad characterizations with serious simplifications. In reality, most transition processes are of a mixed form, with important features from each of the above type, but a particular set of features would stand out which places a particular transition process in one type or another.

Of the first transition type are economies of the Philippines, Indonesia and Thailand, where some major economic, political and social crises took place, causing large scale street protests and mass resistance. Under immense pressures from the democratization movement, the former authoritarian government fell. The opposition came to power through democratic elections, and then began to fundamentally change the country's political system and embark on the transition to democracy. The political transformations in the Philippines and Indonesia had this characteristic. The situation in Thailand was somewhat more complicated, with more mixed features, but it also involved large-scale mass pro-democracy movements, which forced the military to give up power, to be replaced by democratically elected governments.

Belonging to the second, compromise type are economies of South Korea and Taiwan. Along

with the rise of the more mature market economies, the socio-economic structure there had undergone significant changes in the early decades of the 1970s and 1980s. Civil society had grown, and democratic movements had waxed and waned. The opposition and its political elite had gradually matured. The legitimacy of the authoritarian rule was significantly challenged subsequently. In order to re-consolidate its legitimacy, those in power were forced to negotiate with the opposition to reach compromises with them, paving the way for their entry into political power. Competitive elections and political liberalization then followed, opening the road to democratization. South Korea and Taiwan (China) basically demonstrated this feature in their transition process.

The third-type economies include Singapore and Malaysia. Their transition paths can generally be described as follows: When faced with the pressure for democratization from home and abroad, the authoritarian regime either took the initiative and carried out democratic reforms itself, or was forced to open to democratization, but the government then set the rules and took firm control of process. Such transitions from the authoritarian rule proceeded within the framework of “state corporatism”, with the ruling party acting as the core, and are relatively stable but progress can be slow. Singapore and Malaysia's transitions from the former authoritarian rule show major features of this type.

Democratic political transitions in the narrow sense in the ESA region started in the 1980s and early 1990s, and have been under way for more than 20 years. Most economies in the region have now basically completed this transition, and have entered into the phase of consolidation.

Even in those economies which have not yet completed this transition phase, democratic elements within the political system have also greatly developed. However, because of differences in economic, political, cultural, and historical conditions, the phase of consolidation has displayed even greater differences between economies than the earlier transition phase.

Among the ESA economies, Korea's democracy consolidation process has been relatively stable. A multi-party democratic system has been established rather smoothly. The effective functioning of the democratic system has not met much resistance; democratic ideas and principles continue to penetrate people's social life. On the other hand, in the Philippines, Indonesia and Thailand, although progress has been made in democratic consolidation, the process has experienced turbulent ups and downs, causing and aggravating deep social crises. The new democratic system is therefore facing major challenges.

In Taiwan (China), the democratic consolidation process has been characterized by a combination of progress and deterioration. On the one hand, the election into power of the Democratic Progressive Party in 2000 marked the establishment of a multi-party democracy in Taiwan, and the start of the democratic consolidation period. Although this process did encounter some setbacks, overall it followed the basic democratic rules, procedures, and results, and regime changes have essentially been stable. Civic and political rights have also been, by and large, guaranteed and protected. The top leader is elected by universal suffrage through a competitive election, and electoral disputes are resolved in a rational manner. On the

other hand, Taiwan's democracy has basically been confined to the formal forms of democracy, including elections, checks and balances, and so on. The true “quality” of its democracy has not been much improved. Indeed, in recent years, there has even been a serious deterioration, as reflected by its frequent "constitutional reforms", social strife, ethnic tensions, rampant populism, etc., undermining the long-run foundation of a successful democracy.

Singapore and Malaysia both initiated the government led political transition processes in the 1990s, with a view to achieving a smooth transition to democracy within the current system. Strictly speaking, the political processes of the two economies have not yet entered the democracy consolidation phase. Nevertheless, important progresses towards democracy have been made. For example, in Singapore, the government took the initiative for political reform, established the Government Parliamentary Committee for non-cabinet members' participation in decision making, and reformed the political power structure towards the separation of three powers among the ruling party leader, the prime minister, and the head of state. Oppositions have become increasingly active, and individuals and various social groups' enthusiasm for political participation have increased, and so has their spirit of autonomy.

Generally speaking, consolidation of democracy in the ESA region still faces many challenges, and full democratization is still a long way off. Below, we consider advances in other aspects of governance other than full and complete democratization.

2.6.2 Progress in Governance

A wide range of indicators have been used to measure a country's state of democratic and political rights, and the level of freedom. However, unlike the measurement of income, health or education, measurement of governance has few standard, widely recognized measurable indicators. Most researchers adopt two kinds of measure, objective ones such as voter turnouts, the existence of competitive elections, women's seats in Parliament, and so on, or subjective ones such as through consulting experts on the degree of democracy in an economy, level of freedom, and so on. Objective indicators, while desirable, often could not reflect all important aspects of governance. For example, there may be elections in an economy, but the ruling party has never been changed. Or there may be both elections and a change of the ruling party, but press freedom and freedom of religion are somehow seriously restricted. Good governance demands broad and substantive participation of the public in state decision making, which can be difficult for objective indicators to capture. Subjective indicators can more widely measure various aspects of governance. However, being subjective, they can be subject to wide disagreement.

In respect of objective indicators, Inter-Parliamentary Union (IPU) has undertaken long-term data collection and collation. We present some measures of governance in the ESA region based on its monitoring and data collection:

Table 2.6.1 Some Objective Measures Of Governance in the ESA Region

	Latest Election For Lower Or Single House		Year Women Received Right To Vote	Seats In Parliament Held By Women
	Year	Voter Turnout		
Cambodia	2008	75.21%	1955	16.26%
China	2008	..	1949	21.33%
Indonesia	2009	70.99%	1945	18.21%
Japan	2007	58.63%	1945	21.49%
Korea, Rep			1948	
Lao PDR	2006	99.76%		25.22%
Malaysia	2008	74.72%	1957	10.81%
Mongolia	2008	74.31%	1924	3.95%
Myanmar	..	..	1935	
Philippines	2007	70%	1937	20.42%
Singapore	2006	94.01%	1947	24.47%
Thailand	2007	74.45%	1932	11.67%
Timor-Leste	2007	80.54%		27.69%
Viet Nam	2007	99.64%	1946	25.76%

Source: Inter-Parliamentary Union, <http://www.ipu.org/english/home.htm>.

As can be seen, voter turnouts in most recent elections in the ESA region have been quite high; the turnout in Japan is in fact the lowest. As a measure of the level of good governance in an economy, this produces a rather odd result, as Japan is widely seen to have a most clean and efficient government in the region. This shows that objective indicators may not produce an accurate measure of the aspects of governance that they are supposed to capture. In almost all ESA economies, women had won their right to vote by the 1950s. However, the proportion of seats in parliament they hold is mostly around just 20%, and in all cases below 30%, which suggests that women and men do not yet enjoy the same political rights. On the other hand, note that the average ratio of seats in parliament held by women worldwide in 2009 is 18.7%. Judged against this average, it appears that most ESA economies have in fact performed quite

well. Only Mongolia, Malaysia, Thailand, Cambodia and Indonesia have seen their ratio significantly below the world average.⁸

There is also a wide range of subjective data designed to measure the status of governance in an economy. Better and well-known databases include the Polity IV (Center for Systemic Peace), Freedom House, World Bank Governance, and Transparency International Databases. The Polity IV project codes the authority characteristics of the states in the world for purposes of comparative, quantitative analysis. Each economy's polity score is based on a linear scale from autocracy to democracy. This indicator measures the institutional factors necessary for democracy—whether laws and institutions allow democratic participation—but not the actual extent of political participation. Freedom House, on the other hand, surveys the extent of political rights and civil liberties around the world. A World Bank team further constructs six aggregate indices based on numerous indicators from more than a dozen sources. The indicators are combined in different groupings to create aggregate indices for democracy (titled “voice and accountability”), political instability and violence, rule of law, control of corruption, government effectiveness, and regulatory quality. These databases can be downloaded from the Internet.

Since each database provides a wealth of information, we select and present below some of the more important information for examination. Table 2.6.2 provides findings on a range of subjective indicators. In the past two decades, except for Indonesia and Taiwan which have

⁸ Needless to say, the value of the proportion of women's seats in parliament as a useful indicator of women's empowerment crucially depends on the genuine power that parliaments have over government policy making, which concerns more generally the nature of the democratic system in an economy.

made great strides in moving towards a democratic governance system, the Polity Scores (-10 to 10) for most economies have remained the same or have only slightly improved. In 2008, North Korea scored -9, Burma -8, and China, Lao PDR and Vietnam all scored -7. Using these ratings, one may conclude that the problem of centralized authoritarianism in some ESA economies remains serious. In the press freedom ratings (100 to 0), only four economies, namely, Japan, Taiwan, South Korea and Hong Kong, have a relatively free press. Furthermore, press freedom in 9 economies has even worsened in the last 10 years. In respect of voice and accountability, the state of democracy in about half of the ESA economies (for which a trend analysis can be made) has improved, while in the other half it has actually worsened. Significant improvements were made in Hong Kong, Taiwan, Korea (Rep) and Japan, while a significant worsening took place in Thailand, the Philippines, Mongolia, Malaysia and Singapore.

In respect of rule of law and government effectiveness, the majority of developing ESA economies is assigned a negative score, indicating that they have generally had problems with the rule of law and endemic corruption. Since the start of the rule-of-law score in 1996, Mongolia, the Philippines and Thailand have all had a significant step back, deteriorating by more than 0.5 on the rule of law score, followed closely by Indonesia and Malaysia. On the other hand, significant improvements have been recorded in Hong Kong and Lao PDR. In respect of corruption, the ratings indicate widespread improvements in the region (for those economies for which a trend can be established).

Table 2.6.2 Subjective Indicators of Governance in the ESA Region

	Democracy						Rule of Law and government effectiveness				corruption			
	Polity Score(-10 to 10) ^a		Press Freedom (100 to 0) ^b		Voice and accountability(-2.50 to 2.50) ^c		political stability and lack of violence (-2.5 to 2.5) ^c		Rule of Law (-2.5 to 2.5) ^c		corruption perceptions (0 to 10) ^d		control of pollution (-2.50 to 2.50) ^c	
	1990	2008	2000	2009	1996	2008	1996	2008	1996	2009	2001	2009	1996	2008
Brunei Darussalam			74	75	-1.10	-1.00	1.11	1.22	0.62	0.51	..	5.50	0.37	0.51
Cambodia	1	2	61	61	-1.00	-0.94	-1.37	-0.27	-1.19	-1.08	..	2.00	-1.17	-1.14
China	-7	-7	80	85	-1.70	-1.70	-0.25	-0.32	-0.22	-0.33	3.50	3.60	-0.08	-0.44
Hong Kong, China				33	0.21	0.49	0.37	1.09	1.20	1.56	7.90	8.20	1.48	1.88
Indonesia	-7	8	47	54	-1.20	-0.14	-0.85	-1.00	-0.31	-0.66	1.90	2.80	-0.51	-0.64
Japan	10	10	23	21	0.87	0.95	1.01	0.94	1.48	1.40	7.10	7.70	1.14	1.25
Korea, DPR	-9	-9		98	-2.00	-2.21	-1.69	0.35	-1.25	-1.06		..	-0.34	-1.74
Korea, Rep. of	6	8	27	30	0.50	0.59	0.26	0.41	0.78	0.79	4.20	5.50	0.43	0.45
Lao PDR	-7	-7	69	86	-1.10	-1.71	1.02	-0.01	-1.85	-0.90	..	2.00	-1.18	-1.23
Macao						0.13	..	0.46	..	0.45	..	5.30	..	-0.03
Malaysia	4	6	70	65	-0.30	-0.58	0.67	0.13	0.80	0.49	5.00	4.50	0.54	0.14
Mongolia	2	10	28	41	0.46	0.24	0.58	0.35	0.06	-0.54	..	2.70	0.37	-0.62
Myanmar	-7	-8	100		-2.10	-2.24	-1.30	-1.56	-1.29	-1.48	..	1.40	-1.23	-1.69
Philippines	8	8	30	45	0.17	-0.20	-0.42	-1.41	0.05	-0.49	..	2.40	-0.31	-0.75
Singapore	-2	-2	68	68	-0.20	-0.41	1.16	1.33	1.71	1.73	9.20	9.20	2.23	2.34
Taiwan (China)	-1	10		23	0.59	0.70	1.08	0.72	0.90	0.77	5.90	5.60	0.71	0.55
Thailand	3	4	29	57	0.29	-0.56	0.10	-1.19	0.63	-0.03	3.20	3.40	-0.34	-0.38
Timor-Leste				37		0.15	..	-1.13	..	-1.15	..	2.20	..	-0.89
Viet Nam	-7	-7	80	83	-1.50	-1.62	0.34	0.32	-0.59	-0.43	2.60	2.70	-0.55	-0.76

Notes: **a.** Developed by the Polity IV Project, this measure reflects the presence of institutional factors necessary for democracy—whether laws and institutions allow democratic participation—but not the extent of political participation. Scores range from –10 (authoritarian) to 10 (democratic). **b.** Freedom House designates economies with a score between 0 and 30 as having a free press, those with a score between 31 and 60 as having a press that is partly free and those with a score between 61 and 100 as having a press that is not free. **c.** This indicator, developed in World Bank researches, is based on a statistical compilation of perceptions of the quality of governance. The data are from a survey covering a large number of respondents, including non-governmental organizations, commercial risk rating agencies and think tanks in industrial and developing economies. The index ranges from –2.50 to 2.50 (higher is better). **d.** Transparency International's Corruption Perceptions Index. Scores range from 0 to 10 (higher is better); see www.transparency.org.

2.7 Summary

Overall, our review indicates that in the three traditional dimensions of HD, the ESA economies have made significant progress in the last two decades. Already performing overall a lot better than the world average at the start of the period (World Bank, 1993), most of these economies have managed to achieve further rapid progress in the ensuing two decades. These economies had taken a severe beating from the East Asian financial crisis in the final years of the last century. However, they quickly recovered from that crisis, a testimony to the strengths and resilience of these economies. For some of them, however, their subsequent rates of economic growth did appear to suffer, thus the financial crisis does appear to have left a permanent mark. In terms of health, except for North Korea, all ESA economies have increased their life expectancy over the last two decades, and some of them by a huge leap. Their under-five mortality rates also significantly improved (even though the improvement was rather disappointing in the case of some economies). Significant progress was made in education, both in terms of literacy rates and enrollment rates. However, here again the progress was rather uneven. Income inequality appears to have fallen for most of the economies although it actually worsened in others. Even with improvements, the level of income inequality in some of the economies is still dangerously high, which may in the long run undermine the legitimacy of the government and the stability of the society. And although progress has also been made in reducing health and educational inequalities, the level of these inequalities appears to remain high. In short, while the ESA economies have made much progress in the three traditional dimensions of HD, major challenges still lie ahead. And it will be interesting to see how these economies fare in these respects in the coming years as they

battle against the consequences of the current global financial crisis.

Additionally, we also reviewed the environment and governance situations in the region. While experiencing improvements in some respects (e.g. in terms of air quality in the region's major cities) in the last two decades, on the whole the region's environmental problems have taken a further turn for the worse, for example, in terms of water pollution, biodiversity losses, resource depletion, and GHG emissions. Urgent measures are called for, both as an economy-wide or as part of an international effort, to deal with these worsening situations.

The last two decades have also seen major advances on the governance front in the region. Thus significant moves were achieved towards full democratization in some ESA economies. And while formal democracy has not yet been established in all the economies in the region, a wide range of indicators suggest that improvements in governance were nevertheless significant and widespread in other respects (e.g. corruption), even though here again major differences remain between the economies. On the whole, Japan, Korea (Rep), Taiwan and Hong Kong are the region's higher performers in almost all aspects of governance, while North Korea, Myanmar, Laos and Vietnam are comparatively the poor ones. Singapore has had one of the world's cleanest governments, while Cambodia, Myanmar, Laos and North Korea have notorious corruptions. However, in spite of these differences, on the whole most economies in the region appear to have made important progress towards good governance, even though at times this progress may seem to be haphazard.

3. Structural Factors

Section 2 reviewed the patterns and trends of the progress of HD in the ESA economies. In this and next sections, we analyze the causes and consequences of these. In this section, we consider the structural factors that we believe have partly been responsible for these observed patterns and trends. By structural factors we mean those forces that work in the long run, that are not entirely within human control, and that appear to have an internal logic and historical inevitability to them. To think of structural factors in this way does not mean that we as human beings are completely governed by them, over which we have absolutely no influence, but that our influence over them is limited. We would do better to work along with them, rather than to resist them.⁹ Indeed, the kind of structural factors that we have in mind happen, in this case, to offer enormous potentials for expanding human capabilities. But for these potentials to be realized, public policies are also crucial. These structural factors include the forces that push for an economy's industrialization and closer international economic integration through trade, FDI and indeed partaking in regional or even global production networks; forces that push for urbanization; and the implications of these for income inequality, environmental quality and sustainability.

3.1 Trade, FDI and International Economic Integration

Clearly, for any economy of a reasonable size to achieve economic growth and, indeed, human development, industrialization is a necessary stage it has to go through. Those economies

⁹ Admittedly, this definition of 'structural factors' is rather broad. Path-dependency involving past human actions constraining present and future courses of action may be considered also as a case of structural factor. Of course, in the very long run, if history could be repeated, it may be argued that such constraints on human action would not have existed. But history is a fact of life and should better be taken that way, that is, as constraints limiting our choice, rather than as a choice to be made. Viewed in this way, 'structural factors' are really about constraints, and 'public policy' is about choice.

where services have now become a dominant sector are mostly those where successful industrialization has already taken place, and they have now entered the post-industrialization age.¹⁰ Without external trade, in principle industrialization should still be possible through local technological innovation. However, its pace will surely be limited. This is because industrialization necessarily implies specialization and division of labor, and the need for increased demands for the manufactured goods that are produced. External trade helps to expand that demand. When an economy imports manufactured goods or inputs from another industrializing/industrialized economy, or receives FDI from it, it may also be able to obtain or learn about new skills and technologies, especially if the firms involved are actually part of a regional or international production network.

Table 3.1 reveals the extent to which the ESA economies depend on trade. The combined value of imports and exports of an economy in current prices as a percentage of its GDP shows a consistent rise for nearly all ESA economies in the 1990s, and it continued to rise in the first decade of this century for the majority of these economies. Furthermore, intraregional trade (trade within the ESA region) accounts for by far the greatest portion of total trade for most ESA economies, as shown in Table 3.2, which gives the share of exports of each ESA economy listed, as accounted for by the five major trading partners in the region: Japan, China, South Korea, Hong Kong, and Singapore. Note that the total share of exports of an economy to these five listed major regional trading partners by no means covers total intraregional trade

¹⁰ It may be pointed out that services can vary enormously in job and income opportunities they offer, ranging from the very high-end financial services where millions and sometimes billions may be won and lost, to street selling by a migrant worker who just manages to scrape for a living. Most existing statistics, however, do not allow us to do a fine breakdown such as this. Thus the Philippines may have a very large services sector (accounting for over 53% of GDP in 2008), but its services are unlikely to be anything comparable to those thriving in Japan or even South Korea. See Section 3.2 below for more detail.

within the ESA region.

Table 3.1 Combined Value of Exports and Imports as % of GDP at Current Prices

Country	1990	1995	2000	2005	2008
Japan	19.89	16.92	20.52	27.28	34.72
China	34.6	38.81	44.24	63.51	
Korea, Rep	56.98	58.75	74.27	75.83	106.96
Hong Kong	121	130.3	184.6	214.1	
Taipei, China	86.54	92.8	105.32	124.24	143.57
Singapore	358.3	377.7	423.6	444.32	449.61
Indonesia	49.01	53.96	71.44	63.99	58.39
Malaysia	146.9	192.1	220.4	212.1	184.1
Philippines	60.8	80.54	108.9	99.3	75.56
Thailand	75.8	90.4	124.9	148.3	150.1
Vietnam	81.3	74.7	112.5	142.9	173
Brunei	99.1	115.5	103.2	97.5	
Cambodia	121	130.3	184.6	214.1	

Data source: Asian Development Bank (ADB) Key Indicators for Asia and the Pacific 2009. www.adb.org/statistics

While these numbers are revealing, they by no means indicate the full extent of integration of the ESA economies with the international market in general, and within the ESA region in particular. A key driver behind these rising trade and FDI volumes is, in fact, the formation and expansion of an ESA regional production network, in a manner which many Japanese economists have called the “flying geese pattern” (Kojima, 2000; Fujita et al., 2004). Thanks to the bringing down of trade barriers through various bilateral and multilateral trade agreements, improved transportation and communication networks and reduced costs of transport, moving goods across the border and within the ESA region has never been cheaper. The flying geese pattern speaks of a form of vertical division of labor among ESA economies. Being technologically more advanced, Japan very much takes the role of the lead goose,

followed by a succession of ~~following~~ geese” at heterogeneous technological levels, each specializing itself in a particular stage of production appropriate to its level of technology and competence, out of an entire chain of production stages that makes for the final product. Through such division of labor, Japan itself can become more specialized in certain technologically advanced industries or parts of production, while successively shed those in which it no longer holds a comparative advantage. These industries are then relocated to nearby less-developed economies. Over time, the ~~following~~ geese” upgrade their industrial structures and, following the ~~lead goose's~~” trajectory, shed their ~~outdated~~” industries to still other less-developed neighboring economies. Provided that these less-developed economies have appropriate conditions, this pattern of division of labor relying on international trade will provide them with opportunities to industrialize much more quickly than otherwise, and enables a sequential takeoff of these economies (World Bank, 2009a).

Another important aspect to this vertical international division of labor is a phenomenon called in the literature the ~~fragmentation~~” of a production process. Reductions in costs of communication and transportation have enabled firms to cut an otherwise integral production process into pieces of tasks, and to allocate each of these tasks to the most suitable location of production given factor price differences. This Phenomenon has been especially widespread in the ICT industry, where traditional scale economies are not too great.

All this implies that much of the trade across the border could be in intermediate goods, rather than final products. Indeed, this is so. Close to 60% of intraregional trade in the ESA region is

in intermediate goods. It has also to be noted that another “engine” driving the above mentioned pattern of “sequential” industrialization is the flow of FDI. Not all “local” firms taking part in the regional production network are set up by local capital with local entrepreneurs. Many are in fact funded by foreign capital, and may well be subsidiaries of some foreign parent company. These foreign-funded firms further play an important role of transmitting crucial knowledge and skills, new management concepts and styles, labor and environmental standards, and indeed a whole new enterprise culture to their respective host economies and communities, bringing these economies and communities still closer to the “outside world” and international community. In the process, the international community also enriches itself with improved access to and communication with these communities.¹¹

¹¹ See, for example, Liu et al. (2001) and Xu et al. (2004) for studies of local technological spillovers and linkages due to foreign-funded firms in Guangdong, China, and Liu et al., (2003, 2004, 2006) on how these same firms influenced local labor standards and facilitated local labor market reforms.

Table 3.2 Intraregional Trade to Five Major Regional Trading Partners (Export Share)

	Japan		China		South Korea		Hong Kong		Singapore		Total*	
	1990	2008	1990	2008	1990	2008	1990	2008	1990	2008	1990	2008
Japan			0.02	0.16	0.06	0.08	0.05	0.05	0.04	0.03	0.16	0.32
China	0.15	0.08			0.01	0.05	0.43	0.14	0.03	0.02	0.62	0.29
Korea, Rep	0.19	0.06		0.25			0.06		0.03	0.04	0.27	0.36
Hong Kong	0.06	0.04	0.25	0.51	0.02	0.02			0.03	0.02	0.36	0.59
Taipei, China	0.12	0.07	0.13		0.02	0.03	0.13	0.13	0.03	0.05	0.43	0.28
Singapore	0.09	0.04	0.02	0.09	0.02	0.04	0.06	0.11			0.19	0.28
Indonesia	0.43	0.19	0.03	0.09	0.05	0.06			0.07	0.1	0.58	0.45
Malaysia	0.15	0.1	0.02	0.13	0.05	0.03	0.03	0.04	0.23	0.16	0.48	0.46
Philippines	0.2	0.16	0.01	0.11	0.03	0.05	0.04	0.1	0.03	0.05	0.3	0.47
Thailand	0.17	0.11	0.01	0.09			0.04	0.06	0.07	0.06	0.3	0.32
Lao PDR		0.02	0.09	0.11		0.02		0.01		0.01	0.09	0.18
Vietnam	0.13	0.14	0	0.07	0.01	0.02			0.08	0.04	0.23	0.26
Brunei	0.58	0.44	0	0.02	0.12	0.1			0.07	0.02	0.78	0.58
Cambodia	0.08	0.02					0.01	0		0.02	0.08	0.04
Myanmar	0.07	0.04	0.08	0.09	0.02	0.01			0.11	0.01	0.29	0.16
Mongolia	0.18		0.11	0.76		0.02					0.29	0.78

* indicates total exports by a country to the five economies listed in column.

Data source: Asian Development Bank (ADB) *Key Indicators for Asia and the Pacific 2009*, www.adb.org/statistics.

3.2 Industrialization and Economic and Social Structural Changes

Table 3.3 reveals important economic structural changes that occurred in the last twenty years across the major economies in ESA. As can be seen, China demonstrates by far the most rapid change. In 1990, the start of the period under enquiry, the share of agriculture in China's total GDP stood at 27.1%. This fell to 11.3% in 2008, a massive fall of 15.8 percentage points. This fall gave way to rises in the share of GDP of both industry and services, with the former rising from 41.3% to 48.6%, and the latter 31.5% to 40.1%, over the same period. Indonesia shows a

similar rise in the industry's share over the period, from 39.1% to 48.1%, while its services' share did not rise but actually fell by 4 percentage points over the period. Agriculture saw a much smaller fall of 5 percentage points. Malaysia and Thailand display a similar pattern to that of Indonesia, with the share of industry rising but that of agriculture and services falling. The services sector in these three economies (Indonesia, Malaysia and Thailand) appears to have been particularly hit by the East Asian financial crisis that began in 1997. The share of services of South Korea, on the other hand, experienced a rapid rise of 10.8 percentage points, at the expenses of the other sectors, as did Japan, although a difference of 10 percentage points exists between these two economies in favor of Japan. The Philippines presents a similar pattern of change to that of Japan and South Korea, although one doubts that it was for the same reason of “industrial upgrading”. Because of the collapse of the Soviet Union in the early 1990s and the turmoil that followed across the Soviet block, Mongolia demonstrates a totally different case, with the share of agriculture actually rising by a huge margin in the first few years following the Soviet collapse, and then falling, but in 2008 still above its initial level, while industry shows an exactly opposite trend, with the services sector first rapidly falling and then rapidly rising in the first decade following the Soviet collapse.

In a successfully developing economy, while the share of agriculture in GDP may fall during the course of industrialization and economic structural change, its absolute value should grow, to provide industry with food and other agricultural raw materials, and indeed the much needed foreign exchange. So while its share of GDP may fall, its role in development is by no means diminished. Most ESA economies have experienced both a fall in the GDP share of

agriculture and generally a good growth in its output value (Figure 3.1).

The rapid growth of industry must of course draw labor into the sector, in general away from agriculture, so shares of employment by the two sectors will also change. Table 3.4 provides data on the ratio of agricultural to industry employment. As one can see, in most economies the ratio consistently fell over the period.

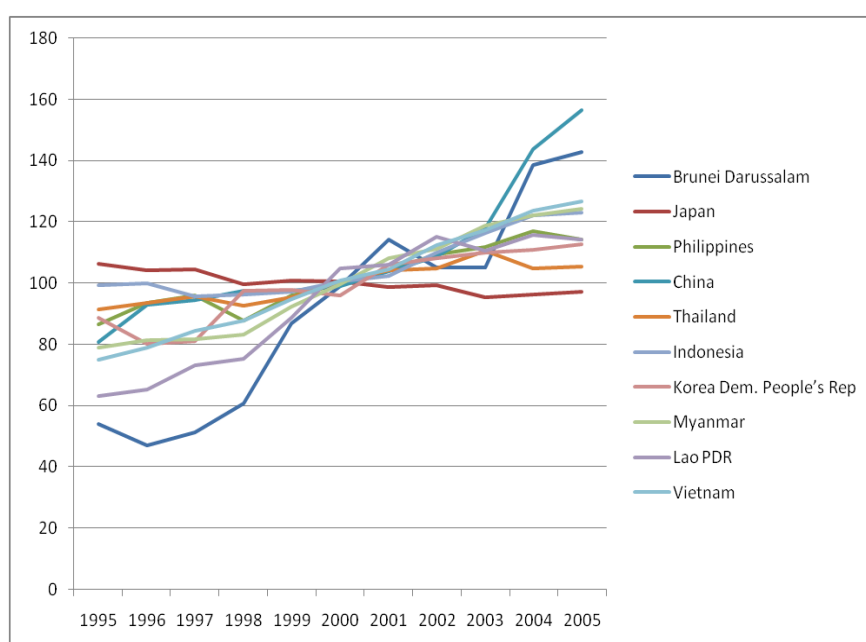
The rise of industry not only depends on an adequate labor flow into the sector, but historically and empirically, it has also, almost always, given rise to urbanization. While agriculture has to happen over large tracks of land, productivity of industry can often be enhanced if the activities are geographically concentrated in small areas, called agglomerations or urban centers. Urban enclaves had of course appeared very early on in human history, but generally only as the seat of political power or trading center. The rise of industry enables it also to become a center of industrial activity. And with urbanization so the services sector also expands, initially principally the low value-added kind, but as an economy further enters into the post-industrialization era, the services sector often overtakes industry as the dominant sector, as is true in Japan and South Korea.

Table3.3 Structure of Output, ESA Economies (Percent of GDP at Current Market Prices)

Economy	Sector	1990	1995	2000	2005	2008
Brunei	Agriculture	1.0	1.2	1.0	0.9	...
Darussalam	Industry	61.6	54.3	63.7	71.6	...
	Services	37.5	44.6	35.3	27.5	...
Japan	Agriculture	2.4	1.8	1.7	1.5	...
	Industry	38.2	32.9	31.1	29.1	...
	Services	59.4	65.3	67.2	69.4	...
Malaysia	Agriculture	15.0	12.7	8.3	8.2	10.1
	Industry	41.5	40.5	46.8	48.7	47.6
	Services	43.5	46.8	44.9	43.1	42.3
Philippines	Agriculture	21.9	21.6	15.8	14.3	14.9
	Industry	34.5	32.1	32.3	31.9	31.6
	Services	43.6	46.3	52.0	53.8	53.5
China	Agriculture	27.1	20.0	15.1	12.2	11.3
	Industry	41.3	47.2	45.9	47.7	48.6
	Services	31.5	32.9	39.0	40.1	40.1
Thailand	Agriculture	12.5	9.5	9.0	10.3	11.6
	Industry	37.2	40.7	42.0	44.0	45.1
	Services	50.3	49.7	49.0	45.8	43.3
Indonesia	Agriculture	19.4	17.1	15.6	13.1	14.4
	Industry	39.1	41.8	45.9	46.5	48.1
	Services	41.5	41.1	38.5	40.3	37.5
Hong Kong, China	Agriculture	0.2	0.1	0.1	0.1	...
	Industry	24.4	15.2	13.4	9.3	...
	Services	75.4	84.7	86.5	90.6	...
Korea (Republic of)	Agriculture	8.9	6.3	4.6	3.3	2.5
	Industry	41.6	41.9	38.1	37.7	37.1
	Services	49.5	51.8	57.3	59.0	60.3
Mongolia	Agriculture	15.2	38.0	29.1	21.9	18.8
	Industry	40.6	27.5	21.9	33.5	38.1
	Services	44.2	34.5	49.0	44.6	43.1

Data source: Asian Development Bank (ADB). *Key Indicators for Asia and the Pacific 2009*. <http://www.adb.org/statistics>.

Figure 3.1 Production Indices of Agriculture of Selected ESA Economies: 1995-2005



Source: Based on *Major Agricultural Statistics 2008*, Table 7. Indices of Agricultural Production, <http://www.agnet.org/situationer/stats/07.html>.

Table 3.4 Agriculture-Industry Employment Ratio, ESA Economies

Economy	1990	1995	2000	2005	2008
Japan	0.30	0.25	0.25	0.25	0.23
Malaysia	1.30	0.86	0.71	0.74	0.77
Philippines	4.46	4.26	3.71	3.77	4.25
China	2.81	2.27	2.22	1.88	1.52 ^a
Thailand	6.50	3.12	2.97	2.44	2.70
Indonesia	5.51	3.48	3.49	3.54	3.29
Hong Kong, China	0.03	0.04	0.03	0.05	0.05
Korea (Republic of)	0.66	0.50	0.52	0.44	0.43
Mongolia	1.97	3.28	4.32	3.39	3.04

Note: a: 2007 data from China Statistical Year Book 2008. Except for Mongolia, the number of employment in industry is given by manufacturing employment.

Source: Asian Development Bank (ADB), *Key Indicators for Asia and the Pacific 2009*, www.adb.org/statistics; and *China Statistical Yearbook 2008*.

Table 3.5 provides data on changing levels of urbanization in most major economies in the region. As can be seen, among the newly industrializing economies, China and Indonesia lead

the process. The “level of urbanization”, measured by percentage of urban population in total population, rose in China and Indonesia from 27.4% and 30.58 percent, respectively, in 1990 to 44.93 and 53.69 percent (estimated) in 2010, a rise of 17.5 and 23.11 percentage points, respectively. Most other economies record a modest rise in the ratio, while Mongolia indicates almost no change. For understandable reasons, the ratio for Singapore is 100 percent throughout the period.

Table 3.5 Urbanization Ratio, ESA Economies, 1990 to 2010

1. Country	2. 1990	3. 1995	4. 2000	5. 2005	6. 2009	7. 2010
8. China	9. 27.4	10. 31.35	11. 35.78	12. 40.42	13. 44.04	14. 44.93
15. DPR Korea	16. 58.38	17. 59.14	18. 60.18	19. 61.6	20. 62.99	21. 63.37
22. Japan	23. 63.07	24. 64.63	25. 65.18	26. 65.82	27. 66.59	28. 66.82
29. Mongolia	30. 57.03	31. 56.81	32. 56.58	33. 56.71	34. 57.26	35. 57.46
36. Korea, Rep	37. 73.84	38. 78.24	39. 79.62	40. 80.79	41. 81.71	42. 81.94
43. Brunei Darussalam	44. 65.83	45. 68.64	46. 71.15	47. 73.51	48. 75.24	49. 75.65
50. Cambodia	51. 12.6	52. 14.16	53. 16.91	54. 19.72	55. 22.16	56. 22.8
57. Indonesia	58. 30.58	59. 35.55	60. 42	61. 48.14	62. 52.63	63. 53.69
64. Lao PDR	65. 15.44	66. 17.21	67. 18.86	68. 20.62	69. 22.19	70. 22.61
71. Malaysia	72. 49.82	73. 55.62	74. 61.79	75. 67.33	76. 71.02	77. 71.84
78. Myanmar	79. 24.87	80. 26.13	81. 28.03	82. 30.65	83. 33.24	84. 33.91
85. Philippines	86. 48.78	87. 54.02	88. 58.55	89. 62.71	90. 65.68	91. 66.38
92. Singapore	93. 100	94. 100	95. 100	96. 100	97. 100	98. 100
99. Thailand	100. 29.42	101. 30.28	102. 31.14	103. 32.3	104. 33.59	105. 33.96
106. Timor-Leste	107. 20.84	108. 22.65	109. 24.52	110. 26.49	111. 28.22	112. 28.68
113. Viet Nam	114. 20.26	115. 22.21	116. 24.28	117. 26.41	118. 28.32	119. 28.83

Source: World Population Prospect: The 2006 Revision Population Data Base.

3.3 Migration, Urbanization, and Rural Non-farming Activities

The foregoing outlines major patterns of change in the economic and social (urbanization) structures of the economies in the region. However, because of the particular characteristics of

the rural and farming sectors in the region, there are important underlying relationships that require examination, before a full understanding of the nature of these processes could be arrived at.

3.3.1 Urbanization and Rural Non-farming Activities in the ESA Region

While industry and services normally take place in urban agglomerations, they can also happen in rural areas as non-farming activities. Whether and how labor that exits agriculture moves away from rural into urban areas depends on the income opportunities and other attractions offered by these destinations. In most ESA economies, agricultural land is traditionally densely populated, which means rather limited income opportunities for farmers. When industries rise in cities, they often provide strong attractions for rural people to migrate there. However, the densely populated nature of agricultural land in these economies could also provide rich non-farming opportunities in rural areas. And the proximity of many rural areas to urban centers further enables them to be sub-contracting sites for urban firms. This is further helped sometimes by the fragmentation of the production processes in some new industries such as the ICT industry discussed earlier. If a production network can be formed on an international scale across the ESA region, surely rural areas neighboring a leading urban center thriving on a new industry need not be left out, so long as basic conditions are met.

Rural non-farming activity has been a rapidly growing and particularly important phenomenon in many ESA economies. Table 3.6 indicates its extent and rapid growth in China. As can be seen, still at a fairly low level in 1990, the combined share of income from wages and salaries

and other non-farming operations of a rural household (i.e. excluding agriculture, forestry, herding and fishing) rapidly rose, and by 2000 it already almost matched the income share of farming; by 2005 it further surpassed the latter by a small margin. The same rapid rise of non-farming activities can be observed across the ESA region in economies with a large traditional agriculture (Liu et al., 1998; Yamauchi et al., 2009; Ohno, 2009). Indeed, one would not be able to obtain a proper understanding of the rural-urban migration process, the urbanization process, and the vitality of agriculture in this region if insufficient regard was given to it. Below in order to analyze the intricate interrelationships involved in some depth, I present a three-activity model. That will also help our discussion in the next section of the role of public policy related to agriculture in ESA economies.

Table 3.6 Per Capita Annual Net Income of Rural Households by Source, 1990-2005 (CNY)

	1990	1995	2000	2005
Net Income	686.31	1,577.74	2,253.42	3,254.93
Income from wages and salaries	138.80	353.70	702.30	1,174.53
Income from household operations	518.55	1,125.79	1,427.27	1,844.53
Agriculture	344.59	799.44	833.93	1,097.71
Forestry	7.53	13.52	22.44	45.77
Herding	96.81	127.81	207.35	283.60
Fishing	7.11	15.69	26.95	42.52
Industrial	9.15	13.63	52.67	61.13
Construction	12.18	34.53	46.73	47.12
Traffic, transportation, post, telecommunications	13.45	27.76	63.63	84.19
Wholesale, retail, and catering	12.69	34.26	78.54	108.55
Social services	6.55	17.18	28.09	32.61
Culture and education			6.86	10.13
Others	8.49	41.97	60.08	31.19
Income from properties and transfers	28.96	98.25	123.85	235.87

Sources: *China Statistical Yearbook* (NBSC 1991, 1996, 2001, and 2006).

3.3.2 A Three-Activity Model¹²

Let there be a farmer with three economic activities: farming (A); rural non-farming (B);

¹² This part of the report draws heavily on Liu et al. (1998).

urban employment (C). The important thing to note here is that while the farmer can engage, *simultaneously*, in both activity A and B, taking up an urban job C would mean that he leaves farming A altogether, because the geographical distance between his village (where farming A must occur) and the urban place where he pursues C, is too great for him to engage in both. Having abandoned A while pursued C, he cannot engage in B either. Traditional migration models do not consider B, and traditional rural employment models do not contain activity C. The model here integrates these two strands of the literature.

Figure 3.2 provides one possible situation of the income opportunities these activities might each offer, as indicated by the three schedules A, B and C, corresponding to the activity they each represent. The schedule AB is the income function for the combined activities A and B, when a farmer simultaneously engages in both.¹³ Note that in drawing these schedules, we did not assume a fixed wage rate for any activity. While an externally given wage rate may be a realistic case in respect of C (a situation which we will shortly consider), the same cannot be said of A and B. Under the condition of small family farms, it is hard to think that there can ever exist a competitive labor market to set an equilibrium wage rate for A and B, at which one can supply as much labor as one wants. For generality, we have assumed all three activities not to be governed by a fixed ruling wage rate.

¹³ These schedules, and the fourth schedule AB, are a kind of maximum value function, and are here 'income functions' of the associated activities. They are to be derived as follows. Let the farmer maximize his income with respect to each of these activities subject to a constraint on his total labor time supply, while allowing him to use whatever other non-labor resources at his command (if there exist markets for land lease and credit, he may lease in additional land and/or borrow capital from these markets). The solution to this problem should define a maximum level of income for the assumed total constrained labor time. Now let the constraint on labor time change. The maximally achievable level of income will then also change. Schedules A, B and C respectively trace out this relationship in respect of the activity in question. The same principle holds in respect of the combined activities A and B, when a farmer simultaneously engages in both these activities. The only difference is that, in this case, the farmer faces a further choice between allocating an additional unit of time to A or B. Optimization requires that he equates at the margin the income of the last unit of time allocated to these activities (as indicated by the slope of A and B schedules).

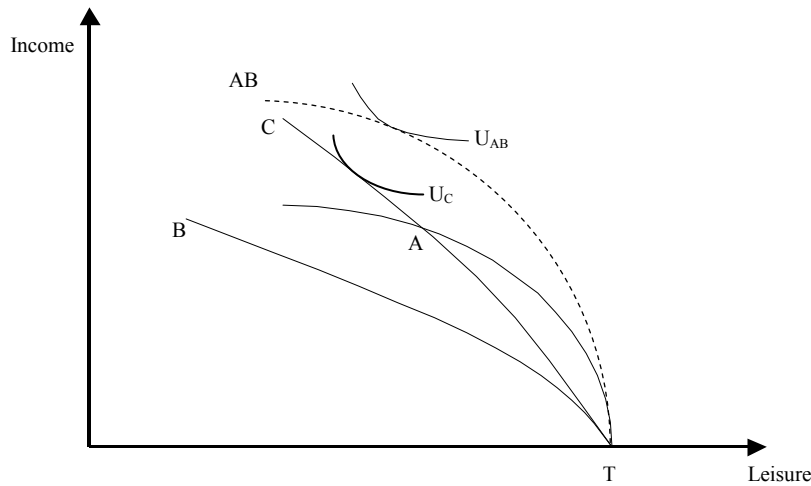


Figure 3.2

There can, of course, be many possible juxtapositions of these schedules, and in combination with the farmer's tastes, these could give rise to many different cases of the farmer's decision. Figure 3.1 depicts a particular possibility where, without activity B, the farmer chooses C and leaves A, that is, abandoning farming altogether and migrating to cities. However, with both A and B, the combined income opportunities enable him to reach a still higher level of welfare than C could offer him. He therefore chooses to engage in A and B, simultaneously.¹⁴

The ability of the farmer to be able simultaneously to engage in both A and B makes these two activities at once complementary to and competing with each other. It is clear from the situation given in Figure 3.1 that without B, A would also disappear, that is, the survival of A actually depends on B, and vice versa. Separately, the income opportunities of either A or B are dominated by those of C, but when combined, they dominate those of C. This also suggests that in policy terms, supporting either A or B may induce a farmer to remain in agriculture and

¹⁴ One might want to consider the risk or probability of a farmer, having left agriculture to migrate to cities, not being able to find an urban job. In Harris and Todaro (1970), this risk is given by the rate of urban unemployment, which allows them to solve for equilibrium migration flow. Such equilibrium migration is not the concern of this report.

in the rural area.

On the other hand, the two activities do also compete with each other for the farmer's time. Unless the marginal income of B is consistently below that of A (i.e., no segment of the B schedule in Figure 3.1 has a slope steeper than that of any part of schedule A), B will compete with A for the farmer's time. However, should the marginal income of B indeed be always below that of A, schedule A in Figure 3.1 is then *the* combined AB income schedule, which also means that B can no longer be supporting and complementing A.

An implication of the above is that the presence of B, if it is to effectively complement A, must take at least some labor time away from the farmer that might otherwise be spent on A. In such cases, if no additional labor force enters into agriculture (generally an unlikely situation), or if agricultural labor productivity does not improve, agricultural output must fall.

Before one can fully exploit policy implications of the model, a few extensions are in order. First, it is possible to relax the assumption of no fixed urban wage rate (so that schedule C in Figure 3.2 becomes a straight line with a constant slope indicating the wage rate). However, associated with a fixed wage rate related to an urban (formal) job is also a fixed work schedule, whereby a person cannot freely decide to supply more, or less, time to paid work. That is, in these cases, there often exists a ceiling to the total time one can expend on paid work. One possible situation of this is depicted by Figure 3.3, where both a fixed wage rate and a time ceiling exist. In this case, even though the urban sector income function consistently has a

slope higher than that of AB, because of the paid work time ceiling, the person actually chooses AB. The implication is that because of the particular institutional restrictions related to urban work, to induce a farmer to remain in the rural sector, the support that one has to give to rural activities A and B need not be as great as the apparent difference in the rate of pay between rural and urban sectors might appear to demand.

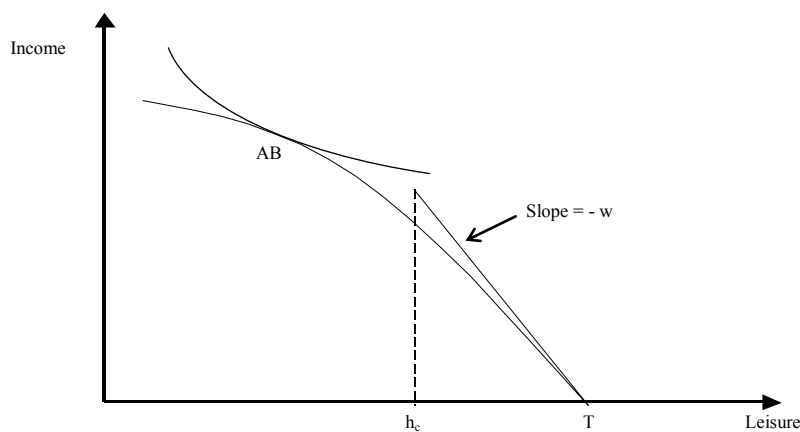


Figure 3.3

Secondly, any activity would imply a sequence of tasks to be undertaken at different points in time. Thus any activity would imply a sequence of labor time allocations (devoted to performing these tasks) across time. In some cases, the timing of each of these labor time allocations is very strict; in other cases, only the timing of some of them is; in still other cases, the timing of none of them is. When assuming that activities A and B can simultaneously be undertaken by a farmer, we considered mainly the fact that these two activities could take place more or less at the same *location* (or at very close locations), so that travelling between the locations where these activities are performed is not an issue. However, when one

considers the *timing* of the sequence of time allocations of the two activities, conflicts or time clashes may nevertheless arise between these two sequences or activities. When the timing of all the time allocations in the sequence of an activity is highly strict, there may exist little room of postponing or bringing forward the undertaking of any task. However, generally for most of farming and non-farming activities in rural areas, some such room does exist, although it may well entail a cost, defined by the loss of the product value due to such postponement or bringing forward. (Harvesting and sowing may be extremely demanding in terms of the timing to the performance of these tasks, but even so a postponement or bringing forward by a day or two is still possible, without sacrificing the whole crop, but it may well entail a high cost.) So, while there may well be problems of time clash in attempting to undertake both activities, we would not generally expect these problems to be so serious as to rule out the possibility and rationality of simultaneously undertaking them. But the cost of postponement or bringing forward the performance of a task from its ~~“natural”~~ time of performance is an important issue, and is one that is not considered in our basic model.

Finally, throughout our analyses above we assumed the decision maker to be a farmer. In the rural sector of many ESA economies, however, the more relevant decision making unit may, in fact, be the family. Replacing the decision making unit with family has immediate implications. It means that the time clash problem discussed above associated with simultaneously undertaking more than one activity at a time need not be as serious as we had feared. Family members together might be able simultaneously to undertake them without facing too serious time clash problems. While it would not be possible for one and the same person to perform

different tasks at the same point in time, it should be possible for a multi-laborer family to do so. Indeed, should we consider different family members to have different skills and physical stamina, optimal division of labor and specialization may also emerge. In some ESA economies, thanks to the massive agricultural infrastructural investments related to land, irrigation and road systems (to be discussed in more detail in the next section), which permitted mechanization of many farming tasks that had previously required great physical stamina to perform, and which generally saved farming labor time, agricultural tasks are now typically undertaken by the old-aged, the young, and women in the family. Able-bodied family laborers usually only devote as much as their spare time, if at all, to farming, giving rise to a widespread phenomenon known as “part time farming”. In the next section, we will consider an exact case of this from an ESA economy, Taiwan.

Clearly, the above three-activity model has strong implications for our thinking about issues of rural-urban migration, the vitality and changing nature of agriculture, and indeed even the urbanization process. Some of these implications we will pursue in the next two sections.

3.4 Kuznets Curve

In this subsection, we discuss the long-run relationships between economic growth and income inequality. Ever since the publication of Kuznets’ now famous essay in 1955 on the subject (Kuznets, 1955), discussions of this relationship have come under the name Kuznets Curve. The difference between the discussion we have had just above of the role of non-farming activities in an economy attempting to emerge out of its agrarian past, and the relationship that

the Kuznets Curve addresses, is this: while in the former case we were still thinking about the earlier phases of the industrialization and urbanization processes, with one of our feet still firmly in that past, when thinking about the Kuznets Curve, we need to leave that past behind and firmly sail into the future. That is, we need to think in even longer terms of how economic growth may impact income inequality, and what factors may or may not influence this relationship.

According to the KC hypothesis, as an economy grows (measured by per capita income), income inequality is likely first to worsen, and then level off at some turning point, and thereafter improve. When Kuznets (1955) initially presented this hypothesis, it was based merely on the observations of the association between income inequality and per capita income in a few developed and developing economies. Subsequently, the hypothesis has spawned an enormous body of literature and controversy. At the heart of the issue is not so much whether the hypothesized inverse-U relationship might or might not exist. There are clear forces which could cause it to happen, which have to do with the general nature of the structural transformations that a country must undergo in the course of its development (as noted previously). Rather, at the heart of the issue is how these forces might be managed to produce a better trajectory of growth and income inequality for an economy. On this, in fact, the ESA economies have generally performed well, when judged against international records. In particular, Korea (Rep) and Taiwan (China) have stood out among the ESA economies as successful examples that have managed to achieve rapid economic growth with fairly low levels of income inequality in their developmental phase of the 1960s-1980s (World Bank,

1993). In what follows, we consider what fundamental forces there are which might cause an inverse-U relationship to arise, and what might be done to change the character of that relationship, leaving the more specific policies adopted by some ESA economies to be looked at in Section 4.

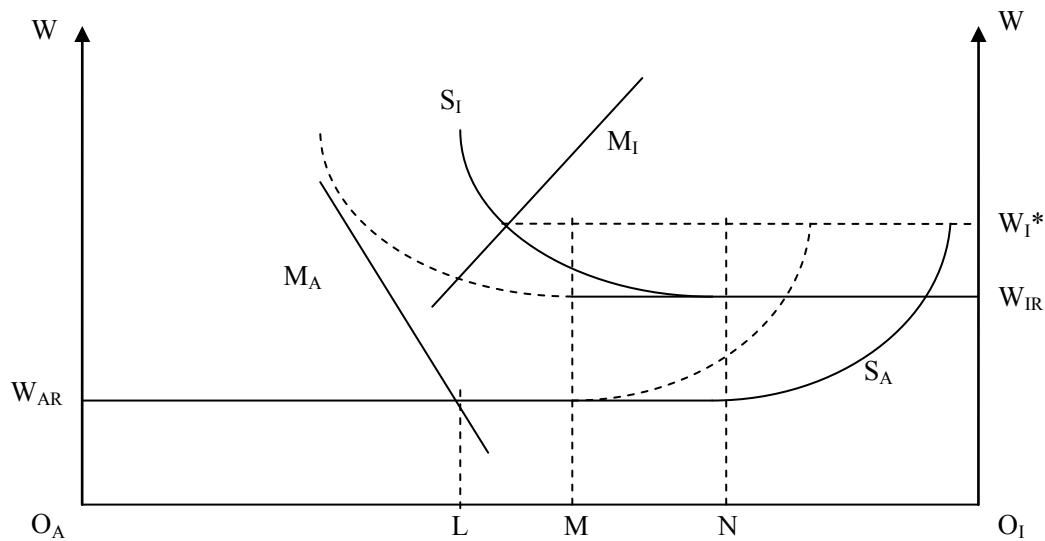
By definition, as an economy undergoes economic structural changes, the modern sector will grow, attracting entrepreneurs with financial capital and workers with the right skills and educational background to enter into the sector. These people will earn a higher income. On the other hand, the traditional agricultural sector may at this time be burdened with surplus labor, low productivity, and in some cases also high birth rates. The presence of a possibly large income differential in favor of a relatively small section of the population will clearly worsen income inequality in an economy. Over time, however, such differentials are likely to attract an increasing number of people to enter into the sector, through acquisition of appropriate skills and education. As more and more people move into the modern sector, the incomes accruing from it will be spread more widely. At the same time, earnings in the agricultural sector is also likely to improve (not only might labor productivity improve but so would demand for farm produce). And with generally better education and health services for the agricultural sector, brought about by the modernization process, birth rates may fall in rural as well as urban areas, reducing the rate of growth of the labor force. Eventually, a point will be reached when income distribution improves.

It may be explored in more detail how this can happen. Note the crucial role human capital

accumulation plays in this process. At an individual level, human capital accumulation (principally education, but also health) of course raises a person's income. From the point of view of an economy, such accumulation (increasingly better and more widespread education for the population) can raise the share of income that accrues to labor. Additionally, it can also reduce wage differentials within labor. Both these processes will have a positive effect on income distribution. To examine the role of human capital accumulation in the simplest form possible, refer to Figure 3.4 below where we distinguish between "skilled" and "unskilled" labor. What differentiates one from the other is education. An unskilled laborer could be anyone from a traditional agricultural worker to someone working in the modern sector or in an urban area but doing menial tasks or engaged in providing low-value added services, often with little education. On the other hand, to become a skilled worker one has to undertake comparatively more, and sometimes a lot more, education, involving considerable human capital investment.¹⁵ In Figure 3.4, the S_A curve represents the supply curve of unskilled labor, while the S_I curve that of skilled labor. For an unskilled worker, the reservation wage may

¹⁵ This categorization is deliberately left vague. In the early phases of development, an unskilled rural laborer may well be illiterate. More recently, in many ESA economies, basic education has increasingly become universalized, so that even an unskilled worker may have to have some basic education. Correspondingly, it might have required someone to have just above basic education to be a skilled worker in the early phases of development, but increasingly in recent years, it would tend to require a person to receive a lot more than basic education, and often tertiary education, in order to qualify as a skilled worker. These changes, which are part of a general trend towards increasingly better education in a society, would have implications for our characterization of the reservation wages for the two kinds of labor, but we shall abstract from these complications here.

Figure 3.4 A Two-Sector Model of Labor Markets for Skilled and Unskilled Labor



simply be his/her cost of subsistence (W_{AR}),¹⁶ and for a skilled worker, his/her cost of subsistence plus a standard rate of return on the human capital investment (W_{IR}). The horizontal distance between O_A and O_I , two origins of the graph, denotes the full size of the labor force in the economy. Initially, the $O_A N$ portion of the workforce is unskilled, while the rest is skilled. Between O_A and N , the S_A curve is flat (any demand less than $O_A N$ will not push up the unskilled wage rate W_A), while beyond N the curve slopes upwards (any demand

¹⁶ Earlier literatures on development stressed the importance of rural surplus labor, meaning labor that produces a zero or close-to-zero agricultural marginal product. If such surplus labor indeed exists, then it could be argued that the opportunity cost of unskilled labor is simply its agricultural marginal product, implying a zero or close-to-zero wage rate. On the other hand, there is also the consideration of the subjective 'cost of labor', given by the marginal disutility of labor (or the marginal utility of foregone leisure) weighted by the marginal utility of income. Typically this would give a positive wage rate. However, where survival is at issue, the subjective 'cost of labor' can fall to very low levels, as the marginal utility of income in this case sharply rises. (Nothing is more important than survival, so to speak, not even the high drudgery involved!) Ironically, though, this subjective 'cost of labor' can sometimes even fall below the 'cost of survival' (defined as the minimum cost of living that would ensure a person's survival), thereby threatening the very survival, and continued labor supply, of a laborer. The notion of a reservation wage here would, it seems, be about survival, and it would appear that neither the opportunity cost of labor in traditional agricultural or the subjective 'cost of labor' where survival is an issue offer an appropriate reference for a minimum sustainable wage for the unskilled labor. The right reservation wage for unskilled labor here would, it seems, be their cost of survival. (A person may, of course, depend on his/her family for survival, but the family's survival will have to depend on the incomes earned by its members.)

beyond it will push up the wage rate).¹⁷ The same reasoning is behind the assumed shape of the S_I curve. Demand for unskilled labor is given by the M_A curve, and for skilled labor the M_I curve (respectively the marginal product curves of unskilled and skilled labor). Equilibrium wages are given by the intersection of the two sets of supply and demand curves.¹⁸

The diagram provides us with a suitable framework for analyzing the role of a number of factors. Given the size of labor force and demand for skilled labor, an increase in the number of skilled workers (a greater number of people receiving better education) could result in a fall in the equilibrium wage for them, should these workers have initially enjoyed a wage premium (measured by the vertical distance of W_I^* to W_{IR}). This same change of the situation further results in a compensating reduction in the number of unskilled workers, and this may or may not have an effect on their equilibrium wage, subject to the position of the demand curve for these workers. Note that, given the supply curves, of first-order importance are the positions of the two demand curves. Their slopes only come into play when equilibrium wages are affected as result of a change of situation, as they then, together with the slope of the upward portion of

¹⁷ Note that typically a labor supply curve slopes upward throughout, as the subjective 'cost of labor' or the marginal opportunity cost of labor rises throughout. However, where survival is an issue and imposes a minimum wage rate that deviates from (lies above) both these, then a flat portion of the labor supply curve appears. Further, since labor supply here is measured in terms of the number of laborers or the size of the labor force employed in each sector, rather than the hours worked, some assumption has to be made regarding the standard number of hours a person works (having been paid a minimum wage equal to the cost of survival). It may be thought that the length of $O_A N$ on the horizontal axis as both measuring the number of laborers working in the unskilled sector and the combined number hours supplied by them (equal to the number of laborers involved times the standard number of hours per person). Where a person supplies more than this standard number of hours, a wage higher than W_{AR} is required, and this then explains the upward sloping portion of the S_A curve. This also means that moving up along the upward sloping portion of the S_A curve should not be interpreted to mean an increase in the number of laborers employed in the sector, but only an increase in the number of hours supplied by existing employees in the sector. For the economy as a whole, the length of the horizontal axis O_A to O_I exhausts the entire labor force (indicated by the vertical alignment of the flat portions of the S_A and S_I curves), but the actual number of hours supplied by these laborers will depend on the wages in the two sectors. And the total number of hours supplied by the laborers working in each sector may well exceed the product of the number of workers working in them times the standard number of hours per worker. An advantage of this analysis is that it introduces a flexibility of the total number hours supplied even though the labor force may be fixed in short terms in an economy.

¹⁸ Given our previous interpretations, naturally these equilibrium points need not be vertically aligned in the diagram. Note also that as drawn in Figure 3.4, it would imply unemployment in the unskilled sector equal to the distance of L to N . Given our interpretation of W_{AR} as the subsistence wage, it also means that this employed unskilled labor force will have to rely on social protection reliefs from the government.

the supply curves, affect the extent of the wage changes.

However, should the demand for skilled labor also increase, and increase sufficiently, then the equilibrium wage rate for the skilled might not fall, but instead rise, following the same expansion in education. The question is: what might cause the demand curve to move in the desired direction? Various factors could be involved. However, in the ESA economies, it appears that the expansion in education itself might not only have affected the supply but also, more importantly, the demand curve for skilled labor in these economies. A better educated workforce enables those industries relying on such a workforce to grow and expand, pushing up the demand curve for the skilled. The development of ICT industries, an example of the so-called knowledge-intensive industries, in many ESA economies would seem to fit into this story. These industries are, of course, intensive in skilled labor.

The rise in skilled wages, combined with an increase in the share of this workforce in the total workforce, is likely to raise labor's share in the total income of an economy, but it may not improve income distribution materially, if a vast number of the unskilled remain on very low wages and are very poor. To raise the wages of these workers, a fall in their absolute number could help (as a result of many of them, say, ~~switching over~~ "switching over" to the skilled group), but of equal importance would be a favorable shift in the demand for this labor. The expansion of modern industries, with the accompanying urbanization, is indeed likely to raise the demand for this labor. Urbanization in particular causes the service sector to expand, providing increased employment opportunities for the unskilled. But the urban and modern sector may

not grow fast enough to accommodate the expectations of all the unskilled. For these workers to be effectively employed, agriculture, and the rural sector in general, still has an important role to play. Indeed, as emphasized previously, in addition to agriculture, rural non-farming activities could also provide an effective alternative, which actually did happen in some ESA economies. However, there are important pre-conditions for this to happen, including a conducive tenurial system, rural and agricultural infrastructural investment, and supporting financial institutions. Another consideration is to support small and medium-size enterprises, which are generally labor intensive and which, moreover, mostly use labor of an unskilled kind.

The framework we have developed is flexible in that it also allows us to consider issues such as the inequality trap and a labor force growth. An inequality trap may be seen as any negative feedback loop between two related inequalities, in this case income and educational inequality. The lower a person's income is, the lower his or her (or his/her children's) education is likely to be. However, since education is in turn a major determinant of a person or family's income, the lower a person's (or his/her children's) education is, the lower his/her (children's) income is. Thus income inequality causes educational inequality, which in turn fuels income inequality, and so on.

From Figure 3.4, it can be seen that if demand for and supply of unskilled labor do not change sufficiently such that wages for unskilled labor rises above the subsistence level, then unskilled workers will not be able to invest in their (or their children's) education sufficiently

for them to rise to the skilled labor category. This is true with a system of privately funded education. However, if public support can be given to the unskilled for education, then it is possible for them to rise their (or their children's) education even if they are trapped at a subsistence wage. Section 4.6 discusses this in further detail.

As well as resources available for education, incentives to invest them in education are also important, which have to do with returns on education. A skilled wage rate equal to W_{IR} and probably with skilled labor unemployment is unlikely to generate much private incentive for education, save perhaps for its intrinsic values. In contrast, a skilled wage rate much higher than W_{IR} can be expected to generate substantial incentives for undertaking private investment in education.¹⁹

Let us now address the important consideration of a natural population and labor force growth. In the diagram above, a labor force growth will extend the length of the horizontal axis measuring the size of the total labor force in an economy. A population and labor force increase would mean an extension of that axis. Without accompanying education, such an increase will only add to the unskilled pool of labor. This would mean extending the flat portion of the S_A curve by as much as the labor force growth, by moving the O_A origin to the left by the same distance, and dragging the M_A curve along in the same manner. Depending on the original configuration of the S_A and M_A curves and the extent of this labor force growth,

¹⁹ It may be thought that a high expected rate of return on education should not only generate incentives for investing in education but also mobilize resources for such investment, through the capital market. However, in a typical developing economy, the capital market typically fails to provide this function, such that private investment in education in investment in most cases has to be funded by one's (or one's family's) savings.

the unskilled wage rate is very likely to fall as a result, causing a worsening of income distribution.

On the other hand, if the expansion of labor force is accompanied by education expansion, then part of the labor force growth will go over to the skilled labor pool (by as many as there are who are so educated), and this can cause in the diagram a pattern of change involving the origin O_I , the skilled labor supply and demand curves S_I and M_I , mirroring the changes in the origin O_A , and unskilled labor supply and demand curves examined above when the labor force growth was assumed solely to take the form of an unskilled labor force growth. The implications for the skilled wage rate can also be analyzed. But, again, here we need to bear in mind the potential impact of an enlarged skilled labor force on the expansion of the industries hiring such labor, and the consequent impact on M_I . We also need to consider the investment in education that will be necessary, whether that is to be financed by the government or individuals themselves.

As it happens, the demographic situation in recent decades has on the whole been favorable to many ESA economies (Table 3.7). Population growth in these economies has been by and large modest, without adding great pressure on the economy for massive numbers of additional jobs, thereby compromising wage levels.²⁰ These economies experienced favorable demographic transition much sooner than is typically so for an economy at the same level of per-capita income. However, it appears that their high levels of investment in education, and

²⁰ An early study by Gregory and Lal (1977) finds a one percent in labor force growth to result in one percent fall in real wage growth. The study does not, though, distinguish between the skilled and unskilled components in this growth.

health, have contributed to this early demographic transition as well. Thus education appears to be one factor that has strong multiple implications, and much of the success of the ESA economies in achieving rapid economic growth with low income inequality can be understood in these terms.

Table 3.7: Annual Population Growth Rate, Selected Asian Economies (%)

Economy	1970	1980	2000	2003
East Asia and Southeast Asia				
People's Republic of China	2.76	1.25	0.71	0.62
Indonesia	2.37	2.07	1.32	1.34
Thailand	3.03	2.18	0.80	0.65
Viet Nam	2.26	2.12	1.29	1.10
South Asia				
India	2.31	2.25	1.68	1.49
Pakistan	3.01	2.91	2.41	2.41

Source: Shiladitya Chatterjee (2005).

To summarize, it is clear from our discussion above that development is inherently uneven, and this unevenness may possibly worsen income distribution initially. On the other hand, this initial negative effect need not be severe. Possibilities exist to manage the growth-inequality dynamics in an economy. Indeed, as noted previously, while in some ESA economies the growth-income inequality relationship does appear to resemble the KC curve, in other economies (e.g. Taiwan and Korea) growth has been attained without seriously worsening income inequality. However, the lesson they offer appears not to be about how they reacted to serious emerging problems with massive programs of income transfer, but how they successfully managed the process of economic growth and structural change in their economies.

3.5 Environmental Kuznets Curve

In this subsection, we discuss the long-run relationships between economic growth and environmental pollution in an economy. The original Kuznets Curve (KC) provides a hypothesis on economic growth and income distribution. A subsequent extension of Kuznets' observation on this relationship concerns the long relationship between economic growth and environmental quality. Known as the Environmental Kuznets Curve (EKC), it poses that in the early stages of economic growth (i.e. at a still low level of per capita income), environmental quality will likely deteriorate, then level off after some point, and thereafter improve as per capita income continues to increase. The hypothesis was first advanced by Grossman and Krueger (1991), and because the suggested long-run relationship—between economic growth and environmental pollution—resembles that originally suggested between economic growth and income inequality, it has since been associated with the name of Kuznets, even though Kuznets had had nothing to do with it.

Empirical evidence on the hypothesis has been mixed, but on the whole supports the existence of an inverse-U relationship. However, as in the case of the KC hypothesis, this should in no way be understood as in any sense an iron-clad law governing the change of environmental quality in the course of an economy's growth, such that all one could and should do is to allow it to run its full course and wait for the happy ending to arrive. And yet too often it has exactly been perceived that way, by policy makers who are eager for economic growth.

As in the case of KC, if one understands the causal links responsible for this apparent

empirically regular relationship between environmental pollution and economic growth, then interventions would be possible and indeed may well be urgent. Most by now agree that the principal causal factors behind this relationship again have to do with economic structural changes (Arrow, 1995), but this time also with people's environmental awareness (or demand for environmental quality). The structural factors are that before an economy industrializes, environmental quality typically would not be a problem (or even if it is, it would not normally be caused by man). However, as an economy industrializes, often with rather poor and environmentally very damaging technologies to begin with, the environment then takes a severe beating. However, as an economy further grows, at some point the structural factors will begin to work in its favor. First, technology upgrading may reduce the emission per unit of output, other things being equal. Secondly, as the services sector grows and indeed eventually overtakes industry as the dominant sector, total emission may well fall. For these reasons, as an economy grows, one might expect that, at some point, environmental quality improves.

The role of public awareness lies in the fact that in the early phases of industrialization, there is likely to be little knowledge or awareness on the part of the public of the serious environmental consequences of the process. However, as the environmental damages become severe and much more obvious, public action by the victims is likely to take place to exert pressure on the government to act and protect their local environment. In addition, as incomes rise, people also generally tend to demand better environmental quality, giving rise to greater involvement in environmental protection. This could take the form of a change in their own

environment-related behavior, or applying greater pressure on the government to act. It needs to be said that the role of the government is central here. On the other hand, public participation and activism in environmental protection is also crucial in ensuring that the government does act when and where it should.

It is rather straightforward to understand the important role the government plays. Many environmental consequences are, as called in economics, external effects, where victims of the pollution have no effective recourse without the relevant property rights or without their proper enforcements. Moreover, many kinds of environmental pollution are public bads, so that none may have a sufficient incentive to ensure that they be controlled (even if recourse is available). For these reasons, government actions are crucial, through various policy tools ranging from taxation to quantity control, or outright banning of an activity. However, a non-active government, or one that is proactive but primarily committed to economic growth, is unlikely do any of these, at least not adequately enough. For this reason, public participation and involvement in environmental protection is crucial, to exert pressure on the government to act. In a democratic system, this is clearly possible. But even in a non-democratic one, some room still exists for the public to act and to bring pressure on the government to act. Public participation is important also because some kinds of environmental pollution may be highly local or are even private bads, and in these cases information asymmetry between a victim and government may well be a problem. In these cases, public participation can help ensure that such pollutions are brought to the attention of the government and, where possible, actions be sought (where lack of private property rights or their effective enforcements rules out any

Coase-type private negotiations).

It is clear that it is the interplay of the structural factors, people's environmental awareness and active participation in environmental protection, and government actions that will determine the trajectory of environmental quality in an economy's growth. It is difficult to imagine what such a trajectory may look like in the absence of any public participation and government action. On the other hand, structural considerations are clearly also important.

4. Public Policy

Section 3 has given accounts of some of the major processes associated with economic and human development in an economy: trade expansion and integration into the regional and international production networks, industrialization and economic structural change, urbanization, and the effects of these on income distribution and environmental quality. These processes are not themselves the end of development. From a human development perspective, the end of development is to expand people's capabilities, so that they are better able to pursue the lives they value. The basic capabilities whereby progress in human development of an economy has been measured have included per capita income (a proxy for a decent standard of living), health and education (which together have underlain the metrics of the human development index (HDI)), but they could also include agency and empowerment. And, indeed, since inequalities in any dimension of human development may be a result of circumstances rather than choice, high levels of inequality could undermine the extent of human development in a society.

While the foregoing processes do not represent the end of development, they do offer enormous opportunities for that development, through raising productivity and income, and enabling educational advancements and health enhancements. However, as noted, for these opportunities to be effectively seized, appropriate public policies are also crucial. This does not mean, though, that a government should take complete control of these processes. Much can in fact be left to the market for these processes to unfold.

4.1 Changing Institutional and Policy Landscape in the ESA Region

Indeed, over the period under enquiry, there has been a decisive move in the direction of a greater role for the market in resource allocation and the management of an economy in most of the ESA region. China (PRC) is an especially important case in point. Before 1978 it was a classic centrally planned economy. The economic reforms that began in 1978 principally involved substituting market forces for major parts of the former planning system, and by 1990 the move towards a market economy in the country was well underway. Since then, China has achieved a decisive transition in that direction, with most of the markets now liberalized. But an increased role for the market was not limited to only China. Viet Nam and Mongolia, two other former centrally planned economies, followed China's suit, as did Lao PDR. Other economies in the region, while not centrally planned, nevertheless also formerly had had a strong government hand in their management. In part based on a review of their own past policy successes and errors, in part under the influence of the international intellectual climate then (as epitomized by the now defunct Washington Consensus), and in part under duress (as in those economies that were directly affected by the Asian Financial Crises), major moves were made in these economies to increase the role of the market in resource allocation and the management of the economy. The end result of these changes is that, save for North Korea and possibly Myanmar, by the end of the first decade of the new century, the economic institutional and policy landscape in the region has been fundamentally transformed compared with 20 years ago.

Accompanying the economic institutional changes have been political changes. As reviewed in

Section 2, the past two decades saw democratization processes begun, tested and consolidated in a number of economies. The same period also witnessed fundamental changes in the political governance structure even in those economies without having explicitly undergone a democratization process. Thus in China, while the government is not yet democratically elected in any usual sense of the word, public policy making has nevertheless involved much greater civic participation from the stakeholders and citizens, and has consequently become much more responsive to their concerns, than before. There has similarly been an improvement in the transparency of public policy making, made possible by and in turn enabling closer public scrutiny of such policy making. Non-governmental organizations have been springing up in great numbers, playing a crucial role in promoting these processes. With improvements in transparency and closer scrutiny, government departments and officials are now generally made much more accountable for their decisions and actions than before. All these have contributed to a significant improvement in the political governance of the country.

The term 'public policy' covers a wide range of policies made and implemented—or failing to be made and implemented—by the government in the interest of the public. Exactly what policies are made and implemented depends on the goals, objectives and strategies of the government. It also depends on circumstances and constraints. Ideally, it should depend on an objective analysis of the role of the market, where and how it fails, and whether government policy remedies can improve the matter rather than make it worse. In terms of the goals, objectives and strategies, a government may actively promote industrialization by adopting, say, trade and industrial policies that encourage the growth of some sectors at the expense of

others, in disregard of the country's established comparative advantage, or it may adopt a more laissez-faire approach, which often means a greater reliance on the market and a closer alignment with the country's comparative advantage. Equally, a government may hard-nosedly pursue economic growth without paying any attention to how the increased economic benefits are distributed, or it may balance its growth objectives with concerns for income distribution and minimum equity. A government may also exclusively pursue economic growth with utter disregard for its environmental consequences, or it may fully take on board such consequences in its decisions. In short, there can be many possible policy objectives that a government pursues, and there can be still more possible policy instruments that it can take.

This section does not aim to review all cases of public policy that an ESA economy has or has not ever adopted. Where the ESA economies had generally stood out compared with the rest of the world prior to the most recent two decades has been their comparatively high rates of economic growth coupled with low levels of income inequality (World Bank, 1993). However, in the last two decades that we review, income distribution has dramatically worsened in many ESA economies, as shown in Section 2 of this report, giving rise to deep concerns among observers, researchers and policy makers both in and out these economies. The purpose of this section is to review those public policies—or lack of them—that we have good reasons to believe have contributed to both the region's earlier superior performance internationally in achieving rapid growth with equity, and to an apparent worsening of income inequality in the last two decades. Note also that in doing so, we shall only be concerned with public policies that we believe have contributed—or have failed to contribute—to a high level of *inclusive*

growth and human development in the region, rather than to economic growth per se. What follows is a broad framework that outlines what we believe to be the important public policies. They are also the policies that in our view should receive attention and emphasis when designing future public policies and programs aimed to promote inclusive growth and human development in the region.²¹

4.2 Inclusive Human Development: A Policy Framework

Our broad policy framework is as follows: Five sets of public policies are necessary to support and promote a more inclusive kind of economic growth and human development. The first includes economic policies, aimed not to replace the market but to supplement it where it fails, or where its outcomes would otherwise contradict the attainment of the goal of inclusive growth and human development. The immediate aim of these policies is, however, to promote employment and hence income opportunities for people during the early phases of economic and social structural transformation. A more equal income distribution can be achieved by raising the share of labor in total incomes at the primary distribution stage (that is, as returns to factors rather than as transfers), and the first step to do so is to widen employment opportunities for people. We shall consider three specific sets of such policies: agricultural development policies, intended to raise rural employment and incomes (Section 4.3); industrial and trade policies, aimed to promote more labor-intensive kinds of industries (Section 4.4); and policies designed to promote the development of small and medium sized enterprises (or SME development policies) (Section 4.5). Some specific kinds of these policies have been

²¹ The term 'inclusive growth' is borrowed from the Asian Development Bank, which it now takes as its new mission. The rise in income inequality compared with its historical levels in the Asia-Pacific Region caused the Asian Development Bank to reorient its lending objectives in 2007 not only to reducing poverty but also to promoting inclusive growth. See ADB (2007a, b).

tried across the ESA economies at various stages of their development with diverse force. We shall review major cases of these policies.

A second set of public policies concerns human capital accumulation. Indeed, human capital accumulation, either as educational advancements or health enhancements, has intrinsic as well as instrumental values to human development. Health and knowledge are themselves ends that people pursue, and they also constitute two basic capabilities of the people. At the same time, as our discussion of the Kuznets curve in Section 3 stresses, increased and broad-based human capital accumulation can over time improve income distribution in an economy by both raising the labor's share in such distribution and reducing wage differences between skilled and unskilled labor. Indeed, increased and improved education of the work force, by raising the skills of the workers, can also facilitate the development of more knowledge-intensive kinds of industries, thereby promoting the income growth for labor vis-à-vis other factors of production (and economic growth in general). The latter in turn is likely to contribute to further human capital accumulation, resulting in a beneficial cycle of actions and reactions. Public policy relating to education is addressed in Section 4.6, and health in Section 4.7.

Although our emphasis is on more equal primary income distribution, secondary income and in-kind transfers (including free or subsidized public services) are nevertheless also important for alleviating existing absolute poverty, reducing future possible incidence of such poverty, and ensuring that none, even though not absolutely poor, is too far left out of the enjoyment of economic, educational, health and other benefits that the economy and society produces and

provides. Our third set of policies, therefore, concerns absolute poverty alleviation and prevention, through providing safety nets for those in need, and, over time, relative poverty reduction through income, employment, education, health and other supportive programs (Section 4.8). The universalization and integration of various welfare programs have recently received much policy attention in some economies (e.g. China), and we will consider the case for reducing the dualistic nature of welfare programs both between the rural and urban areas, and within the urban areas (Section 4.9). In the process of rapid industrialization and urbanization in many developing economies, the old dualism that has characterized the rural-urban divide has somehow found new inroads into the cities themselves, dividing those who are local residents and those who are migrant workers in respect of employment, education, health, housing and other welfare entitlements and opportunities. It is important to find appropriate policies to combat these trends.

The fourth set of public policies relates to environmental sustainability (Section 4.10). Across the world, various local and global environmental problems are seriously threatening our wellbeing, our way of life and, indeed, our very civilization. For this reason, they have become among the most important policy concerns of our time, both nationally and internationally. Different policy regimes exist, ranging from a completely laissez faire approach, to government exercising a strong hand using command-and-control methods, or market-based methods. However, besides issues over choice of tools to achieve given policy targets, the very concept of sustainability itself has, in fact, been surrounded by considerable controversy, and different —paradigms” of development can also be shown to have sharply different implications

in terms of environmental consequences. As well as looking at specific environmental policies it will also be important to address these larger issues.

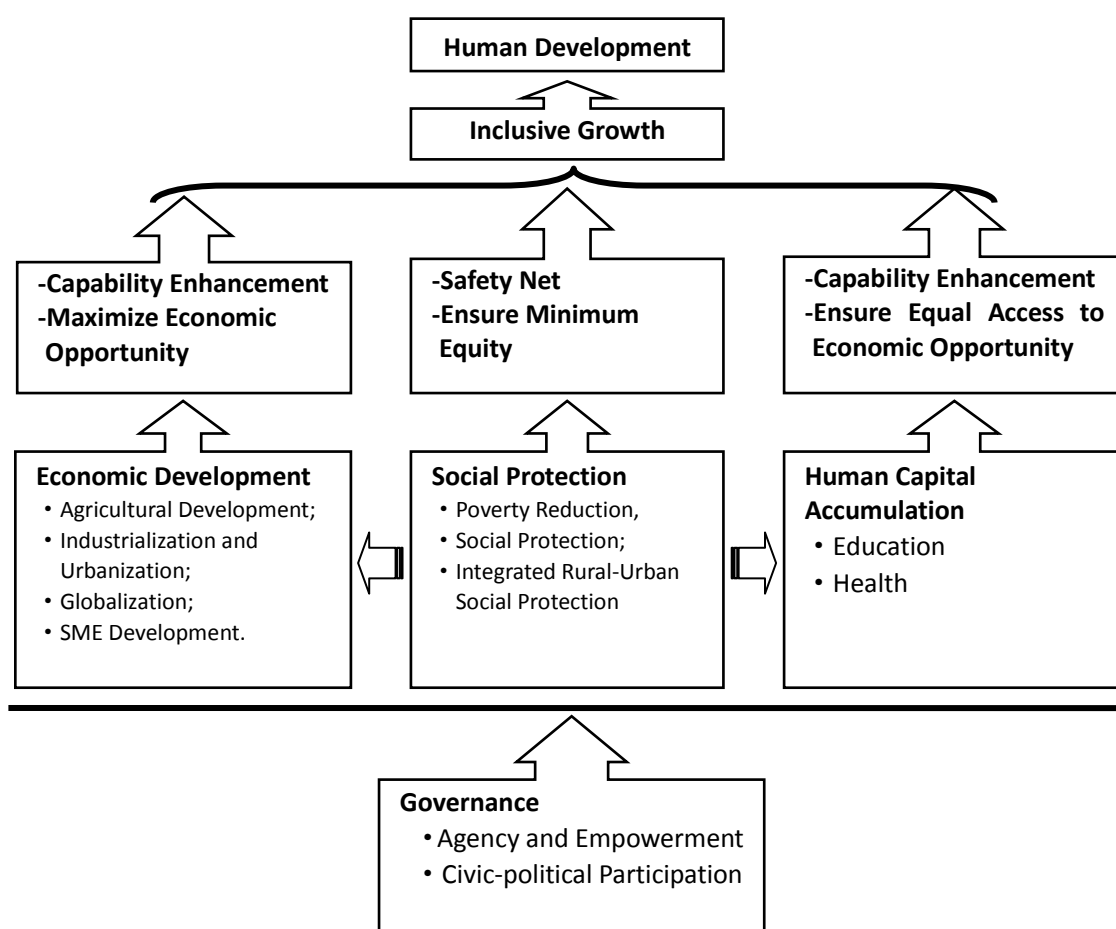
The final set of policies relates to empowerment, agency, and civic and political participation, in short governance (Section 4.10). All public policy programs will need institutions, rules and procedures to support them. However, empowerment and civic and political participation can also help ensure that policies are responsive to the needs of the people, that policy making is transparent, that policy makers are made accountable for their decisions, and that policy implementations are efficient and the outcomes are equitable. Moreover, empowerment and participation (in short, agency) are themselves an end of development. As noted before, if the purpose of development is to enable people to better lead the lives they value, then it matters critically that they are involved in public policy making, supervision and evaluation.

These five sets of public policies are diagrammatically related together in Figures 4.2.1 and 4.2.2. We distinguish between the intrinsic and instrumental values of a policy objective. Since inclusive economic growth poses a major challenge to the ESA region in view of the recent deteriorations in income distribution in many economies, and since inclusive economic growth matters, though, critically to the progress of human development in the region, we highlight this as a key public policy goal. Figure 4.2.1 provides a framework for coordinating various public policies just mentioned in working towards achieving this policy goal. Note that, instrumentally, the final set of governance-related public policies is needed to underlie and support all the other four sets of policies to ensure that they achieve their intended policy aim.

As well as their instrumental values in contributing to achieving inclusive economic growth, however, many public policies themselves contribute intrinsically to human development.

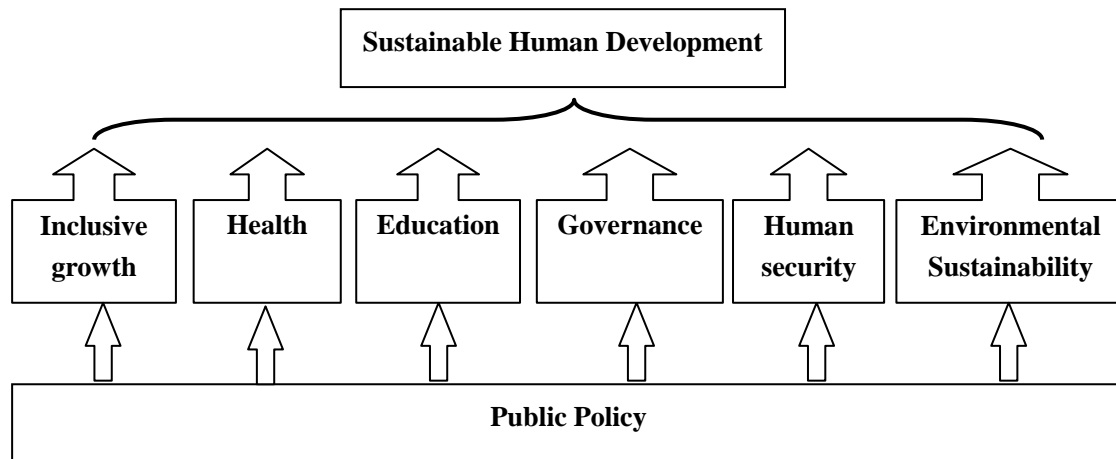
Figure 4.2.2 sketches out their intrinsic contributions.

Figure 4.2.1 a Framework for Public Policy and Inclusive Growth²²



²² In drawing this chart, we have drawn upon the related work of Ali (2007), which presents a very close framework for public policies aimed at achieving inclusive growth and poverty reduction in Asia.

Figure 4.2.2 Public Policy and Sustainable Human Development



4.3 Agricultural and Rural Development Policy

Choice of agricultural and rural development policies that aim to enlarge employment and income opportunities for farmers can be extensive. In this subsection, we shall focus on two important sets of these, those concerning land holding and ownership, and those that aim to improve agricultural and rural infrastructure, both of which have had an important bearing on the course of agricultural and rural development in some ESA economies, including their effects on agricultural productivity, rural non-farming activities, and poverty and income distribution.

4.3.1 Land Holding

By land holding we mean the pattern whereby land is divided into production units called a farm. Existing literature finds that there exists an inverse relationship between the size of a farm and its land productivity, suggesting that inequality in land holding is detrimental to the

agricultural productivity of an economy (see Berry and Cline, 1979, for a synthesis of the literature). Holdings need not, of course, fully reflect the land ownership pattern. Where tenurial arrangements allow extensive share or fixed tenancy, for example, ownership and holding patterns can differ significantly. Absentee land ownership is a case in point. Ownership entitles an owner to a share of the produce of the land, and this has enormous implications for the incomes of a tenant holder. Under share tenancy, the produce is typically evenly divided between the tenant farmer and the owner. Under fixed tenancy, on average roughly about the same portion of produce or income accrues to the owner, although the two tenurial arrangements have rather different implications in terms of production incentives and risk sharing. Thus given the holding or size structure, which as noted has important implications for agricultural productivity, the character of the ownership pattern makes a critical difference to income distribution and, indeed, to incidence of poverty. Needless to say, through its effect on the production incentives, ownership can also affect productivity.

Given these underlying relationships, it is little wonder that an increasing body of literature now finds a significant negative relationship between concentration of land holding in an economy and its agricultural productivity and, indeed, aggregate economic growth. A reduction in land holding concentration through land or agrarian reforms can generate positive effects on productivity and growth. A reduction in land ownership concentration can have the further beneficial effects of reducing income inequality and poverty.²³ Moreover, it may have

²³ In the literature, authors may, however, use land holding data as proxies for landownership data. While international agencies such as FAO periodically collect and report data on the former, the latter are often much more difficult to obtain. Given that in empirics, even though conceptually strictly different, land holding patterns nevertheless may not differ significantly from land ownership patterns, the discrepancy should not cause significant problems to the analysis using such proxy data.

a positive effect on human capital accumulation through promoting more widespread schooling and reduction and elimination of child labor, which in turn has favorable implications for growth and income distribution (see Section 3). The pathways to these effects range from the inverse farm size-productivity relationship as noted early, to a greater availability of private savings for investment in human capital accumulation, greater security against natural disasters and price uncertainties, and ability to use land as collateral for credit, etc. (Alesina and Rodrik, 1994; Persson and Tabellini, 1994; Galor et al., 2009; Besley, 2000; Gersbach and Siemers; 2010; Deininger and Squire, 1998).

Typically government-led or government-backed land reform is an attempt to change the ownership and tenancy arrangement of land, of which a central plank has often been to transfer the ownership of land to the tiller. Such transfers may be fully or partially compensated, or without any compensation to the owner of the land. Where ownership transfers are involved, land reforms often provoke the fiercest opposition from the existing land owners. This political dimension to a land reform program can sometimes doom it to failure, or even if it is carried out, affect how radical it is.²⁴ In East Asian economies with a significant agricultural sector (Japan, South Korea, Taiwan and mainland China), radical land reforms became possible at some stage in their recent history. In each case, they immediately followed a tumultuous regime change, thus effectively removing any significant political opposition to radical land reform.²⁵ In other Southeast Asian Economies where this is not so, successive attempts to redistribute land have met, at best, partial success (see, for example,

²⁴ See, for example, Ghatak and Roy (2007) on India.

²⁵ See Appendix 1 for discussion of the process of radical land reforms and their effects on the character and course of subsequent development in South Korea and Taiwan.

Box 4.3.1 on the Philippines). It is not possible immediately to attribute the subsequent superior performance in growth and income distribution in these East Asian economies to their more thorough land reform experiences. Nevertheless, it would have been surprising if no such effect ever existed. An Appendix to this report where we present the country cases of South Korean and Taiwan and explore the reasons for their superior growth-income inequality trajectories considers this link in further detail.

By far the most important legacy of the radical land reform programs in those ESA economies where these have happened is the birth and/or continuation of a small land holding system. Most ESA economies had had a low agricultural land-man ratio to begin with. Where land ownership is previously unequal, a land-to-the-tiller reform program should ensure that it become more equal. In the process, this should create a broad-based small farm holding system, if none had existed before. Or if such a system had already existed, then the process should further strengthen and reinforce it. In many ESA economies, moreover, land reform programs also included a ceiling on the amount of land a landowner could own subsequently. This effectively prevented land being re-concentrated into the hands of a few following the reform, thereby safeguarding a wide ownership of land, the objective of the original land reform. While the effect of this policy on agricultural productivity may be disputed (on accounts of economies of scale), its role in maintaining the small holding system is undeniable. Table 4.3.1 provides data on the number and average size of holdings over three decades (1960-1990) in Taiwan, which indicates a high degree of stability in the average size with actually a slight increase in the number of holdings. The same table also provides an

international comparison (which we, however, shall not pursue here).

Box 4.3.2 the Philippines: The Case for Land Reform and the 1988 Law

Agrarian relations in the Philippines share characteristics with both Latin American and Asian countries. There are hacienda-type plantations and small subsistence-oriented peasant tenancies, with a variety of land tenure arrangements in between. Putzel (1992) estimated that some 72% of rural families were landless in the late 1980s. Relative to other countries in Asia, agricultural sector growth has been poor. Rice yields in 1991 were less than half those obtained in South Korea, Japan and China.

The main arguments for reform of plantations are the highly seasonal employment they offer and the limits imposed on local food production by over-specialization (e.g. sugar, bananas, pineapples, etc), creating severe hardship when world prices fall and labor is laid off. Plantations are increasingly difficult to justify in the face of mounting land scarcity and rural unemployment. The most important category for reform is the landlord estate, from which tenants commonly can be evicted at will. The reform of tenancies transfers income to the tenant and creates incentives for investment. Land reform is high on the agenda of armed groups, adding urgency to the successful completion of land reform.

Prior to Marcos's 'Operation Land Transfer', 1972, and the Comprehensive Agrarian Reform Law (Republic Act 6657 of 1988) under Aquino, reforms were restricted to the upgrading or conversion of sharecropping to leasehold tenancies. While not providing for the complete land reform that many had advocated, RA6657 extended coverage to all agricultural lands, provided for participation of farmers and NGOs in policy formulation and implementation, and allocated funds for support services. RA6657 sets an individual ownership limit of 5 ha for agricultural land. The overall retention limit for a family can be 14 ha. Due to delays in implementation of RA6657, holdings less than 25 ha are unlikely to be touched before 1998 when the law expires. The Constitution requires that landowners receive just compensation. The valuation of lands under RA6657 is based on a formula containing 3 criteria of varying importance: productive value; the market value as declared in tax returns; and the value as indicated by comparable sales in the locality.

Up to April 1994, 1.5 million ha had been distributed, which represented 39% of the total 10-year target of 3.8 million ha. Well under half of the land distributed was private, demonstrating the resistance to the more controversial part of the program. However, this component has recently risen to represent half of that distributed annually.

Source: Adams (1995).

What enabled many ESA economies to turn an otherwise adversity into an advantage is precisely this small holding system. For it enabled rural non-farming activities to emerge and develop. As noted in Section 3, given the high man-land ratio prevailing in these economies, the land a farmer owns and cultivates could not on its own have supported a significant rise in income, if there had been no other non-farming activities which a farmer could simultaneously engage in. However, the presence of such non-farming activities would be unthinkable without

a small holding system. Suppose that the rural areas of ESA economies were instead carved up by a few latifundios or plantations, hiring wage labor to work on land, often specializing in a few selected crops, the rural areas in most of the ESA economies would not have been able to support the population they have been supporting. Without a small piece of land which they cultivate intensively so as to generate extra income, it would have been difficult for rural non-farming activities to thrive, since they could not have alone supported an entire farm family (see Section 3 where we discuss complementarities and mutual dependence between farming and non-farming activities). Indeed, even if such non-farming activities were undertaken, there may well not have been an adequate demand for their products and services. In that scenario, many farmers must instead migrate to urban margins to scrape a living.

However, with their small land holdings, it becomes possible for them to simultaneously engage in both farming and non-farming activities. The rather high density of the population in the rural areas of these economies also helps to ensure a sizable local market and a significant demand for their products and services. Being close to a thriving urban community can also be a help, although this cannot be true in every case. With incomes from both farming and non-farming activities, a farmer may now indeed find it preferable to stay on in rural areas, thereby relieving the pressure for urban jobs and reducing urban unemployment in the economy.

Table 4.3.1 Average Size and Gini Index of Land Holdings, Selected Economies ⁽¹⁾

Countries Continents.	By	Census Year	Number of Holdings	Area of Holdings (Ha)	Average Size (Ha)	Gini Index of Concentration
Taiwan		90	859 772	890 089	1.04	
		80	891 115	907 353	1.02	
		70	880 274	905 263	1.03	
		60	785 592	869 223	1.11	
Indonesia		93	19 713 806	17 145 036	0.87	0.46
		73	14 375 343	16 394 000	1.14	0.55
Japan		95	3 444 000	4 120 000	1.20	0.59
		79	4650214	4 772 093	1.03	0.52
		70	5 354 074	5 389 000	1.01	0.47
Korea, Rep. of		90	1 768 501	1 857 491	1.05	0.34
		80	2 157 555	2 025 795	0.94	0.35
		70	2 421 420	2 132 233	0.88	0.37
Philippines		91	4 610 041	9 974 871	2.16	0.55
		81	3 420 323	9 749 200	2.85	0.51
		71	2 354 469	8 494 000	3.61	0.51
Thailand		93	5 647 490	19 002 071	3.36	0.47
		78	4 018 427	14 954 592	3.72	0.44
Lesotho		90	229 300	331 000	1.44	0.49
		70	187 421	372 342	1.99	0.39
Bahamas		94	1 760	20 336	11.55	0.87
		78	4 246	36 246	8.54	0.89
U.S.A.		87	2 087 759	390 311 617	186.95	0.74
		79	2 476 340	394 061 235	159.13	0.72
		69	2 730 250	430 321 000	157.61	0.72
Brazil (2)		85	5 820 988	376 286 577	64.64	0.85
		80	5 159 851	364 854 421	70.71	0.85
		70	4 905 642	294 145 466	59.96	0.84
France		89	1 016 755	31 985 606	31.46	0.53
		80	1 262 672	33 648 959	26.65	0.53
		71	1 587 643	35 039 217	22.07	0.53
Greece (3)		95	802 400	3 578 200	4.46	0.57
		71	1 047 260	3 586 294	3.42	0.49
United Kingdom (4)		93	244 205	17 144 777	70.21	0.67
		79	268 560	17 568 330	65.42	0.68
		70	326 698	17 992 312	55.07	0.69

Notes: (1) Includes holdings without land, for countries for which data for the 1990 census round and 1980 and/or 1970 census rounds were available. (2) Due to lack of data for the period 1986-95, data from 1985 Agricultural Census are used. (3) Data source: Eurostat - Farm

Structure - 1995 Sample Survey. (4) Area classified by size of holding for 1993 excludes 156 223 Ha reported by Minor Holdings.

Source: FAO, United Nations, *World Census of Agriculture Data; Taiwan Agricultural Yearbook*, Dept. of Agriculture and Forestry, Taiwan Provincial Government, 1996.

4.3.2 Agricultural and Rural Infrastructural Investment: The Case of Taiwan

A second important set of policies and programs concerning agricultural and rural development that were adopted and carried out in some ESA economies and that have had an important bearing on the agricultural and rural development in those economies relate to agricultural and rural infrastructural investment, sometimes known as farmland consolidation (FC) programs. Note, however, that even though known as FC programs, the scope of these programs usually went much beyond purely consolidating farmland only, but included the building of rural roads, agricultural technology extensions, and support to marketing and sales and agri-businesses. We highlight the FC programs in Taiwan (China) for close study, although similar sets of policies and programs were adopted and carried out still earlier in Japan, and almost contemporaneously in China under a rather different set of institutions at the time (Liu et al., 1998).

FC in Taiwan involved consolidating those farm plots of irregular shape and size, with a poor farm road system, and poor irrigation and drainage systems. These conditions were recognized not to be conducive to carrying out controlled and timely irrigation and drainage, for farmers and machines to access plots, and for them to perform various operations in the plots. As such, FC in Taiwan involved rearranging existing plots and redesigning them into new ones of a suitable size and shape, with adequate roads and irrigation and drainage systems so that the

plots can be directly irrigated and drained, and is linked to main farm roads. The main farm roads would be of an adequate width and condition for various farm machineries (tractors, harvesters, vehicles) as well as humans to pass so as to facilitate anticipated mechanization. Part of the aim of FC was to reduce land fragmentation, that is, the scattering of the same farmer's land into a number of non-contiguous plots at more than one place. Since most of the land to be consolidated was paddy fields, FC also meant re-leveling the plots to suit paddy cultivation, according to the new boundaries, roads, and irrigation and drainage systems. Figure 4.3.1 provides the standard layout of post-consolidation farm plots vis-à-vis roads and irrigation and drainage ditches, and Figure 4.3.2 gives an areal view comparison of the land at one location in Taiwan before and after consolidation.

All FC programs in Taiwan were fully government-initiated and -organized, sometimes with heavy government (and international) funding. The idea of organizing and carrying out large-scale FC programs in Taiwan dates back to the early 1950s. Japan's FC experience appears to have had an important influence on Taiwan's official thinking at the time. Two government officials were dispatched to Japan on a fact-finding mission in 1953. They later became main proponents of FC in Taiwan.²⁶

The most important of Taiwan's FC programs was the first Ten-Year Program (1962-71), at the completion of which a cultivated land area of 249,000 hectares, accounting for 28% of the total cultivated land in Taiwan at the time, was consolidated. This is by any standard a colossal

²⁶ When the present author visited Taiwan's Agricultural Commission in 1993, he received a complete set of a Chinese translation of the Japanese laws and regulations on land use and FC, an indication of the heavy Japanese influence on Taiwan's FC programs.

achievement. Also noteworthy is the fact the costs for this program were principally borne by farmers themselves. Only two thirds of the estimated administration and professional assistance costs were covered by the government. In subsequent programs, a greater portion of the costs was to be borne by the government.

Figure 4.3.1 Farmland Consolidation in Taiwan: Standard Specification

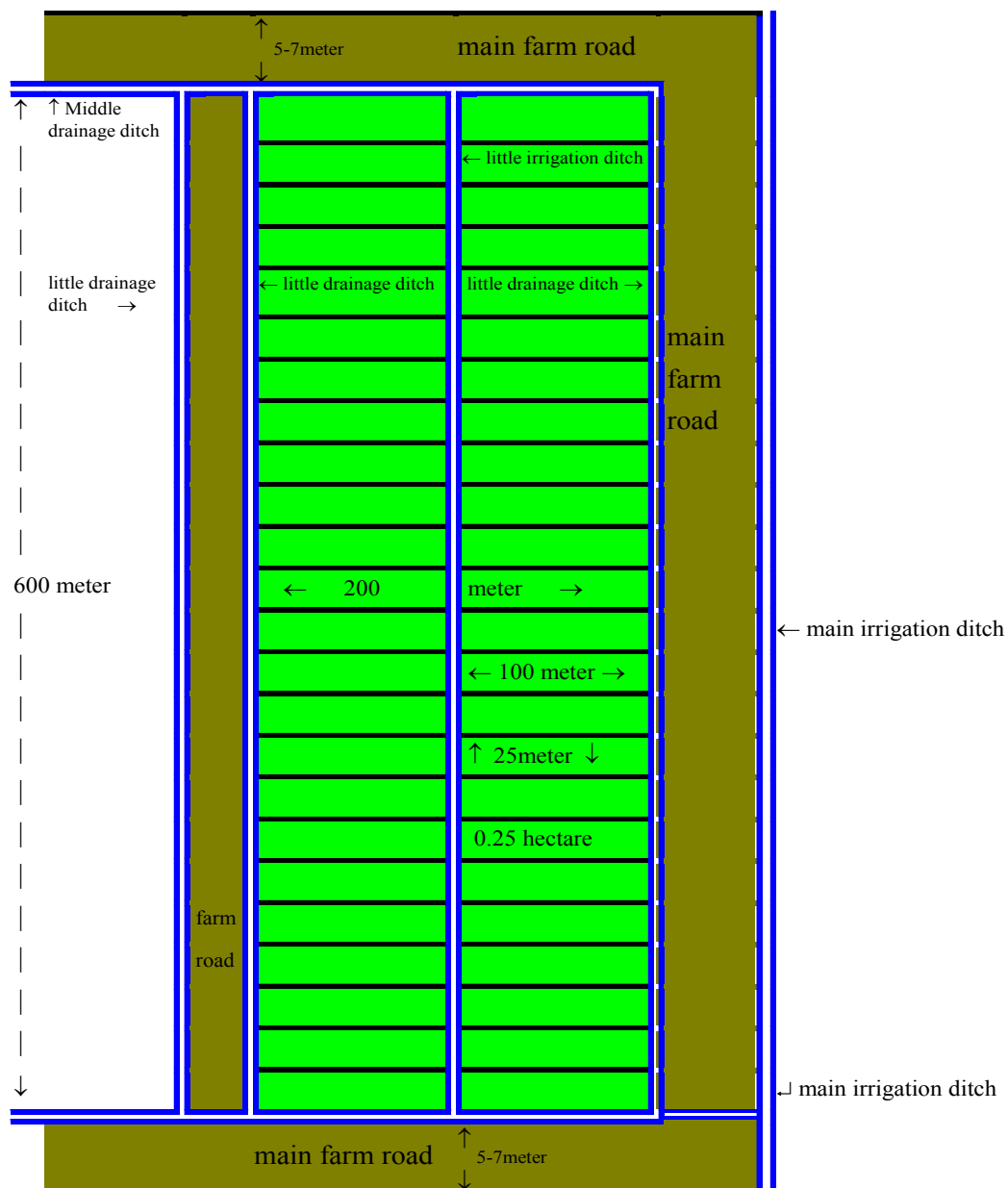
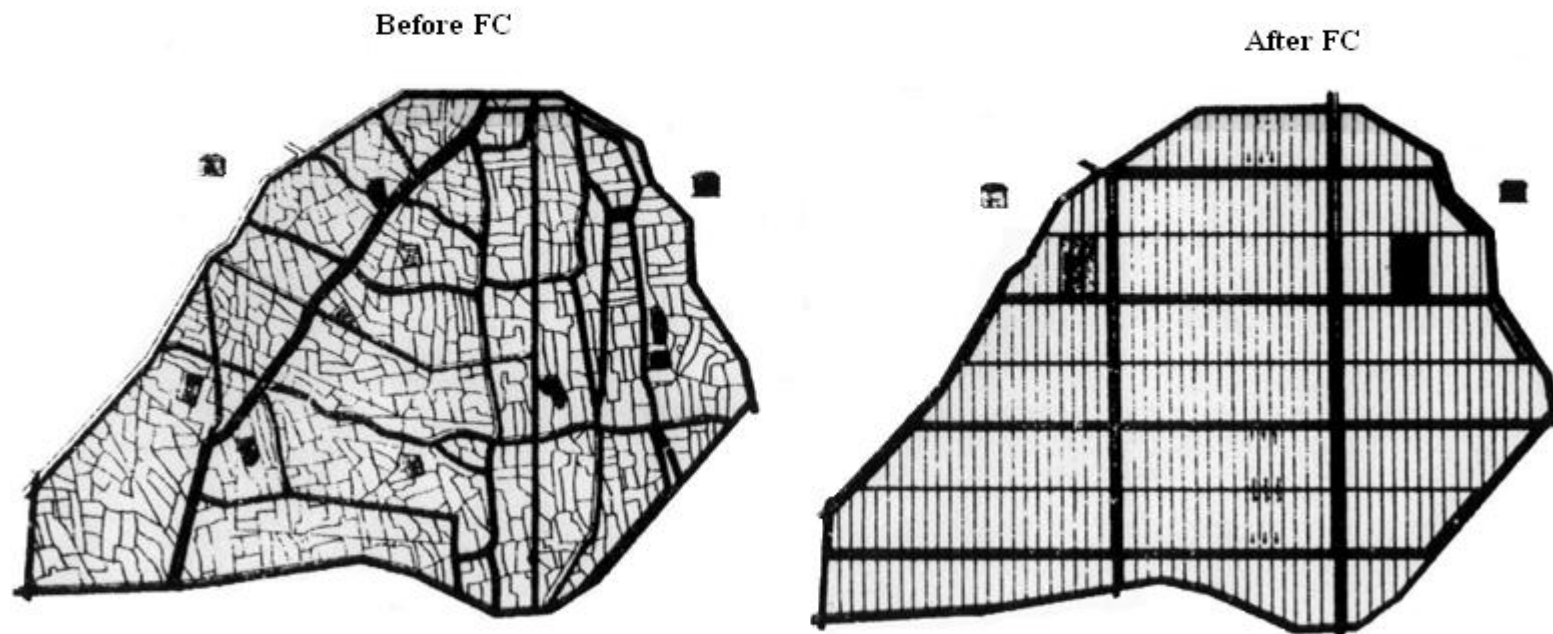


Figure 4.3.2 Areal View of Farmland Before & After FC, Taiwan



Source: Hsieh(1993)

According to Hsieh (1993), the Program had an enormous impact on the conditions of farmland and on production. In the period 1962-67, the total number of farm plots in the consolidated area fell from 1,260,200 before FC to 465,050 after FC, a reduction of nearly two thirds. The proportion of directly irrigated and drained plots (i.e. a plot that is directly linked to an irrigation and drainage ditch without having to pass another plot) increased, respectively, from 21% and 19% before FC to 97% and 98% after FC. The yield of the first rice crop increased by 30% after FC compared with before FC. On the other hand, labor input per unit of land fell by 20%, and other production costs decreased by 15%. There were assessments of other wider social and economic impacts of the Program but I shall not dwell on them here.

After the first Ten-Year Program, 1973 saw the launching of the second Four-Year Program, followed by other but minor programs in the ensuing years (see Table 4.3.2 for a list of the successive programs up to 1995). In comparison, while the first Ten-Year Program had emphasized the goal of promoting agricultural growth by improving irrigation and drainage conditions, and by facilitating farm operations and management, the emphasis of the subsequent programs shifted to creating the right infrastructural conditions for a more mechanized agriculture so as to ensure continued agricultural growth with reduced labor inputs and increased part time farming. This coincided with a time when the economic structure of Taiwan was undergoing a fundamental change. 1973 saw industry overtaking agriculture in the share of employment, having already overtaken agriculture in the share of GDP in 1962. (Industry became the second largest sector in both output and employment in

1973, after the service sector. Rapid industrial development was expected to further draw labor away from agriculture (but not necessarily from rural areas, if part of the industrial development was to take the form of the development of rural industries, which did happen in Taiwan). The policy challenge then was how to ensure continued growth of agriculture with falling labor inputs. The solution of the Taiwanese government was to facilitate and encourage agricultural mechanization with part-time farming under a system of small land holding.

Table 4.3.2 Taiwan's Farmland Consolidation Projects (Up to 1995)

Year	Name of Project	No. of Localities	(1)Planned Areas (Hec.)	(2)Realized Areas	(2)/ (1) (%)
First Phase					
1958-59	FC Experiments	2	525	525	100.00
1960	FC In The Flood-Afflicted Areas	9	817	817	100.00
1961	FC Demonstrations	11	3,362	3,225	95.93
1962-71	First 10-Year FC Project	443	300,000	249,176	83.06
2nd Phase					
1972-77	Rural Construction And Recovery Project	22	-	3,349	-
1976-81	6-Year Economic Construction	40	20,000	18,521	92.61
1981-85	5-Year FC-Promotion Project	93	100,191	60,970	60.85
1988-97	Waterway And Farm Road Renewing Project	178 (1988-95)	32,000 (1988-95) 42,000 (1988-97)	32,048 (1988-95)	100.15
1992-95	Farm Road Mending And Improving Project In FC Zones		2,400 km	2,796.4 km	116.52

Source: Liu Chien-jer and Fu Yu-hsiu (1995), "An evaluation on Taiwan's FC", Taiwan Provincial Government and National Chung-Shing University, p.42; quoted in Liu et al. (1998).

Because of the increased costs and engineering difficulties, between 1973 and 1992 only a total of 116,267 hectares of land was consolidated. Adding this to that consolidated during the first Ten-Year Program, at the end of 1992 a total of 365,443 hectares of land underwent FC, which accounts for over 40 percent of Taiwan's total cultivated land at the time.

4.3.3 Impact of Farmland Consolidation in Taiwan

The impact of the FC programs is two fold. In the short run, by improving the basic farming conditions (improved irrigation and drainage, better crop management when the new road system facilitates personnel access to plots, and extra land due to a saving on plot boundaries when smaller plots are combined to form larger ones), FC can directly raise farm output and land productivity. In the long run, however, FC allows a saving on labor by facilitating factor substitution, that is, capital-labor substitution, by making certain agricultural machineries effective, economical and rational to use. Moreover, under the conditions of small land holdings, by enabling mechanization of almost all key stages of crop production and other farming activities, FC has the further effect of enabling farmers to make use only their spare time for farming, or only the labor input of the non-economically active part of a family's labor force for farming. If one calls this pattern of use of a farm family's labor for farming as part-time farming, then, to put it another way, by improving the basic farming conditions and making it possible and economical for farmers to mechanize, FC enables part-time farming. In Taiwan, thanks to its earlier land reform, small land holdings have become the bedrock of the rural institution. This provides the larger context for our understanding of its successive FC programs, or for us to make sense of them. On the other hand, through these FC

programs, it also becomes possible for these small land holdings to survive and prosper. In other words, it also becomes possible for the very institution of small land holdings to survive in rural Taiwan.

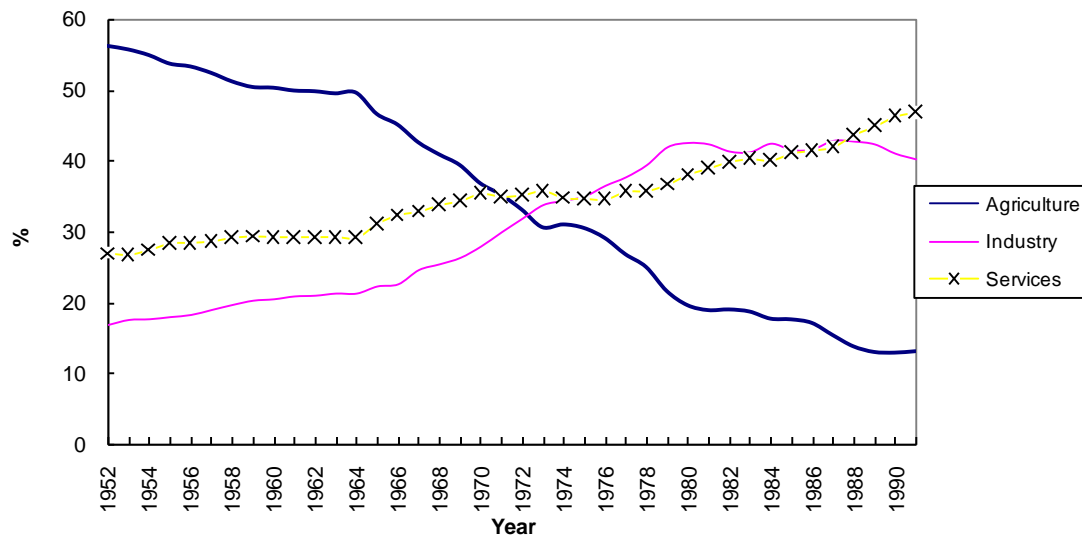
It is difficult in practice to separate these short-run and long-run effects, in part because the FC programs took place exactly at a time when the economy was undergoing rapid structural changes. At such a time, when industries already began to draw labor away from agriculture, there was no time for the short run effect to make itself felt before long run effect began to bite. Had the structural changes took place much later, and then it would have been possible clearly to discern the two types of effects, separately. Nevertheless, available evidence does appear to indicate both a strong short-run and a strong long-run effect.

For the short-effect, as noted previously, according to Hsieh (1993), the yield of the first rice crop increased by 30% after FC compared with before FC. Liu et al. (1998) provides further micro survey data on this. As for the long-run effect, this is also clearly visible from the aggregate data on falling shares of agricultural employment but coupled with rising agricultural production indices, as given in Figure 4.3.3 and 4.3.4. As can be seen, from 1964 (two years after the start of the first Ten-Year program), the share of agricultural employment fell rapidly over the period for which we have data. With a relatively stable aggregate labor force, a fall in its employment rate must mean a fall in total agricultural employment and labor input.²⁷ At the same time, however, this was accompanied by a sharp, rising trend in

²⁷ In absolute numbers, the size of agricultural workforce reached a maximum of 1.68m in 1964, and thereafter the number fell rapidly.

the agricultural production indices. All this took place, importantly, over the FC program period.

Figure 4.3.3 Employment by Sector in Taiwan (1952-91)



While agricultural output continued to rise in spite of falls in its employment, the nature of rural employment did undergo a critical change. Part-time farming which until the early 1960s was rare and constituted only a small percentage of farm households, became widespread over the next three decades. In Taiwan the official classification of a part-time farmer or farm household is one that has one or more members working outside the household farm for over 30 days, a rather broad definition of part-time farming. And among such households those whose income from non-agricultural sources equal or exceed 50% are called “sideline” part-time farmers. Otherwise they are known as “agricultural” part-time farmers. Using the narrower definition of “sideline” part-time farmers as part-time farmers, Figure 4.3.5 shows that the percentage of this category of part-time farmers (or farm households) was around 20% of all farm households in 1960, marginally rose to over 25% in

1970s, but then sharply increased to 55% in 1980, and rose again to around 70%. Thus in only three decades, the same time period in which extensive FC programs took place, part-time farming became dominant in Taiwanese agriculture. There is hardly any doubt that this enormous change must have been due to, at least in part, to the extensive FC programs that were carried out over the period.

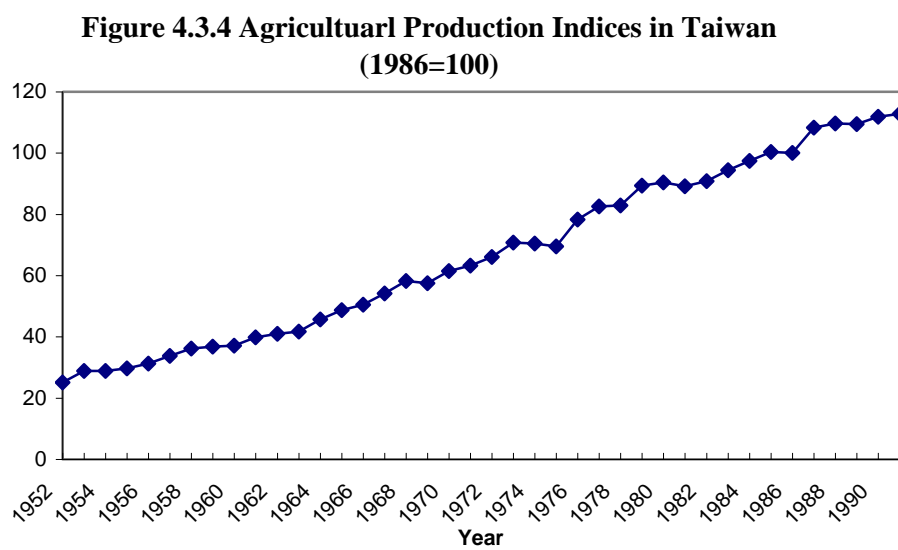
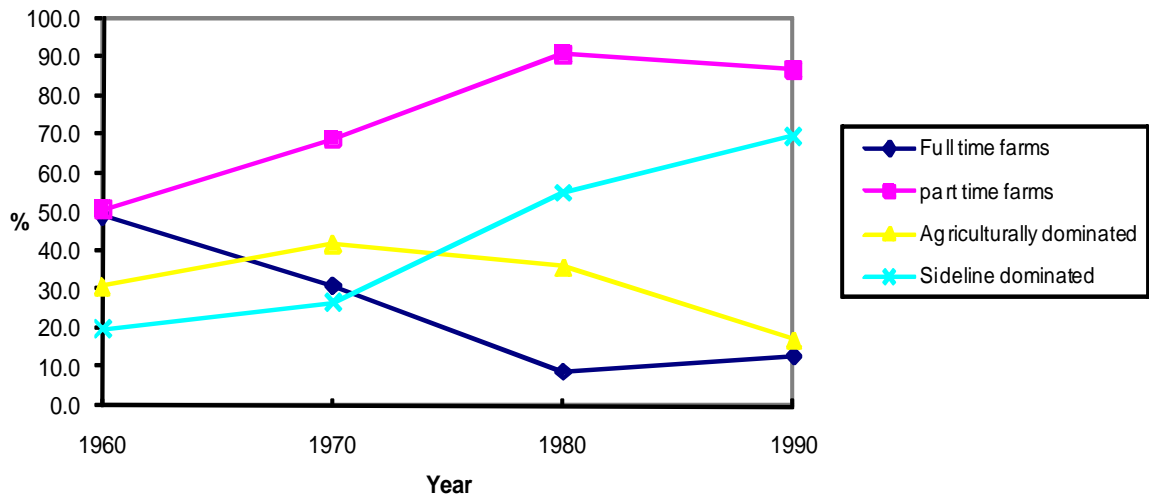


Figure 4.3.5 Farm households by category



Note: In Taiwan part-time households are those with one or more members working outside the household farm for over 30 days. Among these households those whose income from agricultural sources exceeds 50% are classified as *agricultural* part-time farmers, and the rest *sideline* part-time farmers.

Source: Liu et al. (1998).

In terms of the three-activity model developed in Section 3, such a link is clear to see. By improving irrigation and drainage, FC raised yield and land productivity; by building road systems and standardizing farm plots, it facilitated mechanization and further increased labor productivity; by saving on labor, it made part-time farming possible and viable. At the same time, FC reduced the chances of time clash that may arise if one or one's family simultaneously engages in both farming and non-farming activities, by making it possible for one to rely only on one's spare time to engage in farming, or for the economically non-active part of a family's labor force to perform most or all farming tasks. All this made part-time farming a rational thing to do, enabling farming to survive and prosper in the midst of rapid industrialization. At the same time, it widened and increased available employment and income opportunities for farmers, raising their income and improving income distribution in

the economy.

It is important to caution, however, that this does not mean that FC is the panacea for achieving growth with equity in all cases. First, the larger context of small land holdings should not be forgotten. But even with small land holdings, it makes sense for a government to undertake FC only when the time is ripe, that is, when industrialization and economic structural changes have proceeded to a stage where the relative cost of labor has risen and that of capital fallen sufficiently. Figure 4.3.6 shows this, where the long-run effect of FC on capital-labor substitution is depicted as a technological change, represented by a southeast shift of the whole map of production isoquants for producing a given level of output Q_1 (for brevity, only one such isoquant, a and b, is drawn for before-FC and for after-FC). Now before the economic structural transformation and rapid expansion of industries, and the rising income opportunities these provide, the opportunity cost of agricultural labor tends to be relatively low, and that of capital high. The steeper iso-cost line in Fig. 3 depicts this situation. The optimal capital labor combination chosen by a farm family is given by point a. However, with industrialization and economic structural transformation, the opportunity cost of labor generally rises and that of capital relatively falls, giving rise to the new flatter iso-cost line. The new optimal capital-labor combination chosen by a farm family is given by point b. It is of interest to see what would happen without FC while labor and capital costs change as above. Then only the old technology is available, and the changing factor prices would mean that capital-labor combination a' would be chosen. Now compare this with the case with FC, where b is chosen. The cost of producing output Q_1 clearly increases. Thus the

farm family would prefer using the new technology at new factor prices. On the other hand, if there were no changes in the factor opportunity costs, it would not be rational for a farm family to use the new technology, since in this case using the new technology (and choosing point b') to product output Q_1 would entail a higher cost. Needless to say, if the farm family does not prefer using the new technology, there can be no incentives and rationale for FC. Thus although FC might make certain capital-labor substitution possibilities feasible, nevertheless whether farmers would adopt it (and whether on social welfare grounds there is a case for adopting it) would also depend on changing relative factor prices and stages of economic development.²⁸

To conclude, with their high rural population density, radical land reforms such as those that took place in East Asian economies (Japan, Taiwan, Mainland China, and South Korea), and a further ceiling on future ownership of land, ensured the continuation and stability of a system of small land holdings. Similar sets of policies and programs on agricultural and rural development were also pursued in these economies. In the case of Taiwan, one kind of such programs, the farmland consolidation programs, is shown to have had an enormous positive effect on both agricultural output and on the emergence of part-time farming in rural Taiwan. The practice of part-farming enabled a widening and an increase of employment and income opportunities for the farmers, while allowing industries to draw labor from agriculture,

²⁸ It should be pointed out that Figure 4.3.6 shows, in fact, only one possible case. If the new isoquant Q_1' is not situated where it is drawn in the figure, but a lot closer to the origin such that the new price line that uses pre-FC factor prices and that is tangent to Q_1' lies below the price line IC_1 , then there is a case for FC even without structural changes. On the other hand, if the new isoquant Q_1' is situated a lot farther away from the origin in the northeast direction than in Figure 4.3.6, such that the new price line using pre-FC factor prices and tangent to Q_1' lies above the price line IC_2' , then there is never to be a case for FC, with or without structural change. So the relationship between the need for FC and economic structural changes is not a clear-cut one. Nevertheless, the analysis does establish the fact that, under certain conditions, the case for FC may well depend on stages of economic development. Typically, we would expect there to be such dependence.

thereby ensuring a balanced growth of industry and agriculture, and urban and rural areas. The thriving agricultural and rural sectors of Taiwan are an important reason for its achievement of both rapid economic growth and relatively equal income distribution.

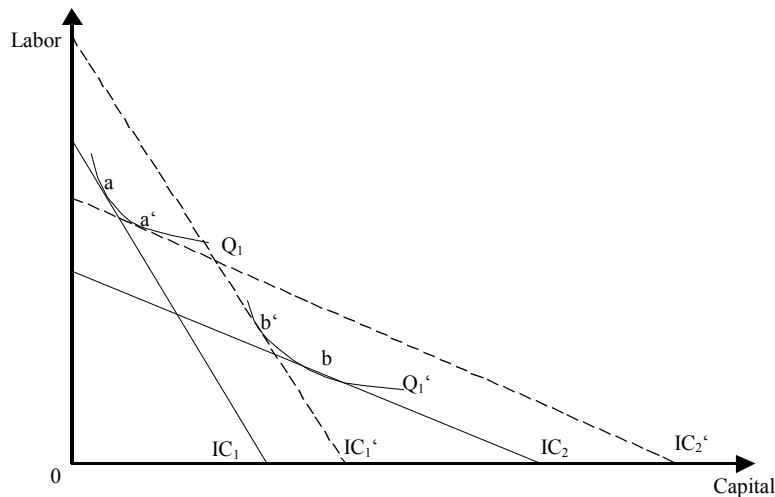


Figure 4.3.6

It remains to note that in Fig. 4.3.6 it has, in fact, been implicitly assumed that all other factors of production except labor and capital are held constant. The assumption of land being held constant is particularly important, for it implies that over the course of structural transformation a farmer's land holding does not change. While this may have been true in Taiwan, in other economies where industrialization and structural changes have been accompanied by a process of "peasant differentiation", some farmers become landless and leave agriculture and others enlarge their land holdings. Overall, in these economies, there may be a significant fall in the man-land ratio and a change from more to less labor intensive cultivation methods. In other words, there may well occur a process of land-labor substitution (producing a given level of output with more land and less labor). Other things

being equal, land-labor substitution entails a fall in land productivity. However, this may be compensated by technological changes such that yield or land productivity does not fall. Land-labor substitution may or may not be accompanied by FC. However, by making the kind of changes in road and plot conditions as seen in Taiwan, one may expect FC to allow a farmer to cultivate a larger area of land than otherwise. So, in principle, FC can facilitate land-labor substitution as well. Without FC, it may be difficult or even counterproductive for one farmer to cultivate more than a given area of land.

4.4 Industrial and Trade Policy

It has been noted in Section 3 that industrialization has a key role to play in promoting economic growth and human development. The re-allocation of given amounts of production factors from low value added sectors to those with high added values will improve the overall economic attainment of a region or country, and this process can be expedited by international trade, e.g. by enabling an economy to capitalize on its comparative advantage and, indeed, to upgrade its technology at a faster pace than it otherwise could. Generally speaking, in the industrialization processes of ESA economies, the export-oriented trade policies have played a much more important role than industrial policies in improving their domestic productivities. Indeed, it appears that the shift of industrial structure in these economies has been driven mainly by market forces and comparative advantages through trade, rather than through distortional industrial policies.

4.4.1 Market Failures and Industrial and Trade Policies

By industrial policies are meant policy measures that are intended to support strategic and

emerging industries with a view to achieving catching-up through a shorter trajectory of industrial evolution. In an increasingly interdependent world, however, any economy has to coordinate its industrial and trade policies. In the early phases of the post-War period, trade protectionism as represented by various import-substitution policies had been adopted by many economies in the ESA region to achieve their respective industrial policy goals. These policies were usually aimed to promote the expansion of some particular industries, often without taking account of the economy's comparative advantage, based on factor endowments or otherwise. Such policies often failed. On the other hand, industrial policies can also be based on an economy's comparative advantage, and be promoted through international trade. Most ESA economies appear to have gone through a succession of phases of developmental policies that were characterized by one or the other of these sets of policies, but they ultimately settled on export push strategies.

Why should governments interfere with the level playing field of the international market through industrial policies? An influential report by the World Bank (1993), *The East Asian Miracle*, which addressed this issue with specific reference to the ESA region, lists four reasons, which we quote in full here (p.294-294):²⁹

Interdependent investments and economies of scale. Increasing returns from scale and capital market imperfections may mean that investments that could be

²⁹ The analysis and discussion in this and other parts of this section draw closely on World Bank (1993), as this provides still by far the most influential and comprehensive look at the trade and industrial policies in ESA economies. Although this report deals with a period immediately preceding the one that we are dealing with, many of the policies that it discussed and analysed had a great impact on the subsequent course of development in the economies in question, were in some cases carried over to the subsequent period, and, indeed, may also have influenced the policy stance in other economies in the region.

internationally competitive at optimal scales will not be undertaken. This is especially true with large, interdependent projects for which optimum scale depends on simultaneous investment in upstream and downstream industries. The larger the indivisibilities and returns from scale, the more likely that private initiatives will be absent.”

Strategic negotiations. In negotiation with other economies and foreign companies, governments can alter the nature of the market environment by intervention. The outcome of any bargaining problem depends on the strength of competition on both sides. By coordinating the actions of buyers of technology and trying to increase competition among sellers, governments can appropriate more of the surplus associated with the transfer of technology than they otherwise could....

Pecuniary externalities. Pecuniary external economies arise if, as the size of a competitive industry increases, the long-run supply curve falls (Marshallian real externalities). Such gains in productivity are attributable to economies of scope in the use of specialized equipment and greater specialization of individual skills. When economies are small, current prices may not convey adequate information about prospective lower costs of production through larger plant size Externalities can also arise from the interaction between suppliers and buyers about the design or production of a product leading to a better or cheaper good than is available internationally. In this case, the source of the externality is the

non-tradability of some types of inputs or knowledge—otherwise the improved method or product could be obtained from international suppliers.

Learning. Externalities related to learning have traditionally been identified as important sources of market failures in developing economies. When firms gain knowledge of production from other firms without incurring costs, real externalities are present. Because of incomplete appropriability of knowledge, individual firms may spend less on obtaining production knowledge than is socially optimal. Externalities due to learning may also be conferred on other firms by the first entrant. These include the demonstration that the sector is physically and economically feasible and the leakage of information on technology and marketing

4.4.2 Switch of Trade and Industrial Policies from Import-Substitution to Export-Push

The same World Bank (1993) study also provides a detailed account of the evolution of trade and industrial policies in most ESA economies (with the important exception of China) in the decades immediately preceding 1990, and evaluates their successes and failures. Although the period we are dealing with is since 1990, clearly past industrial policies of an economy can leave a deep imprint on the subsequent course of its industrialization, and they offer important pointers to future courses of action. For this reason, we quote extensively below the account and analyses from that study.

According to World Bank (1993, p.293), in the 1950s-1970s, through their heavy and chemical industries (HCI) programs, Japan and Korea had been the most active High Performing Asian Economies (HPAEs) in promoting specific industries and sectors.³⁰ Singapore and Taiwan (China) had also actively provided incentives for technological upgrading. Malaysia had had an HCI program similar to that of Japan and Korea, and Indonesia had attempted to leapfrog from labor-intensive manufacturing to high-technology industries such as aircraft and electronics. However, that policy ended in heavy failure.

However, “[A]lthough all ESA economies except Hong Kong passed through an import-substitution phase, with high and varying levels of protection for domestic substitutes for imports, these periods ended earlier than in other economies, typically because of a compelling need for foreign exchange. In contrast to many other economies that tried to preserve foreign exchange with stricter import controls, the HPAEs set out to earn additional foreign exchange by increasing exports.” Thus, “Hong Kong and Singapore adopted trade regimes that were close to free trade; Japan, Korea, and Taiwan, China, adopted mixed regimes that were largely free for export industries. In the 1980s, Indonesia, Malaysia, and Thailand have adopted a wide variety of export incentives while gradually reducing protections. Exchange rate policies were liberalized, and currencies frequently devalued, to support export growth. Overall, these policies exposed much of the industrial sector to international competition and resulted in domestic relative prices that were closer to international prices than in most other developing economies” World Bank (1993, p.22).

³⁰ In World Bank (1993), the High Performing Asian Economies (HPAEs) include: Japan, Hong Kong, Republic of Korea, Singapore, Taiwan, Indonesia, Malaysia, and Thailand.

Specifically, ~~the~~ the northeastern-tier economies—Japan, Korea, and Taiwan, China—halted the process of import liberalization, often for extended periods, and heavily promoted exports. Thus while incentives were largely equal between exports and imports, this was the result of countervailing subsidies rather than of trade neutrality; promotion of exports coexisted with protection of the domestic market. In the Southeast Asian HPAEs, conversely, governments used gradual but continuous liberalization of the trade regime, supplemented by institutional support for exporters, to achieve the export push. In both cases, governments were credibly committed to the export-push strategy; producers, even those in the protected domestic market, knew that sooner or later their time to export would come” (World Bank, 1993, p.22).³¹

Indeed, to the extent that the ESA economies had had sectoral policies, these policies were ~~usually~~ geared toward export performance, in contrast to the inward-oriented policies of less successful developing economies. Japan, Korea, Singapore, and Taiwan, China, all relied on economic performance criteria, usually exports, to judge success. For example, in Taiwan, China, the government suspended domestic content requirements that interfered with the exports of foreign investors. In addition, sectoral policies were closely monitored and frequently adjusted. Thus, many of East Asia's ~~industrial upgrading~~” programs of the late 1970s and early 1980s were substantially modified or abandoned when they failed to

³¹ ~~The~~ The export push in the Southeast Asian NIEs came later, in the early 1980s, and the instruments were different. Reductions in import protection were more generalized and were accompanied by export credit and supporting institutions. In these economies export development has relied less on highly selective interventions and more on broadly based market incentives and direct foreign investment” (World Bank, 1993, p.13).

produce satisfactory results. Using the export rule meant that even programs of selective industrial promotion were indirectly export-promoting” (World Bank 1993, p.23).

As well as these general accounts of the evolution of trade and industrial policies in the ESA region, Table 4.4.1 provides detailed information on the evolution of industrial policies in selected ESA economies, and Box 4.4.1 further provides a closer look at the particular case of Korea (Rep). The case of Korea (Rep) is of special interest as it is perhaps by far the most hotly discussed and debated case in the development literature as to the character and role of these policies in promoting the country's rapid industrialization and economic growth.

Table 4.4.1 Key Industries and Development Stages in ESA Economies

	Japan	South Korean	Taiwan	Hong Kong	Singapore	Malaysia*	Indonesia*	Thailand*
Textile	1900—1930s, 1950s		1960s and 1970s	early 1950s	early 1960s and 1970s	1970s	1970s	1970s
Clothing	1950s		1960s	1950s-1960s		1970s		late 1970s—early 1980s
Toys, Watches, Shoes			1960s-1970s	1960s-1970s		1970s		
Petroleum Processing		early 1960s				1970s	1970s	
Steel	1950s-1960s	late 1960s-early 1970s				1980s	Late 1970s	
Chemical Products	1960s-1970s	late 1960s-early 1970s				1980s		1980s
Shipping	1960s-1970s	1970s						
Electronics	1970s	late 1970s-1980s	1980s		1970s		late 1980s—early 1990s	1980s
Automobile	1970s-1980s	1980s				1980s		
Computer and Semiconductor	1980s	Late 1980s						
Banking				Late 1970s-1980s	1980s		Early 1990s	

Source: * from World Bank, 1993, p.134-142; others from Ito, Takatoshi, "Japanese Economic Development: Idiosyncratic or Universal?"; Justin Yifu Lin et al. (eds), Contemporary Economic Issues: Regional Experience and System Reform, New York: St. Martin's Press, Inc., 1998, p.21.

Box 4.4.1 Shift of Industrial Policies in South Korea

Phase 1: 1950-1960. Before 1961, the industrial policies of South Korea had been focused on import-substitutions of non-durable consumer products such as textiles, shoes and home appliances.

Phase 2: Labor-intensive export-oriented sectors became the object of South Korean industrial policies in the 1960s. Policies were aimed to promote export-led industrialization. Exporting firms were exempted from duties on their imported inputs and were eligible for public funding to improve equipments. Exports are universally subsidized and those to emerging markets were authorized to become monopolies in those markets. Multiple exchange rates were adopted to exert import controls with the exchange rate for importing private firms higher than for official ones.

This export-oriented system was built on government controls of financial resources and the channeling of such resources to selected sectors. Firms receiving support were given both incentives to make investments and develop technology capabilities and penalties for doing otherwise.

Phase 3: Late 1960s-1970s. Heavy and chemical industries (HCIs) became the focus of South Korean industrial policies in this phase. The overall strategy was to promote import-substitutions of intermediate production materials and the development of capital-intensive sectors such as shipping, steel, automobile, nonferrous metal and petroleum.

The specific policies geared toward HCIs can be grouped into three categories: First, provide capital as needed by large capital investment projects through state-initiated funds. Secondly, protect those infant industries from international competition until they became competitive. Thirdly, legitimize monopoly in some sectors to cope with the problem of insufficient market size.

Phase 4: Industrial policies since the 1980s are fundamentally distinct from the previous selective ones, with the objective being to incubate and promote those most competitive sectors.

The Industrial Development Act of 1985 stressed the importance of market mechanism and withdrew policy support to selected sectors. The reference to "strategic industries" was removed from legal texts, with government interventions limited to only two kinds of sectors where the market fails: sectors where market incentives were weak and government support is needed to enhance its international competitiveness, and those sunset industries.

Phase 5: South Korean industrial policies since the 1990s have fundamentally changed. The aim of the new policies has been to "achieve industrial upgrading and efficient resource allocation via free competition". Instead of designating key sectors, the government now grants support only to those firms that can survive market competition. The focus of industrial policy is now on promoting efficiency.

4.4.3 Increased Trade and Industrial Upgrading in ESA

It needs to be noted that the export-push strategy of ESA economies has both contributed to and benefitted from the expanding volumes of intra-regional trade within the ESA region. It is difficult to imagine how the export-push strategy could have succeeded in most ESA economies without the rapidly expanding volumes of intra-regional trade in the region, just as it would be difficult to imagine how the rapidly expanding volumes of intra-regional trade could have taken place without the economies in the region strongly pursuing an export-push

strategy. Indeed, as is pointed in Section 3, not only has the volume of intra-regional trade expanded at a rapid pace in ESA in recent decades, but also the character of this trade has undergone a radical change, with an increasing proportion of intersectoral trade, a result of an expanding regional production network based on vertical division of labor, whereby economies at heterogeneous levels of technology each specialize in a particular production stage of an industry, rather than in different industries, a pattern of regional division of labor which some Japanese economists have called a “flying geese” pattern.

According to World Bank (1993), by shifting to an export-push strategy, “[A]s a group, the HPAEs increased their share in world exports from 8 percent in 1965 to 13 percent in 1980 and 18 percent in 1990. Manufactured exports have provided most of this growth. From 1965 to 1990, Japan emerged as the world's biggest exporter of manufactured goods, increasing its share of the world market from nearly 8 to almost 12 percent. In the 1970s and 1980s, the locus of growth shifted to the Four Tigers, whose share of manufactured exports grew nearly four times faster than Japan's. Beginning around 1980, the three Southeast Asian HPAEs (Indonesia, Malaysia, and Thailand), which had been historically dependent on commodity exports, recorded a similar but so far smaller surge in manufactured exports” (World Bank, 1993, p.37).

Much of this trade has been, in fact, intra-regional trade. Indeed, recent decades have seen rapid rises in intra-regional trade within ESA. Thus, its share in the total volume of trade of the region increased from only 35% in 1980 to 55% in 2004, next only to EU in

intra-regional trade share. The rising share of intra-regional trade combined with the rising trade share of ESA in world trade, as well as the increasing worldwide trade volume itself, jointly give rise to an explosion of intra-regional trade in ESA. Since 1980, total intra-regional trade and GDP of ESA have both been increasing at a rapid pace, at an average annual rate of 13.5% and 8%, respectively.

Of the total trade volume in ESA, intra-sectoral trade has experienced even more rapid rises. Its share in the total trade volume increased from 55% in 1990 to 78% in 2004, at the expense of a decreasing intersectoral trade share from 45% to 22%. One cause and, indeed, also consequence of this development is, as noted, the growth of a region-wide sophisticated production and distribution network in ESA, something almost unique among the developing regions of the world (Ando and Kimura, 2003).

Complementing trade is FDI. FDI inflows to the ESA region have been increasing at a phenomenal pace in the past decades. Take the 10 ASEAN economies for example, their accumulated FDI inflow increased steadily from 50.2 billion dollars in 1985 to 89.9 billion in 1990, 170.6 billion in 1995, and 262.8 billion in 2000 (UNCTAD FDI database). The values of FDI Performing Index for Singapore and Malaysia, which measures a country's competitiveness in attracting FDI, reached as high as 14.01 and 4.49 respectively. Notably, China had the largest volume of FDI among developing countries in the 1990s, attracting about 12% of global FDI.

Among FDI inflows into ESA economies, intra-regional FDI within ESA has been increasing at a phenomenal rate in the past decades, complementing its intra-regional trade. Its share in the total FDI inflow reached 57% in 2003. About 2/3 of FDI inflows in this region are from other ESA economies to China, which has countervailed China growing trade surplus with these economies.

These expanding volumes of intra-regional and intra-sectoral trade and expanding flows of FDI from technologically more advanced economies to less advanced ones in the region are but manifestations of a region-wide production network emerging in the last few decades. As a result of the export push strategies pursued by the various economies in the region, much reduced trade barriers thanks to various regional and international trade agreements, and much reduced transportation costs due to improved transportation networks and facilities, moving goods across the borders has never been as easy and as economical as at present, enabling large-scale vertical divisions of labor to take place between the economies in the region. The heterogeneity in technological levels of the region's economies, while causing severe social and economic inequalities between the economies on the one hand, as we saw in Section 2, also provided, in fact, the very basis for this vertical division of labor. Under it, as well as capturing static economies of scale and benefits of specialization, technologically more advanced economies such as Japan, South Korea and Taiwan (China) have also led the process of industrial upgrading. Through human capital accumulation and technological innovation involving new production processes, new products, and new management concepts and practices, these economies have been able to move into, or specialize in,

technologically more advanced industries, or more advanced parts of an industry, while shedding the other industries, or the other parts of an industry, to other economies in the region.

Indeed, by following a graded path from labor-intensive through capital-intensive to knowledge-intensive stages of development, industrial upgrading in ESA economies can be seen as very much driven by the mobility of old, traditional and more labor- and capital-intensive industries away from more developed economies such as Japan, South Korea and Taiwan (China) to other economies in the region, in a fashion that many Japanese economists have called the “flying geese” pattern, while these more developed economies themselves become increasingly specialized in more knowledge-intensive industries. It needs to be said that such a pattern of vertical division of labor and mobility of industries has, by and large, both closely reflected and capitalized on the existing comparative advantages of the economies in the region at any one time (each economy tends to specialize in those industries or parts of an industry that it has a comparative advantage in at that time), and it has allowed each economy’s comparative advantage to evolve over time. Indeed, over time, following its own course of industrialization (e.g. increased costs of labor, and increasing human capital accumulation) but also depending on the course of industrialization and development experience in other economies, an economy’s comparative advantage may well change. Thus Japan, South Korea and Taiwan (China) all started their industrialization with a marked comparative advantage in labor intensive industries, and they then progressed to gaining a comparative advantage first in capital-intensive and then in knowledge-intensive

industries. When they no longer had a comparative advantage in labor- and capital-intensive industries, other economies in the region (Thailand, Malaysia, Indonesia, the Philippines, and China) then filled in that niche. Through such region-wide patterns of evolving vertical division of labor and comparative advantage, the ESA region as a whole achieved a rapid pace of industrialization and economic development. However, one must never lose sight of the underpinning role of the export-push development strategy that these economies have pursued.

4.4.4 Nature of Industrial and Trade Policies in ESA

In this subsection, we explore two broad and closely related sets of issues. First, could an export-push strategy nevertheless be seriously market- and comparative advantage distorting? Secondly, if it is not, and if it merely conforms to the market and reflects an economy's comparative advantage, is there then any need for it?

First, could an export-push strategy be seriously market- and comparative advantage distorting? For example, could a government be so bent on promoting the development of a particular (say, infant) industry to promote exports, an industry that is nevertheless in no way near having any present or potential future comparative-advantage, that it puts in vast amounts of resources determined to see its policy succeed? While such possibilities cannot *a priori* be ruled out, nonetheless the chances that such cases occur are expected to be few. First, an export-push strategy implies a high degree of openness of the domestic economy to the international market and international competition such that a highly comparative

advantage-disobeying industrial policy will be highly costly and, moreover, such costs are easy to see given international prices. What is more, when there are alternative industries to support, as surely there must be (perhaps those that do have a comparative advantage), the cost and benefit differences of different choices of industries can also be established. Any sensible government, or a government that is not plagued with extreme corruption, would surely take notice of this and adjust its policy. Indeed, such policy reversals have by no means been infrequent in the history of industrial policy in ESA economies, as noted earlier. Secondly, political considerations are also an important factor. Beneficiaries of any export subsidies are foreign consumers. When any industrial policy that sets out to promote a particular industry for exports and that costs an enormous amount of public money, and especially if there is also clear and better alternative, the policy would ultimately be politically unsustainable.³²

And, indeed, according to the findings by World Bank (1993), the early industrial and trade policies in the ESA economies it studied had not been market-distorting, and had broadly reflected those economies' comparative advantages. —Notwithstanding the protection that exists in all the HPAEs except Hong Kong and Singapore, domestic prices in these economies are closer to international prices than in other developing regions. Two bodies of evidence lead us to this conclusion. First, nominal tariff rates adjusted for the presence of nontariff barriers are lower in the HPAES than in most other developing economies. Second,

³² In contrast, under an import substitution regime (which may be used as the comparator here), domestic prices and, indeed, the exchange rates can often be so distorted that any evaluation of the costs of an industrial policy program can be difficult to make and even more difficult to see by the public, and beneficiary of any import-substitution subsidies will be domestic producers and consumers, which may remove much of the political sting from the issue.

comparisons of real GNP across a broad range of economies indicate that domestic relative prices for tradable goods in the HPAEs are closer to international prices than in other regions” (World Bank, 1993, p.298-299).

However, “[T]hese findings do not imply that governments were not attempting to influence industrial structure. They undoubtedly were. But they suggest that, despite government intentions, the manufacturing sector seems to have evolved roughly in accord with neoclassical expectations; industrial growth was largely market conforming” (World Bank, 1993, p.315).

Our second issue is: if the sectoral policies in ESA economies had indeed been market-conforming and had merely reflected the underlying comparative advantage of these economies, was there then any need for them? The same World Bank study appears to question this need when it calls into the question “the efficacy of government efforts to promote or discourage specific sectors (World Bank, 1993, p.312). According to it, “[I]n Korea, for example, despite the government's extensive efforts to speed the private sector's shift from labor-intensive to capital- and technology-intensive industries, the relatively labor-intensive textiles and garments sector was nearly three times bigger than international norms predicted in 1988, a substantial increase relative to international norms from 1968. During the same period, Korea merely maintained the international norm in chemicals, a heavily promoted sector, while other heavily promoted sectors, basic metals and metal products and machinery, achieved only modest improvements. Similar surprises are evident

in Singapore which like Korea, has a government that aggressively intervened through a variety of mechanisms to promote capital- and technology-intensive industries. Here, the importance of textiles relative to the predicted norm has increased even more sharply. The textile sector went from double its predicted size in 1973 to eleven times in 1989. Over the same period, metal products and machinery declined from twelve to five times its predicted size” (World Bank, 1993, p.312-314).

Here is not the place to enquire into how the “international norms” used in such an evaluation were calculated and what the counterfactuals might have been had there been a complete absence of sectoral and other export-push policies. The fact that Korea and Singapore (and many other ESA economies) had been among the most intervened economies in the world during its early phases of industrialization, and that they had also been among the fastest-growing economies in the world then, would seem to suggest that the answer is perhaps otherwise. Contrary to the view that the particular sectoral policies in these economies appear to have had a neutral or even harmful effect (it would seem odd to argue that these economies would somehow have grown even faster than they did without adopting the said policies, when many other not-so-heavily-intervened economies have in fact performed a lot poorer), the truth might be that these policies perhaps did play a role, on accounts of technological indivisibilities and capital market imperfections, and indeed the other factors (strategic negotiation, pecuniary externalities, and learning) the same World Bank study also acknowledges. Given their much superior record of overall growth performance than other not-so-heavily-intervened economies, it would appear much more

convincing to argue that the policies in question did, overall, play a positive role. On the other hand, it would also be wrong to suggest that other economies can then simply copy the same policies that were tried in Korea or Singapore (or indeed in any other higher-performing ESA economies), since each economy must have tried or not have tried a particular policy for an underlying reason, often specific to the conditions of that economy. Successful policies in one economy may be transplanted to another, but it should be done only after careful study and analysis.

However, in spite of the caution, significant commonalities do appear to emerge from the successful export-push policies in ESA economies. The same World Bank (1993, p,143) study identifies the following four common elements towards a successful export push strategy: access for exporters to imports at world prices; access for exporters to long and short-term financing; government assistance in penetrating markets; and flexibility in policy implementation. Thus even though the form of export-push policies may have differed across ESA economies, these policies appear to have had a common set of core elements.

4.4.5 Shifting Comparative Advantages and Evolving Industrial Policy in ESA

It needs to be further stressed that an economy's comparative advantage need not be fixed but can in fact change. For example, as an economy undergoes industrialization, certain resources, especially unskilled labor, may eventually become scarce, and consequently its price rises, undermining the comparative advantage this economy may initially have enjoyed in unskilled labor-intensive industries (textiles, clothing etc.). At the same time, new

comparative advantages can emerge. An economy may initially have been endowed with a small skilled-labor force. However, as personal income rises, individuals may decide to invest more in their own and their children's education. At the same time, with a greater amount of public revenue accruing from economic growth, and perhaps also a greater emphasis on education by the government, public spending on education may also increase, and this may result in rapidly increasing levels of education of the population as well, which in turn leads to rapid increases in the stock of skilled labor. Better education, better knowledge, and greater cognitive skills of the work force mean that certain technology-intensive industries that were beyond the skill and knowledge capacity of the economy before, are now possible to undertake. And through learning by doing, the existing stock of knowledge and skills also becomes further expanded and improved both in quantity and quality, enabling the economy to further engage in knowledge- and skill-intensive industries. In turn, the expanded skilled job opportunities with higher salaries and better rewards can further induce people to invest in education, resulting in a beneficial circle of actions and reactions to propel the economy ever further along the path of knowledge- and skill-intensive industrial development. In a nutshell, this appears to be the path the more developed ESA economies of Japan, South Korea and Taiwan have trodden.

But could the government have a role in influencing and shaping the future comparative advantage of its economy? According to Justin Lin (Lin et al., 2008), this the government should better try not to do. He distinguishes between an economy's comparative advantage and its factor endowment structure, with the latter determining the former. Economic

development causes an economy's factor endowment structure to change, and *pari passu* with this change its comparative advantage also alters. As its comparative advantage changes, its industrial structure will also change. According to Lin, throughout this process, the government will never be able to identify the economy's true comparative due to incomplete information. Only the market through its price mechanism can tell. In the absence of government intervention, market prices in the economy are a good indicator of the relative scarcity of the production factors, inducing firms to enter those industries with an abundance of the factors specific to them, and exit those whose specific factors are scarce.

Government might indeed only have incomplete information about the economy's comparative advantage, and well-developed markets might indeed be a better mechanism to reveal that information. But markets may nevertheless fail, exactly in those ways as noted at the beginning of this section. So it looks that the case for or against industrial policies ultimately boils down to whether the risk and extent of market failures are greater than those of government failures, and this can only be determined empirically. *A priori*, there cannot be a valid case either for or against industrial policy across the board.

Nevertheless, it remains to be said that it will be crucial for any government to ensure that its industrial policies are ~~market assisting~~ "rather than ~~market distorting~~". As a general rule, industrial policies that are export-push have a better chance to be market assisting. This is perhaps why most of the ESA economies, through pursuing an export-push strategy, have managed to be higher-performing. Under an export-push strategy, industries are exposed to

international competition, enabling the economy to overcome any significant lack of domestic competitions and any major market imperfection. Firms in these economies can follow the comparative advantage according to international relative prices. Interestingly, the “flying geese” pattern has been a rather vivid way of depicting the respective comparative advantages of the ESA economies within the context of the ESA region, and how the comparative advantage of each economy might or might not evolve.

4.5 SME Development Policy

In this subsection, we examine public policies related to SME development in the ESA region. SMEs have played a highly important role in the economic and social development in postwar ESA. For one thing, being more labor-intensive than large enterprises, SMEs can create more job opportunities with the same amount of investments in an economy. For another, SMEs can help enhance market competition and cultivate entrepreneurship. Lastly, the development of SMEs can play an important and active role in poverty elimination (Yu et al., 2007) and even technological innovation in (Beck et al., 2005). The poverty alleviation role of SMES is looked at in Subsection 4.8. Below, we firstly present a summary of the characteristics of SMEs in the ESA region in respect of employment, wages and productivities. As we will see, in the ESA economies that we look at, SMEs together account for an employment share close to 40% and over. And while their productivities and wages are lower and sometimes significantly lower than those of large enterprises, they nevertheless offer an important source of income for a significant portion of the population, especially those who are poor and unskilled. Secondly, we consider the obstacles facing

SME development in ESA, ranging from credit constraints to constraints to technological innovation, and so on. Thirdly, we provide tentative policy suggestions on how to support SME development in ESA. Finally, we highlight successful policy experiences of Korea (Rep), and Taiwan (China) with supporting their SME development. In much of this subsection, our discussion and analysis will draw heavily on a recent report by the Asian Development Bank (2009) on SME development and challenges in the ESA region.³³

4.5.1. Characteristics of SMEs in ESA

As sometimes defined in the literatures, small, medium and large-sized enterprises are respectively those with numbers of employees between 5 and 49, 50 and 199, and 200 and more. We summarize the characteristics of SMEs in ESA below in respect of their shares of enterprise establishments, their employment shares, and their wages and productivity vis-à-vis those of the large enterprises.

(1) High Shares of SME Establishments in ESA

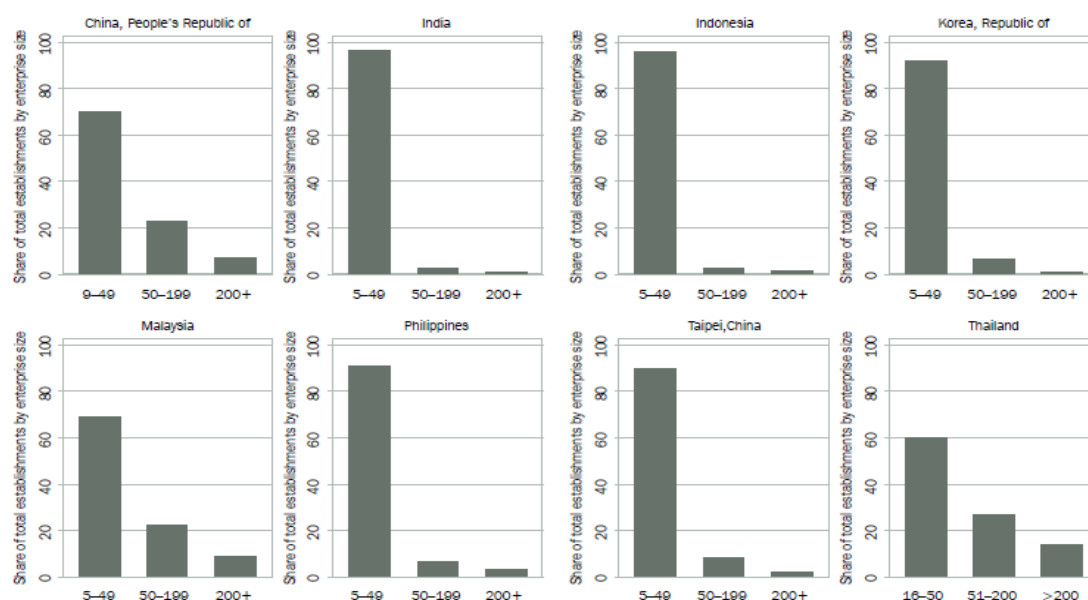
As shown in Figure 4.5.1, a vast majority of enterprise establishments in ESA are SMEs. In China, Malaysia and Thailand, SMEs account for 85-90% of all enterprise establishments, while their share is above 95% in India, Indonesia, South Korea, the Philippines and Taiwan (China).³⁴

³³ The ADB (2009) study amassed an impressive body of data on SMEs in ESA, but even so its analysis could not cover all the economies in the region. What follows below is a short summary of its findings in terms of the aspects of SME development that we have identified, and as such our account below will be limited by the extent of the coverage of that report. Note also that the ADB study does not, in fact, exclusively focus on the ESA region, but the whole of Asia.

³⁴ India is, of course, not an ESA economy. Nevertheless, we shall follow the ADB study in including it in the comparison.

In terms of the size distribution of enterprises across the full range of small to medium and large enterprises, of the 8 economies covered in Figure 4.5.1, two distinct patterns appear to emerge. China, Malaysia and Thailand belong to one type with a significant proportion (over 20%) of medium-sized enterprises, and a lower but nevertheless sizable proportion of large enterprises. In contrast to this more “balanced” type, a much lower proportion of medium and large enterprises exist in the other five economies, with an overwhelming majority (over 90%) of the establishments being small enterprises (which we may call the “skewed” type). These differences in size distribution appear also to have had an important influence on the distribution of employment shares of the three types of enterprises in the economies in question, as we shall see below.

Figure 4.5.1 Share of Establishments by Enterprise Size (%)



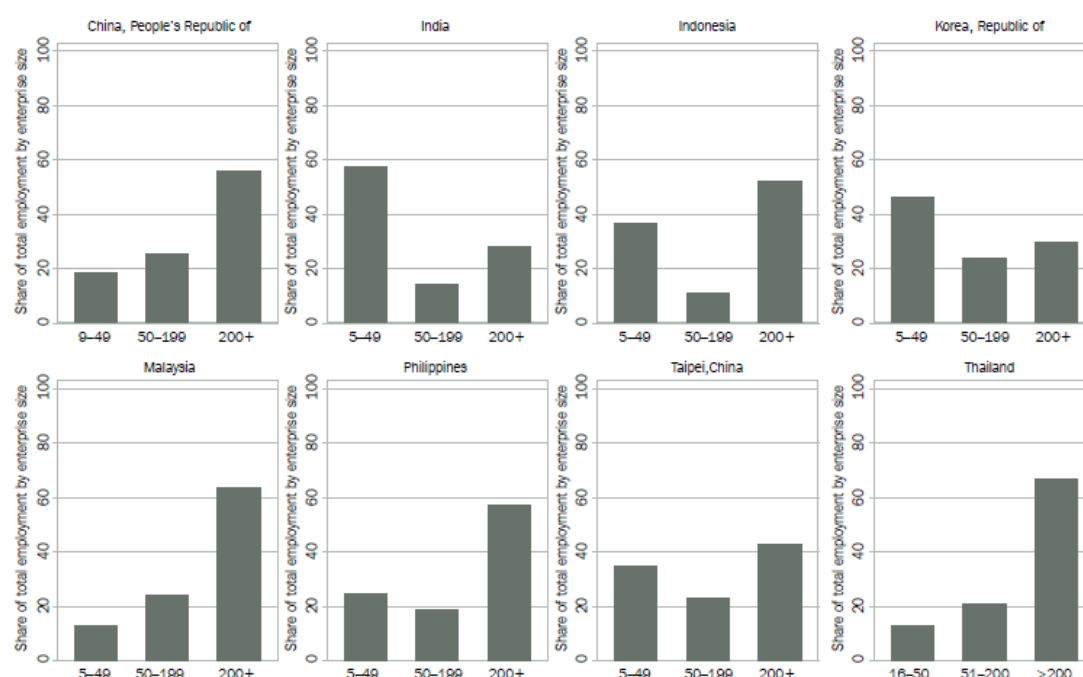
Note: Enterprise size is measured in terms of the number of workers. Years of data for these ESA economies: China PRC(2004), India(2004-2006), Indonesia(2006), Korea, Republic of(2004), Malaysia (2005), Philippines (2005), Taiwan, China (2006), Thailand (2007).

Source: Key Indicator (ADB, 2009)

(2) SMEs in ESA as Powerful Job Creators

As noted, SMEs in ESA economies have played a critical role in generating employment and income opportunities for a large section of the population, especially the poor and the unskilled. Figure 4.5.2 presents findings on shares of employment of the large, medium and small enterprises for the same selected Asian economies. As can be seen, among the ESA economies, South Korea and Taiwan stood out: SMEs' share of employment is close to 60% in Taiwan, and around 70% in South Korea. In Indonesia, the share is lower, but still close to 50%, while in the Philippines it is just above 40%. These are the economies that have had a more ~~skewed~~ "skewed" size distribution in favor of small enterprises. In the other economies with a more ~~balanced~~ "balanced" size distribution (China, Thailand and Malaysia), SMEs' share of employment is correspondingly lower, just above 40% in China, and less than 40% in Malaysia and Thailand.

Figure 4.5.2 Share of Employment by Enterprise Size (%)



Note: As in figure 1.

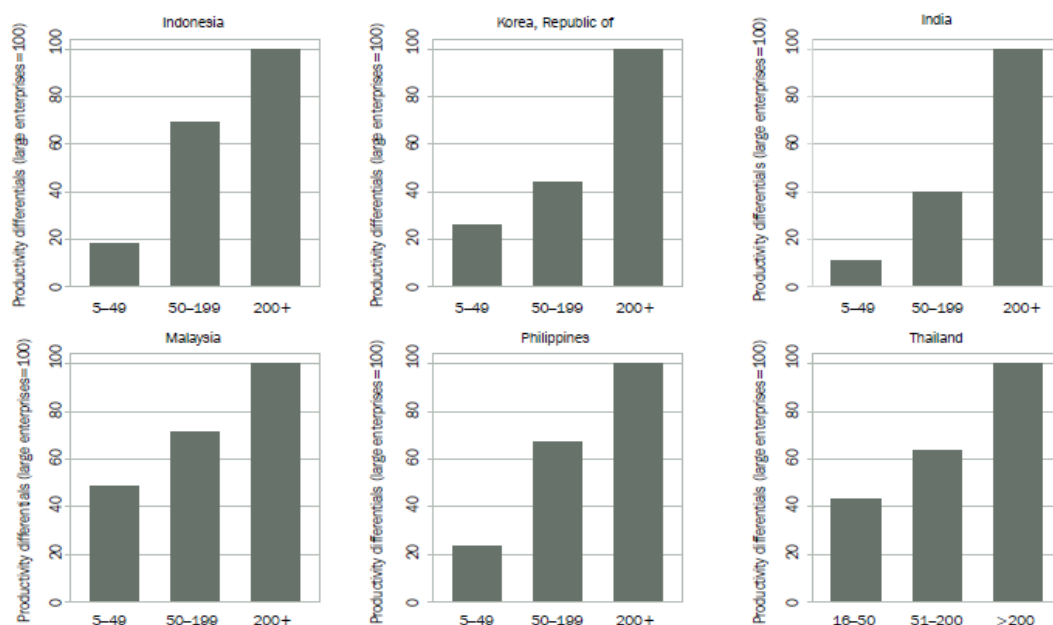
Source: Key Indicator (ADB, 2009)

(3) Lower Productivities of SMEs in ESA

Figure 4.5.3 compares the relative productivity (value added per worker) of small, medium and large enterprises in selected ESA economies. As can be seen, in the two economies with a sizable presence of large and medium enterprises (Malaysia and Thailand), the productivity of small enterprises, expressed as a percentage of that of the large enterprises, is also higher, close to 50% in Malaysia, and just over 40% in Thailand (due to data limitations, the ADB team was not able to perform the same analysis for China). In the other ESA economies, the ratio is just around 20%! There are reasons to believe that this association (greater share of medium and large enterprises and higher relative productivity of small enterprises) is by no means a chance occurrence. One would indeed expect a greater presence of medium and large enterprises to benefit the productivity of small enterprises too. However, in respect of

the productivity of medium enterprises, no clear pattern appears to emerge reflecting the influence of size distribution. Except in South Korea, where the productivity of medium enterprises is only just above 40% of that of the large enterprises, in the other ESA economies the ratio is between 60% and 70%. The breakdown of the influence of size distribution on the productivity of medium enterprises, unlike in the case of small enterprises, is puzzling. While many possible explanations exist, as yet there is no firm evidence to suggest a clear answer.

Figure 4.5.3 Productivity (Value Added per Worker) Differentials by Enterprise Size
(large enterprises = 100)



Note: As in figure 1.

Source: Key Indicator (ADB, 2009)

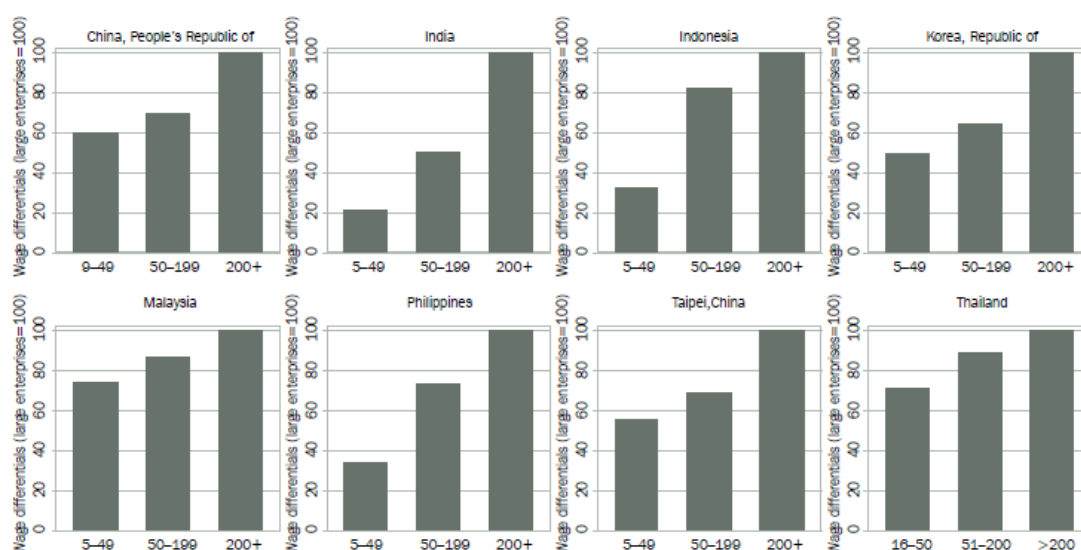
(4) Lower Wages at SMEs in ESA

While wages must be based on the productivity of workers, the relationship need not be

exact. Figure 4.5.4 presents findings from the same ADB study on relative wages as paid by medium and small enterprises as a percentage of those paid by large enterprises in several ESA economies. As can be seen, while the pattern of wage differentials between large, medium and small enterprises in these economies does broadly accord with the pattern of productivity differentials in these economies, the former does deviate in important ways from the latter. In all ESA economies for which there are data, small and medium firms pay higher wages relative to their productivity than large firms. This positive wage “premium” is greatest (around 20 percentage points) for both small and medium enterprises in Thailand, Malaysia and South Korea, but much less in the Philippines and Indonesia. Because of a lack of productivity data for China and Taiwan (China), no similar analysis can be made for these two economies.

The presence of such a positive wage premium for small and medium enterprises is easy to understand. Being more capital intensive, a greater proportion of the proceeds of a large enterprise will have to be used to pay for non-labor factors of production, whereas small and medium enterprises, being less capital intensive, can use a greater proportion of their proceeds to pay the workers.

Figure 4.5.4 Wage Differentials by Enterprise Size (large enterprises = 100)



Note: As in figure 1.

Source: Key Indicator (ADB, 2009)

4.5.2. Obstacles to SME development in ESA

While SMEs have played a particularly important role in ESA economies, their development has been constrained by a range of factors. According to a recent study by Tambunan (2008), many kinds of constraints limit SME development, but the most common ones are those related to finance, and technology and skill (Table 4.5.1).

Table 4.5.1: Constraints Facing SMEs in Asian Developing Economies

Country	Raw materials	Marketing	Finance	Energy *	Information	Technology & skill	Infrastructure	Tax	Inflation	Market environment **	Labour issues
Indonesia	✓	✓	✓	✓		✓					
Philippines		✓	✓		✓	✓				✓	
Viet Nam			✓			✓	✓				
Cambodia			✓	✓		✓				✓	
Lao PDR	✓		✓					✓	✓		
Thailand	✓	✓	✓			✓					
Malaysia	✓		✓		✓	✓					
Brunei Darussalam		✓	✓		✓	✓					
PRC		✓	✓			✓	✓				

Notes: * includes electricity; ** includes regulations, restrictions, legal framework, law and order, and discriminatory policies in favor of large enterprises and multinational corporations.

Source: Tambunan (2008).

(1) Finance Constraints

Development of SMEs depends on a number of factors, of which access to finance has been an especially important bottleneck in ESA and, indeed, in other economies as well. SMEs are more likely to encounter finance constraints than large enterprises. Compared with large enterprises, SMEs are generally characterized by poor transparency of information (because of less stringent bookkeeping standards, etc.). This limits their ability to raise funds through direct financing. When SMEs want to obtain indirect financing, such as loans from banks, asymmetric information and imperfect contract enforcement associated with SMEs make loan assessment, supervision and reclamation costly for creditors. Inadequate collaterals of most SMEs increase the risks of default. Thus, the banks do not tend to lend to SMEs.

The character of an economy's financial structure has an impact on the financing of SMEs (Liu and Yu, 2008). In some economies of ESA (such as PRC), the bank sector is dominated by a few large state-owned commercial banks. Such a banking sector structure could reduce SMEs' ability to obtain indirect financing, and hence affect their development, for several reasons. First, for larger banks, lending to SMEs tends to be more costly than lending to large enterprises because loans to SMEs, which are usually in smaller sums, carry relatively higher average transactions costs. Therefore, these banks are usually reluctant to lend to SMEs. Small banks, in contrast, because of their limited lending capacity and for risk diversification, would not be in a position to extend loans to large enterprises, but are able to lend to SMEs. Consequently a banking structure dominated by large bank would be

unfavorable for SME financing. Second, funds often tend to flow more easily from economically backward to more developed regions, and from rural to urban areas through large banks than through small banks. Therefore, a banking sector dominated by big banks could well hamper SMEs' access to credit in poorer localities. Third, a higher level of market concentration could reduce SMEs' ability to bargain for a lower cost of borrowing. Financial institutions with strong market power could force SMEs to pay very high interest rates for any borrowing they obtain. Fourth, in the PRC, state-owned banks are favored in the financial market, while most SMEs are privately owned. Such a mismatch of property rights between banks and borrowing enterprises has been an added factor reducing the flow of financial resources to SMEs: state-owned banks could face political risks when lending to SMEs, particularly when such lending results in bad debt, whereupon banks could be blamed for the loss of state assets, making them reluctant to lend to SMEs. In contrast, large enterprises tend to be state-owned, and loan risks with them would not generally carry similar political risks (Jiang 1998).

Aside from a lack of access to financing, such funding unavailability also tends to strike different enterprises with difference force. Thus SMEs are generally much more vulnerable to the impact of financing constraints compared with large enterprises, in that the same constraints can inflict disproportionately greater harm on them. A study by Ayyagari et al. (2006) finds that small enterprises facing credit constraints on average suffer a 10 percentage points growth loss compared with those not facing such constraints, while the loss is only 6 percentage points in the case of large enterprises.

(2) Constraints in Technological Innovations

As a result of severe credit constraints, it becomes less likely for SMEs to invest in risky technological innovations than large enterprises. Besides, while the daunting fixed costs of technological innovations may be afforded by large enterprises that enjoy massive production volumes, the same is not true of SMEs. Cost considerations alone may discourage many SMEs from undertaking technological innovations. Indeed, SMEs in ESA fall far behind large enterprises in technological innovation, which is clearly illustrated by the figures given in Table 4.5.2. As can be seen, the percentages of SMEs developing a new product line, upgrading an existing product line, or indeed introducing a new technology, are much lower than those of large enterprises.

Table 4.5.2: East and Southeast Asia Enterprises Undertaking Innovations (%)

	Small	Medium	Large
Developed a major new product line	32.40%	45.60%	56.90%
Upgraded an existing product line	53.40%	63.30%	72.20%
Introduced new technology that has substantially changed the way that the main product is produced	27.00%	41.30%	54.30%

Notes: East and Southeast Asia in this case includes Cambodia, People's Republic of China, Indonesia, Republic of Korea, Lao PDR, Malaysia, Philippines, Thailand, and Viet Nam.

Source: Key Indicator (ADB, 2009)

(3) Poor Infrastructure

For one thing, poor infrastructure can cause and/or reinforce market segmentation that may in turn impede the development of SMEs. For instance, some SMEs may be confined, for lack of good roads and transportation facilities, to their immediate “local” markets, thereby

preventing their expansion. For another, backward infrastructures can well prevent SMEs from importing and adopting advanced production technologies. For example, the less reliable network facilities may make it difficult for SMEs to take advantage of certain internet-based advanced technologies. According to recent World Business Environment Survey data (surveys carried out between 2003 and 2006), backward infrastructures in Laos have exerted a great negative impact on the development of SMEs in the country (ADB, 2009).

(4) Other factors

Other factors limiting the development of SMEs in ESA include market segmentation and the externality of training. As a result of low per capita incomes in many developing economies in ESA, most of their market demands concern low-end commodities. That has led to a concentration of SMEs around the bottom rungs of the technological ladder and has discouraged technological improvements. Additionally, experienced workers trained by one SME may be head-hunted by another with better offers, when average wages and benefits are poor. Externalities such as this make most SMEs reluctant to invest in training their workers, severely preventing their productivity improvements. A vicious circle seems to be formed involving low wages and benefits, low training, low productivity, and low wages and benefits. There are still other more idiosyncratic constraints to a SME's development but we shall not further list them here.

4.5.3 Policy Implications for SME Support in ESA

The above analysis reveals important obstacles to the development of SMEs, in ESA but also in other parts of the world. Policies are needed to overcome them. The following discussion of possible policy measures in that direction shall relate to credit and skill and technology constraints only, constraints that are widely present in ESA economies. Where ESA economies (especially some of them) have performed better in promoting SME development, compared with other economies in the world, is how they applied various measures to overcome these constraints.

(1) Credit Support

Many economies in ESA have taken measures to deal with credit constraints that heavily plagued SME development. The most common type is the Directed Credit Programs (DCPs). These programs usually take two approaches: to secure a certain amount of credit line to SMEs, and/or to issue SMEs loans at subsidized rates. The Credit for People's Business program in Indonesia and the SME Development Fund program in China are two examples that support SMEs by extending directed credit to them.

DCPs have, however, also suffered from problems of high costs and that state-backed SMEs are more likely to obtain credit support. Before deciding to provide credit to a SME, the government agency in charge will need to collect relevant information about the enterprise, but this can be difficult and costly, compared with collecting the same information about a large enterprise. Besides, using administrative means rather than the market mechanism to

allocate available funds may well cause inefficiency and, indeed, induce rent-seeking behavior. Moreover, the program may particularly favor state-backed SMEs as these enterprises are likely to enjoy an established, good relationship with the government agency (even if there is no other, perhaps ideological, reason to favor them). In many economies, these drawbacks of the program have often resulted in those really needy SMEs not actually getting the loans, while those not in real need getting them. Indeed, according to one study (Aldaba, 2008), in the Philippines much of the DCP funds did not even go to SME but to large enterprises that deliberately understate their assets to be classified as SMEs.

In addition to directed credit programs, the government can also increase access to credit through following policies. First, in those countries where the banking sector is dominated by a few large state-owned commercial banks, it is important to actively develop small and medium-sized financial institutions such as small regional banks, including microfinance institutions; encourage financial market competition; and allow disadvantaged groups to participate in the financial markets (Liu and Yu, 2008).

Secondly, governments ought to provide better legal protection for creditor's rights that are the foundation of a well-functioning financial system. The opportunities to obtain credits will increase only if the lender's rights to reclaim their principals and interest are protected. Given the importance of collaterals to reduce information asymmetry in the credit market, developing credit collaterals may help SMEs obtain greater financing supports. On the other hand, the role of collaterals comes into full play only when property rights are under strict

protection. That requires greater efforts by governments to improve the legal systems.

Thirdly, Credit Guarantee Schemes can also provide important credit supports. The government can encourage large enterprises that have business relations with and influence on SMEs to provide credit guarantees for them. Because Credit Guarantee Schemes neither require matching collaterals from SMEs nor much financial commitment from the government, they can be an effective credit support measure for SMEs.

Finally, Credit Registry and Credit Scoring can substantially reduce information asymmetry in credit markets, thereby relieving credit constraints on SMEs. On the side of creditors, Credit Registry incurs lower costs than otherwise in collecting credit histories of SMEs, thereby raising the willingness of creditors to issue loans. On the side of SMEs, a scheme whereby default records can have negative impacts on the success of one's future credit applications can urge a firm to make timely repayments according to contract. Thus governments should establish institutions that administer Credit Registry and Credit Scoring as one way of improving the accessibility of credit for SMEs.

(2) Technology Support

A range of public policies have been tried in many ESA economies aimed to overcome the relatively weak technology capabilities of SMEs and to raise productivity. They include provisions of various technology-related credit subsidies, technology extension services, and technical training to SMEs. South Korea, Singapore and Taiwan (China) are all models in

this respect. In the 1970s, South Korea began to support SMEs through industrial policies. The Subcontracting Promotion Act of 1975 encouraged large enterprises to transfer advanced production equipments to SMEs. The technology support given by the South Korean government was aimed not only to boost productivity, but also to provide incentives for SMEs to improve their technology over time. SMEs in South Korea, however, needed to submit technology improvement plans to relevant government departments before hand. Only if their plans were approved, could the enterprises in question receive long-term credit and technology support. In Singapore, a Vocational and Industrial Training Board was founded in 1979, with the mission to provide SME employees with technical training.

When an SME becomes a supplier of materials or accessories for a large enterprise, the large enterprise will have the incentives to provide it with technical support in production and workers' training. Thus a government may attempt to improve the level of production technology of SMEs by encouraging them to develop down-stream relations with large enterprises. Such relations are ubiquitous across ESA. For example, in the auto industry in Thailand, there are nearly 1800 SMEs supplying various accessories to 14 large auto enterprises. Two government organizations in Thailand are charged with the responsibility to facilitate links between SMEs and large enterprises. They are, namely, the Bureau of Supporting Industries Development (BSID), and the Board of Investment (BOI). One agency under BOI, the Unit for Industrial Linkage Development (BUILD), has been principally responsible for developing linkages between local SMEs and large enterprises (especially multinational corporations). It actively advertises domestic SMEs to international large

enterprises and helps them to develop linkages by organizing exhibitions of products by local SMEs and maintaining databases on them.

4.5.4 Successful SME Development Policies in South Korea and Taiwan (China)

(1) South Korea

Between the immediate postwar years and the 1970s, large enterprises had been given importance by the South Korean government. Since the late 1970s, however, both the share of employment and the share of value added of SMEs in the national economy have seen consistent increase. In 2004, over 95% of all the business establishments in South Korea were SMEs that provided nearly 70% of the employment in the country. SMEs have become a solid foundation of the South Korean economy and society. On the whole, the South Korean government has been highly successful in promoting the development of SMEs. Its experience can be generalized in terms of the following six areas.

First, the South Korea government established in 1996 a special government agency, the Small Business Administration (SBA), under the Ministry of Trade and Industry, to be in charge of formulating and implementing policies to promote the development of SMEs. It has since played an important role in furthering the development of SMEs in South Korea. Second, a special financial institution was founded in the 1980s to provide financial services to SMEs, which significantly relieved credit constraints on SMEs. In addition, since the mid-1970s, credit support for SMEs has been linked to technological improvements. Those SMEs applying for credit support are required to provide technology improvement plans.

They are eligible for long-term credit support only if their plans are approved. Third, the South Korean government actively helped SMEs with human resource training. Each year it devotes a considerable amount of resources to training SME workers in using advanced production technology. Current technical on-the-job training programs for SMEs have over 30000 industrial trainees at over 6500 SME manufacturers, greatly contributing to the alleviation of skilled worker shortages (Gregory, 2002). Indeed, it sometimes even went beyond assisting on-the-job training of existing SME employees, but provided direct human resources assistance. Thus to help ease skilled human resource shortages facing SMEs in the late 1990s, a total of 42850 industrial technicians were assigned to nearly 10000 SMEs in 1998. Fourth, the government restructured the industries by restricting the monopolistic power of large enterprises, so as to assist the development of SMEs. It assisted SMEs in improving their management and operations, expanding markets and enhancing competitiveness. Fifth, not only did the government actively seek to promote the competitiveness of SMEs in the domestic markets, it also actively sought to raise their competitiveness abroad. Thus, following the East Asian Financial Crisis in 1997, the government sought to assist SMEs in developing their E-commerce capabilities so as to raise their international exposure and competitiveness. This involved research and information exchange, promoting online selling, and allocating resources to developing products and services that are fit for on-line selling. The Ministry of Commerce, Industry and Energy (MOCIE) was subsequently entrusted with the task of formulating, passing and enforcing relevant laws and policies, which included the passing of the Electronic Transaction Act in July 1999, adopting policies aimed to encourage collaboration between SMEs and large

businesses, establishing an infrastructure for e-commerce, and strengthening international cooperation in e-commerce. Lastly, the South Korean government also encouraged SMEs to seek links with large enterprises through which SMEs could increase their market shares and gain greater technology support. As early as in 1962, it established the Korea Trade Promotion Corporation (KOTRA) to promote networking and trade cooperation among Korean businesses (including SMEs). To assist SMEs in exploring markets globally, KOTRA has created a business matchmaking program that links Korean SMEs with potential foreign partners. These policies and measures similarly played an important role in promoting the development of SMEs in South Korea.

(2) Taiwan

Development of SMEs has also been given great importance in Taiwan (China) in its economic development. SMEs have been supported by a variety of policies that can be summarized as follows:

First, SMEs in Taiwan have been served by a comprehensive support system. The government body Medium and Small Business Administration was founded in 1981 as the central agency for services toward SMEs. In addition, SMEs may obtain credit support from Small and Medium Business Credit Guarantee Fund and Small Business Integrated Assistance Center, and technology support from China Productivity Center (CPC) and Industrial Technology Research Institute (ITRI), respectively. These agencies jointly provide a wide range of credit and technology support to SMEs. Second, Taiwan (China) instituted a

special Center-Satellite Factory Promotion Program even in the early years, in order to promote production technologies of SMEs. This program involved vendor assistance to productivity raising efforts of an enterprise, and a rational division of tasks among participating enterprises. By 1989 there were 60 “networks” of collaborating enterprises with 1,186 satellite factories in operation, mainly in electronics. Third, a commercial bank to provide exclusive credit support to SMEs was founded in Taiwan (China). The Medium and Small Enterprise Bank came into operation in July 1976, with the mission to provide SMEs with medium and long-term credit, to assist them in improving production equipments, financial and administrative management, and marketing strategies. In addition, governmental authorities also regulated a certain portion of the total loans by commercial banks to be issued to SMEs. They also established a variety of development funds to provide financial guarantees to qualified SMEs. Fourth, being the second largest production base for computer peripherals in the world, the government of Taiwan (China) actively sought to maintain and reinforce this position by assisting SMEs in the IT industry. Thus following the outbreak of the East Asian Financial Crisis in 1997, the government, in recognition of the importance of SMEs’ technological upgrading, and the fact that B2B e-commerce is an important tool of this, launched the Program of Industry Associations’ E-Commerce Construction and Applications for SMEs. The program included assisting 2000 SMEs in establishing data bases, introducing an enterprise planning software, and encouraging effective use of e-commerce by SMEs (Ngui, 2002). Fifthly, the government actively encouraged SMEs to develop collaborative networks among themselves, through which they could share technology, production and marketing information, and resources to achieve

scale economies.

4.6 Education Policy

4.6.1 Market Failure, Inequality Trap and Educational Policy

Education represents perhaps the most important means of human capital accumulation. An individual's education level is often the key determinant of his/her income level, and for a country, the overall education level of its residents is an important driving force of economic growth. However, the significant role education plays in promoting economic growth and other dimensions of human development cannot be a good reason for the government to intervene in education through public policies. From an economic viewpoint, human capital investment in education is a matter of personal decision. If private returns to education equal the social returns, then the individual (or family) will achieve a socially optimal level of investment in education. However, market failures in education, as well as the demands of equity, make government intervention in education necessary. In what follows, we explore the rationale for government's intervention in the education market more closely, from both the efficiency and equity points of view.

Market Failures and Education Policy

To begin with, education has an externality which causes the returns to the person investing in education to be less than its social returns. Education not only helps to raise the income level of the educated but also, through promoting technological innovation and dissemination, boost overall economic development, thereby benefiting other individuals and families.

Similarly, the enhancement of a person's educational level can also promote the social welfare in other non-economic fields. For example, education can improve a person's health awareness and enable him to have more health information, thereby reducing the possibility of, say, and infectious diseases. Individuals and families will make investment decisions on education solely on the basis of private returns, ignoring other social benefits. Thus, presence of positive externality makes private investment in education below its socially optimal level.

Secondly, imperfections in credit markets also tend to undermine individuals' and families' ability to invest in education, while the lack of adequate information and uncertainty about future returns further decrease their willingness to invest. As an influential World Bank (1993, p.197) report points out: “The difficulty of borrowing to send children to school affects the poor especially. Creditors cannot easily stake a future claim on embodied human capital (as they can for other types of collateral). Even poor families, who might be willing to borrow, because schooling has high private returns, usually cannot. The poor are also likely to be less aware of future returns on education—and therefore invest less in their children’s schooling than would make sense even from a strictly private point of view.”

It is noteworthy that, in addition to the above-mentioned market failures, the lack of social security will further inhibit private investment in education by some individuals and families, and this phenomenon is quite common in developing economies. As another more recent report by ADB (2007b, p.84) observes, for those families lacking social security, “[r]isk

aversion and vulnerability to income shocks can curtail other kinds of investments with potentially high returns. Vulnerable households tend to discount the future highly, and investment decisions of a longer-term nature are likely to be negatively affected by this discounting. Households sometimes hesitate to invest in the education of their children, or may pull them out of school as a result of economic shocks. This can have a detrimental impact on the economy in the long run where human capital investments are suboptimal.”

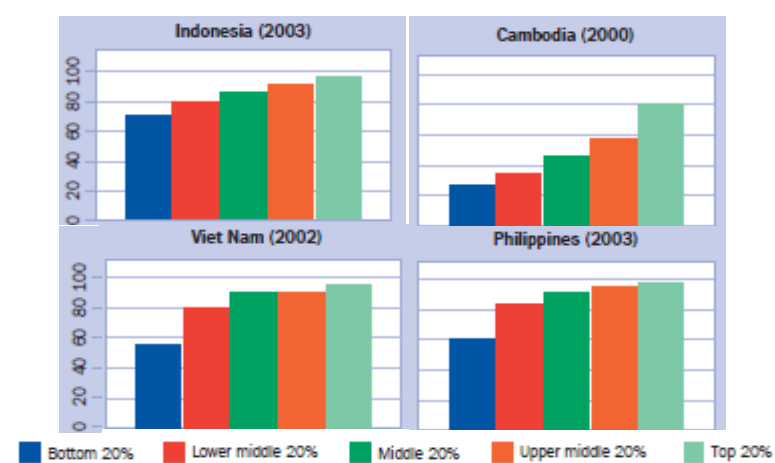
“Inequality Trap” and Public Policy on Education

From the equity point of view, education is about a person’s basic capability. Equal access to education can help ensure that individuals will be able to take advantage of economic opportunities provided on a level-playing field. However, due to the mutual feedback loops between education and income, income inequality may likely be translated into inequality in education, which in turn can further exacerbate income inequality, thus creating a vicious circle, known as the "inequality trap" (World Bank, 2005). Government bears a responsibility for helping people in this trap to escape from it through public policy.

The mutual feedback loop between education and income has been confirmed by many studies. In many developing economies, children's access to education is often closely related to their family’s income. For low-income families, the previously mentioned imperfections of the credit market, lack of adequate information and uncertainty about the returns, and lack of social security, can all conspire to inhibit their investment in education for their children. Even if a free compulsory education system is introduced, the economic

opportunity cost of receiving education can cause children from poor families easily to drop out. As can be seen from Figure 4.6.1, domestic economic conditions causes males' completion rates of the fifth grade to differ significantly in four ESA economies, Indonesia, Cambodia, Vietnam and the Philippines.

Figure 4.6.1 Proportions of Males Who Have Completed Fifth Grade by Wealth Quintiles, Various Years (% of Males in the Household Aged 15–49 Who Have Completed Fifth Grade)

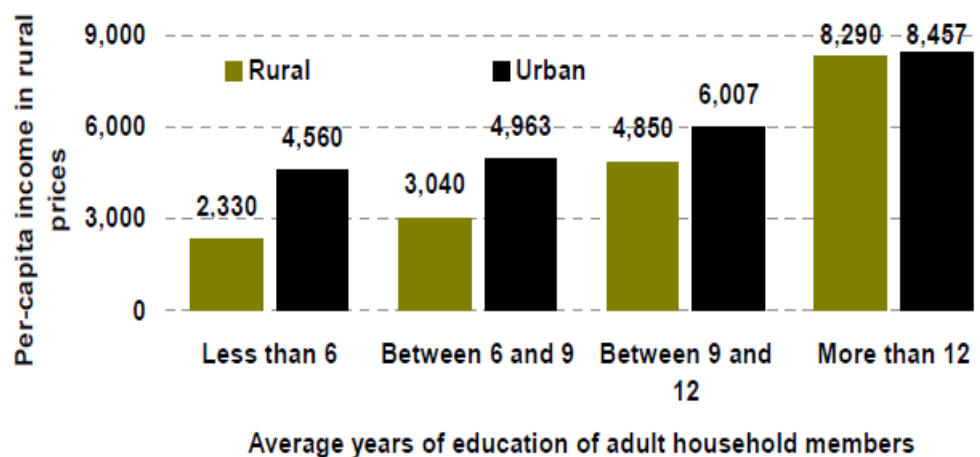


Source: ADB, Key Indicators 2007b, p.5

The effect of a person's education on his/her income is even more obvious. According to a recent World Bank (2009b) study, in China differences in human capital endowments associated with differences in education attainment are the most important explanatory factor behind each of the three major components of income inequality: between urban and rural areas, within urban areas and within rural areas. Figure 4.6.2 shows income differences between individuals of different educational status. In urban and rural areas, respectively, income for people with the highest educational attainment (more than 12 years) is on average 1.85 and 3.56 times higher than for people with the lowest educational attainment (less than

6 years). In another study by Sicular et al. (2007), a decomposition of the rural-urban income differences in 1995 and in 2002 using a nationally representative sample reveals that differences in the educational attainment of a household's workers explains 25% of the mean difference in rural-urban incomes in both years.

**Figure 4.6.2 Differences in Per-Capita Incomes by Educational Achievement
In Rural and Urban China, 2003 (RMB)**



Source: World Bank (2009b).

In sum, therefore, income inequalities combined with credit market failures and governmental failures in service delivery translate into inequalities in human capital endowments. In an environment where incomes increasingly reflect the level of human capital endowments, these inequalities in turn reproduce income inequalities and propagate their inter-generational persistence, resulting in an “inequality trap” (World Bank, 2005).

Once caught in it, things can only get worse over time for those in it.³⁵ In order to prevent

³⁵ In terms of our two sector labor market model developed in Section 3.4.1 (for skilled and unskilled labor), the idea of an inequality trap can be seen as a case where unskilled labor's income is so depressed that workers cannot make adequate private investment in their (or their children's) education. There is no possibility to borrow to finance such investment, and there is also no government support for them to undertake such education. That is, these workers are 'trapped' to the S_A supply curve, at a wage equal to W_{AR} , which is too low for them to save and to make private investment in education, even if they want to.

people from falling into this trap, government should implement public policies to ensure basic education equity, thereby ensuring that everyone can have an equal chance to take advantage of the economic opportunities provided.

4.6.2 Public Expenditure on Education in ESA Economies

As mentioned in Section 2.4, government should overcome existing market failures in education through public policy and ensure basic educational equity. Generally speaking, the main content of such educational policies should include the two interrelated aspects: (1) government raises funds for education through taxation or other means; (2) government provides direct educational services through public schools.

Over the past 20 years, the enormous progress made by the ESA economies in universalizing basic education is a direct result of their public support for education. Firstly, the average per pupil public spending on education in the majority of ESA economies increased significantly in the past 20 years (see Figure 4.6.3). Secondly, public schools occupy a dominant position in basic education in the ESA economies. According to data released by World Bank (2009b), over the past 20 years, pupils enrolled in public schools for basic education account for over 80% of total enrollment, which reflects the predominant role of public schools in the development of basic education in the ESA economies. Because public schools are mainly financed through public finance, government investment in education has therefore been central to the expansion of basic education. In the following part, we will examine the role of government finance in education from two perspectives, the structural factors and

institutional factors.

**Table 4.6.1 per Pupil Public Expenditure on Primary and Secondary Education
(PPP USD, 2000)**

	Primary		Secondary	
	1992	2005	1992	2005
Japan	6457	8655	6366	8724
Korea, Rep.	989	2321	944	2898
Lao PDR	12	41	61	21
Malaysia	352	591 ^b	573	857 ^b
Thailand	275 ^a	347 ^b	233 ^a	382 ^b

a. 1993 data; b: 2004 data

Source: Computed from Edstats database, World Bank.

(1) Impact of Structural Factors

In the past 20 years, the two most important structural factors on public investment in education in the ESA economies are the rapid economic growth and slowdowns in population growth. The former has greatly expanded the fiscal capacity of the government, thereby increasing its resources available for investment in education. The latter has slowed down the growth rate of the number of school-age children (or even causes a decline in the number), thereby raising the level of public investment per student for the same level of total educational expenditure.

A. Rapid Economic Growth

In fact, economic growth in the ESA economies has helped to promote the development of education in two aspects of demand and supply. In the aspect of demand, rapid growth created jobs, increased real wages, and raised the rate of return on labor force skills, thereby

increasing the demand for education (King, Anderson, and Wang, 1993). In the aspect of supply, rapid economic growth enhanced the government's financial capacity, thereby enabling the government to allocate more financial resources to education and increase the supply of education. For example, in the past 30 years, China's average economic growth rate has reached 9.8%, which means that at the same proportion of GDP publicly invested in education, public expenditure on education in the country will double about every seven years. Experiences from other economies also indicate a positive correlation between economic development and investment in education. Figure 4.6.3 (left panel) presents evidence that, internationally, economies with a higher per capita GDP also tend to have a proportionally higher per capita public expenditure on education.

A noteworthy phenomenon is that in the world, economies with a higher level of economic development often have a higher proportion of GDP spent on education (Figure 4.6.3, right panel). The same phenomenon appears to have also arisen among the ESA economies. As can be seen from Table 4.6.2, in economies with a high level of human development such as Japan, Korea, Singapore and Hong Kong, the ratio of public expenditure on education to GDP is generally higher than in those economies with a medium level of human development. It is also noteworthy that the ratio in those economies with a high level of human development has by and large been increasing since 1990s, but it has been decreasing instead in those with a medium level of human development (except for Thailand), thereby causing the gap in this indicator between the two groups of economies to be further widened.

Figure 4.6.3 per Capita Government Expenditure on Education, Government Expenditure as a Proportion of GDP, and Per Capita Income



Source: ADB, Key Indicators 2006, p.16-17

Table 4.6.2 Public Expenditure on Education

HDI Rank	Public Expenditure on Education As % of GDP			Public Expenditure on Education As % of Total Government Expenditure		
	1991	1999-2001	2002-2005	1991	1999-2001	2002-2005
High HD						
Japan	..	3.6	3.6	..	10.5	9.8
Hong Kong, China	2.8	4.1	4.2	17.4	21.9	23
Singapore	3.1	3.1 ^a	3.7	18.2		..
Korea, Rep	3.8	3.6	4.6	25.6	17.4	16.5
Malaysia	5.1	7.9	6.2	18	20	25.2
Medium HD						
Thailand	3.1	5	4.2	20	31	25
China	2.2	1.9 ^b	1.9	12.7		13
Viet Nam	1.8		5.3 ^c	9.7		
Indonesia	1	1.3	0.9		9.8	9
Lao PDR		2.8	2.3		11	11.7
Cambodia		2	1.9		15.3	14.6
Myanmar		0.6 ^d	1.3			18.1

Notes: a. Data 2001 <http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx>

b. Data 1999 <http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx>

c. Data 2008 <http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx>

d. Data 2000 <http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx>

Data Sources: HDR 2004 p.172-174 HDR2007/2008

B. Slowdowns in Population Growth

Population growth rates in the ESA economies has been consistently falling in the past few decades, one significant impact of which is to slow down the increase in the number of school-age children. From 1990 to 2009, the proportion of population aged 0 to 14 to total population in almost all ESA economies except Timor-Leste has fallen, while in economies like China, South Korea, Thailand and Japan, the absolute number of children aged 0 to 14 has actually been declining quite substantially (see Table 4.6.3).

Table 4.6.3 Size of School-Age Population

	% of Total			Total (Million)		
	1990	2009	Change	1990	2009	Change
Cambodia	44.6%	34.3%	-10.4%	4.3	5.1	0.8
China	28.4%	19.9%	-8.5%	322.2	267.8	-54.4
Hong Kong, China	21.5%	13.7%	-7.8%	1.2	1.0	-0.2
Indonesia	35.8%	27.0%	-8.8%	63.8	64.0	0.2
Japan	18.3%	13.5%	-4.8%	22.6	17.2	-5.4
Korea, Dem. Rep.	26.2%	21.8%	-4.3%	5.3	5.2	0.0
Korea, Rep.	25.6%	16.4%	-9.2%	11.0	8.0	-3.0
Lao PDR	43.7%	36.4%	-7.2%	1.8	2.2	0.4
Macao, China	25.7%	12.9%	-12.7%	0.1	0.1	0.0
Malaysia	37.4%	29.6%	-7.8%	6.8	8.1	1.4
Mongolia	41.7%	25.8%	-15.8%	0.9	0.7	-0.2
Myanmar	36.6%	25.4%	-11.2%	14.7	12.6	-2.1
Philippines	40.7%	34.7%	-6.0%	25.4	31.7	6.3
Singapore	21.5%	16.3%	-5.2%	0.7	0.7	0.1
Thailand	30.0%	20.8%	-9.2%	17.0	13.5	-3.6
Timor-Leste	39.9%	44.8%	4.9%	0.3	0.6	0.3
Vietnam	39.4%	26.8%	-12.6%	26.1	24.1	-2.0

Data Source: World Bank, Edstats Database.

The slow growth of or even a decline in the number of school-age children helps a government to increase its per pupil level of expenditure on education. If the number of school-age children increases rapidly, then the government must increase its expenditure on education just in order to maintain the original enrollment rate. In contrast, in economies with a slower growth rate of or even a decline in the number of school-age children, the increase in the education expenditure can be used to further raise the enrollment rate, or improve the education quality, or the government can lower the level of expenditure on education while maintaining the current rate of enrollment and level of quality.

(2) Impact of Institutional Changes on Investment in Education: The Case of China

Subject to the influence of these structural factors, the ESA economies have made remarkable achievements in basic education through investment in education. At the institutional level, the ESA economies, especially the developing ones, still have many deficiencies with the design of fiscal policy, the most important of which is the excessive fiscal decentralization in respect of education, which has led to a high level of educational inequity between different income groups and different regions.

Decentralization in educational fiscal expenditure is one of the most important aspects of decentralization in educational policy. In theory, decentralization in educational fiscal expenditure can help improve the efficiency of the use of the resources, since the local governments are expected to have a better understanding of the local economic, cultural and educational situations, and are in a better position to ensure a more targeted use of financial resources. To varying degrees, Asian developing economies have adopted some elements of fiscal decentralization in respect of education, but the design and implementation of the policy have been aimed to a large extent to alleviate the financial burden on central governments rather than to improve the efficiency of fund use (Behrman et al, 2003).

The reform of the funding system for compulsory education in China since the 1980s is a typical example of educational decentralization reform. Results of this reform show that excessive decentralization can lead to serious educational inequity problems among different income groups and different regions within the country.

China's compulsory education reform was gradually conducted in the context of fiscal decentralization. In 1985, the central government decided to pass on the responsibility for developing basic education to local governments. However, the subsequent adoption of a tax sharing system in 1994, which involved a centralization of huge amounts of fiscal resources to the central and provincial governments, while leaving many spending responsibilities to be borne by local (county and township) governments, has resulted in huge disparities in public educational expenditure between counties, regions, and rural and urban districts (UNDP, 2007/2008).

A study conducted by China Development Research Center of the State Council (2005) shows that in the period of 1994 to 2001, approximately 80% of China's compulsory education expenditures were borne by township governments, 9% by county governments, and only less than 2% by the central government. Due to serious limitations of local fiscal resources, some of the burden for rural compulsory education was further passed on to the farmers. According to a recent World Bank study, “It is estimated that between 1997 and 2000, about 50% of the operational fees for basic education was paid by the farmers. In the survey of 3037 villages undertaken in connection with this report, primary school fees per year for a fifth grade student averaged 260 Yuan in 2004, while fees per student per year for middle school averaged 442 Yuan, or about 40% and 70%, respectively, of the official poverty line.”³⁶ As farmers took on a huge share of the compulsory education cost, family

³⁶ World Bank, 2009, China from Poor Areas to Poor People: China's Evolving Poverty Reduction Agenda. p. 37

economic conditions became an important determinant of rural residents' educational attainment, whereby income inequalities translate into inequities in educational attainment, causing poor rural households to be stuck in the previously mentioned "inequality trap".

A further consequence of local governments bearing the responsibility for financing compulsory education is that regional financial investment in education depends to a large extent on local economic conditions and fiscal capacities of local governments. As a result, regional differences in the level of economic development translate into regional differences in fiscal investment in education, resulting in serious educational inequities between different regions.

The case of China's public educational finance decentralization shows that whether decentralization can succeed closely depends on a country's overall fiscal system. If a country's overall fiscal system could not clearly divide the responsibilities for financing educational expenditures between different levels of government, or fully guarantee the availability of resources to local governments, then decentralization of public educational finance may fail to ensure that educational establishments receive adequate amounts of funding. The lesson for other ESA economies is that they should take full account of the conditions and limitations of their overall fiscal system, and local governments' fiscal capacities, in the implementation of their respective educational decentralization policies, if decentralization is really to improve the efficiency of fund use rather than being used as a way of easing the financial burden on higher-level governments.

4.6.3 Education Policies Conducive to Inclusive Growth

Though rapid economic development enabled the ESA economies to greatly enhance their ability to invest in education, most of them are nevertheless still developing economies, and their governments still lack the fiscal resources to support education, compared with the developed economies. Therefore, how to maximize the returns from such limited resources is a challenge for the ESA economies in the formulation of their public education policies. This report argues that educational policies in developing economies should focus on achieving the goal of inclusive growth, by ensuring that everyone enjoys equal access to basic education, thereby enabling even the most disadvantaged in society to be able to share economic opportunities and escape poverty. In the following part, we put forward some specific proposal applicable to all ESA economies.

(1) Focus Public Resources on Developing Basic Education

In an education system where public resources are concentrated on higher education, basic education is likely to lack the adequate support of public resources, and consequently resort to charging pupils. If this fee is too high, pupils from low-income families may well be excluded from basic education, let alone having any chance to receive higher education. A public educational finance system that favors spending on higher education discriminates against low-income families. According to an early World Bank (1993), in all developing regions, the probability of going to university is markedly higher for secondary school graduates from high- than from low-income families. If this is true, then in a public education finance system that favors spending on higher education, those who are able to

enjoy financial support tend, in fact, to be students from high-income families. It will be difficult for students from low-income families to enter university, and indeed even to receive the most basic education. On the other hand, in an education system where public resources are concentrated on basic education, the government could provide free or near-free basic education to all school-aged children, including children from poor families. This will not only promote educational equity, but in the long run also reduce income inequality.³⁷

(2) Promote Private Investment in Higher Education through Student Loans

Although public investment in basic education is an educational policy that will benefit the poor, in most ESA economies today, its role of promoting educational equity and contributing to inclusive growth is being diminished. Due to the importance attached to basic education by most of the ESA economies in the past, primary and secondary education is already close to being universalized. Thus an increasing part of the future differences in human capital and in its returns is to come from higher education. Indeed, as a recent ADB (2007a) study finds, wage differentials between the college and secondary educated have increased, while wage differentials between the secondary and primary educated have been stagnant or even declining in the economies studied, suggesting that the “power of basic education systems to combat inequality has declined”.³⁸

Faced with this new challenge, there may be a need for gradually increasing public

³⁷ See Sen's article on India in 'Little Magazine'.

³⁸ ADB, 'Education and Structural Change in Four Asian Countries.' In Asian Development Outlook 2007. Manila. p.318.

expenditure on higher education as well, in addition to further raising the coverage and quality of basic education. In particular, even though higher education is a sector where greater reliance should be placed on private investments, there is a strong need for establishing a public-supported educational loan system. Student loans established with the support of government funding, if well administered, can enable a greater number of children from poorer families to enter universities and colleges. Student loans may not be entirely interest free, and may be administered by commercial banks on a commercial basis, but public subsidy for it is crucial, if it is going to achieve its desired aim. In developing economies, to establish well-administered student loan systems may face a series of challenges. Liu et al. (2004) studied these issues for China, where a commercial bank-administered student loan system has been in existence since 1999. Among the problems that have arisen have been uncertainties about repayment, difficulties with access, and commercial banks' reluctance to enter into the market.

4.7 Health Policy

4.7.1 Market Failure and Health Policy

In the perspective of human development, health is a basic capability for a person with important intrinsic value; at the same time, health, like education, forms an important part of human capital with important instrumental value. A country's healthcare system is one important factor affecting people's health level. However, market failures in health generally tend to be even more pronounced and more complex than in education, which call for government intervention through various health policies. In this part, we begin by analyzing

major failures in the healthcare market and the likely policy implications, followed by a review of major health policies in the ESA economies and tentative recommendations on future health policies.

(1) Uncertainty and the Case for Insurance

As the incidence of disease and injury is often unpredictable, people's demand for health services is subject to a high degree of uncertainty.³⁹ This causes enormous differences in health expenditure between people. In a study of a large population, researchers found that 10% of the patients with the highest healthcare expenditure accounted for 75% of the total healthcare expenditure. This also suggests that individuals may be quite uncertain as to whether they will become the largest users of medical services in any given period (Kornai & Eggleston, 2003). The uncertainty of one's demand for health services leads people to seek health insurance. Insurance can help spread the cost of medical services over the healthy and the sick, as well as over the healthy period and the sick period of a person's life, thus easing the financial burden caused by falling ill.

(2) Information Asymmetry

Information asymmetry refers to that in a transaction one party has better information than the other about the nature of the transaction. This problem exists in both the health insurance market and health services market.

³⁹ Compared with medical services, demand for public health services, such as reproductive health services and vaccination, and is relatively certain.

Adverse selection and cream skimming due to information asymmetry can render health insurance systems unable to perform their proper protection functions, or even cause them collapse. If consumers possess better information about their health than insurance providers, then it will be difficult for insurance providers to decide on premium rates for different consumers according to their conditions. If an insurance provider charges an average premium rate to all potential customers with rather different conditions, then only those in poorer health status (those think they can benefit from the average premium rate) will buy the insurance. In so doing, the insurance provider is forced to raise the premiums in order to break even. However, this causes people in relatively better health conditions to stay out the transaction. This kind of adverse selection can unlimitedly raise the premiums by so much that they result in a complete collapse of insurance.

On the other hand, if an insurance provider possesses better information, he will then have the incentives to exclude those consumers with higher health risks, and to attract more of those with low health risks into the contract. In this case, the insurance will fail to perform its intended social function of protecting the needy.

In the health service market, doctors often possess more information than the patients. Under some incentive systems, doctors may use this superior information to their own advantage. A common problem that occurs under the system of fees for service is that doctors may then encourage excessive consumption by the patients, a phenomenon known as –supply-induced

demand”.

(3) Public Goods and Externalities

From an economic point of view, because public goods bear the non-exclusiveness and non-rivalry features, it will be neither difficult nor desirable to charge consumers for the consumption of these goods. Therefore, a complete dependence on the market will lead to an insufficient provision of these goods. Many public health services, such as health education and disease prevention, are typical public goods. In general, these public health services have to be provided or funded by the government.

Public services such as immunization are private goods but with extensive positive externalities. Whether an individual chooses to buy such services will have a major impact on the welfare of others. However, without external interventions, individuals may choose not to purchase the service, or may only use the service based on a calculation of their own private costs and benefits, without taking into account the impact of their decisions on the public welfare. Therefore, there is a case for the government to subsidize the use of these services, to make individuals' purchasing decisions better in line with socially optimal levels of consumption.

(4) The “Inequality Trap”

The “inequality trap” problem exists not only in respect of education but also health. To begin with, the influence of income levels on health has well been proven by extensive

empirical researches.⁴⁰ Secondly, people's health status can in turn affect their income levels by influencing their labor supply and human capital accumulation. A study by Lindelow and Wagstaff (2005) of China found that health shocks are associated with a substantial and significant reduction in income and labor supply. In addition, poor health status and the economic burden caused by receiving treatment may negatively affect a person's education attainment, thereby further affecting his or her future income level. Therefore, there is a case for the government to ensure some equitable degree of healthcare through public policy on health, and to reduce the economic burden associated with diseases so as to prevent people from falling into the “inequality trap”.

4.7.2 Health Systems and Health Policy in ESA Economies

In order to overcome the serious market failure in the field of healthcare and to ensure that all residents can receive equitable health services, the government needs to play a key role in the design of an adequate healthcare system. Conditioned by the level of economic development, nature of the political system, history, culture and geographic factors, huge differences can be observed between the healthcare systems established by different economies in the world today. However, the World Health Organization has put forward four general goals as targets for each healthcare system to aim to achieve:⁴¹

- (1) Improved health, both in the level of health and equity in health.
- (2) Responsiveness of the health system to the desires and needs of people.
- (3) Social and financial risk protection from health expenditure.

⁴⁰ A more detailed literature review, see Wang et al. (2005)

⁴¹ WHO, Health in Asia and the Pacific, 2008, p. 417

- (4) Improved efficiency, namely that full value is received for the resources invested in health.

In order to realize these goals, governments of all economies have variously adopted policies in respect of health financing, social health insurance and healthcare services provision.

Although the overall levels of health outcome and healthcare in the ESA economies have generally improved in the past 20 years (see Section 2.3), that in itself is no proof of the success of their health policies. Rather, most ESA economies (especially developing ones) display important deficiencies in their health financing, health insurance and health service provision systems.

(1) Health Expenditure

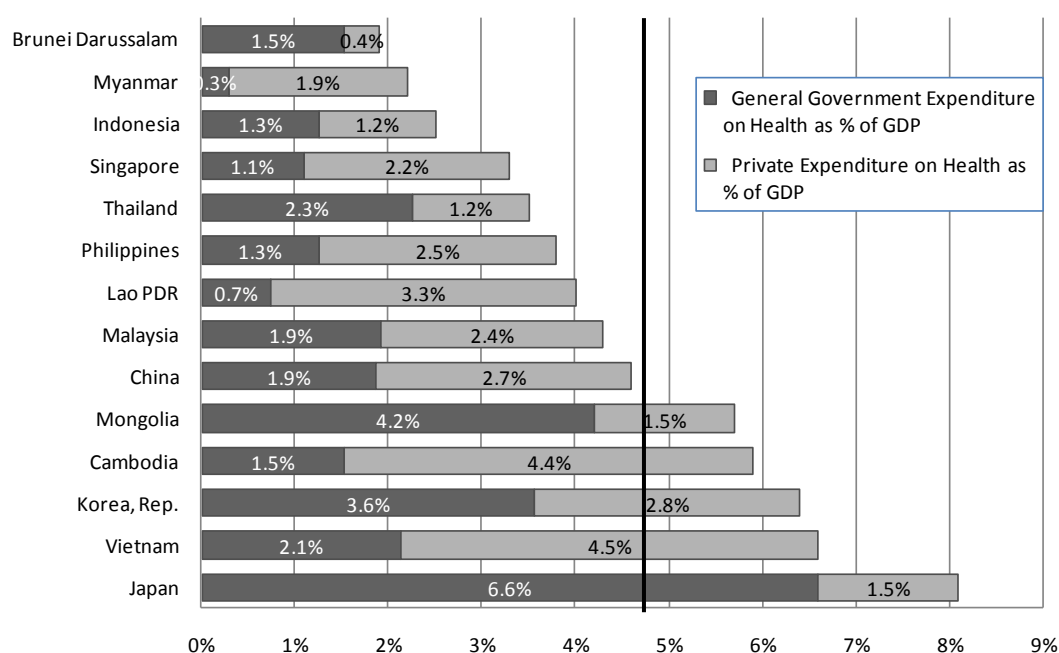
A. Total Health Expenditure

Total health expenditure could come from any one of the following sources: government budgets, social insurance, private health insurance, out-of-pocket (OOP) payments, and external funding. An economy's total health expenditure limits the total amount of resources that it can (or actually does) spend on health. And although WHO has never made an official recommendation on the desired expenditure levels for health, its documents since 1981 have used a 5% of GDP figure as an indicator for health-care expenditure that should be monitored.⁴² In the majority of ESA economies, total health expenditure has accounted for a lower proportion of its GDP than 5%, but in Japan, the proportion exceeded 8% in 2006, the

⁴² Macroeconomics and health: investing in health for economic development. Report of the Commission on Macroeconomics and Health. Geneva, World Health Organization 2001

highest rate in the region for the year. Figure 4.7.1 presents a detailed picture on this for 2006, listing both total health expenditure as a percentage of GDP, and its composition by private and public sources, for a range of ESA economies.

Figure 4.7.1 Health Expenditure by Source as Percentage of GDP in 2006



Source: WHO, *World Health Statistics 2009*.

B. Structure of Health Expenditure

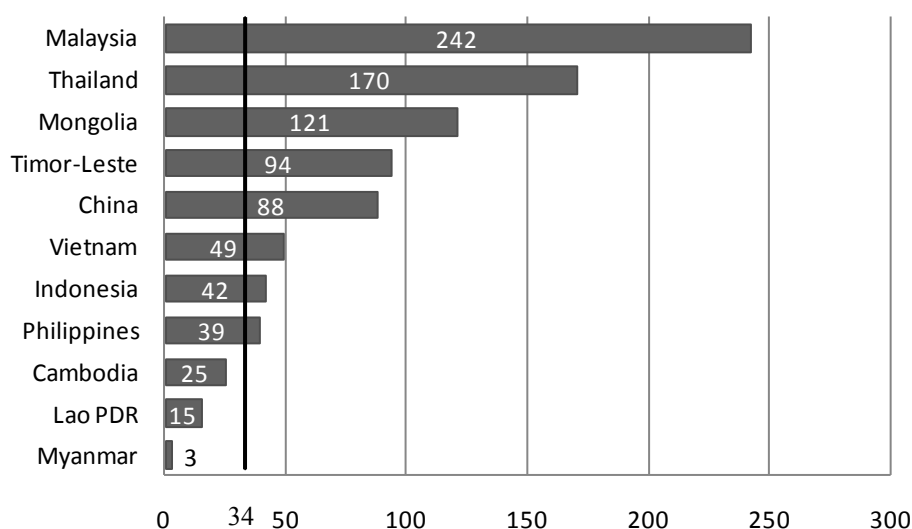
In the total expenditure on health, government expenditure is a principal component and has a significant impact on the performance of the healthcare system. Thus according to a WHO (2008a) report, evidence from the Asia Pacific Region and other parts of the world shows that in developed and developing economies having good quality health systems, the aggregate share of public health expenditure is a key, though not the sole, determinant of the quality of the health system. Across the world, the proportion of public health expenditure to

total health expenditure generally tends to be higher in developed economies. Indeed, even in the United States, which has a more market-oriented healthcare system, still as much as 45.8% of health expenditure in 2006 came from the government. In the ESA region, there does not appear to be a consistent picture on this. While in Japan and South Korea, the share of public expenditure is quite high, reaching 81% and 56%, respectively, in 2006, in Singapore the same share was a mere 33% in that year, much lower than Mongolia (74%), Thailand (66%), and even China (42%). Huge differences indeed exist between ESA economies in respect of this share. Thus while it stood at 81% and 74% for Japan and Mongolia in 2006, for Myanmar, Laos, Cambodia and Vietnam, it was only 13%, 19%, 26% and 32%, respectively.

The role of government health expenditure in the healthcare system is, in the main, two-fold. First, the government should provide sufficient funding to ensure an adequate provision of public health and basic health services. The Commission for Macroeconomics and Health (2001) estimates that to achieve the relevant MDG targets for health, a minimum government expenditure of US\$ 34 per person per year is necessary in order to provide an essential package of public health interventions. According to Figure 4.7.2 below, three economies, Myanmar, Laos and Cambodia, failed to meet this target in 2006. Recall that they are also the economies which had the lowest proportion of government health expenditure to total health expenditure in 2006, and they are indeed also the ones which recorded the poorest health outcomes, as we reviewed earlier (Section 2).⁴³

⁴³ In addition, Walford et. al (2006) has made the prediction, based on historical trends, that by 2015, the target year of the Millennium Development Goals, Cambodia still cannot achieve the 34 U.S. dollars per capita per year standard.

Figure 4.7.2 per Capita Government Expenditure on Health in 2006⁴⁴ (PPP int. \$, 2005)



Data Source: WHO, World Health Statistics 2009

Secondly, the government should provide adequate support and funding for the establishment of a social health insurance system to ensure that people (especially the low-income groups) will not be unable to receive healthcare services for economic reasons, and to prevent them from being trapped in or falling back to poverty due to catastrophic health expenses. In many ESA economies with low government health expenditures, out-of-pocket (OOP) expenditure accounts for a high proportion of total health expenditure in the economy, as in Myanmar (86.4%), Cambodia (62.7%), Laos (61.9) and Vietnam (61.1%)⁴⁵. OOP payments can result in catastrophic strains on a family when it spends a significant fraction of its net income on healthcare. Some households are pushed into poverty by borrowing and asset selling, and others may simply give up seeking the much needed care (WHO, 2008a). Data from 59

⁴⁴ Countries with per capita government health expenditure more than 500 U.S. dollars are not listed in this figure including Japan (2097 U.S. dollars), Korea (817 U.S. dollars), Brunei (759 dollars) and Singapore (509 U.S. dollars).

⁴⁵ WHO, World Health Statistics 2009. OOP as % of total expenditure on health = Private expenditure on health as % of total expenditure on health × Out-of-pocket expenditure as % of private expenditure on health.

economies (Xu, et al., 2003) reveal a strong correlation between OOP and the incidence of catastrophic health expenditure. An increase of 1% in the proportion of total health expenditure from OOP is associated with an average increase of 2.2% in the proportion of households experiencing catastrophic payments. In Viet Nam and Cambodia, with a relatively high proportion of OOP to total health expenditure, the proportion of households with catastrophic health expenditure was as high as 10.5% and 5.02%, respectively, according to one study (see Table 4.7.1).

Table 4.7.1 Proportion of households with catastrophic health expenditure

Selected ESA economies	Percentage of Households Experiencing Catastrophic OOP ^a
Viet Nam	10.45
Cambodia	5.02
Republic of Korea	1.73
Indonesia	1.26
Thailand	0.80
Philippines	0.78

Note: a. Defined as the incidence of household payments for health services exceeding 40% of net income after subsistence needs have been met. Year of the data: Viet Nam (1997), Cambodia (1997), Korea, Rep (1999), Indonesia (1999), Thailand (1998), Philippines (1997). Source: Xu (2003).

C. Equity in Health Expenditure

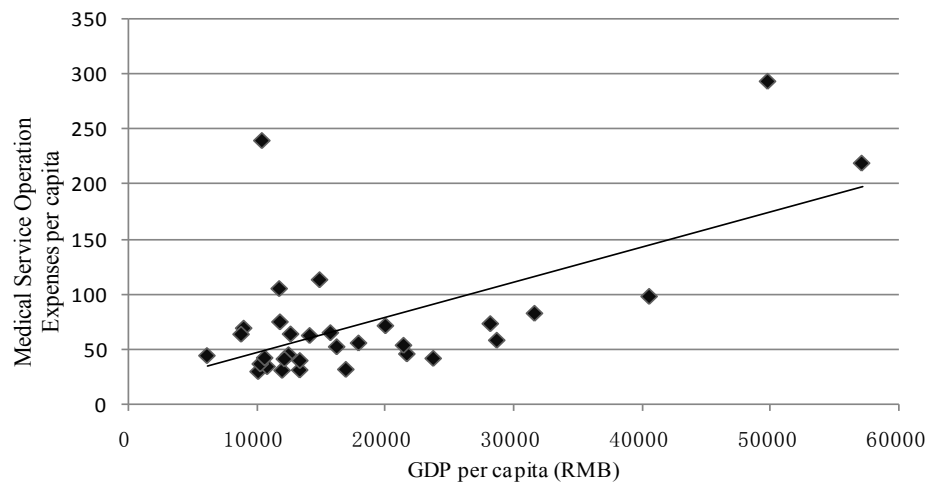
Equity in government health expenditure is firstly reflected in whether public funding can effectively subsidize low-income population to ensure that they can access basic health services. A study by O'Donnell et al. (2007) of equity in healthcare financing in nine Asian economies and three regions of China finds that the poorest income quintile of households

accounted for only 5% to 10% of healthcare visits. In terms of benefit incidence by the poor, Hong Kong (China) was the most pro-poor with 38.7% of public subsidy going to the lowest quintile. In the other economies and provinces (except Bangladesh), the poorest 20% of individuals received significantly less than 20% of the public health subsidy. The share going to the poorest 20% of individuals is very low in two Chinese provinces (8% and 10%). In Indonesia, the richest quintile receives more than 30% of the total subsidy.

Another aspect of equity in government health expenditure is equity among regions within an economy. In China, like education expenditure, health expenditure is mostly borne by local governments, while the central government lacks a mechanism of transfer payments to poorer regions in matters of health. This causes health expenditure in various provinces and regions to be highly dependent on local fiscal resources and ultimately the level of local economic development. The disparity between China's regions in economic development causes an uneven distribution of fiscal revenues across these regions, and an uneven distribution of available government resources to be spent on health, resulting in huge inequities across regions in government funding for health. According to Liu et al. (2007), excluding Tibet, the correlation coefficient between a Chinese province's per capita GDP and its per capita Medical Service Operation Expenses is as high as 0.82 (see Figure 4.7.3).⁴⁶

⁴⁶ Medical Service Operation Expense is the major component of Chinese government health expenditure

Figure 4.7.3 Relationship between Chinese Provinces' per Capita GDP and per Capita Medical Service Operation Expenses, 2005



Source: Liu et al. (2007).

(2) Health Insurance

A. Development of National Health Insurance Systems in ESA

In order to spread the financial risks due to diseases and to promote economic accessibility of health services, ESA economies have established various forms of social health insurance in the past few decades. The overall strategy in the social health insurance development in ESA economies is to begin with covering only the professionals and staff in the formal sectors, and subsequently to widen the coverage to other sections of the population, and eventually to the entire population. At the same time, reimbursement levels will be gradually raised with increases in fiscal resources and the level of economic development.

The process of establishing a national social health insurance system in an ESA economy typically begins with some form of a compulsory employment based social health insurance program in the urban formal sectors. Health insurance premiums are generally shared by

employers and employees, and the premium level is usually a fixed percentage of the employees' wage. It is typically not adjusted with the insured's age, gender, health status and other factors. As WHO (2008a, p.452) points out, "[t]his system of funding has the great advantage that contributions can be easily collected and inflows are as reliable as the overall economy. Compulsory membership spreads costs and risks over a large population with predictable financial flows." Employment based social health insurance programs were established quite early on in Japan and South Korea. As early as in 1927, Japan had established such a program for its formal sector employees and South Korea for certain professions in 1977 (when the country was experiencing the post-war economic take-off). The coverage was then gradually expanded to other professions in South Korea. Employment based social health insurance programs in other developing ESA economies have developed rapidly since the 1990s. For example, Thailand began establishing its program for employees in both state-owned and private enterprises in 1991 and China set up its Basic Medical Insurance System for Urban Employees in 1998 for urban formal sector employees (WHO, 2008a).

Since most developing ESA economies are still in the process of urbanization, the number of rural population has remained massive. After the establishment of social health insurance for formal sector employees, providing health insurance for the majority of rural population is becoming the next most urgent health policy objective for those economies. In this aspect, China and Thailand's initiatives are again noteworthy. In China, with the economic reforms that started in the late 1970s, the previous cooperative healthcare system established under

the communes gradually disintegrated, depriving the rural population of any health insurance cover for the next two decades. In 2003, China started piloting a New Cooperative Medical Scheme (NCMS) in rural areas, and gradually expanded it to the whole country, intended to provide some basic health insurance protection for the rural population. The NCMS is actually a voluntary social health insurance program managed and subsidized by the government. The initial funding for NCMS was a 10 Yuan premium per person, plus a government subsidy doubling that amount (i.e. 20 Yuan per person), to be contributed in equal measure by the central and local governments. Subsequently, premiums have increased and so have government contributions. Since 2008, the standard premium rate has been set at 20 Yuan per person, with central and local governments each contributing 40 Yuan (so totaling 100 Yuan per person), although there are also widely varied local models different from this. By the end of 2009, 730 million farmers and farm families had joining the NCMS, accounting for 89.7% of the total rural population.⁴⁷ In Thailand, prior to 2001, between 25% and 39% of the population had enjoyed no health insurance whatsoever (Gu, 2008). In 2001, Thailand started its Universal Coverage Initiative, which provided the rural population without health insurance with an insurance program known as the "30 baht project". In this voluntary scheme, those who are covered would receive a great variety of healthcare and public health services, after paying a small 30 baht co-payment (about 1 USD) at the point of delivery. In 2006, the government of Thailand abolished the 30 baht co-payment (Leethongdee, 2007). After the implementation of this project, coverage of health insurance in Thailand reached 95% by 2008 (Liu et al. 2007).

⁴⁷ This is according to the findings from fourth health services survey conducted by Chinese Ministry of Health Statistical Information Centre and Chinese Ministry of Health in 2009.

Other ESA economies have established other forms of social health insurance. Since 2003, Laos has piloted a community based health insurance scheme in some regions with coverage of 30% ~ 40%. And Malaysia adopted a health insurance system similar to the NHS in UK, in which the government provides health services to its residents either free of charge at a very low fee (Ramesh, 2000). Also worth noting is that Mongolia in 1994 had achieved close to 90 per cent coverage under very difficult circumstances, with a per capita GDP less than US\$350 and a population 25 per cent nomadic.⁴⁸ (Walford, 2006)

B. Problems of Health Insurance in the ESA Economies

Low coverage of social health insurance and low reimbursement levels are the two general problems faced by various economies in the world in the initial stage of social health insurance development, and ESA economies are no exception. However, generally speaking, these two problems will be eased with economic development and increased fiscal resources. On the other hand, the issue of system design is actually crucial, and should receive proper attention. A defective system design can seriously affect both the equitableness and sustainability of the social health insurance program. Below, we take a system perspective to focus on the problems faced by social health insurance in the ESA region.

First, as the development of social health insurance in many ESA economies has followed a course of starting by covering the urban formal sector employees and then extending the

⁴⁸ Due to funding issues, Mongolian health insurance coverage rate in 2003 dropped to 78%, but taking the country's economic development level and population distribution characteristics into consideration, this is still a relatively high proportion.

coverage to other sections of the population, formal and informal sector employees, urban and rural residents are therefore often highly differentiated in their health insurance benefits and entitlements, from having an ample set of them to enjoying none of them. Needless to say, these differences in insurance entitlements can eventually translate into differences in access to health services, and in the hardships to the persons and families concerned.

China's social health insurance has the typical dualistic characteristics of the rural-urban split. In terms of the protection level, the basic health insurance of urban employees is far higher than NCMS, resulting in huge differences in health treatments a patient can receive between urban and rural areas. Although the per capita per year funding of NCMS has risen from the original 30 Yuan to 100 Yuan, in fact in 2005 the per capita per year healthcare expenditure in China's rural areas had already reached 168.1 Yuan. With a relatively low level of funding, NCMS has to maintain a low reimbursement rate in order to stay solvent. According to available statistics, in 2006, the average reimbursement rate under NCMS was only about 26% of the actual expenses incurred by the farmers (Hu, 2007). In contrast, the funding level for basic health insurance for urban workers is far higher. In 2006, its per capita funding is around 1112.7 Yuan,⁴⁹ while in the same period China's average urban household healthcare expenditure is 600.8 Yuan.⁵⁰

⁴⁹ This is calculated by dividing the annual income under the scheme, which is 174.7 billion Yuan, by 157 million people insured under the scheme nationwide.

⁵⁰ Sources for the data reported in this paragraph: data on NCMS are from the Ministry of Health Statistical Information Centre: "2006 China health development statistical bulletin", <http://www.moh.gov.cn/newshtml/18903.htm>; health insurance for urban employees data are from the Ministry of Labor and Social Security and China's National Bureau of Statistics: "2006 Labor and Social Security Statistics Bulletin", http://www.molss.gov.cn/gb/news/2007-05/18/content_178167.htm; urban and rural residents health-care expenditure data are from "2006 China Statistical Yearbook "

To establish a unified social insurance system for the total population and to pool different health resources for such unified coverage is the future direction for social health insurance development. Taiwan, China had integrated its various social health insurance programs and established a unified National Health Insurance (NHI) program covering all the population in 1995, with a coverage of 97% (WHO, 2008a).

Second, the way insurance benefits are paid out is a key issue. If the scheme simply reimburses providers for the services they provide, this can lead to over-provision with excessive treatments and charges, pushing up costs and undermining the viability of the scheme. According to Walford (2006), this is precisely what happened. The Philippines established its Medicare system in 1972, covering those formally employed (accounting for one-third of the population), for inpatient care, free at the point of delivery, at either private or public facilities up to a financial ceiling. This system was introduced, among other things, to shift the burden of financing and delivering care from the public to the private sector. However, costs have since risen. A study examining who benefits from the system has found that hospitals extracted 84 per cent of Medicare expenditures through increased margins; only the remaining 16 per cent financed increased patient care. China has also adopted a fee for services model, and it has experienced similar problems. One analysis has found that the China's urban insurance schemes actually increased the likelihood of heavier out of pocket spending, due to high co-payments and extensive treatment of the insured (Wagstaff and Lindelow, 2005).

Some ESA economies have tried other methods of payment. For example, in the “30 baht project” in Thailand, in order to mitigate the moral hazard problems stemming from low co-payment, the scheme introduced a “capitation payment” method for outpatient and public health services, and diagnosis related groups (DRGs) method for inpatient and some special treatment services, replacing the Fee-for-Service payment method (Leethongdee, 2007).

(3) Allocation of Health Resources and Health Services Supply

Whichever financing and health insurance models a country's health system adopts, it is only through the efficient and effective use of the health resources and providing various healthcare services of an adequate quality that it can improve its people's health outcomes. Except for Japan, Korea and other economies of a high level of economic development, most ESA economies still seriously lack the resources that may usefully be invested in healthcare. Therefore, how to allocate the scarce health resources between different groups of people, and among different levels of health services, so as to enhance people's health to the greatest extent possible becomes a key issue for policy makers.

Investing limited resources in Primary Healthcare (PHC) for all residents is widely considered a health policy that is conducive to efficiency and promotes equity. According to a WHO (2008a) report, about 90% of medical conditions can be appropriately treated at the primary level. Furthermore, while in economies with effective health-care networks that have largely resolved problems of access, PHC is today mainly seen as a level of care, in low-resource economies where there are still significant challenges to access, the PHC

concept is a system-wide strategy for development with emphasis on the right to health care, social justice and reducing inequality” WHO (2008a, p.411). Currently, the following common problems stand out in developing ESA economies as they attempt to improve basic health services.

A. The Tilt to High Level Healthcare Institutions in Allocation of Health Resources

Generally speaking, PHC is provided more by grass-roots healthcare providers. However, public health expenditures in most ESA economies have tended, in fact, to tilt towards high-level healthcare institutions, thus affecting the quality and quantity of primary healthcare provided by grass-roots providers. This phenomenon is particularly serious in China and Vietnam, and other developing economies (WHO, 2008a).

In China's case, according to data from "China Health Statistics Yearbook 2009", in 2008 China's grass-roots healthcare institutions, including community health services centers and township health centers, received a financial assistance of 19.45 billion Yuan from the government, while in the same year all levels of hospitals received financial assistances totaling 52 billion Yuan. Using similar data for 2005, Liu et al. (2007) has analyzed China's allocation of fiscal subsidies to hospitals/providers at different administrative levels, and its results show that the level of fiscal assistance fell as one moved from a high-level to a low-level hospital. As shown in Table 4.7.2, in 2005, while 1260 hospitals in China's large and medium cities received fiscal subsidy totaling 13.01 billion Yuan, only 6.56 billion Yuan

(i.e. only half as much) went to hospitals in small cities.⁵¹ It may be noted that hospitals in small cities (cities governed by prefecture and counties in the table), besides providing services to local urban residents, also bear the responsibility for providing services for the majority of residents in rural areas. The population they serve is far larger than the population served by hospitals located in large and medium cities. Thus viewed, the excessive imbalance in the allocation of fiscal resources in favor of hospitals in the large and medium cities is clearly an affront to equity, and reduces the extent and quality of PHC that might otherwise be achieved.

Table 4.7.2 the Allocation of Fiscal Subsidy to Hospitals at Different Levels in China, 2005

	Large City			Small City	
	Central	Provincial	City governed by province	City governed by prefecture	County
Number of Hospitals	22	203	1035	1509	2115
Fiscal Subsidy Received per hospital (Million)	40.0	19.0	8.0	2.0	1.7
Total Fiscal Subsidy Received (Million)	880	3860	8270	3060	3500
Total (Million)	13010			6560	

Source: *China Health Statistics Year Book*, 2006

B. Excessive Use of Advanced Medical Technology

A maximal but effective supply of PHC requires health institutions to use medical technologies that are cost effective, while ensuring quality. A low cost of supply can help

⁵¹ In Liu et al. (2007), hospitals at the central and provincial levels and in cities governed by province are classified as large and medium urban hospitals, while hospitals in cities governed by prefecture and at county seats are classified as small city hospitals. This is clearly but a rough classification. See Liu et al. (2007) for details.

ensure that PHC is widely and equitably extended, and contribute to the sustainability of the service. However, across the world, there appears a widespread and excessive pursuit for high-cost, advanced medical technology and these conflicts with the need for using low-cost but effective technologies for maximally extending PHC to the population. Excessive pursuit of high-cost modern technologies takes up a disproportionately large amount of resources, often public resources, and this places an undue strain on the limited public resources of an economy.⁵² “Thailand”, as Chowdhury (2004, p.412) observes, “Has a health system that places substantial reliance on modern medical technology. As a result, health costs have risen at a much faster rate than even their fast-growing economy. Per capita health expenditure showed an average growth rate of 8.2% against an average GDP growth rate of 5.8% in the period 1980–2000.”

C. Lack of Human Resource in PHC Institutions

An adequate supply of healthcare human resource is a key factor in ensuring PHC supply. However, due to the prevalent huge gap between urban and rural areas in the developing ESA economies, the more highly qualified a health worker (especially a doctor) is, the more likely he or she tends to want to stay in an urban and better-off area, with access to better schools and better living conditions, and probably with scope for private practice. Various economies have tried various ways to encourage trained health workers to work in areas where the poor live, with initiatives such as hardship allowances, permitting private practice and making rural postings as pre-requisites for career promotion. However, their effects have

⁵² 'With rapid scientific advancement, new clinical testing procedures and sophisticated diagnostic equipment has flooded the market. The adoption of such innovations, while relevant in specific medical situations, is unduly driven by commercial forces, as distinct from medical requirements.' WHO, *Health in Asia and the Pacific*, 2008, p.412

been rather limited (Walford, 2006).

4.7.3 Summary

Although in the past 20 years overall health outcomes in most ESA economies have been significantly improved, in terms of healthcare system construction, ESA economies (especially developing ones) still have a long way to go. Firstly, in terms of **health expenditure**, ESA economies with a low income level have had serious problems with both the level and composition of the health expenditure. In these economies, total health expenditure has accounted for a rather low proportion of GDP, and the government health expenditure has been a rather low proportion of total health expenditure. Lower government health expenditure often means an underinvestment in public health services and a high reliance by citizens on their own Out-of-Pocket payments for services. These have caused severe inequity problems in health for these economies. In response, we argue that the government should step up its spending on health along with economic development. Moreover, the central government should more heavily subsidize poorer regions on health to achieve a more equitable regional distribution of health resources in the economy.

In **social health insurance**, most developing ESA economies have sought to expand the coverage; however, the urban-rural divide and other divides in social health insurance in many economies has resulted in serious inequity problems in terms of access and benefits. Directions for future development must be to gradually integrate all existing schemes and eventually form a unified health insurance system covering the entire population. At the

same time, governments in all ESA economies should choose and design appropriate payment methods to avoid excessive moral hazard problems

In terms of **service supply**, developing ESA economies should take primary healthcare as the focus of development so as to better take advantage of the limited health resources. Development of PHC requires the government to strengthen its policy guidance in use of modern medical technologies in favor of use of appropriate technologies that are more cost-effective. In addition, adequate supply of a well-qualified health workforce is crucial for the development of PHC.

4.8 Poverty Alleviation and Social Protection

One way of defining poverty is in terms of an income too low to meet the needs for basic survival and functioning of a person, and the poverty so defined is called “absolute poverty”. The concept of “relative poverty” is, on the other hand, one where a person’s income falls below the average income of the society by a certain margin. Thus while absolute poverty refers to cases where an individual faces certain basic survival risks, relative poverty has much to do with income inequality in a society. Social protection can play an important role both in the eradication of absolute poverty and in alleviating relative poverty.

Within the capability approach, the concept of poverty has further been extended to refer to cases where a person's achieved functioning other than income falls below a certain level. The concept of poverty in this case is “multidimensional”. According to this view of poverty,

poverty can mean not only a lack of income, but also deprivations in terms of health, education, agency, etc. As extensive interactions exist among income, education, health and other dimensions of human development, so the elimination of a lack of or a reduction in the inequality of education and health through social protections can also play an active role in the elimination of absolute and relative income poverty, and visa versa.

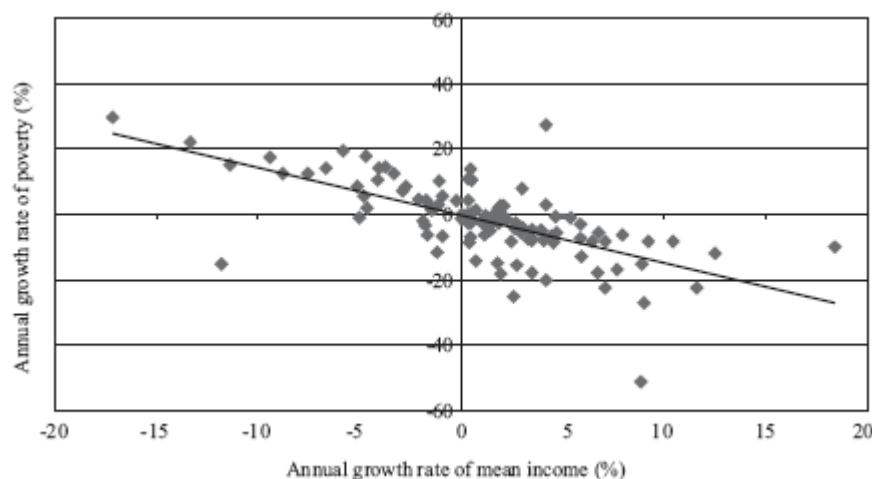
As indicated in subsection 2.2.3, the ESA economies made substantial progress in the elimination of absolute income poverty in the last two decades. In this subsection, we shall first analyze the reasons for that success, followed by a brief look at the challenges ahead in anti-poverty efforts in the region. Finally, we consider the role that a comprehensive social welfare system can play in helping meet these new challenges.

4.8.1 Policies that Have Contributed to These Achievements in the ESA Region

An extensive range of studies have shown that sustained rapid economic growth is an important reason for declines in poverty (Dollar and Kraay, 2000; Kraay, 2006). Indeed, ADB (2004a) finds a strong negative correlation between the growth rate of a country's mean income and that of poverty internationally for the world's developing nations (Figure 4.8.1). In the ESA region, for a long period of time after the War, most of the economies experienced sustained and rapid economic growth, which has contributed significantly to the reduction of poverty in the region. However, although economic growth can under normal circumstances contribute to reductions in poverty, not all types of economic growth can have the same effect. Indeed, how to exercise effective policy intervention to enable the poor to

have a greater access to the fruits of economic growth has been a key policy challenge for the governments in the region. What follows is an account of some of the key pro-poor policies in the region.

Figure 4.8.1 Economic Growth and Poverty Reduction in the Developing World



Note: Each point depicts the experience during a “spell” defined as a time period over which income/expenditure and poverty data from comparable and contiguous household surveys spaced at least 3 years apart are available. Over 100 such spells from 51 developing economies from around the world are used. For more detail, see ADB (2004a).

Source: ADB (2004a).

(1) Population Policies

Compared with aggregate economic growth, increases in per capita income can have a more direct effect on poverty. An excessively high population growth rate can, by hindering per capita income growth, impede declines in income poverty. Since the 1970s, many ESA economies have made significant progress in controlling population growth (see Table 3.7). As the world's most populous country, China's population growth rate declined from 2.76% in 1970 to 0.7% in 2003. At the same time, rates of population growth in Indonesia, Thailand, Vietnam and other ESA economies have also significantly declined. In contrast, population

growth in two most populous South Asian countries, India and Pakistan, has been falling much more slowly. More effective population control policies in the ESA region appear to have played a significant role in the reduction of poverty, certainly in China.

(2) Overcoming Barriers to Mobility

Available evidence uniformly indicates that mobility can increase the per capita income of migrants. Thus removing the barriers to migration and increasing mobility itself is an important pro-poor policy. The ESA region is one with some of the most extensive movements of persons in the world, which in turn has contributed to poverty reduction in the region in the last three decades. Mobility among the economies within the region can significantly improve the income levels of the immigrants. For example, those low-skilled moving from Thailand to Hong Kong and Taiwan (China) can earn on average 4 times the income compared with their counterparts in native land (Sciortino and Punpuing, 2009). At the same time, the international movement of people also brings about a considerable amount of remittance to the economies of origin, which can further help ease the poverty situation of those economies (HDR, 2009). For example, in the Philippines in 1999-2003, the remittances from low-skilled labor abroad accounted for about 6.5% of the country's GNP (Chatterjee, 2005). In addition, the movement of persons within borders can also play an important role in poverty reduction.

However, in the ESA region, there are still economies putting administrative restrictions on internal migration, such as the household registration system in China and Vietnam. In other

economies, although there are no administrative restrictions, migrants in the destination place may only be engaged in hard, informal work without legal protection. The situation of migrant workers in urban China is such case. Thus, in order for mobility to play a significant role in poverty reduction, not only should there be reduction in barriers to movements of people across borders, but also there need to be significant reductions in all restrictions against mobility within borders.

(3) SME Development Policy

In some ESA economies, the development of SMEs has played an important role in the reduction of poverty. China's performance in this aspect is particularly conspicuous. Since the 1970s, along with the implementation of the reform and opening-up policies, a large number of SMEs (township and village enterprises) have emerged in China's rural areas. These enterprises have provided farmers with an extra opportunity of non-farming production, in addition to traditional farming. In accordance with the three-activity model in Section 3 of this report, when farmers in rural areas have both farming and non-farming employment opportunities, the combined income opportunities they have may well be greater than working in cities. In addition, the development of rural SMEs can also help rural households to establish and/or strengthen their relationship with the outside market and extend their share of the links and therefore value in the value chain. In some cases, it can also promote the monetization of the rural economy and in that way generally create more economic opportunities for farmers. For example, the study of Xiji County in China's Ningxia Hui Autonomous Region by CHEDS of Peking University finds that the county's potato

processing SMEs contributed significantly to reducing local income poverty in 2003-2005. In two years, these SMEs created about 8000-10000 non-farm jobs for local farmers, which accounted for 55% of the total non-agricultural employment. Employees in these SMEs on average earned 1.83 times the local per capita income (Yu et al. 2007). In Lao, hand-weaving SMEs played an important role in poverty reduction, according to Huang et al. (2009). In part for this reason, the Lao Government has recently adopted a series of effective policy measures to promote the development of these enterprises, including training the more capable farmers in urban environments for them to be better informed about urban demands for their products, and organizing trade fairs to help rural hand-weavers to establish contacts with urban and oversea markets. In still other ESA economies, export-oriented SMEs have played a similarly important role in poverty reduction. As Hasan et al. (2007) points out, a new strategy to eliminating income poverty in the future may well be that the government promotes the development of SMEs through such public policies as taxation, finance and market information services.

(4) Microfinance

Providing microfinance to the poor, although an important tool of poverty alleviation, has not been successful in all ESA economies. Successful cases that have benefited the poor farmers have included the Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand, and the Unit Desa System of Bank Rakyat Indonesia (BRI). BAAC has been prominent in supporting the poor and it has successfully covered more than 80% of peasant households (Chatterjee, 2005). BRI relies on rural deposits as the major source of its loans with little

external subsidies. By 2004, BRI has provided deposit services to nearly 30 million customers and loan services to 3.1 million customers. However, most clients of BRI are low-income community and small to medium-sized enterprises. No specific service is provided to those in absolute poverty, which has limited its capability to reduce poverty (Maurer, 2004). In view of various deficiencies of traditional microfinance, China established its Community Development Fund in line with its national conditions, which has demonstrated its beneficial effects in poverty reduction as part of the “comprehensive community development” strategy (Cheng et al., 2009). However, most microfinance organizations in the ESA region are also facing many challenges. Governments need to adopt more appropriate monitoring mechanisms and other measures to foster a better market environment so as to improve the profitability and sustainability of these institutions, which should enable them to make continuous contribution to poverty reduction.

(5) Fiscal Decentralization

Fiscal decentralization has been considered to have a positive effect on poverty eradication in the following three ways (Rao, 2005; UNESCO, 2005; Boex, 2005): First, since the central government is usually burdened with a wide range of responsibilities, local governments are more likely to deliver education, health and other public services more effectively. Secondly, local governments have better access to information related to the needs and preference of the poor. Thus, under decentralization, public services are more likely to be delivered to the poor and the underdeveloped areas. Thirdly, fiscal decentralization can facilitate local governments in implementing pro-poor policies. Needless to say, to ensure that fiscal

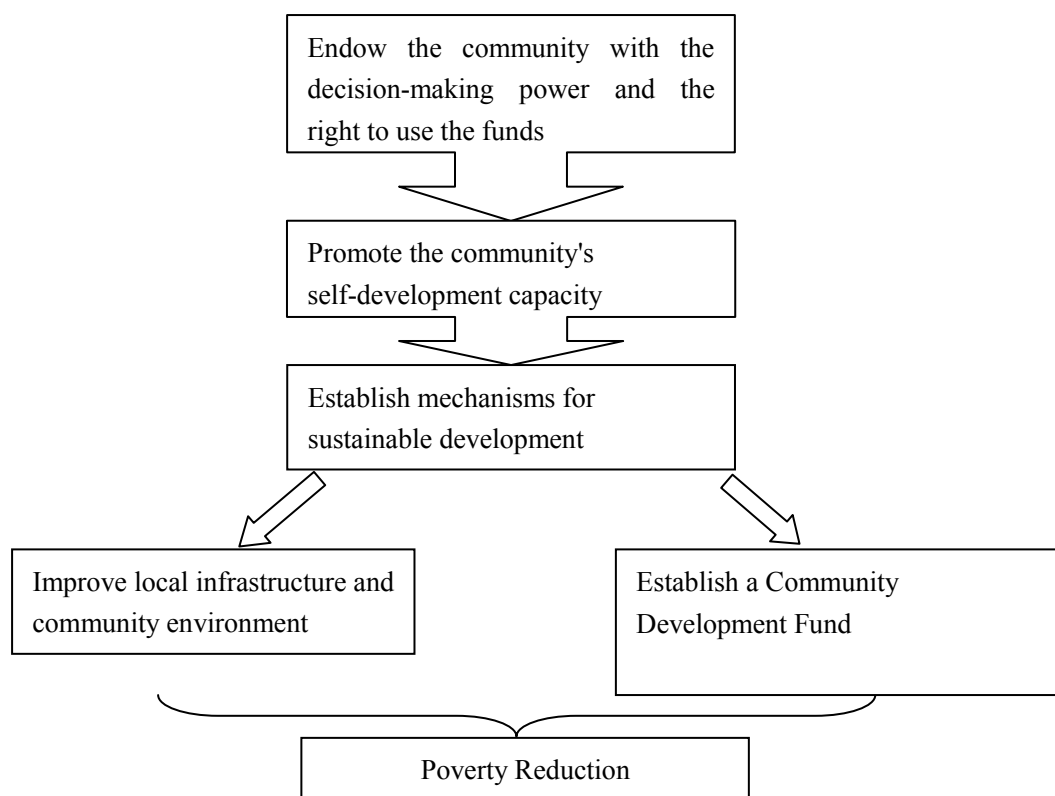
decentralization indeed have a positive impact on poverty eradication, there will need to be adequate incentives for the local governments to so act. Since 1990s, some ESA economies have speeded up the process of fiscal decentralization. In 1991, a Local Government Code was adopted in the Philippines which required the central government to delegate additional power to local governments. In 2001, Indonesia also began to delegate a broader range of powers to local governments. Against this background, whether fiscal decentralization can promote poverty reduction will depend on how local governments utilize their newly gained powers.

(6) Broadening Participation

The core to participatory pro-poor policy is empowerment. With funds from the government and assistance from social organizations, the intended beneficiaries—the poor—are given opportunities to take part in decision-making and in the actual implementation of pro-poor actions. Participatory pro-poor policy allows the poor to express their demands, helps the poor to develop their own ability and independence in participation. Participatory pro-poor policies have been extensively practiced in ESA regions such as the Community Driven Development in China. In 2006, the World Bank, in collaboration with the Chinese State Council's Poverty Alleviation Office, selected four typical poor areas to pilot the Community Driven Development projects. So far, such an empowerment-based pro-poor model has yielded good results (see Figure 4.8.2), as reflected in the following respects: production and living conditions of the poor in the program communities have been improved; the capacity of these communities to organize themselves has been promoted; rural economic cooperation

organizations have been expanded; women have been given an equal right to development (Yu et al., 2009). In addition, participatory pro-poor policies in Vietnam have also significantly improved the economic welfare of the poor (Turk, 2001). Given its sounder principles and favorable practical results, participatory pro-poor policies have a promising future.

Figure 4.8.2 an Example of Poverty Alleviation through Community Driven Development in China



Source: Yu et al. (2009)

4.8.2 New Challenges to Poverty Alleviation in ESA

(1) Continued Widespread Poverty Vulnerability

In poverty reduction practices, one needs to pay attention not only to those who are in poverty but also to those who have a high vulnerability to it. These people often face many risks but may have only limited protection. Although they are currently not yet in poverty, they are highly likely to experience a fall or lapse into it when they are attacked by disasters, health problems, unemployment, rising commodity prices and other such events. Although in the last two decades, the ESA economies have made great achievements in poverty reduction, nevertheless there is still a sizable population who are vulnerable to it.

Below, as an example, we cite a study by the World Bank (2009b) which uses data from China for the period 2001-2004 to measure the share of population who were vulnerable to poverty over the period 2001-2004. Table 4.8.1 shows that between 2001 and 2004, on average 9.3% of the country's rural population were in poverty, with an income below the poverty line income of 888 RMB per person per year in 2003 prices. Over that same period, however, 18.8% of the population was in poverty in at least one year.⁵³ If we take these people as those who were vulnerable to poverty, then the proportion of the population at risk of poverty was over twice those who were actually in poverty (the latter measured by the period's average poverty rate). As well as measuring income poverty, Table 4.8.1 also presents estimates of the proportion of the population who were in consumption poverty and of those who were vulnerable to it. As can be seen, between 2001 and 2004, the proportion of the people who were vulnerable to consumption poverty was 1.7 times that in consumption poverty (World Bank, 2009b). In short, the share of the population vulnerable to poverty,

⁵³ The data that were available for the World Bank study are for years 2001, 2003 and 2004. The poverty rate averaged over these three years is 9.3%. However, since different sets of people could be in poverty in different years, the union of these sets would clearly account for a greater proportion of the population than the average rate.

whether measured as income or consumption poverty, is likely to be significantly greater than the actual poverty rate in a period. Viewed in this way, there still remain great challenges to poverty alleviation in China, and it is likely that there also exist large numbers of poverty-vulnerable people in other developing economies in East and Southeast Asia. These vulnerable populations should be the target of future poverty alleviation policies.

Table 4.8.1: Poverty and Poverty Vulnerability in Rural China: 2001-2004

	Share of rural population (%)						Vulnerability-To-Poverty Ratio
	Poor In All 3 Years	Poor In 2 Of The 3 Years	Poor In Only 1 Of The 3 Years	Poor In At Least One Year	Not Poor In Any Year	Headcount Index 2001-04	
	(1)	(2)	(3)	(4)=(1)+(2)+(3)	(5)	(7)	(8)=(4)/(7)
Income poverty	2.3 (12.2)	4.6 (24.4)	11.9 (63.4)	18.8 (100)	81.2	9.3	2.0
Consumption poverty	6.9 (22.3)	8.9 (28.9)	15.1 (48.9)	30.9 (100)	69.1	17.8	1.7

Sources and notes: World Bank estimates based on panel data from NBS' Rural Household Surveys for 2001, 2003 and 2004, using the poverty line of 888 Yuan per persons per year at 2003 rural prices. The numbers in parentheses report the shares of the poor in all 3 years, in 2 years and in one year respectively as percentages of the vulnerable population (poor in at least one year).

(2) Rising Income Inequality

Since the early 1990s, income and/or consumption inequalities have deteriorated significantly in some ESA economies. Table 4.8.2 shows the changes in Gini Coefficient in some ESA economies from the 1990s to the first decade of the 21st century. Except for Thailand, Malaysia, Mongolia and Indonesia, the Gini Coefficients increased sharply in other ESA economies. In particular, the Gini coefficient increased from 41.74 to 47.25 in China

and from 30.80 to 38.05 in Cambodia, in both cases with an annual rate of increase above 1%.

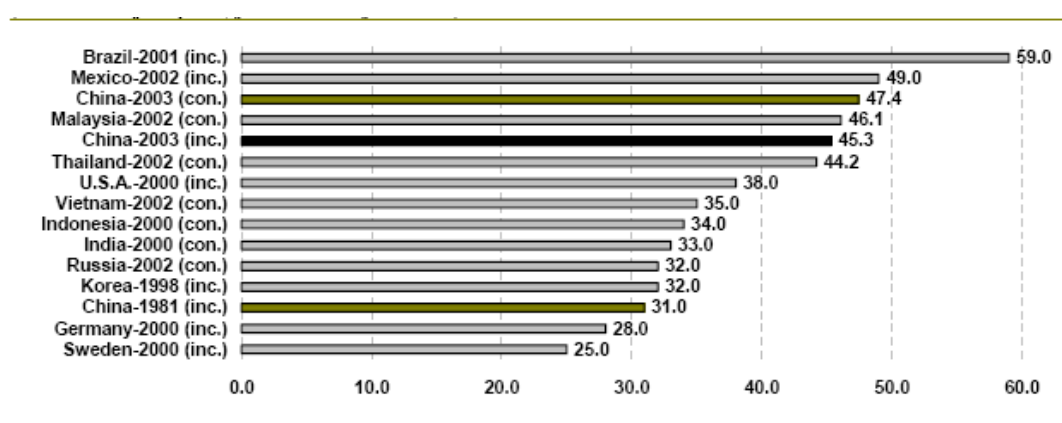
Even when judged against international standards, the degree of income and/or consumption inequality reached rather high levels in some ESA economies at the start of the new century. In Figure 4.8.3, some ESA economies are shown to have a Gini level rather high in the group. In particular, China's consumption Gini coefficient was 47.4, behind only Brazil and Mexico, both known to have the highest inequality in the world. Note that even though China's consumption Gini Coefficient is by no means the highest in the world, its annual rate of increase in the period 1993-2004 was a phenomenal 1.35% (see Table 4.8.3).

Table 4.8.2: Changes in the Gini Coefficient in ESA, 1990s–2000s

Developing Member Country in ESA	Period	Gini Coefficients		Annualized Growth Rates (%)
		Initial Year	Final Year	
Cambodia	1993–2004	31.80	38.05	1.63
China, People's Rep. of	1993–2004	40.74	47.25	1.35
Indonesia	1993–2002	34.37	34.30	-0.02
Korea, Rep. of	1993–2004	28.68	31.55	0.87
Lao PDR	1992–2002	30.40	34.68	1.32
Malaysia	1993–2004	41.22	40.33	-0.2
Mongolia	1995–2002	33.20	32.84	-0.16
Philippines	1994–2003	42.89	43.97	0.28
Taipei, China	1993–2003	31.32	33.85	0.78
Thailand	1992–2002	46.22	41.96	-0.97
Viet Nam	1993–2004	34.91	37.08	0.55

Source: *Key Indicator 2007*(ADB, 2007b).

**Figure 4.8.3: Income inequality in ESA from a cross-country perspective
(Gini indices of inequality for a number of countries)**

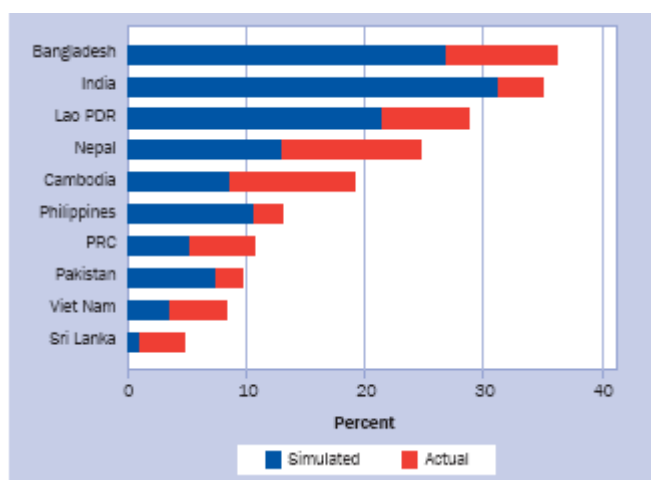


Source: China, From Poor Areas to Poor People, China's Evolving Poverty Reduction Agenda (World Bank, 2009b)

The direct impact of income inequality on poverty is associated with the large income gap between the rich and the poor that a high income inequality generates. At the same level of

per capita income, economies with higher levels of income inequality will face greater poverty. This point is illustrated in Figure 4.8.4: the length of the blue column in this diagram represents the proportion of the population who are poor in some Asian economies when the Gini coefficient remains at the baseline; while the combined length of the blue column and red column measures the percentage of the poor when the Gini coefficient increases. We find that the deterioration of expenditure inequality invariably worsened the poverty situation in these economies. For Cambodia, China and Vietnam, the three ESA economies, the share of poverty that resulted from increases in expenditure inequality even accounted for more than half of the overall poverty.

Figure 4.8.4: \$1-a-day Poverty Rates, Actual versus Simulated



Notes: Poverty rates are for the following years: Bangladesh (2005); Cambodia(2004); People's Republic of China (2004); India (2004); Lao PDR (2002);Nepal (2003); Pakistan (2004); Philippines (2003); Sri Lanka (2002); and Viet Nam (2004). Simulated poverty rates are computed using expenditure distributions for the following years: Bangladesh (1991); Cambodia (1993); People's Republic of China (1993); India (1993); Lao PDR (1992); Nepal (1995); Pakistan (1992); Philippines (1994); Sri Lanka (1995); and Viet Nam (1993). Source: Key Indicator 2007(ADB, 2007b).

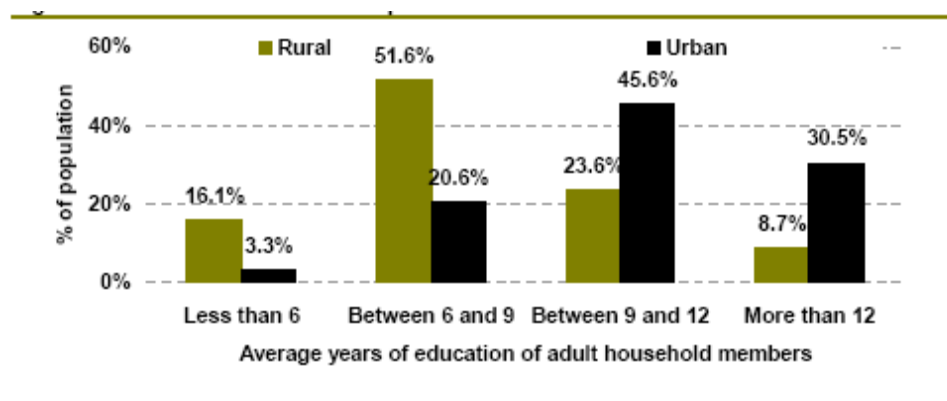
(3) Severe Inequality in Other Aspects of Human Development

Over the last two decades, although ESA economies have made great achievements in health,

education and in other fields, inequality in these areas has remained rather severe. This is both a reflection of the worsening income inequality in the region, and a case of multidimensional poverty.

In Section 4.6 we have looked at the educational inequality in Indonesia, Cambodia, Philippines and Vietnam, four Southeast Asian economies (See Figure 4.6.1). It can be seen that in these economies, there is widespread inequality among different income groups in access to basic education. The bottom quintile of people with the lowest income received much less basic education than the top quintile with the highest income level. This is particularly evident in Cambodia. The gap in health, education and other human development dimensions not only exists between different income groups but also between urban and rural areas in some economies. Figure 4.8.5 shows the urban-rural gap among Chinese adult family members in the average number of years of schooling. We can see that the majority of rural adults (67%) received less than nine years of schooling, while more than 76% of the urban adults received over nine years of schooling. Education inequality not only contributes to income inequality but also causes those with less education to fall into multidimensional poverty.

Figure 4.8.5: Differences in the Average Number of Years of Education of Adult Household Members between Rural and Urban Areas in 2003, China.



Source: World Bank estimates from national samples of NBS' 2003 Rural and Urban Household Surveys.

4.8.3 to Meet New Challenges – The Construction of a More Comprehensive Social Welfare Scheme

Overall sound social welfare systems can play an important role in the alleviation of absolute income poverty, relative income poverty and multidimensional poverty. First of all, many households in the ESA region face various kinds of risk, including natural disasters, health problems, fluctuations in agricultural production and prices, unemployment, and so on, which pose severe risks of potentially falling into poverty. The social welfare system can help these families to cope with these risks, and contribute to alleviating and possibly eliminating absolute poverty through social insurance and social relief, etc. At the same time, a sound social welfare system can help reduce income or consumption inequality, and the inequalities in health, education, and other dimensions of human development, contribute to the alleviation of relative poverty and multidimensional poverty. For future pro-poor practice in the ESA region, we propose to establish a more comprehensive social welfare scheme on

the basis of previous successful experiences in dealing with the new challenges in poverty alleviation.

(1) To Provide Social Security for the Vulnerable Groups to Reduce Absolute Poverty

One of the most important functions of the social welfare system is to help the poor cope with the various risks that they face. In 1601, the first “poor law” was enacted in Britain, which was the first to implement some kind of a social relief system by means of national legislation, putting poverty relief as its main objective. After the War many ESA economies experienced rapid economic growth, while at the same time many problems appeared in respect of income distribution and other social aspects, putting many families in high danger of falling into poverty. In around the 1990s, some economies in the region began to build a more comprehensive social welfare system, with a view to providing better support to vulnerable groups, thereby eliminating absolute poverty.

In the process of economic reform during the 1980s and 1990s, the traditional community-based and enterprise-based Chinese social security systems also disintegrated. By the mid-90s, China began to rebuild the urban social security system, while the reconstruction of rural social security system has also become an important policy concern in the past few years. In the past decade, China has made considerable progress in the redevelopment of urban and rural minimum income support, old-age insurance, medical insurance and medical relief, disaster relief, unemployment insurance, housing security, the support for the disabled and other vulnerable groups, etc. (World Bank, 2009b; CDRF,

2009).

In other ESA economies, notably between 1980 and 1997 South Korea implemented the universal health insurance scheme, the national pension plan, the minimum wage and employment insurance system. After the successive promulgations of "National Health Insurance Act" and "National Basic Livelihood Security Act" in 1997, the South Korean social welfare system has gradually entered a mature period. Singapore's social welfare system includes not only the Central Provident Fund system that incorporates old-age pension, housing, medical and other benefits, but also a series of other social welfare programs aimed at improving the living conditions of the low-income population by housing allowance, basic needs relief, education benefits, medical benefits, employment services, child subsidies and transport subsidies. Hong Kong's social welfare system provides protective cover for the old age, disability, illness, unemployment, single-parent and low-income families, victims of violent crimes and enforcement action, natural disasters and other accidents. The security these programs provide plays an irreplaceable role in helping the poor and vulnerable groups to withstand risks (CDRF, 2009).

(2) To Fully Utilize the Redistributive Function of the Social Welfare System in Alleviating Relative Poverty

In addition to protecting vulnerable groups against risks of falling into absolute poverty, the social welfare system can also redistribute income to low-income groups to alleviate relatively poverty. Table 4.8.3 shows the changes in the relative poverty rate in the selected

developed countries before and after the implementation of social welfare programs. As can be seen, after the implementation of social welfare programs, relative poverty rates of all countries in the table decreased significantly, an example of how social welfare programs can contribute significantly relative poverty alleviation.

Table 4.8.3: Social Welfare Policy and Relative Poverty Rates (percent), circa 1991

	Posttax/Posttransfer Relative Poverty	Pretax/Pretransfer Relative Poverty
Australia	6.4	21.3
Belgium	2.2	23.9
Canada	5.6	21.6
Denmark	3.5	23.9
Finland	2.3	9.8
France	4.8	27.5
Germany	2.4	14.1
Ireland	4.7	25.8
Italy	5.0	21.8
Netherlands	4.3	20.5
Norway	1.7	9.3
Sweden	3.8	20.6
Switzerland	4.3	12.8
United Kingdom	5.3	25.7
U.S.	11.7	21.0

Source: Kenworthy (1999).

In many ESA economies (e.g. China), income inequality between urban and rural areas has been a serious problem. Provided that there is an adequate financial capacity, building a social welfare system with extensive coverage can effectively alleviate income inequality. As for the majority of ESA economies, a large number of the poor people reside in the rural area with little social protection. The expansion of social welfare programs in rural areas is the future policy priority. In recent years, the rural security system in China has been greatly

strengthened. In 2008, more than 90% of the rural population came under the cover of the new rural cooperative medical scheme. At the same time, active promotion of rural old-age insurance scheme is also in process (MOH, 2009; CDRF, 2009). Nevertheless, there exists a wide gap between the urban and rural social security systems in the level of benefits provided. The integration of the urban and rural social security systems in the country can help raise the level of benefits provided to the rural people, including the rural migrants working in cities. At the same time, it can contribute to the building of a more flexible and competitive labor market (World Bank, 2009b).

(3) To Provide Basic Health and Basic Education to Reduce Multidimensional Poverty

Health and education are two key forms of human capitals. Improvements in these can extend the working time of the poor and raise their labor productivity, and hence their income levels. Health and education are also important dimensions of human development, so a lack of basic education and basic healthcare can mean serious multidimensional poverty. Thus, it is of great importance to ensure that people can access these two basic public services.

Most ESA economies have done quite well in universalizing the coverage of basic education. For example, in 2004, basic education coverage is close to 100% in China, South Korea, and Cambodia. However, some countries such as Mongolia and Laos have done relatively poorly in this regard, both achieving a coverage below 85% in 2004. Through social welfare systems to guarantee access to affordable basic education to people has been an important

policy success in many ESA economies. China's free nine-year compulsory education is an example. Incorporating basic education into a country's social welfare system may be a future trend, as other countries and economies realize the importance of basic education in poverty reduction and in promoting economic growth, in addition to its intrinsic human development value.

Another key policy challenges too many ESA economies is the provision of basic medical services through the social welfare system. Many ESA economies have begun exploration on this policy practice (see section 4.7.2). So far, China has established a health insurance system including medical insurance for urban workers, medical insurance for urban residents, new rural cooperative medical insurance for rural people, and the system of urban and rural medical relief. It is an important policy objective to provide access to basic medical services for every citizen, announced in China's new medical reform program. However, in some other countries in the region (such as Laos and Cambodia), it will still be a long way to go before they can achieve the goal of providing basic medical services access for their citizens.

4.9 Inclusive Urbanization

4.9.1 The Problem of Dualistic Segmentations within Cities: Unjust Distribution of the Benefits of Urbanization

Most ESA economies are experiencing urbanization at rapid rates, which are likely to continue into the next 20 years (as shown in Figure 4.9.1). Urbanization in this region is mainly driven by the rural-urban migration (Iimi, 2005), which can be seen from Table

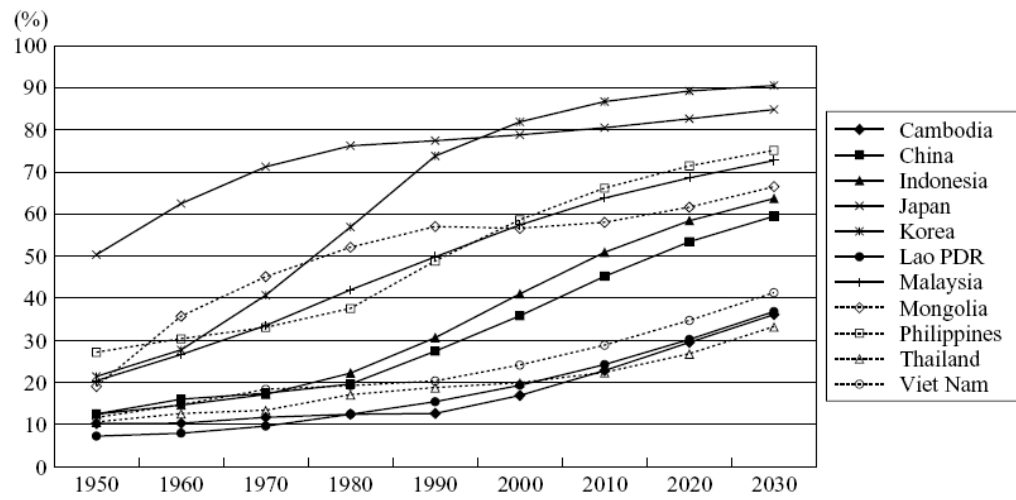
4.9.1⁵⁴. In China, the rural migrants, known as “migrant workers”, have become an important force in China's industrial labor. In 2006, the number of migrant workers accounts for 46.7% of the urban employed population⁵⁵. They are widely distributed across all sectors of the national economy. The proportion of migrant workers is over 50% in sanitation, home economics, catering and other service industries, 68% in the processing and manufacturing industry and nearly 80% in the construction and extractive industries (CDRF, 2009: p. 54).

Sometimes known as the “floating population”, the migrant workers have made tremendous contributions to the ESA's economic and social development as well as urban constructions and prosperities. However, they have received patently incommensurate treatments in public service and social welfare provisions. In cities, the ubiquitous divisions between floating population and urban residents in employment, education, health care or other social welfare systems not only give rise to the unjust distribution of urban wealth, it also impedes the quality improvement of urbanization

⁵⁴ There are three factors of urbanization: natural increase in urban population, rural-urban migration and reclassification from rural to urban areas due to a population increase. One of the characteristics of urbanization in the Asian region is that rural-urban migration is the largest factor of urban population growth (Iimi, 2005:97).

⁵⁵ Table 4.1, CDRF (2009).

Figure 4.9.1 Trends of Urbanization Rates in East and Southeast Asian Regions



Source: Iimi, 2005.

Table 4.9.1 Proportions of Migration or Reclassification to Urban Population Growth in East Asian Economies⁵⁶

	Urban Population (million)		Net Migration & Reclassification Percentage
	(1985)	(2000)	
Less developed regions	1,190,776	1,964,003	44.81
Eastern Asia			
China	246,089	456,340	68.27
China (Hong Kong)	5,070	6,860	51.61
DPR of Korea	10,683	13,415	-8.27
Japan	92,652	100,089	-77.20
Mongolia	1,051	1,434	-4.86
Republic of Korea	26,478	38,269	51.19
South Eastern Asia			
Cambodia	1,011	2,216	51.53
Indonesia	43,552	86,943	66.03
Lao PDR	500	1,018	46.25
Malaysia	7,197	12,758	44.20
Myanmar	8,927	13,220	27.81
Philippines	23,346	44,295	45.97
Singapore	2,709	4,018	50.90
Thailand	9,030	12,453	40.51
Viet Nam	11,558	18,816	36.73

Source: Iimi, 2005: p98

(1) The Dualistic Segmentation in Employment

The dualistic segmentation in employment is the most common problem of injustice encountered by floating population in cities. Although the segmentation is not enforced by the laws of many ESA economics, its extensive presence in labor-market as a result of the

⁵⁶ Source and note: This table shows the estimates of the proportion of rural-urban migration to urban population growth in East Asian countries, which is based on a simple calculation using macro data, the 'residual method.' Based on the population in 1985 (N1985) and assuming that the annual death rate (μ) and the younger population rate under the age of 15 (d) are constant, the urban population only due to natural increase by 2000 is estimated (P2000). Then, the proportion of rural-urban migration or reclassification can be computed by the difference between the estimated urban population by natural increase and the actual urban population (N2000). That is, the proportion of change in migration or reclassification to

urban population growth (ρ) is calculated as follows:
$$\rho = (N_{2000} - P_{2000}) / (N_{2000} - N_{1985})$$

$$= \left[N_{2000} - \frac{N_{1985} \exp\left(-\int_0^{15} \mu dt\right)}{1 - \delta} \right] / (N_{2000} - N_{1985})$$

 .See more details in (Iimi, 2005: pp97-98).

discriminations deeply embedded in the social ideologies has a severely adverse impact on the development prospects of the floating population in cities. The following phenomenon can be observed across many economies and regions: priorities will be given to the local people when job opportunities become scarce. With their concerns that the “migrants” may affect local employment, a number of regions, especially some mega-cities, even introduce intervening policies and regulations against migrant employment (UNDP, 2009). In ESA regions, most rural migrants belong to the lower classes, usually living in urban slums or squatter settlements. Slum dwellers have limited access to credit and formal job markets due to stigmatization, discrimination and geographic isolation (UN-Habitat, 2003: vi). Many migrants are employed in informal urban sectors. For example, the migrants in Mongolia, China, Malaysia and other economies are mainly engaged in temporary, arduous and informal work without legal protections. On the basis of China's census data in 2000, Table 4.9.2 summarizes the distinctions between the occupations of migrant workers and urban residents in China: Migrants are most likely to be production or transport workers (51.0%) followed by commercial or service workers (36.4%). This is also true for local residents, but the share of workers in white collar jobs is much higher for local residents (38.8%) than for migrants (12.5%). Similarly, migrant jobs are concentrated in manufacturing (40.3%) and retail and wholesale trade (28.8%), while local residents are spread more evenly across sectors and are much more likely to be working in high-skill sectors such as finance or education (The World Bank, 2009a: 179-180). Moreover, migrants are generally working longer hours with lower payments than the local residents. According to the survey of some Chinese provinces by UNDP (2009), the working hours of low-skilled migrants are 1.5 times

those of the local workers. The result of China's Urban Labor Survey 2005 showed that in Shanghai, Fuzhou, Shenyang, Xi'an and Wuhan, the migrants on average worked 304 hours per month, as compared with 198 hours for the local residents. The migrants earned 3.83 Yuan per hour, while it was 7.74 for local residents (Park, Wang, and Cai, 2006). In addition, the segmentation in China's labor market is also reflected by the differences between the migrants and local residents in social welfare and insurance provisions by their work units. According to China's Population and Labor Economics Research Institute's survey, China's floating population in both the formal sectors and informal sectors have much poorer access to social welfare than the local residents (for details see Table 4.9.3) (Lu and Feng, 2008: p. 75).

Table 4.9.2 Occupations and Sectors of Local Residents and Migrants in Chinese Cities, 2000

Occupations:	% of residents	% of migrants
Government, party, and managers	6.0	2.7
Technical workers	19.8	4.8
Clerical workers	13.0	5.0
Commercial and service workers	24.5	36.4
Production and transport workers	36.7	51.0
Other	0.1	0.1
Sectors	% of residents	% of migrants
Mining	2.2	1.0
Manufacturing	31.9	40.3
Utilities	2.5	0.4
Construction	5.6	10.7
Geological survey, water management	0.5	0.1
Transport, storage, post, communication	7.8	4.2
Retail and wholesale trade	17.8	28.8
Finance and insurance	2.6	0.5
Real estate	1.3	0.8
Social services	7.2	8.5
Health, sports, social welfare	3.6	1.0
Education, culture, arts	7.1	1.8
Scientific research and technical service	1.3	0.3
Government, party, NGOs	7.8	1.2
Other	0.9	0.3

Source and notes: 2000 Census. Migrant is defined as persons whose hukou is in a different county or city than their place of residence.

Source: World Bank, 2009b: p. 180.

Table 4.9.3 Social Security Coverage for Local Population and Floating Population (percent), China

Social Security	Local Population	Floating Population
Informal employment		
Old-age support	54.8	2.1
Unemployment insurance	12.6	0.4
Industrial injury	6.0	1.2
Health care	32.6	1.3
Formal employment		
Old-age support	82.1	29.0
Unemployment insurance	39.7	17.8
Industrial injury	29.1	31.7 ^a
Health care	71.4	29.7

^a As the floating peasant workers are engaged in special types of work, their risks of injury are higher than those for the local workers; therefore, the percentage of their population participating in industrial injury insurances at regular institutions is higher than that of local workers (Source: Lu and Feng, 2008:76).

(2) The Dualistic Segmentation in Education

The dualistic segmentation within cities is mainly reflected from the disparities in educational services between the migrant children and local children. Due to the social and cultural isolations, a number of temporary migrant children who move with their parents from rural areas into cities or those born by migrant parents in cities without *hukou*, usually cannot attend good schools. Some children are deprived of education opportunities by poverty, poor health or autism fears, while others have to move around with their parents and discontinue their education. In China, the dualistic system built upon the household registration scheme has posed many obstacles to the education of migrant children and greatly limited their access to urban educational resources and services. According to the 2001 and 2005 China Urban Labor Survey in 4 large Chinese cities (Wuhan, Xian, Shanghai

and Fuzhou), children of non-local residents are usually declined by local schools or are asked to pay extra fees. In some cities, migrants have established their own schools with privately-hired teachers. However, such schools usually have expensive charges due to their inadequate public funding. As shown in Table 4.9.4, the mean school fees for migrant children in 2005 would have been 35% lower than they were if migrants had local *hukou*, as compared with 43% in 2001. In 2005, 69% of migrants report that school fees would be lower with a local *hukou*, as compared with 74% in 2001. Although these results suggest slight reductions in educational discriminations against migrants from 2001 to 2005, further breakdown of the results by city reveals that the improvements were entirely caused by the substantial reductions of educational discriminations in Shanghai against migrants. By 2005, only 22% of migrants in Shanghai reported having to pay extra school fees due to non-local *hukou* as compared with 80% in 2001, and the differences between mean school fees with and without local *hukou* were negligible. In the other three cities, the percentage differences in school fees associated with *hukou* status and the percentages of migrants reporting having to pay extra fees due to their lack of *hukou* actually demonstrated slight rises from 2001 to 2005. Overall, it appears that in most Chinese cities, little progress has been made in reducing educational discriminations against migrants. In 2004, the government passed a new regulation requiring urban governments to provide educational access to migrant children. However, it remains unclear to what extent the new law has been implemented (The World Bank, 2009a: p.181-182).

Table 4.9.4 City Educational Costs of Migrant Children with and Without Local Hukou

		Mean city school fees (yuan)	Mean city school fees if local hukou (yuan)	% reduction in mean city school fees with local hukou ((a)-(b))/(a)	% for whom city school fees is greater without local hukou
	Year	(a)	(b)		
All	2001	1628	931	43	74
	2005	1571	998	35	69
Shanghai	2001	1744	926	47	80
	2005	1343	1311	2	22
Wuhan	2001	1402	893	36	65
	2005	1193	700	42	69
Fuzhou	2001	1973	967	51	73
	2005	1892	820	55	78
Xian	2001	1515	954	37	80
	2005	1793	980	42	89

Source and notes: 2001 and 2005 China Urban Labor Survey in 4 large cities (Wuhan, Xian, Shanghai and Fuzhou), based on estimates by migrant parents with children in school. Prices deflated to 2003 Yuan. Shenyang is excluded because the questions were not asked properly in 2005.

Source: World Bank, 2009b, p.182.

(3) The Dualistic Segmentation of Health Care

There is also severe dualistic segmentation of health care within cities. Although cities have more adequate health facilities and health human resources, they cannot be accessed by all floating population. In many cities, health care services accessible to the migrants are much less than those to the local residents. Health insurance in China is linked to their *hukou* status. It is difficult for migrants either to join the urban health care system that covers regular workers, or to participate in the rural cooperative health care system since they work in cities all year round. Therefore, the migrants are in the most awkward position in the whole health care system (Lu and Feng, 2008). The labor force survey of 12 Chinese cities in 2005 showed that the health insurance coverage for urban residents was 52.3%, while merely 6.8%

for floating population (The World Bank, 2009a). As a model city for its health care service provisions to migrants, Shanghai had full vaccination coverage for local children in 2004 while it was only 2/3 among migrant children (UNDP, 2009). In 2007, among the nearly 140 million Chinese migrant workers, only 3133 migrant workers participated in the health insurance programs (CDRF, 2009). According to the survey of some Chinese provinces by UNDP (2009), no more than 1/10 of the low-skilled migrants have health insurance. In recent years, the reported rate of communicable diseases including AIDS among the migrant population increases rapidly, with an annual growth rate of higher than 15% (CDRF, 2009). Family planning, reproductive health services and other basic services have not been extended to most migrant workers. Box 4.9.1 presents the differences between the local residents and the immigrants in maternal and child health conditions and their access to the related services at one eastern coastal city in Jiangsu Province, China.

BOX 4.9.1 The Maternal and Child Health of the Migrant Population in Wujiang

Wujiang City is located in the southern tip of Jiangsu Province of China. In the list of the top 100 Chinese counties in 2006, Wujiang was ranked ninth. Immigration is one of the forces driving local economic development and rapid urbanization. By the end of 2004, the immigrant population had already reached 353,200, 45.4% of the registered population in Wujiang.

1. The MCH Situation among Wujiang's Migrant Population

The migrant population's utilization of MCH services and their health conditions have already reached a relatively high level, and are better than the national averages in many ways. However, there is still a substantial gap between the MCH conditions of the local registered residents and those of the migrants, which is shown in Table I and Table II.

Table I Comparison of Maternal and Child Health Indicators in Wujiang 2006

	Systematic Management Rate of Pregnant and Puerperal Women (%)	Percentage of Hospitalize d Delivery (%)	Maternal Mortality Rate (1/100000)	Percentage of New-metho d Delivery (%)	Infant Mortalit y Rate (%)	Mortality Rate of Children Under 5-year (%)
Wujiang	63.66	99.72	11.63	99.72	(8.57) *	(11.03) *
Local	90.1	99.85	0	99.85	4.26	5.77
Migrant	41.6	99.62	21.34	99.62	5.06	7.76
National	76.50	88.40	34.8	97.8	(19) *	(22.5) *

* Data in brackets are for 2005.

Data source: "China Health Statistics Yearbook 2007", "2007 Jiangsu Province Statistical Yearbook", and survey data from Wujiang City Health Bureau.

Table II Comparison of Child Health Indices Among Wujiang Local, Immigrant Population and the Country Average Level

	2000	2001	2002	2003	2004	2005	2006
Perinatal infant mortality rate (‰)							
Average level in Wujiang	10.25	6.63	9.3	10.64	9.44	8.5	6.95
local	10.25	6.63	8.57	8.34	7.58	5.72	5.35
migrant			11.75	14.09	12.13	11.62	8.28
National wide	13.99	13.28	12.47	12.24	11.08	10.27	9.68
Low birth weight rate (%)							
Average level in Wujiang	1.32	1.03	1.28	2.66	3.01	2.48	3.28
local	13.2	1.03	1.51	2.01	2.65	2.03	2.25
migrant			0.53	3.64	3.52	2.99	4.14
National wide	2.4	2.35	2.39	2.26	2.2	2.21	2.22
Infant visit rate (%)							
Average level in Wujiang	96.96	95.73	93.22	97.86	99.83	97.92	99.4
local	96.96	95.73	94.11	100	99.97	99.54	99.54
migrant			90.24	94.75	99.91	96.08	99
National wide	85.8	86.27	86.12	84.65	84.96	85.03	84.7
Systematic management rate of child under 3-year (%)							
Average level in Wujiang	95.24	92.34	87.59	91.47	94.05	95.29	86.32
local	95.24	92.34	94.15	93.03	95.83	98.26	93.61
migrant			22.85	72.99	80.96	89.89	79.9
National wide	73.84	74.65	73.88	72.77	73.73	73.88	73.9
Management rate of child health (%)							
Average level in Wujiang	96.48	95.82	95.6	92.92	95.13	95.29	96.48
local	96.48	95.82	95.82	95.67	95.89	98.26	98.17
migrant			90.29	42.2	85.28	89.89	94.07
National wide	73.37	74.47	74.03	72.68	74.44	74.79	75

Data source: Wujiang health department survey data; web of Jiangsu Health Department; China Statistical Annals 2007.

2. The Main Reasons of the Gap

- ♦ **The restrictive nature of the residency system**

Resident welfare is awarded to local (registered) residents. Migrants, however, are, excluded.

- ♦ **The pressure on local finances**

As one part of China's public financial system, a large portion of the local government's revenues siphoned off to the higher-level government bodies. In Wujiang, only 50% of the municipal total revenues can be retained locally. Meanwhile, the migrant population growth has actually raised the demand for MCH services. Under these conditions, the local government tends to prioritize services for the resident population, whereas public spending on the migrants is allocated on an ad hoc basis.

3. Policy recommendations

Central and local governments should jointly subsidize the service providers (MCH institutions) in order to improve its ability to supply those services. Central government should take the lead role in planning and financing, using medical insurance as a way to reduce the MCH-related financial burden on the migrant population.

Source: Liu et al., 2008. The Role of Government Funding in the Promotion of Universal Access to Maternal and Child Health Services. A study of government funding for the Maternal and Child Health Services.

(4) The Dualistic Segmentation in Housing Conditions

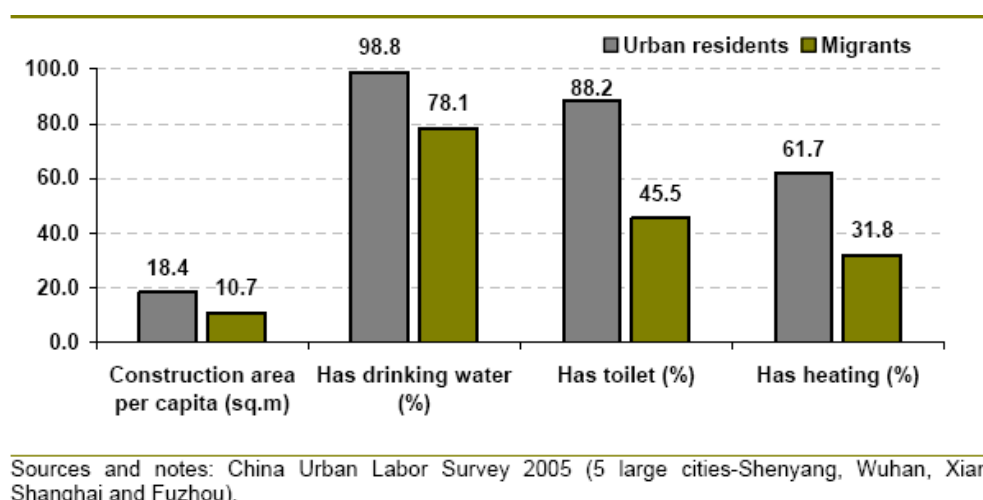
In ESA cities, many migrant populations live in urban slums or squatter settlements. Slums have the least endurable conditions as follows: insecurity of tenure; lack of basic services, especially water and sanitation; inadequate and sometimes unsafe building structures; overcrowding; and location on contaminated land. In addition, slum areas have high concentrations of poverty and other social and economic deprivations such as broken families, unemployment and economic, physical and social exclusions. Slums are often recipients of the city's nuisances, including industrial effluents and noxious wastes, and the only land accessible to slum dwellers is often fragile, dangerous or polluted – land not desired by anyone else. People in slum areas suffer inordinately from water-borne diseases such as typhoid and cholera, as well as more opportunistic ones that accompany HIV/AIDS. Women slum dwellers – and their children – are the greatest victims among all (UN-Habitat, 2003: vi). According to the statistics, in 2001, 28% of urban population of Southeast Asia lived in slums. During the rapid industrialization between 1970s and 1980s, it was estimated that 20 to 25 percent of Jakarta (in Indonesia) residents lived in kampongs, with an additional 4 to 5 per cent squatting illegally along riverbanks, empty lots and floodplains (UN-Habitat, 2003:212). In Philippines, slums are now scattered over 526 communities in all cities and municipalities of Metro Manila, housing 2.5 million people on vacant private or public lands, usually along rivers, near garbage dumps, along railroad tracks, under bridges and beside industrial establishments (UN-Habitat, 2003: p.215).

Although the intractable-slums are few in China's major cities, the migrant population's

housing conditions are also quite poor. There is a substantial disparity of housing conditions between the migrants and the local residents. According to a survey, in 2006, 29.19% of the migrant workers lived in dormitories, 20.14% in rooms without kitchens and washrooms, 7.88% at their workplaces, and 6.45% in temporarily erected sheds⁵⁷. The housing needs of migrant workers are not incorporated into the planning of many cities (CDRF, 2009). Housing reforms in the late 1990s have deepened the market for rental units. However, because most local residents were allowed to purchase housing at subsidized prices while migrants had to pay market rental rates, housing reforms have increased wealth and income inequality in urban areas (Sicular et al, 2007). Using 1999 survey data from 13 cities in 6 provinces, Sato (2006) found that 67% of migrant households in urban areas rented their housing, and the average annual rent was 2281 Yuan (\$285), 26% of the average migrant household expenditures. In contrast, local residents spent only 7% of their expenditures on housing. The 2005 China Urban Labor Survey asked questions about the housing situation of migrants. As seen in Figure 4.9.2, compared to local residents, migrants live in housing with much less space (10.7 m² versus 18.4 m²) with less access to drinking water (78.1% versus 98.8%), toilets (45.5% versus 88.2%) and heating (31.8% versus 61.7%). Sato (2006) and Logan, Fang and Zhang (2006), using earlier data also found significant differences in the housing qualities of migrants versus those of local residents. With the rocketing housing prices across many large cities in China, finding affordable housing may become a greater challenge for migrants in the future. Migrant “villages” in outlying urban areas already have a long history in many Chinese cities (The World Bank, 2009b, p. 183-184).

⁵⁷ National Bureau of Statistics: "Survey of Migrant Workers' Quality of Life II: Living and Educational Conditions" (<http://www.stats.gov.cn>)

Figure 4.9.2 Housing Conditions of Local Residents and Migrants



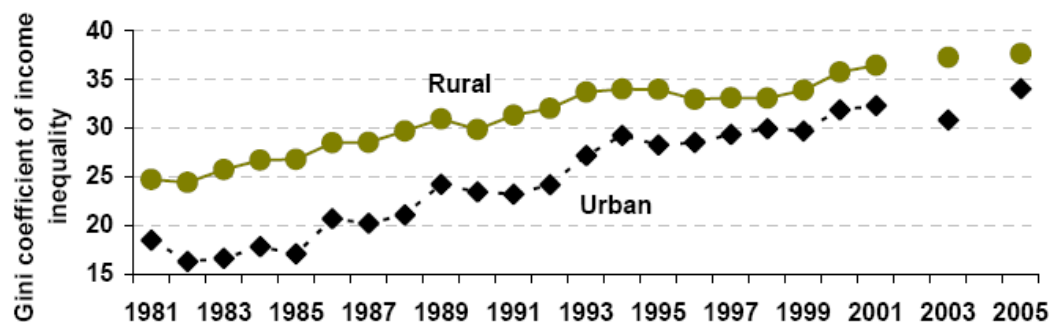
Source: World Bank 2009b, p. 184

(5) Wealth Disparity

Tremendous wealth disparities exist in many ESA cities. For example, in some major cities of Philippines, most wealth is controlled only by a handful of people; the juxtaposition of skyscrapers and slums is quite common at those cities. Since the Reform and Opening-up of China in 1978, the income gaps between urban residents are also widening with the progress of its urbanization (see Figure 4.9.3). A report on urban poverty by the ADB uses data from a one-time urban survey by NBS in provincial capital cities in 1999 to analyze the poverty situation of migrants and local residents (ADB, 2004b). This report estimates income poverty headcount rates of 10.3% for local residents and 15.2% for migrants. A recent study using data from the China Income Distribution Survey (CIDS) conducted in 2002 in cities in 6 provinces estimates on the basis of urban Di Bao lines that the income poverty headcount rates for local residents to be 3% and for migrants 10%. The re-estimates based on a higher

poverty line are 6% for local residents and 16% for migrants (Du, Gregory, and Meng, 2006). If the poverty line is set to be two dollars per person per day, China's urban impoverished population should reach 30 million (CDRF, 2009). In China, under the influence of the household registration system, the proportion of impoverished population among migrants is twice that among urban residents (UNDP, 2009).

Figure 4.9.3: Gini Index of Income Inequality within Rural and Urban Areas, 1981-2005



Sources: Chen and Ravallion (2008) for all years except 2003; for 2003, World Bank estimates from NBS Rural and Urban Household Surveys.

4.9.2 Inclusive Urbanization: Reflections on the Existing Policies and Countermeasures

Inclusive urbanization aims at a just distribution of the wealth associated with urbanization.

The dualistic segmentations within cities leading to the injustice in distribution should be abolished. They result from a variety of reasons, most of which are problems of cities. For example, the low capacities of urban economic structure for the labor force; the inadequate carrying capacities of infrastructure's; injustice in employment, education, health care and other social insurance systems; mechanisms limiting free flow of factors (such as land use system and China's household registration system). Certainly, the individual factors of migrants, such as their inadequate skills and knowledge, their physical and psychological

fitness, are also important.

(1) Enhance Accommodation and Carrying Capacities of Cities; Ease and Avoid Slum Problems; Improve the Quality of Urbanization

Urbanization is driven both by the pulling forces of agglomeration economy and scale economy and by the pushing forces associated with the backwardness of economy, lowness of income and the lack of education and health resources in the rural areas. It is obvious the rural-urban migration as attracted by the urban demand for labor is voluntary. Cities provide the migrants with work and living space, adapting them to urban production and life more effectively. Migration, however, may lead to urban unemployment, urban slums and other negative consequences if the sizes of urban economies and infrastructures do not have supporting capacities. In that case, the quality of urbanization would be poor even though it may demonstrate a rising quantitative rate.

For East Timor, Cambodia, Vietnam and other economies that are still in the early stage of urbanization, they should on one hand secure basic public service provisions such as education, health care and transportation infrastructures in the rural areas so that the pushing forces of migration produced by the inadequacy of infrastructures can be minimized; and on the other hand, they should also proactively develop urban economy and urban infrastructures, expand urban carrying capacities, and guide urbanization with space-neutral policies. For Indonesia, Mongolia and other economies that are experiencing rapid urbanization, the governments must secure connecting infrastructures so that the benefits generated by the continuously rising economic densities may have wider coverage; and at the

same time, they should reduce the forced and helpless migrant population in order to ease and avoid the slums and other problems caused by over-urbanization. For South Korea, Malaysia, Philippines and other economies that are in the mature stage of urbanization, they need to further improve their infrastructure conditions and deal with slums by enhancing the urban economic capacities. South Korea has drawn certain lessons concerning this aspect. In the mid-1960s, South Korea initiated redevelopment policies of the slum areas in Seoul. Due to the lack of market force participation and necessary infrastructure constructions, however, these policies simply geographically relocated the slums into new places (The World Bank, 2009a). In the absence of adequate job positions, transportation, housing and other infrastructures, urban slums cannot be entirely eliminated. Therefore, it is critical to adjust urban economic structure and reinforce infrastructure constructions.

(2) Abolish Dualism in Social Welfare System; Improve the Land Management System;

Ease the Dualistic Segmentations

A. Abolish Dualism in Social Welfare System

Dualism exists within the social welfare systems of many ESA economies. Take the insurance system as an example. Economies in this region have all established social insurance systems covering pensions, unemployment compensations, paid sick leave, industrial and commercial compensations, and child allowances, etc., but only those employed in modern formal sectors such as regular firms, public organizations, governments and military in manufacturing and service industries may benefit (Gu, 2008:110). Many migrants are employed by urban informal sectors with quite limited social insurance services.

Even the coverage of social insurance in the formal sectors of many economies is also extremely limited. The social insurance coverage of Vietnam is merely 16% of the total labor force (Gu, 2008:111).

The dualistic structure of social welfare system aggravates the divisions within cities. It should be abolished for the justice between the migrants and the local residents. Such justice, however, may not be actively pursued by local governments under fiscal decentralization system and the ensuing great financial pressures. Therefore, both central and local governments should have their roles in the abolition of social insurance dualism. In China, the social insurance of people is tied to their hukou statuses, which poses many obstacles to the establishment of the social insurance system for the migrant population. The government should abolish the household registration system, eliminate differential institutional and policy treatments toward the migrants and urban residents, and build just and inclusive employment, education, health care, housing and other social insurance systems covering the migrants.

Although there are no laws and regulations to distinguish migrant population from the local residents in most cities in ESA region, discriminations and disgust against the migrant population are embedded in their social ideologies, which to some extent results from the dualistic social system. Ideological shift cannot be achieved through government fiats, but cities can gradually abolish their dualistic systems, ease the tensions and oppositions through the improvement of urban infrastructures, employment promotions and etc., and gradually

shift the social ideology against the adaption of migrants to urban life.

B. Improve Land Management System

Social polarization caused by land privatization and free trading occurs during the urbanization processes in some economies. Polarization even in today's India, Philippines, Malaysia and other economies that pursue private ownership of land is still astonishing. Dualistic society, however, is not the inevitable consequence of private land ownership and free trading system. Japan is such a good case in point. Most rural migration to cities is based on voluntary choices made. Most peasants do not move blindly. Rather, they believe that they can lead a better life in cities than in rural areas after carefully weighing the costs and benefits. This is a natural and steady historical process (Nan, 1989). Distinct from many ESA economics, China has public ownership of land and collective ownership of land in rural areas. The peasants only have the right to use, but have no right to free leasing and trading. If the peasants work in cities for a long period, their land may be unconditionally reclaimed and re-distributed by the collectivities. That upsets a lot of floating migrant workers in cities and makes their adaptations to urban life and self-identifications as members of city difficult. Private ownership of land is not the only culprit for dualism and public ownership of land is not free of social dualistic segmentation. Although China has much fewer slums as those in India or Philippines, the disparities between the rich and the poor are severe. The dreadful slums might be paradises as relative to some poor rural areas. Public ownership of land is not a panacea to social polarization. Instead, it is against the efficient allocation of resources and aggravates the conflicts between massive population and scarce land. Land transactions and distributions should be conducted through market mechanisms instead of power wills land

acquisition should be further institutionalized where land is privately owned. In China, DPRK and other economies with public ownership of land, clear land property rights and transferring system should be established, and land acquisitions should be subject to professional assessments and public processes.

(3) Improve the Quality of the Floating Population; Enhance the Abilities of the Migrants to Adapt to Cities

To prevent urban dualistic segmentations caused by the individual factors of the migrant population, it is necessary to improve the quality of the migrants. In ESA, the migrant population is generally poorly educated. According to the sample survey conducted by Chinese Ministry of Labor and Social Security, 55.7% of Chinese migrant workers attended only secondary schools or below (CDRF, 2009:58). Chinese researchers suggested the “9+1” compulsory education⁵⁸ for graduates of rural secondary schools should be gradually implemented so that those who discontinue their schooling after secondary school may receive a one-year free career education and the employment skills of migrant workers can be improved (CDRF, 2009:59). This proposal deserves serious attention by the government and may also be applicable to other economies' settings. Besides, the government should develop more approaches to enhance the abilities of the migrant population to adapt to urban society, provide the migrant population with vocational trainings and other services, and grant incentives to those training organizations as well as firms recruiting the trained migrant workers.

⁵⁸ China has nine-year compulsory education.

4.10 Governance and Public Policy

In terms of human development, governance has two important meanings. As pointed out in UNDP (2002, p.51-52), firstly, “it is partly about having efficient institutions and rules that promote development by making markets work and ensuring public services live up to their name.” Secondly, “it is also about protecting human rights, promoting wider participation in the institutions and rules that affect people’s lives and achieving more equitable economic and social outcomes.”

While public participation itself has important intrinsic values to human development, and hence constitutes a key part of good governance, at one level institutions and rules and public participations in them are but key instruments to ensure good governance. As well as being participatory, other key demands of good governance include transparency of policy making rules and processes, better accountability of policy makers for their decisions, and a due emphasis on fairness and efficiency.

Corruption is one of the consequences of bad governance. It involves public officials using their positions and power to make personal gains or curry personal favors. Other important consequences of bad governance including public policy making being held captive by powerful vested interests, inefficient and ineffective policy making and implementation processes, and misdirected public policies. All these cases exist to varying extents in ESA

economies.

It is not possible to review the vast field of governance, its various dimensions and roles, and how good governance may or may not be achieved across the board in all public policy sectors and all economies in the region. Below, we shall limit ourselves to considering, first, how governance as institutions and rules has fared in ESA in supporting particular public policies, and secondly how public participation, in its diverse forms, has facilitated the establishment of public policy programs. We choose one particular such policy program, the health insurance systems, in selected ESA economies. These are then followed by some brief remarks as to how progress in governance may further support and improve various public policy programs in the region. The intrinsic value of agency and participation, and good governance, is taken to be well understood and no further emphasis will be given to it.

4.10.1. Governance as Institutions and Rules⁵⁹

Institutions and rules are simply incentive systems that structure human interaction (North, 2003). —Public sector institutions include, on the one hand, the explicitly defined constitutions and laws, rules and regulations, which together are meant to ensure good governance, and on the other hand, the informal or internalized norms—tacit but no less real and effective “ways of doing things” (UNDP, 2009, p.1-2). Thus governance as institutions and rules can be seen primarily as an incentive system that is meant to provide good governance.

⁵⁹ This part of the discussion draws heavily on UNDP Human Development Report 2002, UNDP (2008b), and ADB Key Indicators 2006.

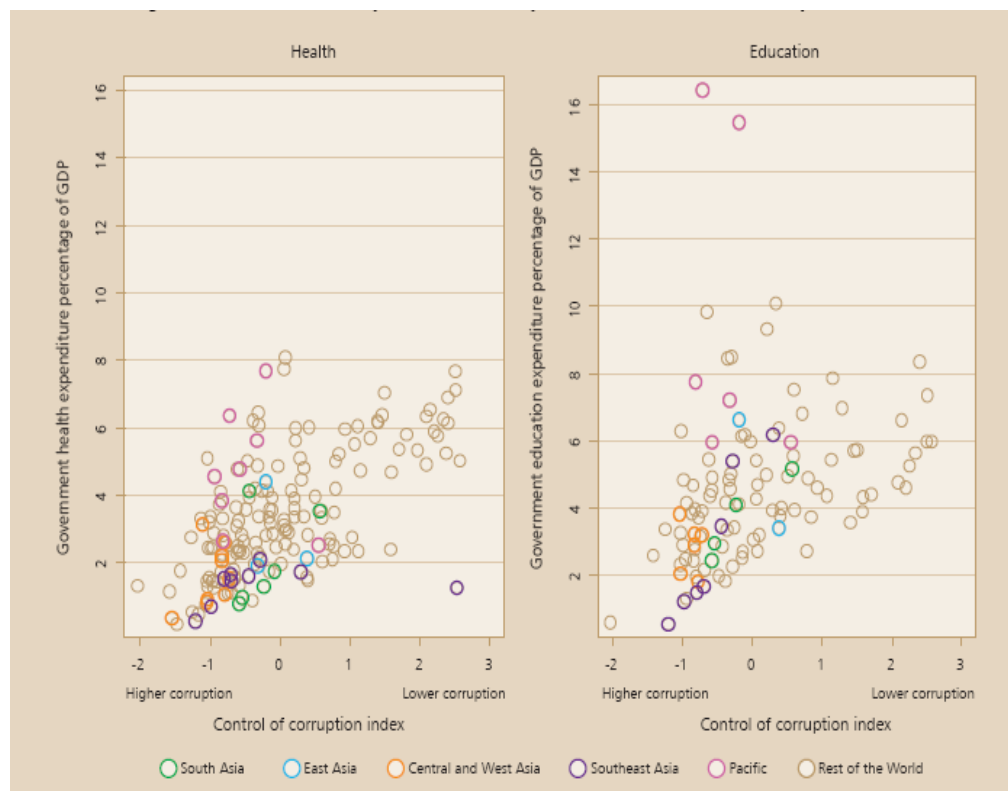
This incentives system first and foremost concerns government officials and the crucial role they play in policy making and policy implementation. From the perspective of economics, good governance requires that the interests of government officials and the interests of the public are compatible. This can be explained by the public choice theory, which holds that government officials will follow their own maximization principle, just as the enterprises and consumers do. If officials' behaviors cannot be restricted effectively by appropriate rules and regulations, they may well act, in policy making and implementation, to maximize their personal gains at the expense of public interests. On the other hand, the building and sustaining of these rules and institutions may well require public participation.

Corruption

According to the Asia Development Bank's *Key Indicator 2006* (p.18), corruption, whereby public officials use the power of their office to pursue their own interests, can have a serious effect on the composition of public expenditure, in a way that matters to human development. Of particular importance to human development is the weight in this composition that is given to health and education, both being core dimensions of human development. Figure 4.10.1 shows that government health and education outlays as a proportion of GDP are negatively correlated with the extent of corruption in a country, whether for East Asian economies, or across the world. And this relationship holds even after controlling for income and the size of the government, with the effect being more negative and significant for education spending than for health (Mauro, 1998). Mauro argues that this negative link

between corruption and social expenditure is because opportunities for rent-seeking behavior are lower in the social sector. Corrupt governments may be more likely to favor large-scale capital-intensive public projects where possibilities of kickbacks are higher.

Figure 4.10.1 Government Health and Education Expenditure as Proportion of GDP versus Extent of Corruption



Note: Higher values of control of corruption index imply lower corruption; date for the year 2000.

Source: World Bank WDI online; Kaufmann, Kraay, and Mastruzzi(2003); ADB Key Indicators 2006. p.19.

Not only do more corrupt governments tend to spend less on health and education, but also much of this expenditure tends to be dissipated through corruption. According to UNDP (2008, p.57-63), this is also true of ESA. —As a result even basic preventive measures such as vaccination program can be undermined, while families already in distress as a result of illness face the added anxiety of unpredictable extra costs or are driven towards the private

sector. Health funds can disappear at the highest level of government. In some countries 10 percent of the health budget can disappear en route from the Ministry of Finance to the Ministry of Health, and more subsequently leaks out through various side channels, as the funds flow from national governments to provinces and to local hospitals and clinics. Much of this corruption is linked with procurement as companies pay bribes for public contracts for major construction projects. There can also be kickbacks from suppliers of equipment or of ongoing services, such as meals or cleaning. Health ministry officials and hospital administrators can inflate the cost many times, colluding with private suppliers to share the difference.” (UNDP, 2008, p.58) In the education sector, –corruption in the procurement of material and labor for school construction can increase costs between two and eight times, as funds for school buildings are siphoned off by corrupt officials. As a result of the corruption, many countries in this region are vulnerable to earthquakes which have often laid waste to hundreds of schools, burying children within them.”(UNDP, 2008, p.63)

It has to be added that while many ESA economies have been troubled by extensive corruptions, by wide recognition some ESA economies have witnessed the world’s cleanest government. So the picture of corruption is a mixed one in ESA.

Vested Interests

Good governance requires that the policy making and implementation processes are not unduly influenced by vested interests. Transparency of these processes and widespread political participation in them can help ensure that these processes are broadly –fair”, and

that the outcomes broadly represent the interests of the public. In the absence of such wide political participations, “technocratic insulation” through system design (rules and institutions) may also, to an extent, help ensure that policy making and implementation processes are free from the influence of the vested interests. Ultimately, however, such system design has to be buttressed by political participation in the related rules and institutions.

According to the *East Asian Miracle* (World Bank, 1993), a system-design approach appears to be exactly what had happened in the earlier decades in the HPAEs that achieved shared-growth.

“Implementing Shared Growth to solve the problem of political legitimacy requires sharing but it also requires growth. We now discuss HPAE institutional traits that have been critical to achieving both these goals. Foremost among them is technocratic insulation—the ability of economic technocrats to formulate and implement policies in keeping with politically formulated national goals with a minimum of lobbying for special favors from politicians and interest groups. Without it, technocrats in the high-performing Asian economies would have been unable to introduce and sustain rational economic policies, and some vital wealth-sharing mechanisms would have been neutralized soon after their inception, as was land reform in the Philippines.”

(World Bank, 1993, 167.)

Box 4.10.1 Vested Interests Doomed the Philippine Land Reform

Philippine policymaking has historically been captive to powerful vested interests that have shaped economic policy to protect and enhance their privileged position, often to the detriment of national well-being. The difficulty of reforming the economy in the face of their opposition was especially evident after the 1986 “People Power” revolt that toppled Ferdinand Marcos and swept Corazon Aquino to power.

The many loopholes in the land reform law in Philippine illustrate the hazards of a weak bureaucracy, which can easily permit vested interests to shape key economic policies. While the ostensible goal of the reform was redistribution, enforcement was nearly impossible.

The failure of the Philippine program is a sharp contrast to the highly successful reform programs in Japan, Korea, and Taiwan (China). In each of those instances, land reform was backed and in some cases actively guided by U.S. officials who had little interest in protecting the landed elites. As a result, land retention limits were lower, compensation formulas were straightforward, and the pace of reform was too rapid to permit delaying tactics and widespread evasion. In each of these economies, successful land reform helped to lay the foundation for the rapid, shared growth that has continued to elude the Philippines.

Source: (World Bank, 1993, 169).

On the other hand, according to the same report (World Bank, 1993), “[w]hile insulation of the technocracy may be necessary, it is hardly sufficient in the long term. To sustain growth, a bureaucracy must have the competence to formulate effective policies and the integrity to implement them fairly. The more policymakers attempt to fine tune the economy, the greater the need for competence and honesty. Among the HPAEs, Hong Kong, Japan, Korea, Singapore, and Taiwan (China), have been successful in building relatively competent and honest bureaucracies. The Southeast Asian NIEs (the newly industrialized economies), Indonesia, Malaysia, and Thailand, have gradually introduced measures to upgrade theirs, with Malaysia in the forefront of the process, but they still clearly lag behind more industrialized economies. Despite the stress on culture in much popular writing about the Asian miracle, the most successful bureaucracies have not relied on culture alone. HPAE bureaucracies have employed numerous mechanisms to increase the appeal of a public service career, thereby heightening competition and improving the pool of applicants. The overall principles of these mechanisms, readily applicable to any society, are: (1) recruitment and promotion must be merit-based and highly competitive; (2) total compensation, including pay, perks, and prestige, must be competitive with the private sector; (3) those who make it to the top should be amply rewarded.” (World Bank, 1993, 174-175.)

A competent and honest civil service is not only necessary for sustaining growth, it is also important for implementing the right social policies, including those on education, health, social protection, environment, etc. But in the long run, it is unlikely that such a system can

sustain itself on its ~~in~~ternal strength”, so to speak. Without the participation of the wide public in monitoring its conduct, the corrosive forces of corruption are likely to soon or later destroy it. Even more importantly, political participation in policy making and implementation processes can help formulate national strategies and shape the direction of public policy, in ways that better reflect the preference and interests of the population.

4.10.2 Governance and Public Participation in Policy Making and Implementation Processes

Governance for human development is more than about effective institutions and rules, It also requires that the policy making process is transparent and involves public participation. UNDP (2002, p.51) has stressed the vital importance of good governance in this respect: First of all, ~~p~~articipating in the rules and institutions that shape one’s community is a basic human right and part of human development.” Second, ~~m~~ore inclusive governance can be more effective. When local people are consulted about the location of a new health clinic, for example, there is a better chance it will be built in the right place.” Third, ~~m~~ore participatory governance also can be more equitable. Much is known about the economic and social policies that help eradicate poverty and promote more inclusive growth. But few countries pursue such policies vigorously, often because the potential beneficiaries lack political power and their interests are not fully represented in policy decisions.”

Democracy

In general, democracy has an advantage in helping achieve incentive compatibility between

government interests and public interests. “Competition for political power—through elections and other features of democracy—makes politicians more likely to respond to people’s needs and aspirations” (UNDP, 2002, p.56). In terms of social policies, Meltzer and Richard (1981) argue that the social expenditure is determined in a majority rule system by the median income voter. When income is skewed such that the median income is lower than average income, there will be a tendency for the government to spend more on health and education. That is, democracies with high poverty rates and high inequality should, at least in theory, spend more on the social sector. Using *panel* data of 78 countries for the period 1985-1998, Baqir (2002) finds a significant impact of democracy on social spending, after taking into account factors such as income, population, openness, urbanization, and the population’s age structure.⁶⁰

Many ESA countries have made great progress in democratization in the past 30 years, exerting a significant positive impact on public policy. For instance, in the 1980s and 1990s, democratization in both South Korea and Taiwan brought about the establishment of a national health insurance program, which is of tremendous significance to both economies.⁶¹

Before the 1980s, both economies adopted a fragmented system of health insurance that operated along industry and professional lines. The main beneficiaries were public servants, teachers, and workers of certain core industries. The system stressed the feasibility and

⁶⁰ Using cross-section data for 78 countries, Baqir (2002) at first finds no evidence that democracy is related to social sector outlays. He argues this is because the level of decentralization is an important intermediating factor, and its omission in the cross-section regression makes it difficult to disentangle the effects of democracy on social expenditure.

⁶¹ The following discussion of the south Korean and Taiwanese cases draws on the account given in Li, Lianhua (2008).

survivability of the various programs. However, by not offering protection to those in real need, the system is hardly equitable. And it was not meant to be! In Taiwan, the fragmented system arose out of a need for social mobilization and control, while in South Korea it was established in order to reduce social tensions within the country following rapid industrialization. In both cases, it actually took on a developmentalist bend, and the level of financial support from the public budget was rather low.

In the 1980s, just as the South Korean government was hesitant over moves to establish national health insurance plans, the increased force of the opposition parties in the parliament threatened the survival of the government. Under pressure, the ruling party promised to speed up the establishment of a national health plan for rural and urban residents, separately, and exerted pressures on the government to act on it. In Taiwan, with the start of the democratization processes in 1987, demands of electoral politics forced all parties vying for power to adopt national health plans in their election manifestos. In 1995, the Nationalist Party government eventually succumbed to the pressure and established the National Health Insurance (NHI) program, 5 years in advance of its original target date. In 2005, the coverage of NHI had reached 97% (WHO, 2008a, 451).

It appears that democracy in South Korea and Taiwan has had a marked impact on their public policy. Nevertheless, the role of democracy in this respect can also be limited. To begin with, the influence of democracy on public policy varies greatly in different countries each of a democratic system. Indeed, according to Keefer and Khemani (2005), the median

voter income prediction does not appear to hold in low-income countries, even though the median voter is poor. The authors point to the abysmal government provision of health and education services in these countries, highlighting the role of political market imperfections in explaining this, where the poor in democratic countries are simply unable to exercise their numeric advantage to their benefit. In particular information problems distort the incentives of politicians so that they prefer to provide more visible and tangible outputs such as roads, landmark buildings, and public-sector jobs, rather than focusing their efforts on improving the quality of social provisions. Indeed, according to *Commission for Racial Equality* (2002), even in those highly democratized countries, democracy is not sufficient for ensuring equitability of public policy. Discrimination against ethnic minorities, women, the elderly and others continues even in long-established democracies. As UNDP (2002, p.59) points out, “[P]olitical incentives to respond to the needs of ordinary people may be offset by incentives to respond to the demands of the powerful or the wealthy.”

On the other hand, even in those relatively less-democratized countries, the outcome of public policy also can be improved through appropriate institutional arrangements. Abrami et al. (2008, p.38) compared the institutions in China and Vietnam, the two high-growth single-party regimes, and concluded that “Vietnam’s institutions empower a larger group of insiders (winning coalition) and place far more constraints on the party leadership, both through vertical checks and semi-competitive elections. As a result, Vietnamese economic policies must consider a larger cross-section of society. Consequently, Vietnam spends a far larger portion of its revenue on transfers and has been able to engender greater equalization

among provinces and individuals.”

Besides voting in elections, participation can take many different forms including through research institutions which serve as independent or commissioned think tanks for the government, and providing consulting services on public policy making. The next part of this subsection discusses the development of this form of participation in ESA, taking the example of the contribution of think tanks to the current healthcare system reform in China.

The Role of Think Tanks in China’s Healthcare System Reform⁶²

Like other areas of policy making in China, policy making in health in the early phases of the reform when China had just emerged out of the Cultural Revolution was highly bureaucratic and non-participatory; that is, decision making was done by only a few responsible government bureaus and their officials. This process of decision making may well produce a correct policy, but generally it has some important flaws. First, the objective for which the decision is made might be misplaced. Secondly, even if the objective is correct, decisions on the means to achieve the objective are often made on rather slim evidence, which could be based on mere personal experiences and observations of the officials and leaders involved, or questionable data and analyses produced by the research staff belonging to the government bureau in question.

In the late 1980s and early 1990s, in light of many previous policy errors and in view of the

⁶² This part on Chinese healthcare system reform and the role of think-tanks draws heavily on Liu and Wang (2009).

increasing complexity of most policy issues and the increasing magnitude of the consequences if a mistake were to be made, the leadership stressed the need for “scientific and democratic” decision making, which we may understand to mean a more evidence-based and more participatory decision making process. (Participation here need not mean participation by all stakeholders, but by the relevant sections of the scientific community.) During this period, many government and semi-government think tanks and research institutions emerged. In the health sector, for example, the Health Economics Research Institute of the Ministry of Health was set up in 1988. The emergence of these research institutes improved the evidence base of many policies but because they were so connected with and indeed were a close part of their respective super-ordinate government ministry or department, their role in initiating a policy debate and challenging an existing policy was understandably limited.

Health policy making had generally been closed to think tanks and research institutions other than those immediately affiliated to the MOH and other related government ministries and departments, and closed to the general public, until the most recent round of healthcare system reform. With the rise of a much more liberal political leadership taking over the helm of the Chinese economic and social reforms in 2003, a report by the Development Research Center (DRC) of the State Council on past healthcare reforms was released in 2005. The report was critical of the past policies, and the subsequent process eventually galvanized both government and independent think tanks and research institutions and, indeed, the media and the general public. This greater degree of democratization politically paved the way for a

period of heated, sustained and wide-ranging public debates on existing situations, past policy errors, and future policy directions that China has never seen either in health and in any other policy sector in recent decades.

The participation of the media and the general public in the debate, beyond the formal think tanks and research institutes, has contributed to the enshrining of some minimum health equity as a basic principle in health policy making. However, subsequent government driven research, focused on finding adequate policy solutions to the problems, have largely been confined to a few research institutes and think tanks. These research institutes and think tanks have, however, not only acted as producers of knowledge and evidence, but also as advocates for their favored policy position.

In September 2006, led by the National Development and Reform Commission (NDRC) and the Ministry of Health (MOH), 14 national ministries formed a multi-ministry Health Care Reform Coordination Team (HCRCT) entrusted with the responsibility of preparing a comprehensive plan for national healthcare system reform. According to the arrangement, each ministry would put forward its own proposal, and they would then meet to discuss how these separate proposals could be merged into one comprehensive plan. However, after three months, they failed to do so. The reason was that each ministry very much prepared its proposal in line with its own departmental interests, rather than the larger aim of improving the national healthcare system. By and large, the MOH argued for a supply side oriented reform package involving the government principally investing in public hospitals, while the

Ministry of Labor and Social security (MOLSS), another member of the 14-member team, favored a demand side oriented reform package involving the government principally subsidizing individual citizens to participate in health insurance schemes with a view to fully achieving national coverage. Clearly, it was difficult to reach any agreement within the HCRCT. To solve this impasse, a new form of policy deliberation and consultation was subsequently adopted.

At the beginning of 2007, the HCRCT invited six organizations each to organize an expert team to make independent recommendations on the healthcare system reform. The six organizations were Peking University, Fudan University, DRC, WHO, McKensy, and the World Bank. These six organizations were later joined by Peking Normal University in April 2007, Renmin University of China in May 2007, Tsinghua University in collaboration with Harvard University in June 2007, and the Chinese Academy of Sciences in February 2008. In May 2007, experts of the first eight organizations met with the members of the HCRCT to discuss the submitted proposals. Since the recommendations of the eight proposals differed widely, the discussion was extremely heated, which went on for the following months.

Based upon a total of 10 proposals eventually submitted, the government finally released a draft master plan in October 2008, integrating as much as possible recommendations from various proposals. For those parts where major disagreements still existed, it kept a rather open stance by allowing different models to be adopted in future pilot implementations in different regions. Additionally, this draft master plan proposal has been released to the

general public for further comments and feedbacks. And after the general public has had an opportunity to have its opinions heard, the State Council released a new medical reform program in April 2009.

Clearly, the active participation of think tanks and research institutions in policy making and their achievements in this respect in the recent healthcare system reform debates was made possible by a highly liberal stance of the government and the accompanying unprecedented level of openness towards the matter. However, while this serves to indicate that China has made enormous strides in democratization and in progress towards open and transparent policy making, it also reminds us that as yet this progress has been haphazard, in that the course of recent health policy making has by no means been typical of policy making in China, and that almost all other policy sectors have not been characterized by the same degree of openness and transparency, and the same active involvement of the media, civil society organizations and the public at large. As yet, there are in fact few institutional underpinnings in place that would enforce a similar process of policy making in all policy sectors as we have seen in health. It is important that China develop such institutional underpinnings so that openness, transparency, and the involvement of the large civil society become an essential and necessary part of all public policy making in China.

4.10.3 Summary

This subsection has discussed the relationship between governance and public policy from two respects: first, the effect of governance as institutions and rules on public policy; second,

the effect of governance on the policy making and implementation processes through civic and political participation. Good governance means incentive compatible institutions and rules that can make government officials act in the public interest. Empirical studies show that corruption can undermine the efficacy and adoption of certain public policies. Rules and institutions are also important to ensure that government policies do not fall captive to vested interests, especially at the implementation stage, through “technocratic insulation” of the civil service. And although democracy can be considered as an incentive compatible institutional arrangement for policy makers, it does not automatically lead to effective, efficient and fair public policy. Enabling the disadvantaged social groups to have a say in policy making can help ensure that this does happen. Moreover, aside from individuals voting in election, the agent of civic and political participation can be think tanks, too. China’s experience in the healthcare system reform illustrates how think tanks can be effectively involved in policy making processes.

4.11 Environmental Policy

Most environmental problems are a public bad, that is, the reach of its harmful impact can be far and wide, sometimes even on a global scale. Moreover, the impact of many environmental problems, be they the destruction of a local or global ecology, or the erosion of a natural resource base, are long-term, that is, its impact can be long-lasting, affecting not only the present generation, but future generations as well. Hence, when considering the impact of environmental problems, “environmental sustainability” of our production systems and, indeed, our ways of life, that is, whether our productions systems and ways of life could

continue over generations as well as within the present generation, becomes important concerns.

Subsection 2.5 has provided a brief review of the range of emerging environmental problems in the ESA region. In this subsection, we consider public policies that a government may employ to combat them. By environmental public policy is meant not only the specific policies (such as an emission ceiling or tax) that a government may adopt to deal with a particular environmental problem, but also our very notion of development and, indeed, our very concept of environmental sustainability itself. Below we first briefly review the controversy surrounding the concept of “sustainability”. We argue that while that concept has often been used in terms of the need to preserve the general productive capacity for future generations, and is often limited to that, there is a strong case for arguing that beyond their “instrumental” value of contributing to productive capacity, certain natural resources and ecologies may have intrinsic values for the well-being of all generations, in a way that is not substitutable in terms of productive capacity. Next we explore the notion of “development”, and we argue how the adoption of an explicit human development paradigm in place of the traditional growth centered paradigm can better harmonize growth imperatives and environmental concerns of a society. This is then followed by a quick look at the kinds of public policies adopted by the governments in the region aimed to reduce specific environmental pollutions, where we will argue that in terms of dealing with specific environmental problems, there is a need to promote a better use of market-based approaches, but this has to be balanced by explicit equity considerations.

4.11.1 Environmental Sustainability

The widely used Brundtland Commission's definition of sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987, p.43). Thus the concept is defined based on an ethical theory of intergenerational equity. And according to Solow, whose view on sustainability has also been widely influential, to realize intergenerational equity (sustainability) is to maintain a certain level of capacity to generate well-being for the present and future generations. In principle, this definition is wide enough for a case to be made for the preservation and sustaining of any specific resource or ecology that are deemed to have an intrinsic value to human well-being, across generations. However, in practice, the “capacity to generate well-being” has often been interpreted to mean, more narrowly, a “general capacity to produce” for which all resources may be substitutable, if not at present then perhaps at some point of time in the future, when technological possibilities may be extensive. Thus manmade capital may be used to substitute for a particular natural resource (though manmade and natural diamonds have yet to be equally valued by diamond lovers). In this narrow interpretation of sustainability, the intrinsic values that certain resources and ecologies may have for human well-being are downplayed. This narrow interpretation of sustainability becomes especially dominant where the focus of development is one-sidedly placed on economic growth. Indeed, in his own writings, Solow has emphasized the need only to maintain the “general capacity”, and stressed substitution possibilities, to the neglect of the need to preserve specific resources and ecologies. He speaks thus:

If you don't eat one species of fish, you can eat another species of fish.... That is extremely important because it suggests that we do not owe to the future any particular thing. There is no specific object that the goal of sustainability, the obligation of sustainability, requires us to leave untouched. (Solow, 1991, p. 3-4)

However, this hard-nosed view on sustainability is, in fact, deeply worrying. For one thing, in the absence of perfect information and foresight, the future value of a particular resource and ecology to a future generation cannot be clear, and yet decisions whether to destroy or run down on them, irreversibly, are often made now. Its future value in question can be intrinsic, in that it may impact the well-being of some future generations directly (even though it may not do so in respect of the present generation). But it can be instrumental as well, in that new technological possibilities in the future may raise their value, beyond any value that it may presently hold. Thus, a particular herb species, for example, may not have any economic value now, but with new medical technologies it may be discovered to possess a powerful remedial function, and hence a high economic value as well.

Thus in the absence of perfect knowledge and foresight about the future value of a particular resource, be it a particular animal or plant species, or a mineral deposit, it would seem that precaution is in order. Thus the injunction that one should ensure that development that meets the needs of the present generation do not compromise the ability of future generations to meet their own needs may indeed mean that one should deplete any specific resource, be it a plant or animal species, or some other resource, beyond a certain critical mass. Needless to

say, if such a principle is indeed accepted, one will then need to determine precisely what such a “critical mass” is in each and every case.

Some such a principle does appear to be accepted in the case of organic organisms, even though its enforcement has left much to be desired (witness the recent record of biodiversity losses). In the case of other resources, the issue has hardly received much attention. One suspects that its failure to be more widely accepted probably does not have to do with its lack of merit—it clearly has—but has to do with the fact that it clashes with one fundamental principle of a capitalist economic system, namely, the discounting principle. The latter principle owes itself to the fact that in order to induce one person to part with one dollar today, he or she needs to be paid more than one dollar tomorrow, implying that one dollar tomorrow is not valued as much as one dollar today. Extended to an inter-generational context, it means that one dollar’s worth next generation will not be valued as much as one dollar’s worth this generation. In other words, damages to the next generation’s welfare due to environmental pollutions or resource depletion today can be discounted, and after many generations successive discounting may well reduce the negative value of an environmental damage or resource depletion inflicted today to a negligible level.

It is difficult to see how the discounting principle can be abandoned under a capitalist economic system. On the other hand, full intergenerational equity would require one dollar’s worth many generations later is valued as much as one dollar’s worth today. It seems unlikely that one can pin any hope of realizing inter-generational equity at any acceptable

level on changing the discounting principle. Rather, remedial measures have to be sought elsewhere, not only in terms of using specific policies to influence polluters' (and potential polluters') behavior, but also in terms of the choice of ~~development~~ "development paradigm" that we follow.

4.11.2 Economic Growth and the Human Development Paradigm⁶³

Different development paradigms attach different levels of importance to the environment and thus would imply different environmental policies. Here, we will compare three such paradigms, the traditional GDP paradigm, the Green GDP paradigm, and the Human Development paradigm.

Most economies currently use a GDP paradigm to measure the level of economic development and social welfare. However, according to the way GDP is accounted, it is the market value of all final goods and services produced within an economy in a given period of time. As such, it is but a measure of the level of economic *activity*, and not development or *performance*. Some economic activities may be good for development (understood as ~~human~~ "human progress", or advancement of people's well-being), while others may not be, or may exert a negative as well as a positive impact on it.

As a measure of the level of performance or development of an economy, GDP is far from an adequate choice for many reasons. For the purpose at hand, it leaves environmental costs of

⁶³ This part of the discussion draws heavily on Liu et al. (2009).

the economic activities out of account, in the following respects: (1) damage to the environment is not considered; (2) damage to economic production due to environmental pollution and degradation is not counted; (3) environmental control costs (including governmental expenditures, non-governmental investments in pollution prevention, and compensations) are not subtracted from the value of the activities giving rise to them but are actually calculated as a “service”, and are included as a part of final consumption and hence national income; (4) health costs caused by environmental exposure is likewise not subtracted from any measure of welfare but is, in fact, included as part of final consumption and national income. As a result of these “mis-countings”, a GDP-based measure of economic and social progress is unlikely to provide a true measure of the level of progress or social welfare.

Rather, a GDP-based development paradigm can well give rise to single-minded pursuits of GDP growth, and catching-up impulses in GDP terms, at the expense of the environment. Evidence abounds that indeed this has happened, across continents and economies. Its effect on human welfare has been dramatic, but here is not the place to dwell on the point.

In response to the problem, a modified paradigm, the green GDP paradigm, has been put forward, which takes environmental costs into consideration when measuring GDP. Methodologies for calculating green GDP are many, of which the most recognized accounting system is the SESA system (System of Integrated Environmental Economic Accounting) designed by UNEP and the World Bank in 1989.

Although Green GDP takes into account environmental costs, it has its weaknesses. For one thing, it is an enormous challenge to provide a monetary valuation of any natural resource decrease or environmental degradation. Often, the exercise is so technical that it is left to a small group of experts-cum-technocrats. While the numerous underlying technical relationships involved clearly need the inputs of experts, they are, however, no better placed than people themselves to judge the trade off between, say, the cost of a measured emission to a person's health, and the cost to income if that emission is stopped. And even if they could do so, correctly, for one person, another may well have a different ranking of the two. However, these trade-offs are frequently made by "expert" on behalf the people. The "weights" they use in solving these difficult trade-off problems are often arbitrarily chosen, the approach they take to treating the entire issue smacks of a high level of presumption, and the results they arrive at often have little policy guidance.

Different from Green GDP, the human development paradigm explicitly recognizes that such difficulties may be insurmountable by any technical approach, that there may indeed be not a universally agreed set of weights to use to get round trade-offs, and that the right approach may actually be to involve people directly in expressing their preferences and valuations through public debates and discussions, and that the eventual social choice may well have to emerge from a democratic process. Thus the human development paradigm differs thoroughly from the Green GDP approach in respect of the role to be assigned and attitudes to public participation.

At the same time, by stressing the importance of such dimensions as health and education, the HD paradigm has a natural tendency to attach due importance to environment. For one thing, emphasis on good health with a decent standard of living imposes demands on environmental quality and discourages over-exploitation of the environment and resources. For another, emphasis on knowledge and education would benefit the environment because better education tends to make people have a better regard for the environment.

To summarize, compared with the Green GDP paradigm, the human development paradigm, by emphasizing a person's such capabilities as health and education rather than GDP or income per se, and by emphasizing the role of agency and participation in environmental protection, would appear to be better disposed towards protecting the environment and achieving environmental sustainability.

4.11.3 Types of Environmental Policy

In terms of types of policies aimed specifically at environmental control and protection, there are two broad approaches. One can be characterized as the *laissez faire* approach, or inaction on the part of the government, and the other the non-*laissez faire* approach, where the government does intervene. The theoretical underpinning of the former is the so-called Coase theorem, which argues that provided that the property rights are clear and there are no transaction costs, where externality exists bargaining will lead to an efficient outcome irrespective of the initial allocation of property rights. If the property rights are clear,

pollution problems can be solved by transfer payments from the polluting to the polluted party, or the other way round. As such, the Coasian approach depends entirely on the market, and the function of the government is only to maintain the market order, rather than taking any policy to intervene in an externality generating activity.

In the real world, however, successful examples of such decentralized solutions are generally rare. The reason is that two parties to an externality often face enormous informational problems in negotiation, even if property rights are clear, and in many cases the property rights are simply not clear, or could not be established. As a result, in practice most governments do intervene if an environmental pollution becomes a serious concern (the *non-laissez faire* approach). And where a government does intervene, it usually uses instruments belonging to one or the other of the following two types: the command-and-control (or non-market-based) instruments, and market-based ones.

Of the two, command-and-control instruments are the more commonly used type. Virtually all countries in the world use these instruments to address environmental problems (Stavins, 1997). These usually involve the government setting and enforcing specific emission standards or non-tradable emission ceilings on firms and individuals in order to regulate their activity. However, as Tietenberg (1985) argues, although these policy instruments can be effective in achieving established environmental goals and standards, they tend to lead to non-cost-effective outcomes in which firms use unduly expensive means to control pollution. Further, as Stavins (1997, p.301) points out, “[E]ven if the government could use

conventional technology or uniform performance standards to achieve a cost-effective allocation of pollution control at present, such standards would not provide dynamic incentives for the development, adoption, and diffusion of environmentally and economically superior control technologies. Once a performance standard has been satisfied, an individual firm can gain little from developing or adopting cleaner technology. In addition, regulated firms may fear that adopting a superior technology will cause performance standards to be tightened.”

In contrast, market-based instruments can be employed by governments to alter the price signals to firms in order to ensure that polluters face direct cost incentives so as to control emission (Stavins, 1997). These instruments, which mainly include emission tax and tradable emission rights, can offer cost-effective alternatives and at the same time provide dynamic incentives for technological change. As pointed out by Stavins (1997, p.302), “At the greatest level of abstraction, in a perfectly competitive market place, an emission tax or tradable permit scheme would allow polluters to reduce emissions up to the point where the marginal cost of control equals the emissions tax rate or the equilibrium price of an emissions permit. Both instruments would promote dynamic efficiency, as each provides a continuous incentive for adopting better abatement technologies.”

These apart, in recent years another type of instrument, the “voluntary agreements”, has appeared. Voluntary agreements are “essentially a contract between the government and industry, or negotiated targets with commitments and time schedules on the part of all

participating parties” (IEA, 1997a, p.11). As suggested by Price (2005, p.1), “voluntary agreement programs can be roughly divided into three broad categories: (1) programs that are completely voluntary; (2) programs that use the threat of future regulations or energy/greenhouse gas emissions taxes as a motivation for participation; and (3) programs that are implemented in conjunction with an existing energy/GHG emissions tax policy or with strict regulations.”⁶⁴ The first type of voluntary agreements may be thought of as independent of any government action while the second and third types clearly betray a hand of the government. However, even in the case of first type, whether or not they can be seen as a negotiated settlement between the externality generating and recipient parties, as Coase had envisaged, remains to be clarified. It could well be that rather than being such a negotiated settlement, they in fact arise for rather different reasons, for example, as a case of “corporate social responsibility”.

The above provides a brief discussion of the three commonly used types of environmental policy instruments. Below we review how these policies have been practiced in the ESA region. We begin, however, with the history of the establishment of National Environmental Management Programs in the ESA economies.

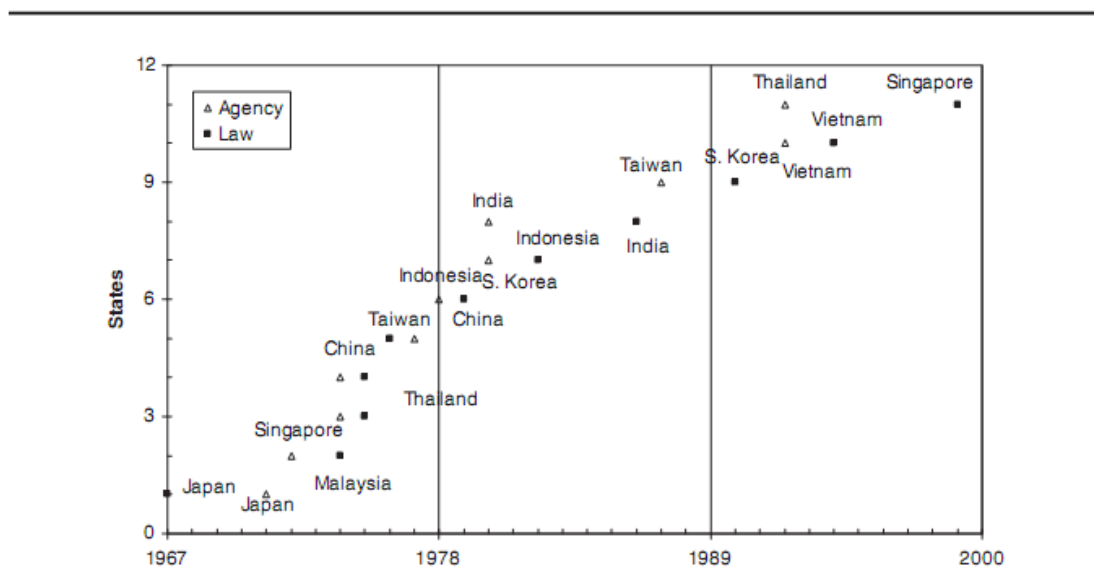
4.11.4 Environmental Management and Policies in ESA Economies

(1) National Environmental Management Systems

⁶⁴ Other analysts have grouped voluntary agreements differently, in terms of negotiated agreements, public voluntary programs, and unilateral industrial initiatives (Krarup and Ramesohl, 2002).

By a national environmental management system is meant the entire set up of government administrative agencies, basic legislations and policies, legislation and polices aimed at environmental control and protection in particular sectors, and other related policies, procedures and mechanisms. The establishments of national environmental ministries or agencies in the ESA region took place in roughly two waves, the first in the 1970s and the second in the late 1980s and early 1990s. For most economies in the region, passage of basic environmental legislations lagged behind the establishment of environmental ministries. Japan was the first economy to pass a basic environmental law (1967), and Malaysia was the second to do so in 1974. Taiwan and Thailand followed in 1975. Singapore passed its comprehensive environmental legislation in 1999.

Figure 4.11.1 Establishment of Environmental Ministries and Basic Environmental Laws in ESA Economies, 1967 to 2000



Source: Sonnefeld and Mol (2006, p.122).

As well as basic environmental laws, many economies also passed more specific

environmental legislations targeting particular sectors. Thus Singapore, even before it passed its comprehensive national legislations, had enacted a long series of more specific environment-related acts several decades before. In the 1990s, Vietnam adopted a number of laws related to natural resources and environmental protection, including the Law on Protection and Development of Forest (1991), Law on Land and Territory (1993), Law on Environmental Protection (1994), Law on Minerals (1996), and Law on Water Resources (1999). Under these laws, natural resources belong to all Vietnamese people, and the government exercises unified management over natural resources and environmental protection throughout the country (Organizers of the First Regional Environmental Forum, 2003, p.85).

Among the region's economies, enormous variations also exist in the extent of the environmental protection legislations passed. Table 4.11.1 compares these for five selected economies. Of them, Japan, South Korea and China have relatively well-developed systems of environmental legislations. In contrast, in Thailand and the Philippines, although basic environmental laws are in place, for many specific sectors there are as yet no specific environmental laws targeting them. Unlike in the three East Asia economies, there are also no additional mechanisms to address issues such as the environmental impact assessment, environmental finance, environment-related disputes settlement, and environmental research and development.

Table 4.11.1 National Environmental Protection Legislations in ESA Economies

Countries/Policies		Japan	China	S. Korea	Thailand	Philippines
Basic environmental legislation		Yes (67, 93)	Yes (79, 89)	Yes (63, 77, 90)	Yes (75, 92)	Yes (75)
Specific Environmental Protection Legislation	Air	Yes (68)	Yes (87, 95)	Yes (90, 99)		Yes (99)
	Water	Yes (70)	Yes (67, 93)	Yes (90, 99)	Yes	Yes
	Sea	Yes (70)	Yes (82)			Yes
	Automobile exhausts	Yes (72, 92)	Yes		Yes	Yes
	Soil	Yes (70)	Yes	Yes (95, 99)		
	Noise	Yes (68)	Yes (96)	Yes (96)		
	Solid waste	Yes (70)	Yes (95)	Yes (86, 99)		
	Toxic materials	Yes (73)	Yes	Yes (90, 99)	Yes (92)	Yes (90)
Sewage		Yes	Yes	Yes (66, 99)		
Nature Conservation		Yes (72)	Yes	Yes (91, 99)		Yes (78)
Environmental Impact Assessment		Yes (97)	Yes	Yes (93, 99)		
Financing		Yes	Yes	Yes		
Environmental disputes resolution		Yes		Yes		
Environmental R&D			Yes	Yes (94, 99)		

Notes: 'Yes' indicates that there is a specific law/policy in place and a number(s) in parenthesis ('93, 99') indicates the year in which the law/policy was adopted (and amended); a 'blank' cell means that no specific law/policy is in place.

Sources: Imura and Schreurs (2005); Zhao X. (2006).

Even though an economy might enact a particular environmental protections law, enforcement of it can be another matter. Often, governments have opportunities to intervene in protecting the environment, but they lack the political will to do so. Thus in Thailand, the government attempts to strengthen the ability of local organizations to manage their own local environment, but often only if it is politically expedient to do. Furthermore, governments can play an important role in the use of monetary policy, such as the application of environmental taxes based on the polluter pays principle, or by charging for services such as for waste collection and treatment. Politically, though, this is not an easy option (Organizers of the First Regional Environmental Forum, 2003, p.76).

(2) Command-and-Control vs Market Based Instruments

Most of environmental policy instruments used in ESA economies are of the “command and control” type. These include technology and performance standards. These standards are imposed on the producers/consumers in the form of permissible choice of production technologies and maximum allowable discharges of known pollutants into the atmosphere or waterways. This is usually done by imposing a common emission limit on all plants in a given industry; imposing firm-specific or industry sector-specific limits; or imposing on all producers a standard technology that meets the limits. Exceeding the imposed limits would be punishable by closure and steep fines (Habito, 2007). However, as pointed out above already, the costs of meeting such command-and-control targets will often be higher than the comparable market based instruments.

While command-and-control approaches have dominated environmental policies in the ESA region, market-based instruments are nevertheless receiving increasing emphasis. Thus some economies have begun to levy emission charges. Examples of these include the SO₂ emission charge in Japan, and the SO₂ and NO_x emission charges in China. Some economies have used subsidies to encourage the adoption of particular environmentally friendly technologies. Thus tax deductions were used in South Korea and the Philippines to stimulate the installation of industrial antipollution equipments (Gunatilake and De Guzman, 2006). Another success story is the Demand-side Management Program in the power sector of Thailand, partly funded by the Global Environment Facility (UNEP, 2000).

A further example is the road/area pricing introduced in Singapore in the early 1970s to reduce road congestion. Highly effective area licensing schemes were adopted which, by charging drivers to use the roads in the city center during peak hours, reduced congestion significantly during these times. Indeed, this scheme has been considered the best example of a modern area pricing system. In 1990, to further control the growth of private vehicles, Singapore introduced a vehicle quota system in which anybody wishing to own a car had to bid for a Certificate of Entitlement (Gunatilake and De Guzman, 2006, p.8). Further examples of market-based policy instruments can be seen in Table 4.11.2.

Table 4.11.2 Use of Market-Based Instruments for Environmental Protection in the ESA Region

Type of Policy Instruments	Explanation
Air (intraboundary) fees	Air pollution fees (PRC and Taipei, China) and emissions charges above a threshold (Korea)
Water charges	Charges for discharge above specified levels (Malaysia and PRC)
User charges	Water effluent treatment charges (Thailand) and solid waste disposal (Hong Kong, China; PRC; and parts of Thailand)
Input taxes	Taxes on the sulfur content of coal (PRC)
Emission trading permits	Auctionable permits for the import and use of ozone-depleting substances (Singapore)
Performance (guarantee) bonds and noncompliance fees	Fees for cleanup of mining wastes (Australia and Malaysia) and littering along tourist trails (Nepal)
Resource pricing	Energy pricing (PRC) and auctioning of certificate of vehicle entitlement (Singapore)

Note: PRC means —the People’s Republic of China”.

Source: ADB(2001); Gunatilake and De Guzman(2006)

While market based instruments are increasingly being used in the region, nevertheless they remain a small appendix in the overall environmental management programs of an economy.

In recent years, possibilities of a new area of environmental tax, the carbon tax, have also

received a high level of attention from some ESA governments. Box 4.11.1 provides further details on this.

Box 4.11.1 Carbon Tax

In recent years, climate change has become a hot topic in global environmental debates. Carbon tax, based as it does on the carbon content of energy inputs, is considered as one of the most effective instruments of GHG reduction, and has received much attention internationally. To date, some industrialized countries have already implemented carbon tax, including Sweden, Finland, Denmark, Norway and Netherlands. So have some regions in US and Canada. However, the tax has not as yet been put into practice in any ESA economy. It has, though, attracted much attention from the governments of Japan and China.

Carbon tax can play an important role in reducing GHG. Take Denmark for example, the Danish Green Tax Package consisting of a carbon tax was put into force in 1996. The tax package is estimated to have reduced industrial emission by nearly 4% in 2005 compared to the 1985 level (Hansen, 2001).

Though carbon tax can exert a positive influence on environment, nevertheless it may undermine international competitiveness of an economy levying the tax. As pointed out by World Bank (2008, p.20), “[a] carbon tax would affect competitiveness by increasing the costs of polluting inputs (e.g., coal, oil, natural gas, and electricity). Hence, a carbon tax may

significantly increase production costs, leading to lower profits, either through lower margins or through a reduction in sales (or both).”

In a country that imposes a carbon tax, the expectation is that international competitiveness of energy-intensive industries will most likely be impaired. Thus, as World Bank (2008, p.24) observes, “[I]n anticipation of the adverse terms of trade affecting their most competitive sectors, many countries provide either a full or partial exemption for energy-intensive industries and export industries. In many cases, energy products used mainly by heavy industries are exempted from tax. Most countries do not tax coal at all, while a few countries that have taxes on these products grant very significant exemptions. In other cases (Denmark, Germany, Sweden, and the United Kingdom), reduced tax rates combined with generous rebates are applied to industry with respect to carbon or other energy taxes.”

From the carbon tax practice of the developed countries in question, some experiences can be learned by ESA economies. In the ESA region, market-based instruments are still rather rarely used and their more widespread adoption should be encouraged by the government. Given the fact that carbon tax has a negative influence on the competitiveness of an economy in the short run, we can mitigate this influence by keeping to the following points at the stage of policy design. First, move progressively when formulating it, that is, stipulate only relatively loose regulation at the beginning so as to allow enough adjustment time for companies and then gradually tighten the regulation. Second, differentiate the more heavily

influenced sectors (such as the energy-intensive sectors) from other sectors and take related measures to moderate the burden of the regulation on them. Last but not least, revenues from those profitable regulation instruments such as tax and auctioned permits should be used to mitigate negative influence of the regulation.

(3) Voluntary Approaches

Voluntary agreements have arisen mostly over improving energy efficiency and reducing energy-related GHG emissions. Since the 1990s, they have been adopted as a popular policy instrument in many industrialized countries. Currently, a number of national-level voluntary agreement programs are being modified and strengthened, while other countries, including some newly industrialized and developing countries, are beginning to adopt these types of agreements as well in order to increase the energy efficiency of their industrial sectors. Table 4.11.3 provides an overview of 23 voluntary agreement programs found around the world, identifying in which of the three broad categories they fit and indicating which incentives and penalties are included in each program. Of the list, three programs are from Japan, South Korea and Chinese Taipei of the ESA region.

The programs from South Korea and Chinese Taipei are, respectively, the Voluntary Agreement System for Energy Conservation and Reduction of GHG Emissions, and the Energy Auditing Program. Both are categorized as “Completely Voluntary Programs”, that is, without any serious pressure exerted by the government to join the program. On the other hand, the program from Japan (the Keidanren Voluntary Action Plan on the Environment) is

based on an implied threat of future regulations and future energy and GHG emissions taxes.

These programs did make a contribution to the cause of environmental protection in these economies. In particular, the program in Japan has made a significant contribution to environmental protection in the country. However, even so, the effect has been relatively limited, especially when compared with those other programs that are backed up with either a threatened or real imposition of regulations or taxes. Compared with the OECD countries' voluntary agreements, the effect of these three ESA programs has been relatively weak.

From our above review, it does seem quite clear that most ESA economies have made great improvements in the formulation and implementation of environmental policies.

Nevertheless, shortcomings still remain. For one thing, the command-and-control approaches have been the main policy instruments used. These usually impose a high level cost. On the other hand, even if implemented, many of these laws and rules are often not effectively enforced. Although being increasingly adopted, market-based instruments are on the whole still rare in the region. On the other hand, market-based instruments are generally more cost-effective, and provide more incentives for enterprise innovation.

Table 4.11.3 Overview of Industrial Sector Voluntary Agreement Schemes

Country	VA Scheme	Program Years	Incentives								Penalties			
			Government and Public Recognition	Information	Assistance and Training	Energy Audits and Assessments	Financial Assistance and Incentives	Emissions trading	Relief from Addl Regs/ Exempt from Regs/ Taxes	Reduced/Avoided Energy/GHG Tax	More stringent env. Permitting	Increased regulations	Penalty fee	Energy or CO2 tax
Completely Voluntary														
Australia	Greenhouse Challenge	1996-present	X	X	X									
Canada	Industry Program for Energy Conservation	1975-2003	X	X	X	X	X							
Finland	Action Programme for Industrial Energy Conservation	1992-1997	X				X							
Finland	Agreements on the Promotion of Energy Conservation in Industry	1997-present	X	X	X	X	X							
France	Voluntary Agreements on CO2 Reductions	1996-2002	X	X	X		X							
Ireland	The Self Audit Scheme	1994-1997	X	X	X									
Korea (S.)	VA System For Energy Conservation & Reduction of GHG Emissions	1998-present	X	X	X		X							
Sweden	EKO-Energi Programme	1994-2002	X	X	X	X								
Taipei (Taiwan)	Energy Auditing Program	2002-2020	X	X	X	X								
US	ClimateVISION	2003-present	X	X	X	X								
Threatened Regulations or Taxes														
France	AERES Negotiated Agreements	2002-present	X		X			X					X	
Germany	Declaration of German Industry on Global Warming Prevention	1995-2000	X											
Germany	Agreement on Climate Protection	2000-2012							X	X				
Japan	Keidanren Voluntary Action Plan on the Environment	1997-present	X											
Netherlands	Long Term Agreements on Industrial Energy Efficiency	1989-2000	X	X	X	X	X		X		X			
Netherlands	Benchmarking Covenants	2001-2012	X	X			X		X		X			
New Zealand	VAs to Limit Carbon Dioxide Emissions	1995-2000	X		X				X					
Energy/GHG Taxes or Regulations														
Canada	Large Final Emitters Program	2003-2012		X	X	X		X	X			X	X	
Denmark	Agreements on Industrial Energy Efficiency	1993-present		X	X	X	X			X				X
Ireland	Negotiated Energy Agreements Pilot Project	2002-2003		X		X	X			X				X
New Zealand	Negotiated Greenhouse Agreements	2003-2012						X		X				X
Switzerland	CO2 Law Voluntary Measures	2000-2012						X		X				X
UK	Climate Change Agreements	2001-2013	X	X	X	X	X	X		X				

Source: Price(2005).

4.11.5 Recommendations

The above review leads us to the following recommendations: First, there needs to be a broader understanding of requirements of sustainability, beyond the narrow requirement of sustaining the general capacity of production, or general capacity of generating welfare. It may well be that certain specific resources, living organisms or otherwise, need to be preserved. Secondly, environmental policy-making should best be guided by the human development paradigm, which has a natural tendency to emphasize environmental concerns and the need for protection. The goal of the development is to expand human capabilities (and substantial freedom of human beings), including health, education, a decent standard of living, and agency. The goal of expanding these capabilities calls for a sustainable exploitation of the natural environment and a sustainable utilization of the resources, both important for achieving sustainable human development.

Thirdly, in terms of actual environmental management, it is important to set up a comprehensive frame of policies about the environment and development. Public participation in environmental policy making is important, in order to raise public awareness of the issues and cement political commitment to the policies. Such awareness and participation may also contribute to the emergence and popularization and voluntary programs, with or without the threat of penalizing policies and regulations.

Fourthly, in terms of corrective policy instruments, a greater role should be given to

market-based environmental policy instruments. Compared with command-and-control ones, market-based instruments are more cost-effective and can provide stronger incentives for technology change. It is worth noting that when introducing new market-based instruments, the government should try to offset the negative impacts on competitiveness through a well thought-out approach to minimize them.

5. Conclusion

This report has reviewed patterns and trends of human development in the past two decades in East and Southeast Asian (ESA) economies. As we have seen, progress in HD in the last two decades in all ESA economies has been extensive. In HDI terms, those which started from a low level of HDI in particular made rapid progress. In component dimensions that make up the HDI (health, education and per capita income), all economies for which we have data appear to have achieved substantial progress. A similar picture emerges for governance. Indeed, many ESA economies have undergone a fundamental process of democratization in these two decades, but other economies without going such a process has also made significant progress in governance. In short, progress in HD over the last two decades in the region has been extensive and widespread.

On the other hand, substantial disparities are also observed both across economies and within each economy in respect of both the overall HD progress and progress in each component dimension. Thus in terms of the overall level of HD reached, Japan's HDI score was 0.96 in 2007, followed closely by Singapore, Hong Kong and Korea (Rep). Timor-Leste had an HDI score of only 0.489, and Myanmar 0.586, with Cambodia and Lao PDR not very much far ahead. In terms of health, wide gaps exist between the economies in all indicators that we looked at. The same is true of education and governance.

Wide disparities also exist between social groups within each economy. Indeed, such

disparities even appear to have widened in the last two decades. Thus income inequalities in the region have generally worsened, although exceptions have also existed (notably Malaysia, which has experienced a marked fall in its income Gini). Similarly, inequalities in health and education have generally persisted across EAS economies. These different kinds of inequality tend to strike the same group of victims, giving rise to what are known as inequality traps, whereby unfavorable outcomes in one dimension cause and/or reinforce unfavorable outcomes in other dimensions. Given the importance of these inequalities, and the poverty they often imply (in income or otherwise), it is important to find effective ways to reverse them, and herein lies a key goal of public policy.

Besides the widening social and economic disparities, the last two decades have also witnessed worsening environmental problems in the region, in terms of both ecological destruction and resource depletion. While some environmental indicators (such as air quality in the region's major cities) have shown significant improvements, in most other aspects a significant worsening of the environment took place, including deforestation, biodiversity loss, water pollution, and carbon emission. If these trends are not checked in time, they are likely to threaten major human development reversals in the region in the future.

While public policy can play an important role in reversing the aforementioned inequality traps and worsening environmental trends, it is also important to recognize the possible role of structural factors, that is, forces that are given rise to by the very nature of the developmental process, and that cannot be entirely countervailed by public policy. These structural factors

include industrialization and urbanization, trade expansion and globalization (which characterize the process of modern economic development), and their implications for various economic and social inequalities and environmental sustainability. In the literatures, two important hypotheses, the so-called Kuznets Curve and the Environmental Kuznets Curve, address respectively the relationship (if any) between economic growth and income inequality, and between economic growth and environmental sustainability. While these hypotheses appear to have held true for some economies in the world for some stages of their economic development, generally they do not appear to have done so in respect of ESA economies. In particular, the Kuznets hypothesis appears to have been negated by the evidence from some important ESA economies, notably Korea (Rep) and Taiwan.

It was argued in this report that in understanding the relationship between income inequality and economic growth, it is important to give attention to the role of initial asset (principally land) distribution, agricultural and rural development policies, industrial and trade policies, SME development policies, and human capital accumulation (especially education). To the extent that public policy can exert a strong impact on these, it can materially affect the trajectory of income distribution in the course of an economy's development.

The above-mentioned public policies target at the primary phase of distribution, that is, income distribution before tax and transfer. Social welfare programs aim to affect the income and expenditure that persons and families eventually receive, save and spend. In a modern society, a wide range of social welfare programs typically exist on health, education, pension, housing,

unemployment benefits, low income support, reliefs, etc. Typically, economies in the early stage of their development have less of these programs, and even if one is introduced, usually with only a small coverage and few benefits. This appears to have been exactly the pattern of evolution in ESA economies, with more developed economies (e.g. Japan and South Korea) having more of these programs each offering a greater coverage and more benefits, and less developed ones have few of these which offer a smaller coverage and less benefits. In more recent years, attempts were also made in more developed economies in the region (e.g. Taiwan) to equalize and universalize many welfare programs.

Indeed, inequalities in entitlements to these programs and in the level of benefits received between different social groups have been an important social and policy issue in some economies. In China, where the rural-urban divide is particularly pronounced, such welfare gaps have been a highly contentious social issue that appears to have contributed significantly to the tension within the society. One key consequence has been the emergence of dualistic cities, whereby urban migrant workers suffer extensive discriminations in welfare entitlements compared with locally registered city dwellers. All this comes on top of other discrimination they have already suffered in terms of employment, and disadvantages they have had in terms of skills and education. It will be difficult to remove personal disadvantages for migrant workers, but it is possible and, indeed, public policy must try to reduce if not entirely eliminate institutionalized discriminations in welfare entitlements and employment.

Primary and secondary distributions of income and expenditure are about intra-generational

equity. Sustainability concerns inter-generational equity. It is argued in this report that it is not only necessary to ensure the sustainability of some general capacity to produce goods and services for future generations, but also, given imperfect foresight, a case can be made to preserve some specific natural resources and ecologies at some threshold level. Environmental challenges, both global and local, are mounting in ESA as in other economies, and the approach to tackle these challenges can take place at two levels. In addition to utilizing an extensive array of environmental policy instruments, the choice of development paradigm is also critical. For various reasons, a GDP centered development paradigm discounts the importance of the environment by evaluating development exclusively in terms of GDP. However, the alternative to this is not a green GDP paradigm, not only because the accounting framework this has entailed is still embedded in GDP, but also, more importantly, because it in essence attempts to address an essentially social and political problem by a technocratic approach. The human development paradigm, on the other hand, recognizes that environmental concerns are essentially social and political issues and, hence, advocates a participatory approach to settle the issues through public debates and democratic decision making.

Environmental problems are a good example which underlines the importance of governance and agency, and in particular civic and political rights and participation. This is an area where some ESA economies have made immense progress while others less so. There is a natural tendency to associate formal democratization with progress in political rights, empowerment and governance. But even in economies where formal democratization has been missing, still

significant progress can be made in these areas. China appears to be a case in point, where there have in recent years been major improvements in governance, as attested by the recent round of healthcare policy debates. Such improvements are vital, not only for their intrinsic values but also because they improve the quality of public policy making and implementation as well.

It appears from this report that the following six principles are critical to a successful human development strategy: agricultural and rural development to facilitate economic and social structural transformation and to increase employment opportunities; human capital accumulation to promote economic and income growth; inclusive urbanization to reduce dualism and enhance social integration; cleaner industrialization to ensure sustainability; people's participation and empowerment to improve decision making and governance; closer regional and international cooperation to ensure a better common future for all on our fragile planet. While these principles appear to concern the instrumental role of the policies in question in promoting human development, the intrinsic values to human development that successful implementations of these principles can ensure are, of course, equally important.

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Appendix 1: Growth with Equity in Taiwan and Korea

Among the ESA economies that experienced rapid economic growth and structural transformations over the past decades, South Korea and Taiwan (China) have been considered as two successful examples of “growth with equity” that challenges the Kuznets hypothesis. While having the top average growth rates from the 1960s to the 2000s in the ESA region (World Bank, 2003), South Korea and Taiwan managed to maintain relatively low inequalities during their economic take-offs, though in more recent years income inequalities have become worse due to economic liberalization policies since the 1990s (Jomo, 2006) (see Table 1).

Table 1 Household Income Distribution Gini Coefficients in Five High-Performing Asian Economies 1970-2002

Economy	1970	1976	1980	1985	1999	2000	2002
South Korea	0.332	0.391	0.389	0.357 ^d	0.3204	0.32	na
Taiwan	0.294	0.28	0.277	0.29	0.325	na	0.345
Indonesia	0.35	0.34	0.34 ^c	0.33	0.31	0.3	na
Malaysia	0.506	0.529	0.493 ^a	0.474 ^c	0.4432	na	0.4607
Thailand	na	0.451	0.473 ^b	0.5	0.444	0.43	0.428

Notes: a, 1979; b, 1981; c, 1984; d, 1989; na – not available

Source: Jomo, 2006, p.5.

The balanced growth in South Korea and Taiwan can largely be attributed to the favorable “initial conditions” that they were bequeathed under their unique post-war circumstances (Jomo, 2006), including highly equally distributed land and a high-quality human capital stock. In this Appendix, we will examine how these initial conditions came into being and how they helped South Korea and Taiwan achieve and maintain their balanced growth.

1. Favorable Initial Conditions

1.1 Land Reform

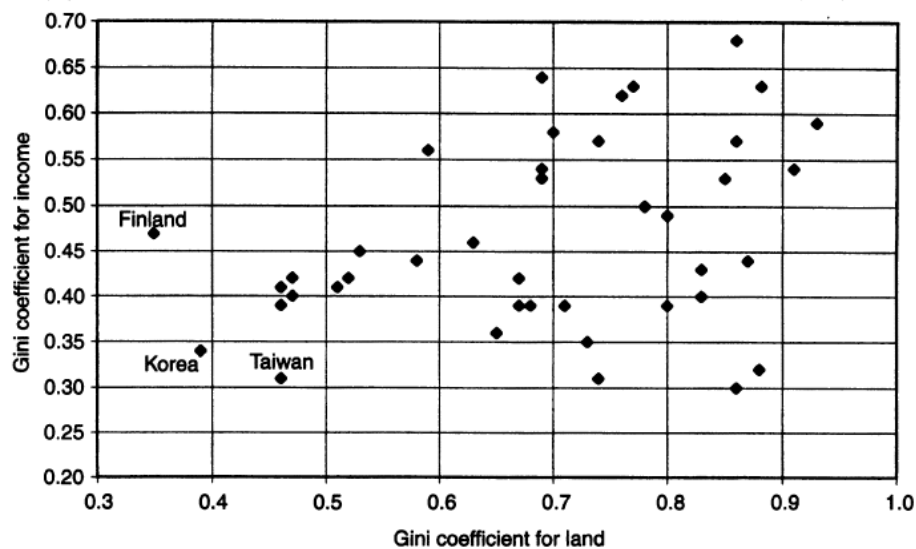
The South Korean and Taiwanese land reforms in the late 1940s were the first important policy initiatives of the governments of these economies to reduce poverty and inequalities in the economies (see Hamilton, 1983; Hsiao, 1996). In 1945–1950, the South Korean authorities and U.S. military administration carried out a land reform that retained the institution of private property. They confiscated and redistributed all land held by the Japanese colonial government, Japanese companies, and individual Japanese colonists. An article on agricultural land reform was listed in the Constitution of the Republic of Korea in 1948. Based on that Constitution, the Agricultural Land Reform Amendment Act (ALRAA) was drafted and actually became effective on March 10, 1950. The ALRAA had three main features: First, any individual could own agricultural land but only if he or she cultivated or managed it for her- or himself. Second, one could own only three *jungbo* of land at maximum (7.35 acres). Third, tenancy arrangement and land-renting were legally prohibited. The land reform proceeded as follows. After surveying landlord-tenant relationships in June 1949, the government purchased the above-ceiling land from landlords with land securities. The land securities specified the compensation period (5 years) as well as the price of land as a percentage of the annual crop yield of the land. However, actual compensations were made by cash, and the compensation period was subsequently extended to more than 10 years for some of the land transferred. Generally speaking, land reform was completed at the beginning of the 1960s. The government then sold the land to tenants who made payments with rice. In fact, the

government very much acted as an arbitrageur between landlords and tenants (Jeon, 2000, p.254). Through the land reform, about 69 per cent of the total area of 833,000 *chungbo*, equal to 577,000 *chungbo*, was redistributed, and 50 per cent of the farm households were affected (Pak, 1956).

In Taiwan, the Kuomintang government carried out its land reform in the early 1950s. Former Japanese colonists who possessed large tracks of farm land as well as commercial and industrial properties had fled away. The land reform was carried out in three consecutive steps: first, land rents were reduced to 37.5 percent of the yields for major crops; second, sales were carried out of public land formerly owned by Japanese colonists to cultivators and tenants at low prices; third, the government exchanged with former owners shares in public companies for land, and then sold the land at favorable prices to tillers (Yu, 1994). A key factor ensuring the success of the land reform program was that the Kuomintang government was mostly from the Mainland and had few ties to indigenous landowners. According to the study of Deininger et al. (2007), 62.5% of the total rural households in Taiwan benefited from this reform even though only 26.9% of the total arable land was redistributed.

Land reform programs in South Korea and Taiwan greatly improved equalities in land distribution, and in turn helped reduce the income inequalities in these two economies. Figure 1 plots the Gini coefficients of income and land distributions around 1960 for 41 economies. South Korea and Taiwan are the two with the lowest overall inequalities (Rodrik, 1995, p.76).

Figure 1 Measures of income and land distributions in 41 economies around 1960



Source: Dani Rodrik, 1995, p.76.

1.2 Education and Human Capital

Both South Korea and Taiwan have developed a highly educated labor force with the support from the government. Universal primary education since the 1960s has been complemented by high enrolments in secondary and tertiary levels, and a strong emphasis on technical and engineering disciplines (Jomo, 2006). That is, the investments in human capital went well beyond the primary schooling limit as recommended by the World Bank, with government labor market interventions based on long-term considerations beyond current prices (Rodrik, 1994).

Rodrik et al. (1995, p.76) finds, through a regression method, that the primary and secondary level education attainments in South Korea and Taiwan in 1960 were much higher than those of the economies at similar income level. Table 2 shows the actual school enrolment and

literacy rates in South Korea and Taiwan in 1960, as well as the rates expected on the basis of these economies' per-capita income levels. The latter are derived from cross-sectional regressions of educational indicators on per-capita income and its square term. The study finds that both economies had virtually universal primary school enrolment, while the norm for countries at their income levels stood at only around 60%. South Korea had more than doubled the literacy rate compared to the norm, and Taiwan's literacy rate was 1.5 times as high. It is clear that both economies had a labor force that was considerably better educated than would be predicted from their income levels (Rodrik, 1995).

Table2 Predicted and actual education indicators of Korea and Taiwan in 1960

	Primary enrolment ratio		Secondary enrolment ratio		Literacy rate	
	Predicted	Actual	Predicted	Actual	Predicted	Actual
Korea	0.57	0.94	0.10	0.27	0.31	0.71
Taiwan	0.62	0.96	0.12	0.28	0.36	0.54

Source: Rodrik, 1995, p.76

Exceptional primary and secondary education attainments provided South Korea and Taiwan with great advantages in generating ample supplies of technical labor that were crucial for their economic take-offs. In 1990, South Korea and Taiwan had, respectively, 2200 and 2100 technologists and scientists per million people, as compared with only around 400 for Malaysia, Thailand and Indonesia that have been plagued by shortages of technical labor (UNDP, 1994).

The expansion of education not only helped generate technical and professional human resources for industrial upgrading, but also enhanced opportunities for upward socio-economic mobility, including skill enhancement and higher remuneration (Deyo, 1989).

1.3 Converting Favorable Initial Conditions into Greater Income Equality

More equal land distribution and a higher-quality human capital stock contributed to rapid economic growth in both South Korea and Taiwan without widening the income gap. Below we consider the effects of these favorable conditions on the primary and secondary income distribution in these economies.

1.4 Primary Distribution: Equal Access to Economic Opportunities

To begin with, more equal land distribution ensured greater equality in the distribution of agricultural income, since peasant proprietors now gained greater benefits from the same development of agriculture than tenants could have obtained. Agricultural development in both South Korea and Taiwan was spurred by the conversion of the farmers' status from tenants to proprietors as a result of the land reform, and the ensuing productivity improvements. For instance, according to one study (Han, 1994), the average number of work days by farmers in a year in Taiwan increased from 110 before the reform to 168 after. Additionally, the development of agriculture in Taiwan and South Korea was also the outcome of other supportive agricultural policies taken by the government. For example, Taiwan took various additional actions to promote rural development following the land reform. The most important one was the land consolidation programs carried out in the 1960s to 1990s (see subsection 4.3). Similar actions were launched in South Korea in the 1970s when the U.S.

stopped its aids due to the oil crisis (Jomo, 2006). These included promotion of the adoption of advanced agricultural technologies and the cultivation of economic crops, and improvement of the rural environment. Although prices of agricultural products were under control in both economies in order to fuel industrialization, the incomes of farmers nevertheless saw increase in the early years of the economic take-off. Meanwhile, an equal distribution of the benefits generated by agricultural development was made possible by the highly equal land distribution thanks to land reforms, which in turn contributed to overall equal income distribution in the economies.

Secondly, during their economic take-off and rapid industrialization, universal primary education contributed to making opportunities generated by economic growth equally accessible to all. The export-oriented growth in both economies created massive jobs. Although there had been severe labor repressions in Korea and Taiwan until democratization in the late 1980s, wages were raised thanks to enhancements in labor productivity, product qualities, and competitiveness of firms (Jomo, 2006 p.6). In Korea, real wages grew at an average annual rate of 10 per cent from 1970 to 1980, and 8.2 per cent over the period 1980-1992 (World Bank, 1995: 175). In Taiwan, real wages grew by 6.0 per cent (Deyo, 1989: 93) and 7.5 percent (Lee, 1994: 16) over the periods of 1970-1980 and 1976-1986, respectively. With the universal primary education in both economies, people had equal access to industrial jobs as well as welfare improvements resulting from rising wages.

Industrial employment is critical to the rises of farmers' incomes. Taiwan and Korea have

been fairly successful in raising rural household incomes through their supports to rural off-farm employment. As a consequence, the proportion of rural household incomes derived from off-farm activities rose from 46 per cent in 1971-1972 to 63 per cent in 1986-1987 (Onchan, 1995).

To sum up, the initial conditions of land distribution and universal primary education in South Korea and Taiwan both helped ensure equal access to economic opportunities in agriculture and industry for the population. They were the key to achieving favorable primary income distribution in these two economies.

1.5 Social Safety Net

With the rapid economic growth, South Korea and Taiwan built their social safety nets in order to narrow the gaps between the rich and poor through secondary distribution.

Between 1980 and 1997, South Korea successively launched its universal health insurance scheme, the national pension plan, and the minimum wage and employment insurance system. The successive promulgations of the "National Health Insurance Act" and the "National Basic Livelihood Security Act" in 1997 symbolized a full-fledged social welfare system in South Korea. Taiwan passed three major social acts in 1980 with regard to the old-aged, disabled and children, respectively (Liu, 2006). In 1995, the well-known National Health Insurance (NHI) scheme was launched, through consolidating previous systems of medical care. It has coverage of 99% of its total population.

It should be noted that the political democratization begun in South Korea and Taiwan in the late 1980s were also important to the building of the above social safety nets. In democratic societies, a relatively equal social structure may prevent public policy-making being hijacked by interest groups. That facilitated the passage and implementation of public policies beneficial to the wide majority of the population.

2. Summary

The relatively narrow income gaps achieved by South Korea and Taiwan in their economic take-offs could be largely attributed to their favorable initial conditions of a highly equal land distribution and a better human capital stock, and the subsequent policies emphasizing education and human capital investment. Although these conditions cannot easily be reproduced in other developing economies, some lessons can nevertheless be learned from the Korean and Taiwanese experiences. First of all, some government interventions are critical to an improvement of income distribution, as clearly demonstrated by the case of land reforms and agricultural development in both economies. Secondly, greater and widespread human capital accumulation can give rise to a more equalized distribution of incomes by raising the share of labor income in total incomes and by giving people more equal access to opportunities generated by economic growth. Lastly, it appears that democratization also helped ensure more equal income distributions by advancing certain equality promoting public policies.