

**Assessing Social Outcomes through the Millennium Development Goals:
Relevance of Indicators; Data Limitations; and Forecasting***

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A. Relevance of MDGs for measuring poverty and social outcomes

The MDG indicators represent a major advance in how poverty is measured. First, they assess poverty in the holistic sense. A large body of literature beginning with discussions of “capability deprivation” that began in the 1980s has influenced global thinking about the multi-dimensionality of poverty. As a result, viewing poverty only as deprivation of income is considered nowadays too narrow a description of poverty. In order to be fully rid of poverty, individuals must not only have sufficient incomes to maintain basic nutritional standards (which was the traditional definition of poverty and is now denoted as income poverty), but also have basic education, be healthy, be able to play a role in making decisions that affect their lives – in other words fully possess the capabilities to live a full and rich life.¹ MDGs can also be considered as a set of entitlements as governments are required to meet certain targets by certain dates and report on the progress made.

In addition, the MDGs represent a global consensus on what should be the most critical elements that should be used to measure poverty in this comprehensive sense. They have been endorsed by (the then) heads of all governments of the world. There had been considerable global debate and discussion before the MDGs were finally adopted under the Millennium Declaration of September 2000. Such major milestones as the 1995 Copenhagen Conference and the 1997 Manila Declaration played important roles in the evolution of the MDGs. A long and intensive discussion amongst a wide body of development stakeholders preceded the reaching of a global consensus on the MDGs and their general acceptance.

Finally, MDG targets can be used in standardized and objective methods of measuring poverty as they can be used as universal standards to compare performance of countries against each other; and also to measure social progress within a country over time. In this sense, the MDG indicators are an improvement over simple measures such as the proportion of population below the national poverty lines which are not comparable across countries.

However, although the MDGs possess many virtues as described above, they still are not perfect and have several weaknesses which need to be addressed. To these we now turn.

(i) Ways the MDGs can be improved

The main shortcomings of the MDG indicators can be grouped under four categories: (i) aggregative nature of the indicators; (ii) failure of the indicators to account for distributional variations; (iii) problems associated with cross country comparisons or across time given that the MDGs involve multiple indicators; and (iv) failure to address many crucial social deprivations, particularly those specific to countries. In addition, the MDG indicators (i.e. data) are not robust enough to capture the impacts of economic/social changes or shocks (such as the financial crisis) in the immediate term. One has to wait a long time for the actual data to emerge to capture the impacts of such shocks. Similarly, most of the MDG indicators are outcome indicators. As such, they fail to reflect the complex economic and social processes that give rise to such outcomes.

¹ A. K. Sen, "Social Exclusion: Concept, Application, and Scrutiny", ADB Social Development Papers 1, June 2000.

The aggregative nature of the MDG indicators is a major shortcoming. It is necessary for instance to disaggregate the MDG indicators by subnational administrative categories (such as states or provinces); by gender; by disadvantaged population groups such as indigenous peoples, minorities or backward castes (the latter critical in South Asia); by rural and urban categories etc. However, while such a project is necessary, this criticism is equally applicable to other social indicators also such as income poverty measures.

Some have argued particularly that MDG indicators should be disaggregated by income groups at least, as the overall aggregative MDG index for a country does not indicate the true MDG outcomes achieved by poorer groups which can be much lower than that depicted by the overall national aggregative MDG indicator values.

The multiple nature of the MDG indicators makes them somewhat difficult to compare and interpret in totality. While individual MDG indicators can be compared, problems arise when overall performance of countries on their progress towards the MDGs as a whole needs to be compared. Attempts have been made to summarize the MDG data to enable some comparison of performance between countries (such as by estimating the percentage of indicators that each country is "off track" in and comparing this across countries –see Figure 1); and making assessments within a region of the MDG indicators that are worst performing (by estimating the percentage of countries that are "off-track" in that indicator and comparing across indicators- see Figure 2); but such measures are approximates and have several obvious deficiencies.

Figure 1

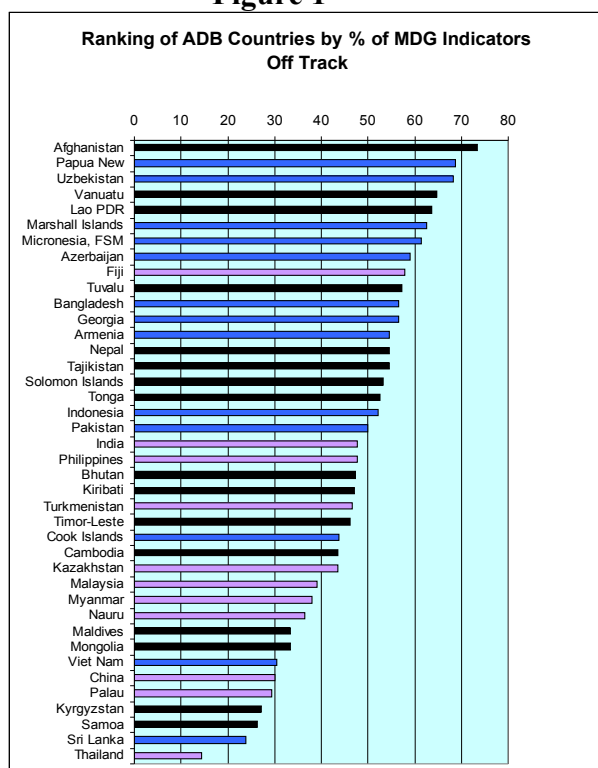
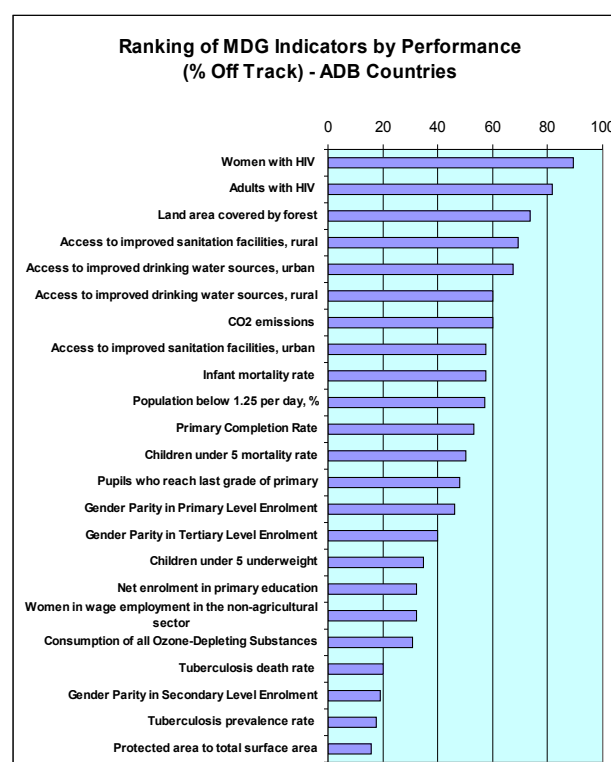


Figure 2



Source: ADB staff estimates

The more scientific way to proceed may be to try and develop composite indices based on strong associations between groups of indicators and then developing a single indicator out of these. However, while comparison will become feasible, such composite indicators will lose information and there will be great subjectivity and arbitrariness involved in the choice of weights and methods of aggregating, reducing their value.

(ii) *Data gaps*

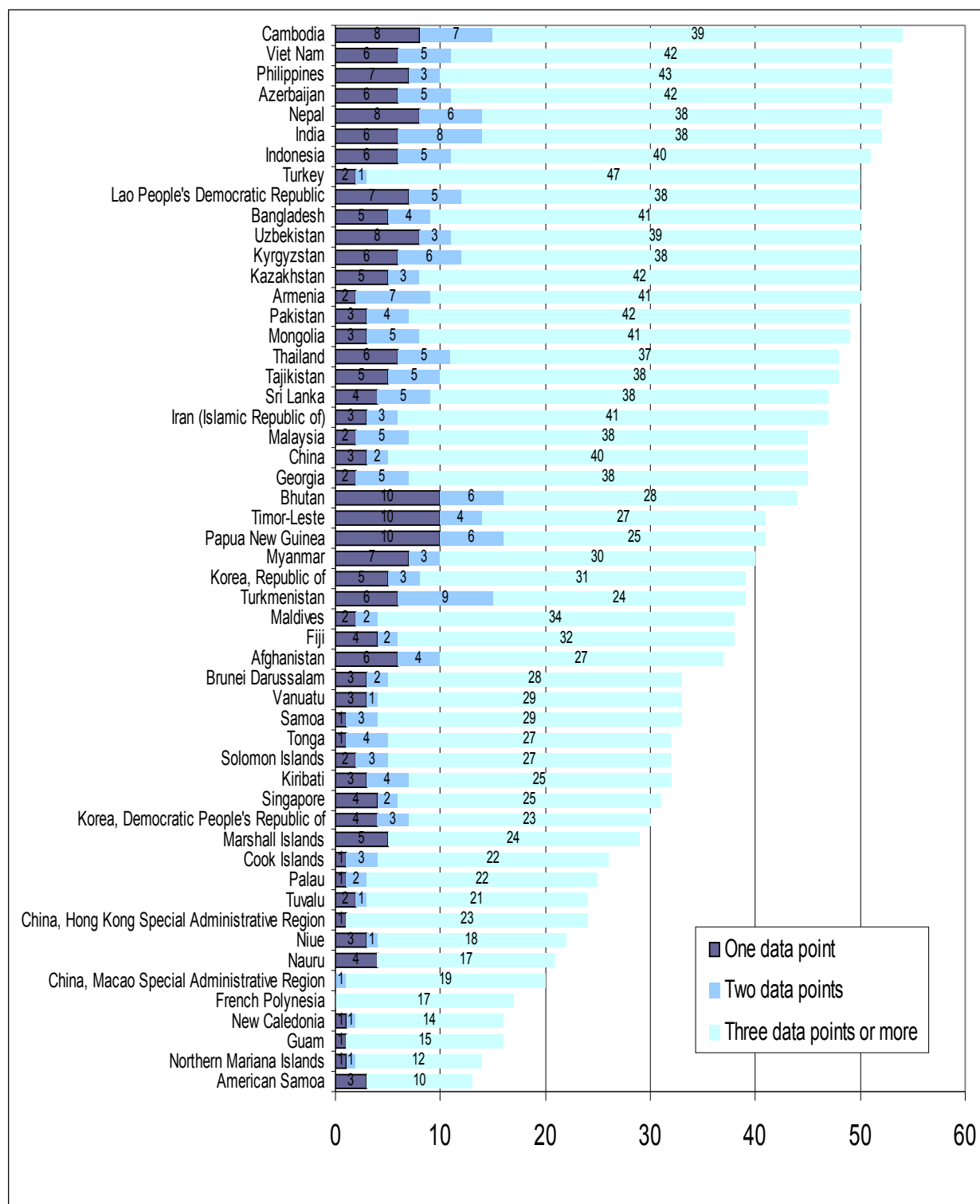
A serious problem facing the tracking of progress towards the MDGs in the region – and also globally – is the serious shortage of data for some of the MDG indicators. There are also sub-regional variations in terms of availability of MDG data. One sub-region where MDG data continues to be patchy is the Pacific sub-region. This is a long term problem which will take considerable time and resources to resolve. The lack of data renders the information base on some of the MDGs extremely weak. In many cases the observations are very few. Indeed, in the case of maternal mortality, the earlier estimates have been withdrawn as unreliable leaving only the 2005 estimates available. Obviously no assessment of progress can therefore be made on this crucial indicator and despite this problem being apparent for several years no solution has been found. In the case of HIV/AIDs also, the estimates prepared other than for 2001 and 2007 employed non-standard methodology and hence are not comparable.

Although the situation regarding data availability has improved over the last few years, a major task still remains. Figure 3 summarizes the status of availability of MDG indicators as of August 2009. For each country, it presents the number of indicators with only one data point available, two data points, and three data points or more. At least two data points are needed to assess trends in the indicators, and three or more data points are required to assess if progress is accelerating or slowing down. As apparent from the figure, half of the countries still have data on less than 2/3 of the indicators.

Some countries lack data as collection of data on a systematic basis is a costly affair. Poorer countries therefore suffer most from a lack of data on the MDG indicators. However, many countries who could afford to spend more on developing their MDG data bases may not be prioritizing better collection of MDG data as information on social outcomes may not be a high priority for them. This is where more advocacy efforts by development partners may be necessary.

A concerted effort to improve MDG data sets is being made by the ADB-UNESCAP-UNDP partnership on the MDGs (Box 1).

Figure 3: Data Gaps in MDG Indicators



Source: ESCAP calculations

Box 1: Statistical Capacity Building Support Provided by the ADB-UNESCAP-UNDP Regional Partnership on the MDGs

The regional partnership envisages regional and sub-regional level support under its new phase of activities spread over the period 2009-2012 to increase and improve the availability of MDG statistical data and to strengthen the capacity of national statistical systems to produce them at the country level. Specifically the outputs and activities planned are:

- (i) Conducting diagnostic needs assessment in countries with the greatest needs on the use of existing vital statistics and the quality of vital registration systems and the production of disaggregated MDG-related data using population and housing censuses.
- (ii) Thereafter preparing a draft regional action plan to optimize delivery of support and organizing a multistakeholder regional forum on vital statistics and quality of vital registration systems in order to finalize the action plan and obtain indications of support from governments and donor and partner agencies.
- (iii) Activities under the action plan would be delivered through regional and subregional/national workshops on the production of disaggregated MDG-related data using population and housing censuses and data analysis. An expert group meeting on strategy and good practices for promoting effective use of MDG-related data for policy analysis and advocacy would also be organized. Finally, a handbook on good practices for the effective use of MDG-related data for policy analysis and advocacy would be prepared and disseminated.

(iii) Delays in Estimates

A major problem with social indicators such as the MDG indicators is the large delay in making the estimates available. Thus, latest estimates currently available generally relate to 2006 for most MDG indicators. When economic volatility is experienced – such as now – the latest estimates may be considerably out of line with expected trends rendering such dated estimates of little use. This generally 2-3 year lag in estimation makes policy formulation very difficult. Policy makers quite understandably are impatient with reports that present a dated picture particularly if a rapid change has ensued in the interim, and demand more recent estimates.

In some cases such estimates may be possible to prepare based on proxies. For example, good proxies of rural poverty may be available from wage rates of agricultural laborers if such statistics are available more frequently (as it is in India and Indonesia). Quicker estimates of social indicators such as in education, health and water supply and sanitation may be available – at least as far as public services are involved – from administrative data sources if these can be collected systematically. Such data which are routinely collected by government departments are not always properly used in national statistics. They can be made available with less time lags and will render costly surveys unnecessary. ADB has begun a program of collecting such data.

Thus, although current MDG data sources report data after considerable delays, cheaper and quicker alternatives are available and need to be explored.

B. Current projections on the MDGs

Asia-Pacific has made impressive progress in achieving the MDGs in several areas. As shown in Table 1, which presents the progress of the region on selected MDG indicators, Asia-Pacific is an early achiever in reducing gender disparities in primary and tertiary education, stopping the spread of HIV/AIDS and the incidence and increase of death rates associated with tuberculosis, reducing consumption of ozone-depleting substances, and halving the proportion of people without access to safe drinking water in rural areas. Moreover, Asia-Pacific is on track to achieve other two important targets: ensure universal access of children to primary school and halve the proportion of people living below the poverty line of \$1 a day.

Table 1: Country groups on and off track for the MDGs

	1		2			3			4		6			7							
	\$1/day poverty		Underweight children		Primary enrolment	Reaching grade 5	Primary completion	Gender primary	Gender secondary	Gender tertiary	Under-5 mortality	Infant mortality	HIV prevalence	TB prevalence	TB death rate	CO2 emissions	CFC consumption	Water, urban	Water, rural	Sanitation, urban	Sanitation, rural
Asia-Pacific	O	S	O	S	S	E	S	E	S	S	E	E	E	R	E	S	E	S	S	S	
Asia-Pacific (excl. China and India)	O	S	S	S	S	E	E	E	S	S	R	E	E	R	E	S	O	S	S	S	
South-East Asia	E	O	O	S	E	E	E	E	O	S	E	E	E	R	E	S	E	S	S	S	
South Asia (incl. India)	S	S	O	S	S	E	S	S	S	S	E	E	E	R	E	O	E	S	S	S	
South Asia (excl. India)	O	S	S	R	S	E	S	S	S	S	R	E	E	R	E	R	S	S	S	S	
Pacific Islands			R	R	R	R	R	R	S	S	R	E	E	R	E	R	R	S	R	R	
CIS Asia	R	E	E	E	E	E	E	E	S	S	R	R	R	R	E	E	S	S	S	S	
LDCs Asia-Pacific	S	S	S	S	S	E	E	S	S	S	E	E	E	R	E	R	S	S	S	S	

Source: ESCAP staff calculations

Note: E- Early achiever, O – On track, S – Slow, R – Regressing or no progress

Asia-Pacific refers to the 55 developing members and associate members of ESCAP

The region has been slow on its progress as measured by many indicators. Asia-Pacific is still very slow in reducing hunger, ensuring that children complete a full course of primary education, reducing child mortality, ensuring access to clean water in urban areas and basic sanitation everywhere. The performance of the region has also been poor on maternal health. However, data problems with the indicator do not allow proper tracking of performance (Box 2).

Given the population size of China and India, it is useful to assess the progress of the region excluding this two countries to see if their progress has increased or not the chances of the region to achieve the MDGs. Table 1 shows that the region excluding China and India has progressed slowly in ensuring primary enrolment, regressed on the indicator of HIV prevalence, and has not yet halved the proportion of people without access to clean water in rural areas. On

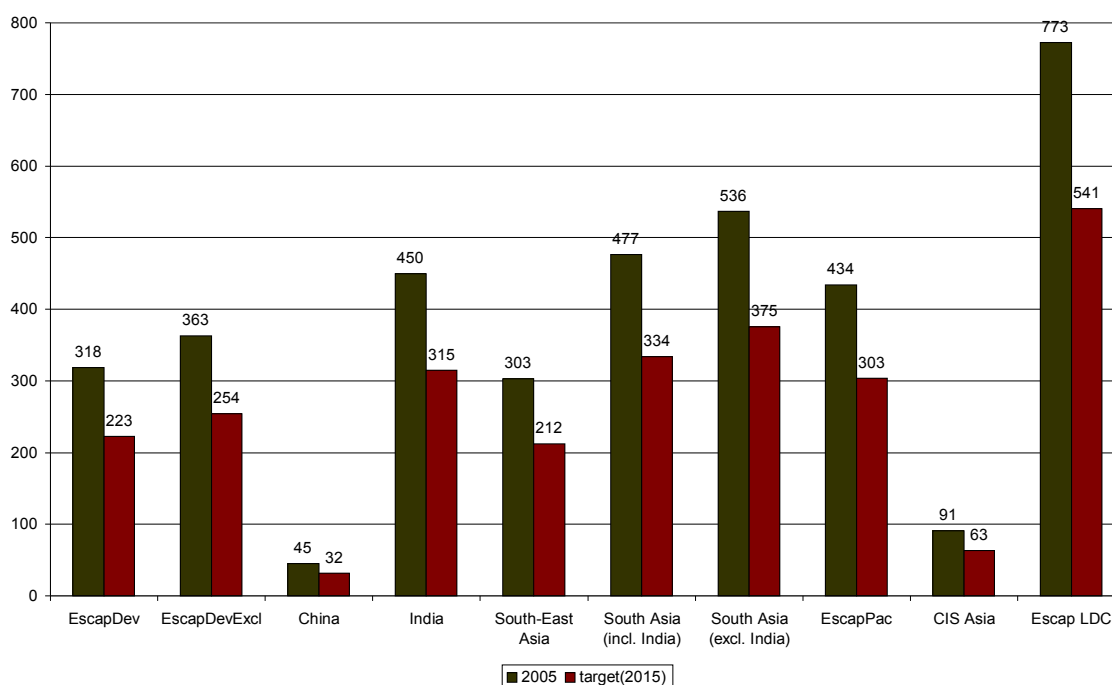
the other hand, excluding China and India, the region has already achieved MDG3, gender equality in education.

Box 2: Maternal Health

Data on maternal mortality is not comparable between years given the change in estimation methodology. Figure 1-1 shows the maternal mortality ratio (per 100,000 live births) in 2005 and the predicted target ratio by 2015 for the achievement of MDG 5 in the same country groupings presented in Table 1-1.

The aggregate ratio for 55 developing countries in Asia-Pacific is 318 and the suggested target to be reached in 2015 is to reduce such ratio to 223. India has a higher ratio than the region as a whole, 450, and China has a much lower one, 45. Thus, excluding India and China the region has a higher ratio of 363 and a suggested target of 254 by 2015. CIS Asia has the lowest ratio amongst the other country groupings presented in Figure below, with ratio of 91 and suggested target to be reached by 2015 of 63. LDCs as a group has the highest ratio, 773 deaths per 100,000 live births), and a suggested target to reduce such ratio to 541 by 2015.

Maternal mortality ratio (per 100,000 live births), 2005 data and target by 2015



Source: ESCAP staff calculations

The assessment of regional progress invariably masks great disparities at all levels. Table 1 shows that, amongst different subregions and country groupings, South-East Asia has made more progress towards the MDGs. It has already achieved 10 out of the 19 indicators assessed and it is on track in other three. CIS Asian countries are also early achievers in 9 of the indicators but are progressing slowly in five indicators and regressed in other five, including poverty eradication and reducing HIV prevalence.

South Asia region has also made good progress in some eight indicators but it is progressing slowly in many others. Given the size of its population, India has a high weight in any aggregated estimate for the subregion. If one excludes India's contribution in the subregion's estimate, South Asia would be on track to eradicate extreme poverty but would be progressing

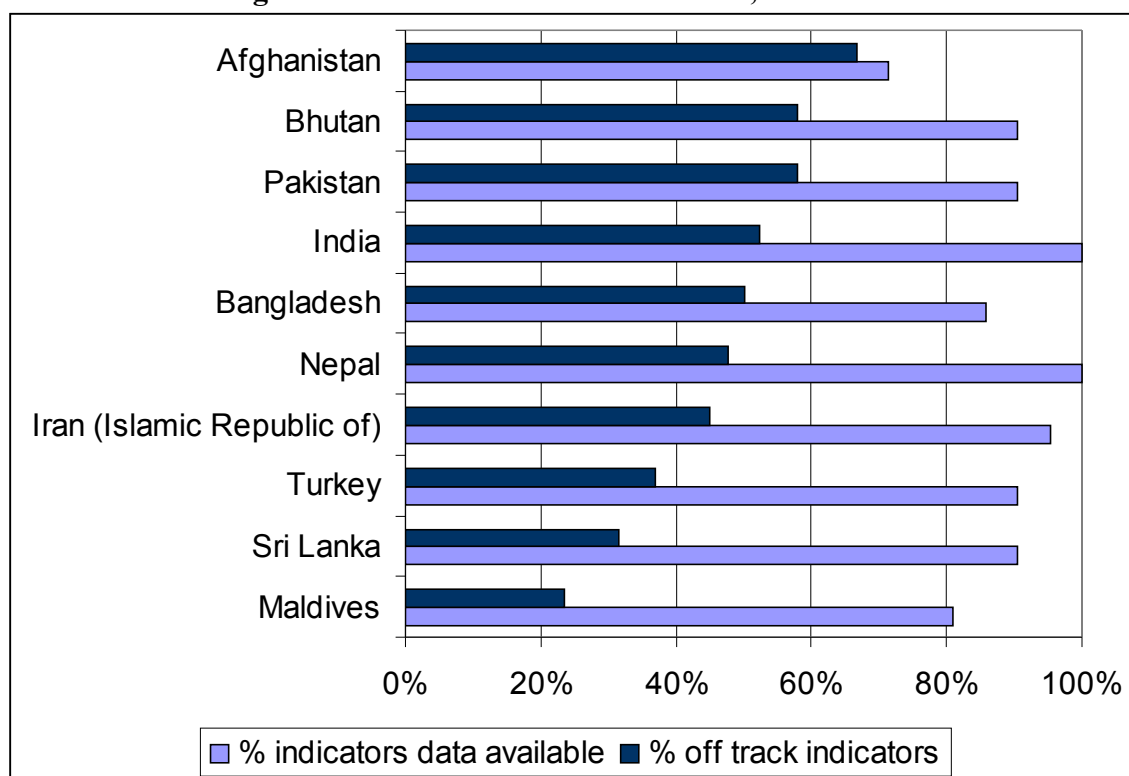
slowly in the indicators of primary enrolment and access to clean water in rural areas and regressing in the indicators of reaching grade 5, HIV prevalence, and access to clean water in urban areas.

The group of 14 LDCs in Asia-Pacific has made slow or no progress in most of the indicators. The only good progress of this group is on gender equality in primary and secondary education and in reducing HIV and TB prevalence. Pacific Island countries as a group have been even less successful in their progress towards the MDGs. The subregion is regressing or making no progress in 10 indicators and progressing slowly in another four, including child mortality. Estimates of the Pacific Island aggregates are challenging given the lack of data for many indicators.

South and South-West Asia

Large differences on the level of progress towards the MDGs also exist within subregions. Figure 4 shows the proportion of the 21 indicators shown in Table A for which data is available and the proportion of those that are off track (i.e. both slow and no progress/regressing), for South and South-West Asian countries.

Figure 4 : South and South-West Asia, off track indicators



Source: ESCAP staff estimates

The chart shows that all countries but Afghanistan have reported in more than 80 per cent of the indicators. Half of the countries of this subregion is off track in at least half of the indicators for which data is available. Afghanistan is in the worst position. It is off track in almost 70 per cent of the indicators for which it has reported data. And that does not include the

indicator of poverty (\$1 a day) and the indicators of education, which if available would probably not fare very well.

Bhutan and Pakistan have reported in the same number of indicators and are off track in the same proportion of those. Bhutan has data for only one year on the indicators of poverty eradication, thus is not possible to assess any trend, but it shows that Bhutan has poverty headcount and proportion of under-5 underweight below the subregional average. Bhutan has been slow or made no progress, however, in the indicators of education, child mortality, gender equality in secondary and tertiary education, and clean water and basic sanitation. Pakistan is an early achiever of the target of halving the proportion of population below the poverty line of \$1 a day but it has made no significant progress towards the target of reducing the proportion of underweight children. Pakistan has made slow progress in the indicators of gender equality in education and child mortality, and has made no progress in halving the proportion of people without sustainable access to safe drinking water, although it has made very good progress in halving the proportion of people without basic sanitation.

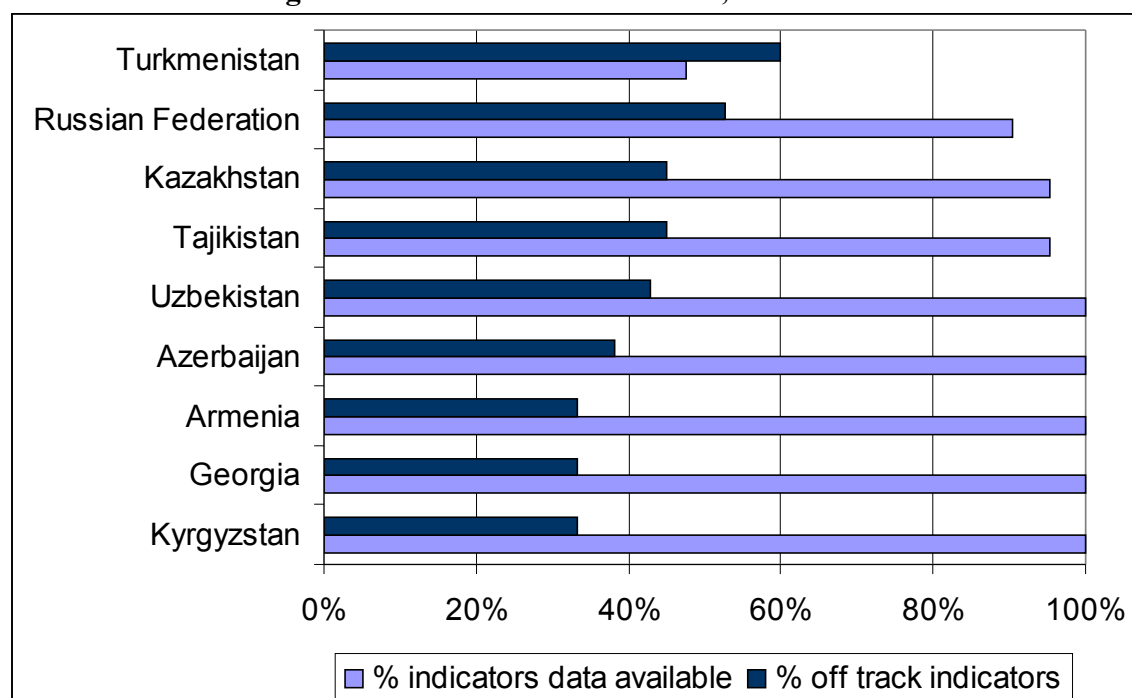
India has reported in all indicators and it is off track in more than half of them. Given the size of its population, India is home of a large number of people that live in deprivation, including 471 million of people living below the poverty line of \$1.25 PPP a day in 2005 and 318 million of people without basic sanitation in 2006. India has made slow progress towards the goals of eradicating extreme poverty, achieving universal primary education, gender equality in education, child mortality and basic sanitation.

Bangladesh, Nepal and Iran are off track in more than 40 per cent of the indicators. Turkey and Sri Lanka, on their turn, are off track in one third of the indicators. A good surprise is Maldives, one of the five LDC countries in the subregion. It has scored the lowest proportion of off track indicators. Maldives is an early achiever of 10 out of 17 indicators for which data is available, and is on track in other 3 indicators. The country has made slow progress, however, in providing access to safe drinking water and basic sanitation in rural areas.

North and Central Asia

In North and Central Asia, most of the countries have reported data in more than 90 per cent of the indicators. Turkmenistan is the biggest exception, with no data in more than half of the indicators, including the indicators of education, gender equality, and clean water and basic sanitation. The country is also in the worst position in the proportion of off track indicators (60 per cent), including the indicators of under-5 underweight and child mortality.

Figure 5: North and Central Asia, off track indicators



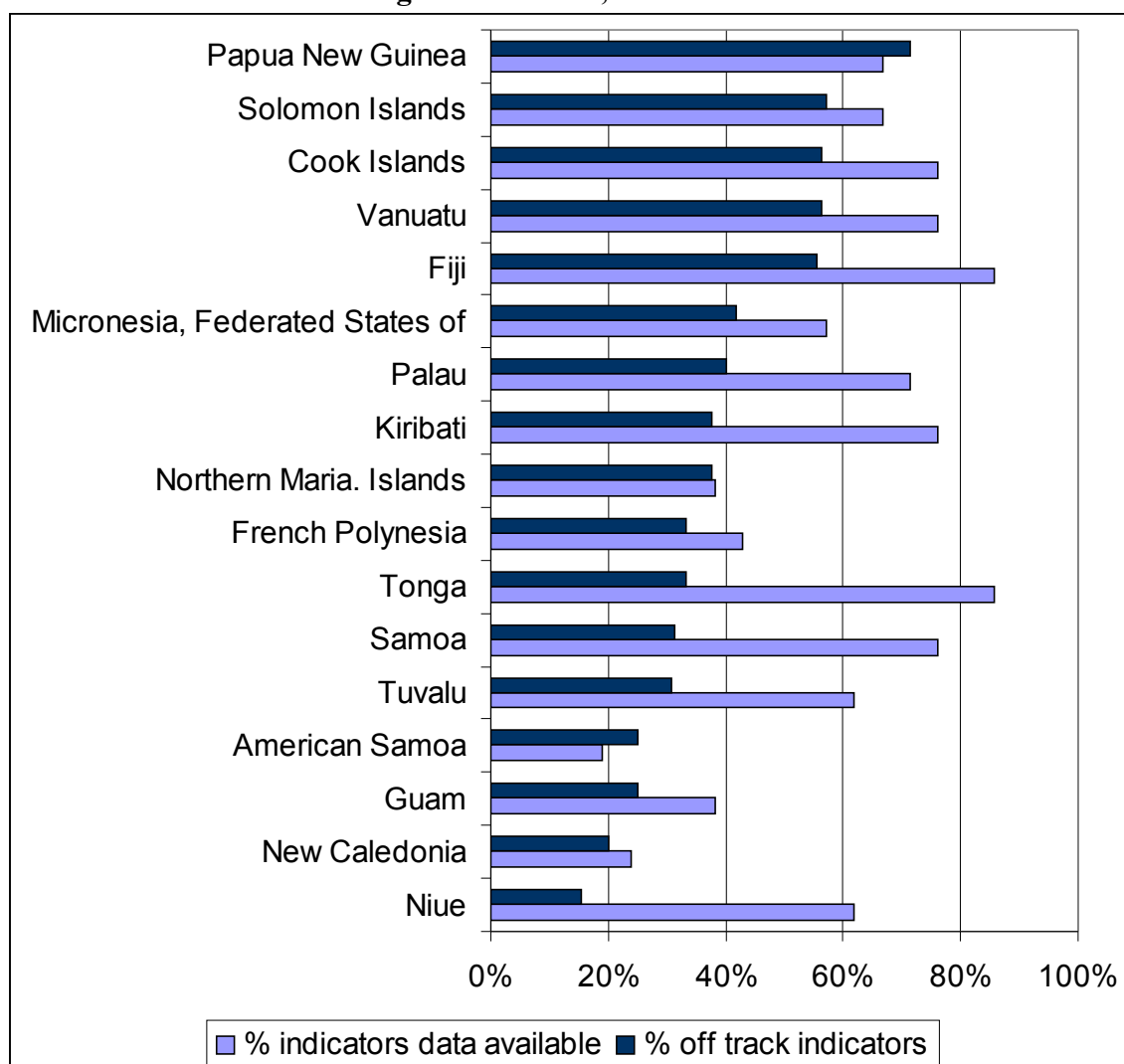
Source: ESCAP staff estimates

Russian Federation has made no progress in half of the indicators but most of them are indicators for which the country had fared well already in 1990. Kazakhstan, Tajikistan and Uzbekistan are off track in more than 40 per cent of the indicators. They have made slow progress in reducing child mortality and no progress in the health indicators. Uzbekistan has even regressed in the poverty indicator, from 32.1 per cent in 1998 to 46.3 per cent of the population below the poverty line in 2003.

Azerbaijan, Armenia, Georgia and Kyrgyzstan are in better position in the chart. These countries, however, have a mixed record in the indicator of eradicating extreme poverty. Azerbaijan and Armenia are early achievers of the target of halving the proportion of the population living below the poverty line of \$1 a day but have made no progress in reducing the prevalence of under-5 underweight. Georgia and Kyrgyzstan, on their turn, are early achievers of the latter and are regressing in the former.

Pacific

As already mentioned, the lack of data is a great challenge for any assessment of the progress of the Pacific towards the MDGs. No country has internationally comparable data to assess poverty and hunger eradication, and few have data on education and HIV prevalence.

Figure 6: Pacific, off track indicators

Source: ESCAP staff estimates

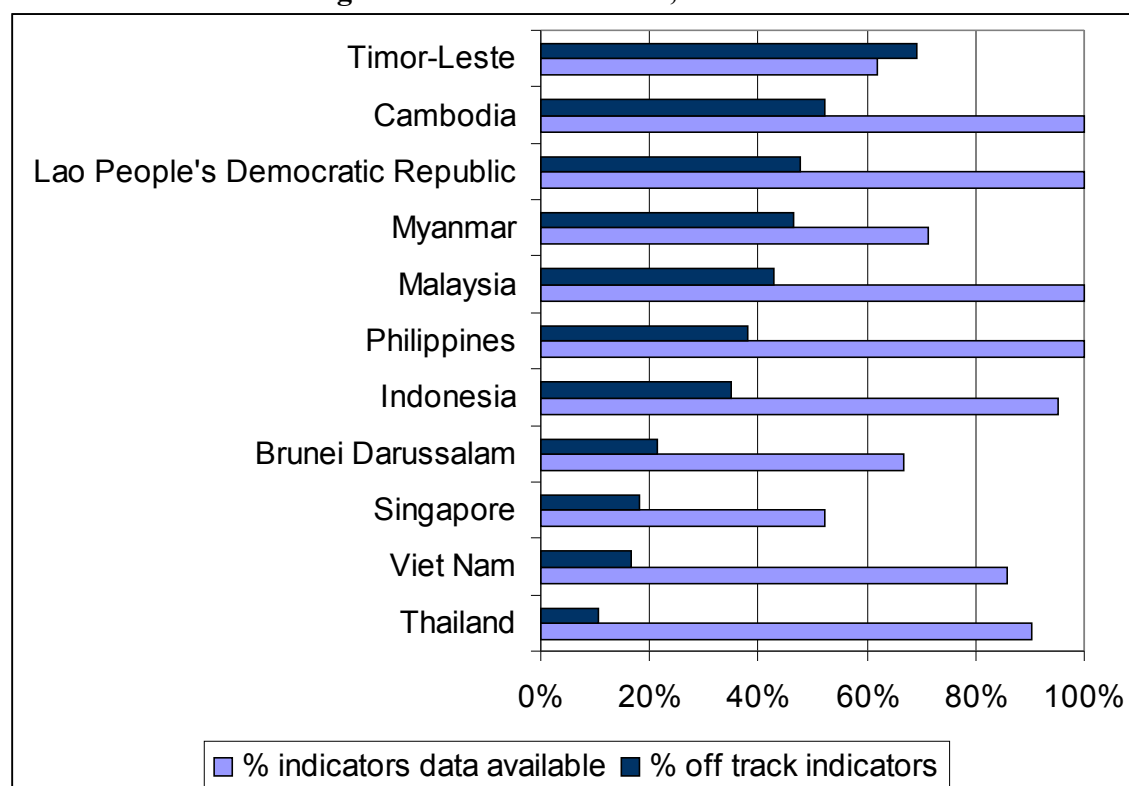
Regarding the progress as measured by internationally comparable indicators, as shown in Figure 6, Papua New Guinea is in the worst position, with more than 70 per cent of the indicators for which data is available off track. And that does not include the indicators of poverty, education and gender equality. Amongst the indicators for which the country has made slow or no progress are the indicators of child mortality and clean water and basic sanitation.

All Pacific island countries that have reported data on child mortality have made slow progress on the indicators: under-5 and infant mortality. The majority has made slow or no progress in providing clean water and basic sanitation for their population.

South-East Asia

Most of the countries in South-East Asia have reported data in more than 80 per cent of the indicators. The exceptions are two wealthy countries, Brunei Darassalam and Singapore, and two LDCs, Timor-Lest and Myanmar.

Figure 7: South-East Asia, off track indicators



Source: ESCAP staff estimates

Figure 7 shows that the four LDCs of the subregion have the highest proportion of off track indicators, which may not be a surprise. The surprise is Malaysia ranking very close to this group. In this case, however, the indicators for which Malaysia has made no progress were already in relatively fair level, such as the proportion of population with access to improved water sources and basic sanitation (more than 93 per cent). Malaysia has made slow progress in reducing child mortality and has regressed in the indicator of reaching grade 5 of MDG 2, from 97.7 percent in 2002 to 89.3 per cent in 2005.

A positive note is the very good performance of Thailand and Viet Nam, with less than 20 per cent of the indicators off track. Viet Nam has made outstanding progress in reducing extreme poverty and hunger, from a poverty headcount of 63.7 per cent in 1993 to 21.5 per cent in 2006, and from a proportion of under-5 underweight of 44.9 per cent in 1994 to 20.2 per cent in 2006. Thailand had already the majority of the indicators in good levels in 1990 in has been able to maintain such headway.

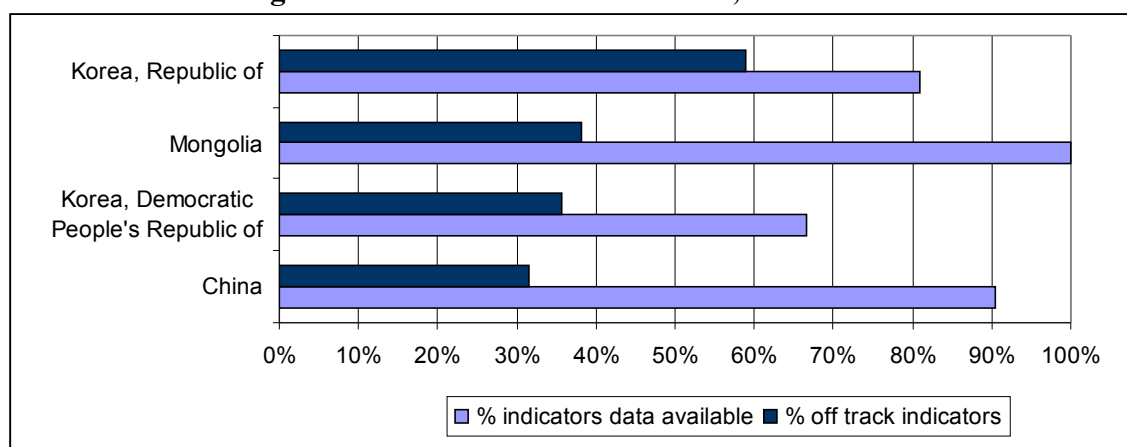
East and North-East Asia

Figure 8 shows that the Republic of Korea is the country with the highest number of off track indicators in East and North-East Asia. But such assessment is misleading because, on contrary of the other countries of the subregion, the Republic of Korea has started in 1990 with the indicators at a very good level. The country has not made much progress but in those already good indicators. The exception is the promotion of gender equality in tertiary education, for

which the country has made only slow progress, from a ratio of female to male of 49 per cent in 1991 to 67 per cent in 2007.

Mongolia has made slow progress in eradicating extreme poverty, reducing child mortality and in providing access to basic sanitation. The country, however, has the best record of gender equality in education, with more girls than boys in primary, secondary and tertiary education.

Figure 8: East and North-East Asia, off track indicators



Source: ESCAP staff estimates

It is difficult to assess the progress of the Democratic People's Republic of Korea when compared with the other countries of the subregion since the country has not reported data on poverty, education, and gender equality indicators. Amongst the other indicators, the country has not made progress on reducing child mortality and in providing basic sanitation to the population.

China is in the best position amongst the countries of the subregion. It has been the major responsible for the success in poverty reduction in the whole region. Rapid economic growth coupled with high mean income growth of the Chinese population has pushed down the poverty rate in China from 60.2 per cent in 1990 to 15.9 per cent in 2005. China has made, however, slow progress in reducing child mortality and in providing basic sanitation for its population.

C. Economic slowdown and its impact on the MDGs

The economic slowdown is likely to make the Asia and Pacific region's task of achieving the MDGs even harder. As discussed in the previous section, even if the economic slowdown had not occurred, while some MDGs were likely to be achieved, most countries were going to miss several MDG targets. After the advent of the economic slowdown in the region, the MDGs have become more elusive.

The economic slowdown will affect countries' performance towards achieving the MDGs in several ways. With growth slowing, the increase in the incomes of households that was being experienced – across all income groups – would slow down and the number of poor households

that would have crossed over the income poverty threshold will obviously fall. It is also possible for people living just above the poverty line to fall below it due to economic shocks. Currently no estimates for this are available. Another important channel is remittances. Even if remittances from overseas are not affected, remittances from urban workers to their families living in rural areas are being adversely affected due to the impact of the economic crisis on the urban sector, either preventing the affected families to go out of poverty or pushing them below poverty.

Comparisons between estimates of GDP growth rates released on the outset of the crisis (September 2007), in the mist of the crisis' impact on Asian export sector (April 2009) and more recently (August 2009), which are presented in Table 2, show reduction in GDP growth rates across the board in the period 2009/10 for the estimates released in April 2009, but signs of recovery on forecasts released in August 2009.

Table 2: Estimates of GDP growth rates, selected countries

Country	Sep-07		Apr-09		Aug-09	
	2009	2010	2009	2010	2009	2010
Armenia	8.5 ^a	8.5 ^a	1.1 ^c	3.0 ^c	-6.0 ^e	2.0 ^e
Azerbaijan	10.5	8.4	2.5 ^d	4.5 ^d	3.0	4.5
Bangladesh	6.4 ^b	7.0*	5.5	3.9	5.9	5.2
Cambodia	6.4	7.2*	-3.0	2.2	-3.0 ^g	2.2 ^g
China	9.2	7.7	6.0	7.0	8.0 ^g	8.0 ^g
Georgia	8.5	8.0*	0.5 ^d	1.8 ^d	-3.0 ^f	1.0 ^f
India	7.4	7.5	5.0	6.4	5.5 ^g	6.3 ^g
Indonesia	5.4	5.9	-1.3	0.6	4.1	4.4
Iran, Islamic Republic of	3.7	3.5	0.5	2.9	0.5	2.9
Kazakhstan	10.2	10.5	-0.2	2.0	-0.8 ^g	1.0 ^g
Kyrgyzstan	4.5 ^a	7.6*	1.0 ^c	2.0 ^c	-1.0	-1.0
Lao People's Democratic Republic	6.5 ^b	7.4*	3.0 ^d	5.0 ^d	3.0 ^f	5.0 ^f
Malaysia	5.6	5.6	-3.0	1.1	-5.0	3.3
Pakistan	6.2	5.8	0.6	2.3	3.7	2.7
Papua New Guinea	4.2	4.1*	-0.4	3.6	0.7	3.9
Philippines	5.4	5.6	-1.9	1.4	-1.0	3.7
Russian Federation	5.3	4.7	-3.0	2.0	-7.0	2.5
Sri Lanka	6.0	6.1	2.6	5.7	2.9	5.9
Tajikistan	7.8	7.0*	1.0	2.0	-3.0 ^f	-1.0 ^f
Thailand	4.4	4.0	-4.4	1.4	-4.5	2.1
Turkey	5.3	5.3	-4.4	1.0	-5.6	2.3
Uzbekistan	6.5	7.0*	2.5	3.5	2.5	3.5
Viet Nam	8.0	7.8	1.6	2.0	4.2	4.8

Note: Estimates from the Economist Intelligence Unit (EIU). a- November 2007 forecasts. b- October 2007 forecasts. c- February 2009 forecasts. d- March 2009 forecasts. e- May 2009 forecasts. f- June 2009 forecasts. g- July 2009 forecasts. *- Estimates from IMF WEO – GDP growth rates constant prices (April 2008 forecasts).

Given that growth and income poverty is closely related, various estimates considering the difference between September 2007 and April 2009 forecasts of GDP growth rates have found that about 60 million more people in the region who would have been freed from poverty had growth remained unaffected, would now continue to remain poor in 2009.

Based on the more recent forecasts (August 2009) of GDP growth rates presented in Table 2, which are more optimistic for many countries with higher poverty rate, it is estimated that the crisis may still have a significant but somewhat lower impact on poverty headcount in Asia-Pacific.

Table 3: Estimates of the number of people trapped into poverty in Asia-Pacific owing to the global economic crisis, various scenarios (Millions of people)

Income distribution	Slow mean income growth		Average mean income growth		Fast mean income growth	
	2009	2010	2009	2010	2009	2010
<i>No change</i>						
<i>1.25 \$ a day</i>	7.7	12.2	14.8	23.4	20.4	32.0
<i>2 \$ a day</i>	9.3	14.6	18.2	28.5	25.7	39.9
<i>Change</i>						
<i>1.25 \$ a day</i>	7.5	11.9	14.5	22.9	20.4	31.7
<i>2 \$ a day</i>	9.0	14.3	17.8	28.0	25.2	39.7

Source: ESCAP staff calculations

Note: In this table, Asia-Pacific includes only the countries listed in table 1.2. Scenarios of slow mean income growth considers that mean income varies at 25 per cent of the GDP per capita growth rate, while the ratios of 50 per cent and 75 per cent were used in the simulations of the scenarios of average and fast mean income growth, respectively. Scenarios of no change in income distribution consider that Gini coefficient constant and equal to the latest available data for each country. Scenarios of income distribution change considers that Gini coefficient varies at the compound annual growth rate of Gini calculated between the earliest and the latest available data for each country.

Table 3 shows the aggregate estimates, for the 23 countries listed in Table 2, of the number of people prevented from stepping out of poverty under six different scenarios considering various mean income growth rates and change in income distribution. In the simulations, growth of mean income is considered slow if it changes at 25 per cent of the GDP per capita growth rate, while changes at 50 per cent and 75 per cent of the GDP per capita growth rate are used in the scenarios of average and fast mean income growth, respectively.² For each scenario of mean income growth, scenarios of change and no change in income distribution are considered. The scenarios of no change in income distribution assume that the Gini coefficients have not changed since the latest year for which data is available, while the scenarios that consider change in income distribution assume that the Gini coefficients change at the compound annual growth rate of Gini calculated between the earliest and the latest years for which data is available for each country.

Table 3 shows almost the same estimated impact of the economic crisis under the scenarios of change and no change in income distribution. That is because income distribution usually changes slowly and, in the period of 2009/2010 considered in the simulations, its impact would be less significant than the impact of mean income change. The impact of mean income change seems to be very dependent on the assumptions of the change rate of mean income when

² The terms slow, average and fast are used for the sake of easier understanding of the relation between mean income change rate and GDP per capita change rate. More precise terminology would be lower, average and higher elasticity of GDP per capita rate change on mean income change rate.

compared with the change rate of GDP per capita. Scenarios of fast mean income growth show a higher number of people prevented from stepping out of poverty due to the crisis when compared with the other scenarios. That is because the faster the growth of mean income the faster the pace of poverty reduction and the higher the impact of any event that interrupt such progress.

For the result of such simulation assessment, in this region, the crisis has the potential to hold 20 Million people below the poverty line of \$1.25 PPP a day in 2009 and 32 Million people in 2010. The number of people blocked by the crisis in their way out of the poverty threshold of \$2 a day may approach 26 Million in 2009 and 40 Million in 2010.

The slowdown in growth will also affect the non-income MDGs. For the same reason as above, with less increase in incomes, poorer households would postpone less urgent needs as part of coping mechanisms. This may involve pulling children out of school and less attention to health care. In addition to the fall in demand for basic services, the availability of publicly funded basic services is also likely to experience cuts as governments – similar to household – reduce social spending affecting health, education and other social services such as extending access to clean water and improved sanitation– which impact on the MDGs.

Thus as in the case of income poverty –other things remaining constant, a fall in growth would lower the achievement of MDG outcomes. The relationship between growth and increase in the MDG indicator values in the Asia and Pacific region can be assessed from cross country and time series data. Such elasticities can then be used to predict changes in MDG indicator values due to changes in growth rates. Table 4 shows the relationship between economic growth and changes in MDG indicator values (elasticities) for various non-income MDG indicators drawn from an earlier study done by the ADB-ESCAP-UNDP regional MDG partnership.³ These elasticities indicate that changes in growth will have significant impacts on nutrition and the health MDGs outcomes; and affect minimally the education outcomes.

Table 4: Impact of a 1 per cent increase in per capita GDP on selected MDG indicators

<u>Indicator</u>	<u>Elasticity</u>
Population undernourished	-0.483
Infant mortality rate (0-1 year) per 1,000 live births	-0.462
Under-5 mortality rate per 1,000 live births	-0.430
Maternal mortality rate per 100,000 live births	-0.304
GPI in primary level enrolment	0.023
Primary completion rate	0.049
Net enrolment ratio in primary education	0.054
GPI in tertiary level enrolment	0.109

Source: ADB-UNESCAP-UNDP (2008)

Using the above elasticities, the implications for reduction in growth in 2008 alone (simulated for 1%, 2% and 3% reduction) on the regional values of the MDGs (i.e. weighted average of countries in the Asia and Pacific region), has been shown in Table 5. The method employed is to simulate changes based on these elasticities to the predicted 2008 values of the MDG indicators (which are estimated using a simple least squares trend line fitted to observed indicator values). The delays in MDG achievement are calculated by fitting new trend lines to

³ ADB-UNESCAP-UNDP 2008: A Future Within Reach

the earlier values and the changed 2008 values and calculating the difference between original and new achievement dates. The period of delay is affected both by the change in the 2008 indicator value as a result of fall in growth as well as the general speed of improvement of the regional values observed in the past. Both factors matter.

Table 5: Impact of Economic Slowdown on MDGs

	2008 Forecast	Date of achievement	Achievement status	Delay in achievement (months)
Infant Mortality Rate	41.4925	2021.60	slow	-
1% growth reduction	41.6842	2021.71	Slow	1
2% growth reduction	41.8758	2021.81	Slow	2.5
3% growth reduction	42.0675	2021.92	Slow	4
CU5 Mortality Rate	51.9033	2018.82	Slow	-
1% growth reduction	52.1265	2019.76	Slow	1
2% growth reduction	52.3496	2019.84	Slow	2
3% growth reduction	52.5728	2019.92	Slow	3
GPI in Primary Level Enrolment	0.9853	2004.25	early achiever	-
1% growth reduction	0.9851	2004.26	early achiever	0
2% growth reduction	0.9849	2004.26	early achiever	0
3% growth reduction	0.9846	2004.27	early achiever	0
Primary Completion Rate	86.75	2018.38	Slow	-
1% growth reduction	86.71	2019.63	Slow	0
2% growth reduction	86.66	2019.67	Slow	0.8
3% growth reduction	86.62	2019.70	Slow	1
GPI in Tertiary Level Enrolment	0.9000	2013.48	early achiever	-
1% growth reduction	0.8990	2013.51	early achiever	0
2% growth reduction	0.8980	2013.54	early achiever	1
3% growth reduction	0.8970	2013.57	early achiever	1
Undernourished Population	13.89401	2018.81	Slow	-
1% growth reduction	13.89407	2018.93	Slow	1.5
2% growth reduction	13.89412	2019.06	Slow	3
3% growth reduction	13.89418	2019.18	Slow	4.5
Underweight CU5	28.28	2025.87	Slow	-
1% growth reduction	28.41	2026.15	Slow	3
2% growth reduction	28.53	2026.43	Slow	7
3% growth reduction	28.66	2026.72	Slow	10

** using *half* of forecasted 1990 regional average as 2015 target

Source: Authors' estimates

The above results indicate that the region will be only marginally affected by the economic slowdown in case of infant and under 5 mortality, and primary completion. More significant impact is expected in case of hunger (undernutrition) especially of children under 5. The impact on primary enrolment and gender equality in education is likely to be small. The impact will be greater the longer the slowdown persists. These estimates are based on expectations that the slowdown is for a year only.

Thus, other than on poverty and hunger, the impact of the economic slowdown is expected to be minimal. This experience differs from that of the 1997 Asian financial crisis when countries experienced a downturn (negative growth). Furthermore, as some affected countries are taking proactive measures to protect social expenditures, the impact may be further reduced if these do happen.

Table 5 shows the impact of the slowdown in selected developing countries for primary completion rate. The detailed picture for the other indicators is in appendix 1. [To be inserted later based on information from the elasticity exercise being undertaken right now separately].

D. Conclusions

Although the MDG indicators have many drawbacks, they remain collectively an effective set of instruments to assess progress in poverty reduction in the holistic sense – covering both income and non-income or human poverty. One of the most serious problems, for example, facing the tracking of progress towards the MDGs in the region – and also globally – is the serious shortage of data on for some of the MDG indicators. There are also sub-regional variations in terms of availability of MDG data. One sub-region where MDG data continues to be patchy is the Pacific sub-region. This is a long term problem which will take considerable time and resources to resolve. This is one area where collectively more effort is necessary in order to make a better assessment of the basic outcomes of development which the MDGs represent. The regional partnership of ESCAP-ADB and UNDP have prioritized action on statistical capacity building particularly in weaker countries in the region and better data is expected in the medium term.

Keeping in mind these limitations, the paper makes an assessment of the progress being made in the Asia and Pacific region on the MDGs. Latest figures indicate that the region is an early achiever in reducing gender disparities in primary and tertiary education, stopping the spread of HIV/AIDS and the incidence and increase of death rates associated with tuberculosis, reducing consumption of ozone-depleting substances, and halving the proportion of people without access to safe drinking water in rural areas. Moreover, Asia-Pacific is on track to achieve other two important targets: ensure universal access of children to primary school and halve the proportion of people living below the poverty line of \$1 a day.

While the region has made progress in a number of MDGs, there are country and subregional variations. Most affected are LDCs and Pacific island economies. The group of 14 LDCs in Asia-Pacific has made slow or no progress in most of the indicators. The region has been slow on its progress as measured by many indicators. Asia-Pacific is still very slow in reducing hunger, ensuring that children complete a full course of primary education, reducing child mortality, ensuring access to clean water in urban areas and basic sanitation everywhere. The achievement of health and health-related goals remain problematic and special focus is necessary.

The paper also looks briefly into the impact the global financial crisis is having on the MDGs. The impact of the crisis will mainly be on income poverty which will cause some slowdown in the pace of income poverty reduction, particularly if the slowdown in growth is prolonged. However, as growth has less impact on non-income MDGs, the impact of the slowdown will be much less significant on these compared to income poverty. The only MDG indicator it is likely to impact significantly on is hunger. The impact of food price increases are likely to have a more severe impact on hunger and possibly also poverty and the other MDGs but this has not been discussed.

Nevertheless, the economic crisis, if sustained, could affect gains made so far as well as delay the achievement of the MDGs, unless stimulus packages and expenditure are geared to supporting poverty and social sector goals. The economic slowdown is likely to make the Asia and Pacific region's task of achieving the MDGs even harder. As discussed in the previous section, even if the economic slowdown had not occurred, while some MDGs were likely to be achieved, most countries were going to miss several MDG targets. After the advent of the economic slowdown in the region, the MDGs have become more elusive. With only six years remaining for the MDGs to be achieved, stronger efforts appear needed.