

THE NEXUS BETWEEN ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS AND ECONOMIC GROWTH: THE ROLE OF POLICY

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Achieving the Millennium Development Goals is increasingly being accepted as a major development objective in Asian and Pacific countries. In this paper, it is argued that, in order to fulfill this objective, attention needs to be paid to the nexus between achieving the Goals and economic growth. Pro-growth MDGs are as important as pro-MDG growth. Appropriate macroeconomic and sectoral policies can help in achieving both objectives.

In line with pro-poor economic growth and the pro-poor sectors, the concepts of pro-MDG economic growth and MDG economic sectors are introduced. The MDG sectors are agriculture and construction, which are traditional pro-poor sectors, three infrastructure sectors, namely transport, energy and water, and two social infrastructure sectors, health and education. The relevance of these sectors for achieving MDGs and as growth engines is discussed. In this regard, the contours of an MDG-consistent computable general equilibrium model, which can evaluate the effectiveness of alternate policy packages in fulfilling the dual objectives are cited. The role of policies and institutions in achieving MDGs is further investigated through an analysis of the track record of selected Asian and Pacific countries in implementing macroeconomic policies as well as the progress they are making towards achieving the Goals. Using a tracking exercise, it is shown that the MDG areas which need priority attention are underweight children, maternal mortality, carbon dioxide emissions, malnourishment and infant mortality. Through a corresponding exercise comparing macroeconomic indicators for the on-track and off-track countries it is found that the priority of the off-track group of countries is increasing financial inclusiveness, improving the expenditure on the education-to-GDP ratio and increasing the ratio of direct tax-to-total

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tax. While the policies leading to increases in the last two indicators will directly increase resources in two important MDG areas, health and education, those which will improve the financial inclusiveness index, leading to financial deepening, will help the off-track countries to benefit from globalization and sustain enhanced inclusive economic growth. This will go a long way towards helping countries to achieve the Goals. Altering the tax structure from an emphasis on indirect tax is a well-known pro-poor stance and will also contribute positively to such achievements.

I. INTRODUCTION

Achieving the Millennium Development Goals (MDGs)¹ is increasingly being recognized and accepted as the centrepiece of development objectives in Asian and Pacific countries. A number of countries already have prepared, or are in the process of preparing, MDG-based national development strategies. One of the major objectives of such strategies is to achieve the Goals for their countries within the time horizon of 2015. Such strategies have many advantages. First, the Goals address the development issues in a comprehensive manner by considering the broad dimensions of poverty rather than income poverty alone. In this manner, an MDG-based strategy will be efficient, as it is able to exploit the synergy between the various Goals. Second, deadlines on various review targets make such a strategy results-oriented. Third, an MDG-based strategy is consistent with the right to development, which is a fundamental human right (Sarkar, 2003). For implementing the MDG-based strategy, the role of economic growth is crucial. In this context, the concept of “pro-poor growth” facilitated by “pro-poor economic policies” is similar to that of “pro-MDG economic growth” and “pro-MDG economic policies”, so the concepts are of practical interest. The purpose of this paper is threefold. First, it elaborates the concept and characteristics of pro-MDG economic growth and that of pro-growth MDGs and corresponding policies. The contours of a macro model are developed to explain further the use of some of the concepts for helping countries to achieve the Goals. Second, progress in achieving MDGs in Asian and Pacific countries is tracked and analysed in order to determine the

¹ There are eight MDGs, namely eradicating extreme poverty and hunger; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality; improving maternal health; combating HIV/AIDS, malaria and other diseases; ensuring environmental sustainability; and developing a global partnership for development.

priority problem areas. Third, selected pro-MDG macroeconomic and sectoral policies are discussed. An illustrative attempt is made to compute the value of the indicators for selected “off-track” countries and compare these with the same for selected “on-track countries”. Based on the results of the comparison, priority areas which need attention for helping countries to achieve MDGs will be indicated.

II. THE CONCEPT OF PRO-GOALS GROWTH AND PRO-GROWTH GOALS

In the literature, the concept of pro-poor economic growth has been discussed widely. In short, growth is pro-poor if the measure of poverty falls. According to this definition, the potential sources of pro-poor growth are (a) a high rate of average income, (b) high sensitivity of poverty to the growth in average incomes and (c) a poverty-reducing pattern of growth in relative income. An operational definition of pro-poor growth has been provided by Pasha (2007).

Following Pasha, for growth to be poverty-reducing, it should meet the following criteria:

- Occur in sectors where the poor find employment, such as agriculture
- Occur in sectors the outputs of which are consumed by the poor, such as food
- Occur in areas where the poor live, such as rural areas
- Utilize factors of production which the poor possess, such as labour, which is often of an unskilled nature

In line with the above-mentioned definition, labour-intensive sectors using relatively low levels of technology can be identified as pro-poor sectors. Two major examples of such sectors are agriculture and construction. Among these, most of the activities of the agricultural sector also take place in rural areas where most of the poor live. From a structural point of view, if economic growth is generated by an expansion in the outputs of these sectors or expansion in these sectors is induced, through strong linkage effects, the growth is pro-poor.

In the context of achieving MDGs, a reduction in income poverty jointly with a decrease in hunger works towards the achievement of only one Goal. Other Goals refer to the areas of child and maternal health, communicable diseases, education, gender, the environment and global cooperation. Economic growth, if it

is pro-poor, has a major and direct impact on achieving the income poverty target of Goal 1. In fact, a reduction in income poverty is, in some sense, tautological; if a person's income crosses the poverty line (US\$ 1 per day), the person is no longer considered poor. However, this is not the situation with Goals 2 to 7. For achieving these Goals, a person has to consume a minimum quantity of goods and services. For example, whereas a person need only consume a minimum amount of food in order to reduce his or her hunger, for maternal mortality to be reduced, a pregnant woman is required to visit a medical clinic for a check-up on a regular basis, or in other words "consume" a minimum (required) quantity of health services. Similar examples of consumption for achieving other Goals are education for Goals 2 and 3, health for Goals 4 and 6, and water and sanitation for Goal 7.

The consumption of goods and services is determined by income level, non-income factors and price. For the consumption of "MDG goods and services,"² the common non-income factors refer to social barriers and customs which prevent people from using many such items despite possessing the required level of income. For example, in many Asian and Pacific countries, pregnant women from relatively rich families do not visit medical clinics regularly owing to a lack of awareness of its importance to their health and that of the foetus or the existence of social customs which forbid women from being examined by male doctors.

The price of goods and services is determined by the conditions of demand and supply. Very often, severe supply constraints are responsible for the high cost of MDG goods and services. There can also be both direct and indirect supply constraints. For example, with reference to health services, the absence of health clinics/hospitals in the neighbourhood (village, locality, town) compels a person to walk or hire transport to visit the nearest health facility. Such a situation increases the implicit price of health services and inhibits the consumption of such services. Over and above this, the absence of proper road infrastructure further adds to the extent of the price increase. Similar examples can be provided for other MDG goods and services, such as education and safe drinking water.

In the background of the above discussion, in addition to the "pro-poor" sectors, such as agriculture and construction, certain key sectors of the economy assume special importance in enabling countries to achieve the MDGs. These are transport, energy, water, health and education. If the outputs of these sectors do not expand, MDGs cannot be achieved. Growth can be termed as pro-MDG if it is generated by, or generates through strong linkage effects, an expansion in the outputs of the pro-poor sectors, the physical infrastructure sectors and the social

² Broadly, "MDG goods and services" refer to food, clean water and sanitation, health and education.

infrastructure sectors. In short, if economic growth entails income generation for the poor as well as improvements in both the physical and the social infrastructure, which will enable adequate availability of “MDG goods and services” so that a large section of the population (including the poor) will be able to consume those goods and services in appropriate quantities, there is a very good chance that the Goals will be achieved.³ On the other hand, an expansion in the MDG goods and services sector can also act as an engine of growth, turning “pro-MDG growth” into “pro-growth MDGs” (see box 1).

Box 1. Pro-Millennium Development Goal economic growth to pro-economic growth Goals

Is it possible to turn around and directly link economic growth with the achievement of MDGs through an expansion of the MDG sectors? The available evidence indicates that such linkages can do so; hence, MDG-based national development strategies, which the countries agreed to formulate and implement, represent a win-win situation for both groups: those which consider MDGs to be essentially soft social/welfare issues and those who have misgivings about the supremacy of economic growth in national policymaking. It can be argued that, if attention is not given to MDG goods and services, the growth process will be non-inclusive and not sustainable in the long run. On the other hand, appropriate investments in the MDG goods and services sectors not only can act as a direct engine of economic growth but also have strong positive impacts on all sectors of the economy and unleash the full growth potential of developing countries. Pro-economic growth MDGs can be a strategy through which the MDG goods and services sectors will become major sources of growth.

In the economic and business arena recently, a number of MDG goods and services sectors have been designated as “engines of growth”, examples include the following.

³ Similar concepts have been implicit in the findings of the paper entitled “Growth and MDG attainment: A technical note based on cross-country data” by Shiladitya Chatterjee. Chatterjee (2006) observed that mere economic growth is “woefully insufficient” for the attainment of MDGs without conscious allocation of budgets for the provision of basic services and the adoption of programmes for capacity-building and investments to realize them. Some of the interventions must be aimed at turning the growth process into the pro-MDG variety.

Infrastructure and construction-led growth

A success story in this area is China. The country is marching ahead with a GDP growth rate of over 10 per cent annually for over two decades. It followed a conventional path in transiting from an agricultural economy, by building linkages among its agricultural, industrial and service sectors. In this endeavour, massive infrastructure development played crucial multiple roles. Infrastructure investment acted as a major source of short-term economic growth by boosting construction activities in a very significant manner. The resulting improved infrastructure facilities (roads, airports, ports, electricity and water) enabled manufacturing activity to grow at breakneck speed and contribute to the high rates of export growth. The country's strong export performance is well known. It is also well known that a major determinant of inward foreign direct investment flows is the high quality of China's infrastructure. This concept is vindicated by its excellent record in this area, \$60 billion having been poured into the country in 2005 alone.

The concept of infrastructure as an engine of growth is further exemplified in the preparations for hosting the Olympic Games in China in 2008. Public and private-sector investments for infrastructure development in preparing for the Olympics are expected to touch \$180 billion by 2008. The impact of such investments will be significant in terms of jobs for millions of low-income and low-skilled workers. Also, hosting the Olympics will help to enhance the country's psyche and self-confidence. China is also using the Olympics to prepare its inefficient State-owned enterprises for competing in the global economy, which will have significant positive short, medium and long-term impacts on economic growth.^a

In India, the Government is trying to boost economic growth by improving the country's infrastructure. The Indian economy has grown by an average rate of 8 per cent annually during last three years and the Government wants to increase that rate to 10 per cent by building better roads, ports and power supplies. Recognizing that infrastructure development can be an effective growth engine for the country, India intends to invest \$150 billion in the sector in the next few years.^b

Agriculture-led growth

The contribution of the agricultural sector in jumpstarting economic growth in China after the country started breaking away from the centrally planned system is well documented. The introduction of the responsibility system at the end of 1978, which recognized private agricultural activities at the household level, unleashed the growth potential of the country; since then it has never looked

back. India's green revolution was the backbone of its development strategy in the early years. Agricultural production resulted in a record grain output of 131 million tons in 1978/79 and established India as one of the world's largest agricultural producers. Agricultural production through improved techniques required more water, fertilizer, pesticides and other chemicals. This spurred the growth of the manufacturing sector; the resulting industrial growth created new jobs and further contributed to the country's GDP.

However, the scenario started changing in 1990 when India began to implement aggressive economic reform and liberalization programmes. It promoted non-agricultural sectors, especially certain service sectors, which became new engines of growth. The lack of investment in the agricultural sector became apparent in 2005 when for the first time in decades India had to import wheat because domestic production had not increased in the previous 10 years.

It is interesting to note that agriculture, which seemed to have lost its clout as an engine of growth, is re-emerging. India's countryside has long been regarded as a primary market for domestic businesses, which now see the rural agricultural sector as an engine of growth and a source of tremendous profit. A leading business group is planning to create 1,000 outlets around the country for stocking agricultural implements manufactured by both domestic and foreign producers and provide a variety of financial and health services in rural areas. By consolidating services and sales, it is possible to improve farmers' access to inputs and thus unleash a virtuous cycle of increased sales and increased agricultural production, thus contributing to the country's economic growth. Also, a number of corporate sector-led vertically integrated models are being implemented. All these efforts recognize the strong role of agriculture in creating economic growth.^c

Health and education-led growth

Should the notion of health and education-led growth be followed by a question mark? Is it only food for thought or is there some reality in that notion? With regard to health, recent research done at the Harvard School of Public Health suggests that, for the two "Asian giants", improvements in health and the consequent changes in the size and age profile of the population were major factors propelling the countries' economic take-off. The notion of "health-led growth", i.e. health improvements boosting developing economies under which health programmes, such as preventive health care (e.g. inoculation) strengthened over time and increased the number of healthy children who when they matured became a "bulge generation", represents a potent economic force.^d The resulting "demographic dividend" significantly contributed to the success of the "Asian Tiger Economies" in the post-Second World War period.

There are other direct examples of the health sector functioning as an engine of growth. The recent emphasis on health tourism in countries such as India and Thailand, the growing domestic health market and the increase in various forms of care-giving “industries”, including those in developed countries which can be exploited by Asian and Pacific developing countries, are areas capable of attracting significant investment (private, public, public-private). Investment in the modern health sector, which has strong linkages with the industrial, construction and service sectors, is capable of promoting widespread economic activities and growth.

On the other hand, from a growth perspective, public resources allocated for the provision of educational services can generate growth. The benefit of investing in “knowledge-generation sectors”, which are central to endogenous growth as brought forward by Lucas,^e amply justifies such actions. However, as in the case with health, examples of the direct contribution of education as a generator of economic growth are also abundant.

^a Konana, P., Doggett, J.N., Balasubramanian, S. (2005). Advantage China, *Frontline*, vol. 22, No. 6, 12-25 March 2005.

^b IDFC sees strong infrastructure-led growth, Reuters Hyderabad, May 2006.

^c Will agriculture be the next engine of growth in India's economy? *Asia Pacific Bulletin*, 18 October 2006.

^d HSPH Report: China and India “What's Behind Asia's Gold Rush”. <www.hsph.harvard.edu/review/rwvsf06_bloom.html>, accessed on 13 November 2006.

^e Lucas, R.E., “On the Mechanics of Economic Development”, *Journal of Monetary Economics*, 22, 1988: 3-42.

The structure of a macroeconomic model with two sectors, namely MDG goods and services, and the rest, is shown in box 2. The model can be used to evaluate options for generating economic growth by expanding MDG goods and services as well as ensuring minimum levels of consumption in these areas.

Box 2. An MDG-consistent Macroeconomic Model

$$X = AX + C + I + E - M \quad \dots (1)$$

$$Y_j = V_j X \quad \dots (2)$$

$$C_j = (1-S_j)Y_j, j = 1, n \quad \dots (3)$$

$$C_{ji} = \theta_{ji} + (m_{ji}/P_i)^* (C_j - \sum_i \theta_{ji} P_i), i = 1, 2 \text{ and } j = 1, n \quad \dots (4)$$

$$\sum_j C_{ji} = C_i, i = 1, 2 \text{ and } j = 1, n \quad \dots (5)$$

$$\sum_j C_j = C, j = 1, n \quad \dots (6)$$

Where

X : Output

A : Intermediate input coefficient

C : Consumption

I : Investment

E : Export

M : Import

j : The income groups (could be classified by size, class, origin (rural/urban) or occupational class) to be considered

V_j : Value added share of j^{th} income class

C_j : Consumption expenditure of j^{th} income class

S_j : Savings rate of j^{th} income class

i : Consumption categories (1 referring to MDG goods and services and 2 referring to the rest)

C_{ji} : Consumption of j^{th} income class on i^{th} item

θ_{ji} : Minimum consumption of j^{th} class on i^{th} item

m_{ji} : Marginal budget share of j^{th} class, with reference to i^{th} item

P_i : Price of i^{th} category

The model above is an example for exploring some basic elements of a much more elaborate framework of an MDG-based structural model that would be required to carry out actual simulation exercises for a particular country. However, a complete model would be able to incorporate all the concepts introduced in this paper and could be used as a tool for evaluating policy options and strategies for “pro-growth MDGs”, ensuring minimum consumption of MDG goods and services, which is consistent with the achievement of the Goals by 2015.

III. PRO-MDG ECONOMIC POLICIES

Economic policies which enable pro-MDG economic growth processes to take place can be classified into four groups: structural adjustment policies, macroeconomic stabilization policies, sectoral policies and redistributive policies.⁴

Structural adjustment policies

The standard sets of measures which are applied to stimulate growth in developing countries under the rubric of economic reform are privatization, deregulation, liberalization of the trade and financial sectors and convertibility of the capital account. These measures are expected to unleash entrepreneurship and dynamic forces in the private sector, both domestic and foreign; exploit the comparative advantage of the country in increasing exports; attract foreign capital, especially in the form of direct foreign investment; and significantly contribute to economic growth.

Although the above measures have been able to enhance GDP growth rates quite significantly in several Asian and Pacific countries, especially those in East and South-East Asia, single-minded adherence to this approach in many circumstances could not guarantee that the growth was contributing adequately to the achievement of MDGs in a sustained manner. In fact, the well-known sequencing problems which led to the 1997 Asian financial crisis and the adverse impact on employment of privatization are some of the negative aspects of the above-mentioned policies.

Macroeconomic stabilization policies

The centerpiece of macroeconomic stabilization is ensuring a low inflation regime through fiscal discipline, that is, reducing the fiscal deficit and thereby the current account deficit. A low inflation regime is congenial for boosting the confidence of both consumers and investors, and keeping moderate real exchange rates and interest rates thus contributing to the generation and maintenance of an enabling atmosphere where economic activities and growth can flourish. However, the traditional Washington Consensus interpretation of macroeconomic stabilization, in many circumstances, overemphasizes the virtues of low inflation, which is often achieved through demand management at the expense of growth and development. For example, a reduction of the fiscal deficit, which is a major instrument for controlling inflation, if achieved by reducing public expenditure, especially on physical and social infrastructure, can easily retard the process of growth itself in the short and medium term.

⁴ The classification broadly follows that of Pasha (2007).

Sectoral policies

A major sector, the growth of which ensures poverty reduction, is agriculture. Agriculture utilizes a substantial input of labour, a factor which is abundant among the poor. Agricultural activities take place in rural areas where many of the poor live. The experience with agricultural growth suggests a strong correlation between investments in rural infrastructure: irrigation networks, farm-to-market roads and rural electrification. Adequate infrastructure, as argued previously, contributes not only to increased income for the rural poor, thus helping to achieve Goal 1, but also to the achievement of other Goals.

Another pro-poor sector is construction. Rapid growth in construction produces a twofold benefit. Because it is labour-intensive, it can absorb a large population of unskilled labour. In many South-East Asian countries, the growth in construction was instrumental in relocating workers from the low-wage agricultural sector where they were underemployed communities to the relatively well-paid non-agricultural sector. Construction activities in urban slums and squatter as well as in public works programmes for the creation of the rural infrastructure are pursued in many countries in order to provide income to seasonally unemployed agricultural workers. Thus, these activities act as “insurance”, preventing the poor from slipping back into poverty.

In a large number of Asian and Pacific developing countries, the demand for infrastructure services, such as transport, energy and water, outstrips the supply (output) of such services by a wide margin. The outputs of these sectors are not only consumed directly, which also, as discussed previously, contributes to the achievement of many MDGs, but also are crucial intermediate inputs for all other economic activities. The opportunity cost of infrastructure constraints could be very large in terms of lost economic growth and the non-achievement of MDGs. Investing in infrastructure sectors is crucial for improving the situation. Research has shown that the infrastructure investment requirement for Asian and Pacific countries can be enormous, exceeding \$600 billion per year (ESCAP, 2006).

A similar situation is observed in the social infrastructure sectors, especially the health and education sectors. The expansion of the output (supply) of these sectors is crucial for enhancing economic growth as well as for achieving MDGs. Adequate investment in these sectors is needed for creating the capacities required.

Redistributive policies

These policies can be the essential ingredient for achieving an MDG-friendly economic growth process. One key area for implementing policies for achieving

MDGs is altering the quota and allocation of public resources by changing the pattern of taxes and expenditures so as to lessen the burden on the poor and increase the availability of “MDG goods and services”. Measures taken to correct the following types of situation will contribute to the improvement of those situations.

Subsidies and pricing of public services

Certain subsidies, including subsidies on services and even fertilizer subsidies, can accrue to and benefit higher-income groups disproportionately. On the other hand, underpriced pro-rich services can include irrigation, electricity for agricultural use and higher education. Rationalization of the subsidies as well as the proper pricing of public services would save or generate revenue, which could be used to cross-subsidize the poor in order to increase their consumption of MDG goods and services.

Tax restructuring

Tax expenditures, in the form of exemptions or concessions in the application of tax laws (especially relating to direct taxes), are common in many countries. These can include favoured tax treatment of various forms of unearned income, including income from capital gains or interest income, very low effective rates of taxation on real estate and tax exemption for agricultural income. Recently, in many countries policy debates have been taking place concerning the efficiency of tax concessions in special economic zones.⁵ One effective way of broadening the tax base is minimizing the tax concessions while simultaneously reducing the rates of indirect taxes, which are generally regressive in nature and have an adverse impact on the poor.

Restructuring of public expenditure

Another major area of reform in public expenditure is the change in its composition. For example, outlays for defence in many Asian and Pacific countries substantially exceed social expenditures. Efforts aimed at achieving greater peace and stability in the region could yield a substantial dividend in terms of creating the fiscal space for greater spending on the physical infrastructure, health and education.

⁵ For example, see the following URL for information on criticism of India’s policy on special economic zones <www.wsws.org/article5/2006/India-027.shtml> accessed on 15 January 2007.

Reallocation of bank credit

An area where redistributive policies could be effective in enhancing the achievement of MDGs is the allocation of bank credit. This approach would involve orienting the banking sector towards the extension of microcredit for low-income households as well as loans for small and medium-sized enterprises, which would improve financial inclusiveness. The emphasis should be on increasing people's access by rationalizing the collateral requirements and the criteria for establishing credit worthiness rather than on subsidizing credit. The experience of financial institutions, such as the Grameen Bank of Bangladesh, is that intermediation costs could be kept low through group-based lending, while repayment performance could be sustained at high levels through peer-group pressure and improved prospects for repeat borrowing through an interlocking loan arrangement. On the contrary, large borrowers are more likely to be prone to "willful default" owing to the system of political patronage. In addition, the credit made available to small borrowers can contribute to substantially larger income and employment multipliers, thereby directly contributing to poverty reduction.

IV. TRACKING THE PROGRESS IN THE ACHIEVEMENT OF THE MILLENNIUM DEVELOPMENT GOALS: WHERE ARE THE GAPS?

Research carried out by ESCAP,⁶ with recent data and information provided by the United Nations Statistics Division (mid-2006), highlights the progress being made towards achieving MDGs in the Asian and Pacific region. In the background of the vastness and diversity of the region, the "progress story" is mixed; many indicators are "on track", although a number of other indicators are "off track".⁷ ESCAP has documented and discussed the behaviour of a large number of indicators for which data are available. Using the information provided by ESCAP, an attempt has been made here to take the analysis further and to extract some conclusions which have relevance to policy and programme formulation, especially with regard to making some of the off-track indicators on track.

⁶ The information is contained in the second draft for 2006, which is an update of the regional MDG report. For further information, see <<http://www.mdgasiapacific.org>>

⁷ On-track countries with respect to a particular indicator are those which, with trend performance (or under a "business as usual" scenario), will achieve the target value (as stipulated in the Millennium Development Goals) of the indicator by or before 2015. Off-track countries are those which, under similar situations as described above, will miss the target in 2015.

Tables 1, 2 and 3 show some of the salient features of the status of MDG indicators and the achievement of the Goals for the Asian and Pacific region. Table 1 concerns the availability of the data on the indicators. In addition to the underweight children indicator (Goal 1), the paucity of information on reaching grade 5 (60 per cent of the Asian and Pacific countries do not have data on reaching grade 5), poverty (56 per cent), malnourishment (49 per cent), sanitation rural (44 per cent) and HIV prevalence (42 per cent) is noteworthy.

Table 1. Availability of data on MDG indicators

<i>Indicator</i>	<i>Indicator</i>	<i>Goal</i>	<i>Number of countries for which data are not available as a percentage of the total number of developing countries in the Asian and Pacific region (%)</i>
Underweight children	4	1	69.09
Reaching grade 5	7	2	60.00
\$1 poverty	1	1	56.36
*Malnourishment	5	1	49.09
Sanitation rural	31 b	7	43.64
HIV prevalence	18	6	41.82
Primary enrolment	9	2	38.18
Gender tertiary	9 c	3	34.55
Primary completion rate	8	2	34.55
Sanitation urban	31 a	7	34.55
Water rural	30 b	7	32.73
Water urban	30 b	7	27.27
*Maternal mortality	16	5	23.64
Gender secondary	9 b	3	21.82
Gender primary	9 a	3	20.00
Protected area	26	7	20.00
Infant mortality	14	4	14.55
Under-five mortality	13	4	14.55
ODP CFC consumption	28	7	14.55
CO ₂ emissions	28	7	7.27
Forest cover	25	7	7.27
TBC death rate	23	6	0.00
TBC prevalence	24	6	0.00

Source: ESCAP (2006). *The Millennium Development Goals: Progress in Asia and the Pacific 2006*.

Note: *Maternal mortality and malnourishment figures are from ESCAP (2005). *Future within Reach: Reshaping institutions in a region of disparities to meet the Millennium Development Goals in Asia and the Pacific*, (United Nations publication, Sales No. E.05.II.F.27).

Table 2. Current status of the achievement of MDGs in the Asian and the Pacific region (2006)

<i>Indicator</i>	<i>Indicator</i>	<i>Goal</i>	<i>Number of countries for which data is available</i>	<i>Number of off track countries as percentage of total number of countries for which data is available (%)</i>
Underweight children	4	1	17	64.71
*Maternal mortality	16	5	42	66.67
CO ₂ emissions	28	7	51	58.82
Forest cover	25	7	51	45.10
Water rural	30 b	7	37	45.95
Sanitation rural	31 b	7	31	41.94
*Malnourishment	5	1	28	42.86
Infant mortality	14	4	47	38.30
Gender tertiary	9 c	3	36	36.11
Reaching grade 5	7	2	22	36.36
Under-five mortality	13	4	47	34.04
Primary enrolment	9	2	34	32.35
Water urban	30 b	7	40	32.50
Primary completion rate	8	2	36	30.56
Sanitation urban	31 a	7	36	27.78
HIV prevalence	18	6	32	21.88
\$1 poverty	1	1	24	20.83
Gender primary	9 a	3	44	20.45
TBC death rate	23	6	55	20.00
TBC prevalence	24	6	55	14.55
Gender secondary	9 b	3	43	13.95
ODP CFC consumption	28	7	47	10.64
Protected area	26	7	44	0.00

Source: ESCAP (2006). *The Millennium Development Goals: Progress in Asia and the Pacific 2006*.

Note: *Maternal mortality and malnourishment figures are from ESCAP (2005). *Future within Reach: Reshaping institutions in a region of disparities to meet the Millennium Development Goals in Asia and the Pacific*, (United Nations publication, Sales No. E.05.II.F.27).

Table 2 focuses on the current progress being made towards achieving MDGs and the priority gap areas which need attention. According to the data, 67 per cent of the countries were found to be off track in terms of maternal mortality (Goal 5, indicator 42), followed by underweight children (65 per cent) and environment indicators, especially CO₂ emissions (59 per cent for CO₂ emissions

to 46 per cent for water (rural)). Malnourishment and infant mortality (43 per cent and 38 per cent, respectively) also score high in the list of off-track indicators. These are the priority gap areas which need attention through the development of appropriate policies and programmes both at the country and regional levels.

In developing countries, an overarching development objective has always been the reduction of income poverty. As a result, antipoverty and pro-poor growth policies and programmes have been designed and implemented in almost all countries of the region. These policies and programmes are often holistic and, in addition to addressing income generation, also benefit other MDG areas, such as health, education and the environment. The extent of such “spillovers”, however, differs between countries. In the context of the Asian and Pacific region, it is of interest to determine which areas (or more specifically which MDG indicators) have benefited more than others. Such an attempt is made in table 3.

Table 3. Relationship between income-poverty reduction and other indicators

<i>Indicator</i>	<i>Number of on-track countries as a percentage of the total number of countries for which data on both indicators are available (%)</i>
On-track in indicator 1 (income poverty) and on-track in indicator 30a (water (urban), Goal 7)	85
On-track in indicator 1 (income poverty) and on-track in indicator 26 (protected area, Goal 7)	79
On-track in indicator 1 (income poverty) and on-track in indicator 28b (ozone depleting potential chlorofluorocarbon consumption, Goal 7)	75
On-track in indicator 1 (income poverty) and on-track in indicator 9a (gender (primary), Goal 3)	69
On-track in indicator 1 (income poverty) and on-track in indicator 9b (gender (secondary), Goal 3)	69
On-track in indicator 1 (income poverty) and on-track in indicator 24 (tuberculosis prevalence, Goal 6)	67
On-track in indicator 1 (income poverty) and on-track in indicator 18 (HIV prevalence, Goal 6)	64
On-track in indicator 1 (income poverty) and on-track in indicator 23 (Tuberculosis death rate, Goal 6)	62

Table 3. (continued)

<i>Indicator</i>	<i>Number of on-track countries as a percentage of the total number of countries for which data on both indicators are available (%)</i>
On-track in indicator 1 (income poverty) and on-track in indicator 25 (forest cover, Goal 7)	54
On-track in indicator 1 (income poverty) and on-track in indicator 9c (gender (tertiary), Goal 3)	50
On-track in indicator 1 (income poverty) and on-track in indicator 13 (under-five mortality, Goal 4)	50
On-track in indicator 1 (income poverty) and on-track in indicator 31a (sanitation (urban), Goal 7)	50
On-track in indicator 1 (income poverty) and on-track in indicator 14 (infant mortality, Goal 4)	46
On-track in indicator 1 (income poverty) and on-track in indicator 6a (primary enrolment, Goal 2)	45
On-track in indicator 1 (income poverty) and on-track in indicator 6b (primary completion rate, Goal 2)	44
On-track in indicator 1 (income poverty) and on-track in indicator 31b (sanitation (rural), Goal 7)	44
On-track in indicator 1 (income poverty) and on-track in indicator 5 (malnourishment, Goal 1)	42
On-track in indicator 1 (income poverty) and on-track in indicator 30b (water (rural), Goal 7)	40
On-track in indicator 1 (income poverty) and on-track in indicator 4 (underweight children, Goal 1)	36
On-track in indicator 1 (income poverty) and on-track in indicator 7 (reaching grade 5, Goal 2)	30
On-track in indicator 1 (income poverty) and on-track in indicator 28a (CO ₂ emission, Goal 7)	21
On-track in indicator 1 (income poverty) and on-track in indicator 16 (maternal mortality, Goal 5)	21

The column on the right-hand side of the table shows the number of countries which are on track for indicator 1 (income poverty) and indicator i ($i = 2 \dots 48$) as a percentage of the total number of countries for which data for both indicators are available. There are 22 indicators for which data on income poverty are also available for a significant number of countries. The analysis reveals

that the indicators which appear to have benefited less from antipoverty policies and programmes are maternal mortality, CO₂ emissions, reaching grade 5, underweight children and malnourishment. It seems that, even in the countries where development policies have successfully reduced income poverty, maternal and child health and malnourishment issues were not addressed. The gap areas identified in table 2 are vindicated by the findings shown in table 3.

V. ESTIMATION OF PERFORMANCE OF PRO-MDG POLICIES THROUGH GAP ANALYSIS OF THE INDICATORS

Strong or weak performance of pro-MDG economic policies is responsible for whether or not a country is on track for achieving the Goals by 2015 by generating a pro-MDG growth process. Based on the discussions of the previous chapters, it is possible to identify indicators which can measure the effectiveness of economic policies (stabilization, structural adjustment, sectoral and redistributive) in transforming the growth process into a pro-MDG one. For example, the infrastructure investment-to-GDP ratio, the increment of which (with a lag) signifies the expanded availability of infrastructure, which in turn facilitates the consumption of MDG goods and services, is an example of such an indicator. Although the identified indicators ideally may be studied and their behaviour analysed, the availability of information can be a constraint. In such situations, it may be necessary to select a subset of the indicators for actual quantification regarding the selected countries, which are commonly termed as off-track countries, and compare the values with those for well-performing on-track countries. The exercise would involve identifying and computing the indicators for the selected (off-track and on-track) countries, with data having been compiled from various sources and the consistency of the data checked before performing the required calculations. The difference between the values of the selected indicators between the off-track and on-track countries and their behaviour over time can then be computed, which would be expected to provide guidance with regard to the changes possibly needed in the priority areas.

In this paper, such an exercise is undertaken on a very limited scale in order to illustrate the methodology, results and the types of conclusions which can be derived as well as their possible use.

The macroeconomic indicators considered are GDP growth rate, tax-to-GDP ratio, direct tax-to-total tax ratio, export-to-GDP ratio, expenditure on health-to-GDP ratio, expenditure on education-to-GDP ratio, financial inclusion index and M3-to-GDP ratio. The countries considered are Bangladesh, Cambodia, China, the Lao People's Democratic Republic, Mongolia, Nepal, Pakistan and Thailand.

Of these, China and Thailand are broadly considered as on track and the others off track. The values of the indicators averaged over the period 2004-2006 are shown in table 4. The “gaps” or differences in the values of the indicators between the off-track countries and the “benchmark” indicator values, corresponding mostly to the on-track countries (as shown in table 5), are then calculated. Table 6 documents these gaps for the six off-track countries and presents data on the gaps as percentages of the relevant benchmark values.

Table 4. Selected macroeconomic indicators for selected Asian and Pacific countries

<i>Indicators</i>	<i>Bangladesh</i>	<i>Cambodia</i>	<i>China</i>	<i>Lao People's Democratic Republic</i>	<i>Mongolia</i>	<i>Nepal</i>	<i>Pakistan</i>	<i>Thailand</i>
GDP growth rate	5.2	6.3	9.4	6.0	5.2	2.5	4.1	5.4
Tax-to-GDP ratio	7.8	6.4	7.6	–	22.6	9.1	11.0	15.4
Direct tax-to-total tax ratio	16.1	–	9.5	–	28.2	19.9	28.5	36.4
Export-to-GDP ratio	14.2	52.9	27.4	29.7	65.1	20.7	17.8	64.3
Expenditure on health-to-GDP ratio	3.2	11.6	6.0	3.0	6.3	4.9	3.3	3.8
Expenditure on education-to-GDP ratio	1.3	1.8	2.0	1.8	5.7	3.2	2.3	3.6
Financial inclusion index	37.2	6.5	149.1	11.7	18.3	42.1	39.6	121.0
M3-to-GDP ratio	36.5	15.5	165.7	17.2	33.0	41.8	44.0	114.9

Table 5. Benchmark values of the indicators

<i>Indicators</i>	<i>Benchmark country</i>	<i>Benchmark value</i>
GDP growth rate	China	9.4
Tax-to-GDP ratio	Thailand	15.4
Direct tax-to-total tax ratio	Thailand	36.0
Export-to-GDP ratio	China	27.4
Expenditure on health-to-GDP ratio	China	6.0
Expenditure on education-to-GDP ratio	Thailand	3.8
Financial inclusion index	Thailand	121.0
M3-to-GDP ratio	Thailand	114.9

For a particular off-track country, a positive gap in one of the indicators signifies that efforts have to be made in order to bring the indicator up to the level of the benchmark country. The greater the extent of the gap, the greater is the effort required to accomplish this. Under this logic, the percentage gap numbers (in parentheses) shown in table 6 can be used to prioritize the areas that need more effort. Such an attempt is made in table 7, where the macroindicators corresponding to the six countries are arranged by the size of the percentage gaps, that is, from the highest (1) to the lowest (7).

Two observations may be made. First, the priority areas (a particular indicator is associated with one area) are somewhat different between the six countries. Second, the financial inclusion index (with behaviour similar to the M3-to-GDP ratio), direct tax-to-total tax ratio, expenditure on education-to-GDP

Table 6. Gaps (differences) between benchmark values and actual values of selected macroeconomic indicators

<i>Indicators</i>	<i>Bangladesh</i>	<i>Cambodia</i>	<i>Lao People's Democratic Republic</i>	<i>Mongolia</i>	<i>Nepal</i>	<i>Pakistan</i>
GDP growth rate	4.2 (44.0)	3.1 (33.0)	3.4 (36.0)	4.2 (45.0)	6.9 (73.0)	5.3 (56.0)
Tax-to-GDP ratio	7.6 (49.0)	9.1 (59.0)	n.a.	-7.2 (-46.0)	6.4 (41.5)	4.5 (29.0)
Direct tax-to-total tax ratio	19.9 (55.2)	n.a.	n.a.	7.8 (22.0)	16.2 (45.0)	7.5 (21.0)
Export-to-GDP ratio	13.0 (48.0)	-26.0 (-72.0)	-3.0 (17.0)	-38.0 (-105.0)	6.0 (22.0)	9.0 (33.0)
Expenditure on health-to-GDP ratio	3.0 (50.0)	-6.6 (83.0)	3.1 (56.0)	-0.35 (-0.5)	1.1 (18.0)	2.67 (44.5)
Expenditure on education-to-GDP ratio	2.3 (69.0)	1.8 (94.0)	1.8 (90.0)	-2.1 (84.0)	0.4 (65.0)	1.3 (67.0)
Financial inclusion Index	82.8 (69.0)	113.5 (94.0)	108.3 (90.0)	101.7 (84.0)	77.9 (65.0)	80.4 (67.0)
M3-to-GDP	78.5 (69.0)	99.5 (86.5)	97.8 (85.0)	82.0 (72.0)	73.2 (63.6)	71.0 (62.0)

Note: Figures within parentheses represent percentage gaps, i.e., gaps as a percentage of the relevant benchmark values.

Table 7. Macroeconomic indicators arranged by size of percentage gap for selected off-track countries

Country	1 (highest)	2	3	4	5	6	7 (lowest)
Bangladesh	Financial inclusion index	Expenditure on education-to-GDP ratio	Direct tax-to-total tax ratio	Expenditure on health-to-GDP ratio	Tax-to-GDP ratio	Export-to-GDP ratio	GDP growth ratio
Cambodia	Financial inclusion index	Tax-to-GDP ratio	Expenditure on education-to-GDP ratio	GDP growth rate	Export-to-GDP ratio	Expenditure on health-to-GDP ratio	–
Lao People's Democratic Republic	Financial inclusion index	Expenditure on health-to-GDP ratio	Expenditure on education-to-GDP ratio	GDP growth rate	Export-to-GDP ratio	–	–
Mongolia	Financial inclusion index	GDP growth rate	Direct tax-to-total tax ratio	Expenditure on health-to-GDP ratio	Expenditure on education-to-GDP ratio	Tax-to-GDP ratio	Export-to-GDP ratio
Nepal	GDP growth rate	Financial inclusion index	Direct tax-to-total tax ratio	Tax-to-GDP ratio	Export-to-GDP ratio	Export-to-GDP ratio	Expenditure on health-to-GDP ratio
Pakistan	Financial inclusion index	GDP growth rate	Expenditure on health-to-GDP ratio	Expenditure on education-to-GDP ratio	Export-to-GDP ratio	Tax-to-GDP ratio	Direct tax-to-GDP ratio

ratio and GDP growth rates are priority indicators, which need improvement if the countries are to achieve the Goals.

The second observation holds some very interesting implications for the priority policy areas which require immediate attention if the Goals are to be achieved in the six countries. Specifically these are the need to allocate more resources (both public and private) to education and to increase the efficiency of and access to financial institutions as well as to alter the tax structure away from indirect taxes. Although no immediate linkage can be established between financial

inclusiveness and achieving the Goals, there is no doubt that a strong and inclusive financial sector is needed for exploiting the opportunities arising from the strengthening of the globalization process and sustaining the momentum of growth, which is undoubtedly a necessary element for achieving the Goals. Decreasing the importance of indirect tax is a well-known pro-poor stance; it will help countries in the achievement of the Goals.

VI. ASSUMPTION UNDERLYING THE “GAP” METHODOLOGY

As with any economic analysis, there are a number of assumptions concerning the methodology used. The selection of appropriate benchmark countries can be difficult. It can be easily seen that benchmark values can change the ordering of the priority indicators. There are also assumptions in interpreting the results for the purpose of identifying the required action (effort). It is assumed that benchmark countries are “role models” for using the macro (and sectoral) policies for helping countries to achieve MDGs. Prioritization of the indicators assumes that the same importance is accorded to of all the indicators for achieving MDGs. A 45 per cent “gap” in the health expenditure-to-GDP ratio and a 30 per cent gap in the tax-to-GDP ratio means that increasing the expenditure on health is more important than increasing the buoyancy of taxes. However, with a careful selection of benchmarks, the “gap analysis” method can be used as one of the methods for identifying priority areas in which assistance (both financial and technical) should be given to off-track countries in helping them to achieve MDGs.

VII. CONCLUSION: MAINSTREAMING THE MILLENNIUM DEVELOPMENT GOALS IN THE DEVELOPMENT FRAMEWORK AND POLICIES

The introduction mentioned that the present paper has three objectives. The first is to introduce the concepts of pro-MDG economic growth and pro-growth MDGs. In explaining these concepts, seven “MDG sectors” are identified: agriculture, construction, transport, energy, water and sanitation, health, and education. The growth process which generates, or is generated by, expansions in these sectors will help countries in achieving MDGs. These sectors in turn can also be used as engines of growth. These concepts are used to develop the contours of MDG-consistent macroeconomic models which can evaluate alternative policies, including those using the MDG sectors as growth engines. These elements will help in mainstreaming MDGs in the conceptual development framework of the countries of the Asian and Pacific region.

Second, in observing that development policies in all Asian and Pacific countries have always paid attention to the reduction of poverty in particular and other MDG areas in general, the paper has reviewed and analysed the exercise of tracking the achievement of the MDGs, which had been undertaken earlier by ESCAP. The objective has been to identify priority areas where achievements are relatively slow and need to be immediately accelerated. Such areas are maternal mortality, underweight children, CO₂ emissions, malnourishment and infant mortality.

It is recognized that macroeconomic and sectoral policies are the major instruments for achieving MDGs. As a third objective, the paper has analysed the performance of indicators reflecting the effectiveness of the above-mentioned policies for selected “slow achieving” countries with respect to the benchmark for on-track countries in order to identify policy areas which need to be strengthened. The indicators which need improvement are the financial inclusion index, the education expenditure-to-GDP ratio, and the direct tax-to-total tax ratio. Can it be expected that the policies and institutions which will improve the above-mentioned macroeconomic indicators will also address the priority MDG indicators identified previously? Allocating more resources to the education sector (which would improve the education-to-GDP ratio) will contribute to the improvement of maternal mortality, malnourishment and infant mortality directly and CO₂ emissions indirectly. However, the linkage between policies and institutions, which would improve financial inclusion and the MDG indicators, needs to be studied further; and, it should be of considerable interest to economists and policymakers. It is apparent that the linkage will be through the impact of a financial sector characterized by depth and inclusiveness in enabling wider participation in the economic growth process and thus ensuring its sustainability.

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