

# **Impact of Economic Growth on Achieving MDGs**

*Manoj Panda and A. Ganesh-Kumar*

*Indira Gandhi Institute of Development Research*

*Mumbai 400065 India*

*E-mail: [manoj@igidr.ac.in](mailto:manoj@igidr.ac.in) / [agk@igidr.ac.in](mailto:agk@igidr.ac.in)*

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## **1 Introduction**

The Millennium Declaration signed in September 2000 by 189 member states of the United Nations has set out Millennium Development Goals (MDGs) for the global community. There are eight MDGs, namely, (i) eradication of extreme poverty and hunger, (ii) achieving universal primary education, (iii) promotion of gender equality and women empowerment, (iv) reduction of child mortality, (v) improvement of maternal health, (vi) combating against HIV, malaria and other diseases, (vii) ensuring environmental sustainability, and (viii) development of global partnership. The declaration also specifies a number of quantifiable targets corresponding to these goals to be achieved by the year 2015. While most individual member countries already had some of these goals in their own development strategy, setting up of socio-economic goals in all these dimensions for the global population as a whole is obviously a challenging task for enhancing human welfare. It expands the idea of human development to a more comprehensive level and represents a global commitment for renewing the development efforts of the nations in the social sectors.

Policy formulation for achieving the MDG targets requires analysis of various factors that influence them. One group of analysts points to higher order of development in spheres of poverty, education and health by high and middle income countries than by low income countries. Since most of the MDG indicators are correlated with growth in income, they argue that economic growth process itself would take care of social dimensions of development. Others, however, point to the large differences in outcomes in social indicators observed among countries within each income category. Thus, a country with a higher level of per capita income does not necessarily demonstrate lower poverty or child mortality. Some of the poor countries or regions such as Sri Lanka or Kerala in India have outperformed middle income countries in educational or mortality attainment. Similarly, some country specific data over time indicate little progress in social sectors even as a country's economy grows fast. Thus, there is no consensus on policy options to ensure attainment of MDGs. Problems of weak database for some of the MDGs are well known. Nevertheless, the need for more analytical work on determinants of MDG indicators cannot be overstated for policy formulation.

It is well recognized that income growth is necessary for social development. After all, capability to spend on health or education sectors would depend on income. But, it is also equally well recognized that income is not the sole determinant of MDG indicators. There are several other factors that influence these indicators and might be more important in some cases than income. Against this background, following important practical questions arise for policy formulation and possible interventions:

- What is the order of the income elasticity of the MDG indicators?
- How much of progress in various MDG indicators might be expected due to current trends in income growth?
- Is income effect sufficient to meet the MDG targets within the specified date?
- If not, what would be the magnitude of gaps in various indicators requiring non-income interventions?

We make an attempt to answer some of these questions in this paper using data from countries in Asia and the Pacific. Given the limitations of the data and complex technical problems in estimation, this is an exploration exercise on some of the MDG goals and indicators and the results might be interpreted as indicative. The questions posed above are important in practice for designing appropriate policy intervention and more work remains to be done in future.

## **2 Review of Literature**

Several earlier studies have examined the role of income in the context of improvement in MDG indicators, especially in the context of poverty and health indicators. Poverty reduction, the first of the MDGs, has been a major objective of economic development for many developing countries in recent decades. Thus, there is already an extensive literature on elasticity of poverty with respect to per capita income. For example, using cross country data and poverty line of PPP\$1 a day, Ravallion and Chen (1997), Bruno, Ravallion and Squire (1998) estimated income elasticity of the head count ratio to be in the range of -2 to -3. World Bank (2001) put forth an elasticity value of -2 which is often quoted and used in policy discussions across the world. This value implies that one percentage point additional growth in per capita income (consumption) reduces the proportion of people below poverty line of \$1 a day by 2 per cent. Ram (2006) reviews the recent literature and suggests that a more realistic elasticity value of -1 would be more appropriate for medium term policy purpose.

Filmer and Pritchett (1997) found that income, income inequality, female education, and ethno-linguistic factors explained practically all variations in child mortality across countries; they found size of public expenditure on health did not explain health outcome variation. Others have argued against focusing on aggregate health expenditure and found that primary health expenditure does improve child mortality. Effective targeting of health expenditure has

also been stressed by Hanmer et al. (2003). Sachs (2004) has been a passionate advocate of scaling up of public health expenditure.

Tandon (2005) examines whether economic growth alone is adequate for attaining the targeted two-thirds reduction in under-five mortality during 1990-2015. He found most of the Asian developing member countries were not ‘on track’ to achieve the required 4.3 percent reduction per year. Based on an estimated income elasticity of 0.7 for child mortality<sup>1</sup> from cross-country data, he concluded that per capita income growth of 6% would be needed to achieve ‘on track’ 4.3% reduction in child mortality. For ‘off-track’ countries, the required growth rate would be higher than 6% per capita. Tandon’s conclusion was that “economic growth does help but – in practical terms- cannot be counted on to be the sole deliverer of child mortality MDG target”.

Chatterjee (2006) has estimated income elasticity of several non-income MDGs in health and education sectors and found that there is a weak relationship between increase in per capita GDP and improvement in non-income MDG indicators, particularly for low income countries. The relationship was not significant in case of some indicators like primary school completion rate (percentage of pupils starting grade 1 reaching grade 5), literacy rate and prevalence of malaria. He concluded: “The tendency to believe that growth in per capita GDP will take care of improvements in MDG attainment may not be correct for low income countries”.

### 3 Factors Affecting MDGs

#### 3.1 Methodology

The central question of this paper is how much does income growth contribute to achieving the MDG targets, and what other non-income factors matter for the different MDG indicators? In other words, we are interested in estimating the income elasticity for the different MDG indicators, controlling for relevant non-income factors.<sup>2</sup> For each MDG indicator (Y) we postulate a double-logarithmic relationship as follows:

$$\ln Y = \beta_0 + \beta_1 \ln X + \beta_2 \ln Z_1 + \dots + \beta_{k+1} \ln Z_k + U \quad (1)$$

where, X is per capita gross domestic product,  $Z_1, \dots, Z_k$  are a set of k relevant non-income factors, and U is the random disturbance term. The advantage of this specification is that the coefficient attached to each variable is the elasticity of Y with respect to that variable.

The set of relevant non-income factors need not be same for different MDG indicators. For example, the non-income factors relevant for indicators of income poverty such as head

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<sup>1</sup> This means an additional growth of 1% in per capita GDP leads to a reduction of 0.7% in child mortality rate.

<sup>2</sup> It is essential econometrically to control for relevant non-income factors, else the estimated income elasticity will be biased. Some of the elasticity estimates available in the literature mentioned earlier are likely to suffer from this bias.

count and poverty gap ratio may be influenced by factors such as the structure of the economy, agricultural productivity, urbanization, etc. Whereas in the case of another MDG such as maternal mortality ratio, availability and access to health information, and demographic factors may be important. For each MDG indicator studied here, we consider several non-income factors depending upon their likely relationship with the MDG indicators as pointed in the relevant literature and subject to availability of data. These are discussed below in detail for each indicator.

### 3.2 Database

The data used to estimate the above relationship come from two sources. First, the data on the MDG indicators are from the United Nations website on MDGs <http://mdgs.un.org/unsd/mdg/>. Data for several MDG indicators for the countries of Asia and Pacific (Table 1) over the period 1990 to 2004 were obtained from this website. From amongst them 11 indicators covering the first four MDGs were chosen for analysis (Table 2). The choice of these indicators was driven primarily by considerations of having a reasonably large sample for estimating the income elasticity.<sup>3</sup>

The second source of data concerning the explanatory variables is the World Bank's World Development Indicators data base for the year 2005. In all data over the period 1990 to 2003 on about 23 variables covering diverse aspects of the countries under study were collected (Table 3). For many of these variables, the data are by no means continuous over this period for many countries.

### 3.3 Elasticity Estimates

The constraints of data availability on both the MDG indicators as well as the explanatory variables meant that the analysis is not similar across all the indicators. In the case of poverty head count and poverty gap ratio (Goal 1, Target 1) the data points are scattered over time across countries, and hence a panel data could not be assembled. Hence for these two indicators Equation (1) above has been estimated using ordinary least squares (OLS). Correction for possible heteroscedasticity of a general form has been made by estimating robust standard errors following Huber (1967) and White (1980).

For the remaining nine MDG indicators studied here we could construct a panel data over the periods mentioned in Table 2, and we could extend the analysis to take care of some panel data issues. Specifically, we allow for both country specific and time specific effects. Both Fixed Effects (F.E) and Random Effects (R.E) formulations have been attempted, besides a pooled regression wherein country and time specific effects are assumed to be absent.<sup>4</sup> OLS

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<sup>3</sup> The availability of data on explanatory variables was also a factor in this choice.

<sup>4</sup> The fixed effects model is simply a linear regression model in which the intercept terms vary over the countries. They are essentially country dummy variables that reflect unobserved country specific factors not captured by other explanatory variables. In the random effects model, there is only one common intercept term for all countries, but the

has been used to estimate the pooled regression (Equation 1) and its extension to the F.E formulation, while feasible generalized least squares (FGLS) has been used for the R.E formulation.

In several cases, multicollinearity amongst the explanatory variables often resulted in exaggerated R-squared values and insignificant t-values. To handle this problem, a specification with fewer number of explanatory variables was often adopted, which sometimes resulted in somewhat low goodness of fit.<sup>5</sup> Nevertheless it was observed that the coefficient of the per capita GDP was mostly stable across different alternatives that were attempted. In that sense, we believe that the income elasticity estimates obtained are fairly robust. In what follows we discuss in turn the estimation results for each of the MDG indicator. We elaborate the set of non-income factors (the Z-variables in Equation 1) considered for each of the MDG indicator, but report only the finally chosen regression results.

In all these estimations we have also attempted to distinguish countries by regional sub-groups such as East Asia, South Asia, Central Asia, etc. through appropriate dummy variables. Such distinction was observed to affect the intercept value in some cases (but not all) and did not affect the slope coefficients (especially for per capita GDP) for any of the indicators. Similarly, a simple categorisation of countries into two groups based on a cut off of US\$ 1000 per capita income did not affect the results significantly. Hence we have ignored these regional / income level differences in our final choice of model specification.

### *Goal 1, Target 1*

Two indicators have been studied, viz., “population below \$1 (PPP) per day consumption, percentage” (denoted HCR for head count ratio), and “poverty gap ratio” (denoted PGR). The explanatory variables considered for both these indicators are as follows: (i) per capita GDP, (ii) agriculture value added per worker (iii) trade openness measure (share of trade in GDP),<sup>6</sup> (iv) population density, total and rural, (v) age dependency ratio, (vi) government final consumption expenditure, (vii) share of agriculture in GDP, (viii) shares of agriculture and industry in total employment, and (ix) share of urban in total population. The maintained hypothesis here is that growth in variables (i), (ii) and (iii) above would result in a decline in poverty, while growth in variables (iv) and (v) will exacerbate poverty, and the effect of variables (vi) to (ix) is a priori ambiguous. As mentioned earlier, OLS estimation with robust standard errors have been used to estimate Equation (1). From this general specification that includes all the above mentioned explanatory variables, a sparse specification that does not

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unobserved country specific factors are modelled as random error terms that constitute a component of the error term appearing in the regression equation. A pooled regression is simply a linear regression model in which country specific factors are not considered at all. For an introduction to these class of models see Kennedy (2003) and Verbeek (2000). For a more rigorous treatment see Greene (2003).

<sup>5</sup> In some case, even an insignificant explanatory variable has been retained in the final specification if its sign is as expected and its t-value is greater than one. This is done to increase the goodness of fit.

<sup>6</sup> This is a standard measure of the openness of the economy.

suffer from multicollinearity has been chosen and the finally retained regressions are reported in Table 4.

It is seen that for both the indicators the models fit reasonably well, and the coefficients have the expected signs. The elasticity of per capita income for HCR and PGR turn out to be -0.85 and -0.78, respectively, suggesting that a 1% growth in income would result in a less than proportionate decline in poverty. A direct implication of this result is that income has to grow at a rate faster than the desired reduction in poverty to meet the MDG targets. We shall explore this aspect later in the next section where we examine the extent of gap in achieving MDG through income growth.

Turning to the other variables, for both HCR and PGR, the extent of openness of the economy and the share of agriculture in total GDP have strong influence in reducing poverty. On the other hand age dependency ratio and population density (for HCR alone) tend to increase poverty.

### *Goal 1, Target 2*

Here the indicator studied is the “percentage of population that is undernourished” (denoted NTR). The literature on food security suggests income, availability of food per capita, the price of food and the extent of urbanisation in a country as important factors that determine the extent of under nourishment in a country. Accordingly, we use (i) per capita GDP, (ii) cereal production per capita, (iii) index of food production, (iv) index of livestock production, (v) relative price of food defined as the ratio of food price index to consumer price index, and (vi) share of urban in total population.

Amongst these cereal production per capita turned out to be insignificant in all the variants that were attempted. Food production and livestock production turned out to be important explanatory variables that reduce undernourishment, when tried independently, However, when both of them were included in the specification, the regression suffered from multicollinearity problem and the coefficient of food production index came out positive. Hence, in the finally chosen regression (reported in Table 5) only livestock production index has been retained, as between food production and livestock production, the livestock variable has a stronger relationship (in terms of T-statistics) with NTR. As mentioned earlier, we could construct a panel data over 22 countries for NTR, and the finally chosen specification is in fact a random effects formulation of Equation (1).

It is seen that the extent of undernourished people reduces with a rise in income, livestock production and urbanisation (though the coefficient of the latter is not significant), whereas it increases with a rise in food prices, as one would expect. The income elasticity of undernourishment turns out to be -0.48, which is much less than the income elasticity of poverty discussed earlier. In other words, a much higher growth in income would be required to achieve MDG targets with respect to undernourishment than for achieving MDG target with respect to measures of income poverty.

### *Goal 2, Target 3*

Turning to the MDGs relating to education, two indicators “net enrolment ratio in primary education, both sexes” (denoted NER), and “primary completion rate, both sexes” (denoted PCR) have been studied here. The explanatory variables considered include (i) per capita GDP, (ii) general government final consumption expenditure, (iii) openness measure, (iv) share of agriculture in total GDP, (v) age dependency ratio (vi) percentage of females in total population, and (vii) share of urban in total population. Both these indicators are expected to be positively influenced by per capita GDP. Government consumption expenditure is taken as a proxy for expenditure on education, as there are large gaps in the data on the latter for several countries under study. Openness measure (share of trade in GDP) is expected to exert a positive influence on both NER and PCR, through its demand for skilled labour. Similarly, urbanisation too is expected to have a positive impact as education infrastructure is likely to be better in urban areas than in rural areas. The effect of the remaining variables is a priori ambiguous.

We have panel data sets for both NER and PCR, and hence we have allowed for country- and time-specific effects during estimation. These were found to be important for PCR (random effects formulation) but not for NER. For the latter, only a simple OLS with robust standard errors was found to be appropriate. The finally chosen regressions are reported in Table 6. In the case of NER, per capita GDP government consumption expenditure, shares of trade and agriculture in total GDP, and percentage of females in total population turn out to be significant. Amongst these only government consumption expenditure has a negative effect on NER. With regard to PCR, only per capita GDP and trade share in GDP matter, both with significant positive impacts. It is worth noting that the income elasticity for both NER and PCR are very low (0.05 each), though significant. Amongst the non-income factors, percentage of female population has the strongest impact on enrolment of children for primary education, but does not seem to matter at all for ensuring completion of primary education. Trade openness through its demand effect for skilled labour seems to have a strong impact on both enrolment and completion.

### *Goal 3, Target 4*

“Gender parity index in primary level enrolment” (denoted GPP), “gender Parity index in secondary level enrolment” (GPS), and “gender parity index in tertiary level enrolment” (GPT) are the three indicators analysed for the MDG-3 that relates to gender parity. For these three indicators we have considered the same set of explanatory variables as in the case of NER and PCR earlier. Here too, panel estimation techniques were used and a random effects formulation came out to be the most appropriate for all the three indicators. The finally chosen regressions are reported in Table 7.

We find that only per capita GDP and trade openness are important positively influencing factors of gender parity in enrolment across all levels. Thus, it seems that income growth and

trade openness as a demand driver for skilled labour are the major factors influencing gender parity in general. However, the magnitude of income elasticity is very low at 0.02, 0.06 and 0.11 for GPP, GPS and GPT, respectively. Government consumption expenditure (taken as a proxy for education expenditure) too has a positive influence on GPP and GPT, but no effect on GPS. Surprisingly, percentage of female population has a very large effect on GPT but not on GPP and GPS.

#### *Goal 4, Target 5*

Three health indicators studied here are “maternal mortality ratio per 100,000 live births” (denoted MMR), “children under five mortality rate per 1,000 live births” (CMR), “infant mortality rate (0-1 year) per 1,000 live births” (IMR). It is widely recognised that availability of information and access to health care often have a strong positive influence on health outcomes, even when income levels are low. Towards this we have included some sources of information and access in the specification for these three indicators. Specifically, we have considered ownership of radios and television as facilitating information flow, and road network as a proxy for facilitating access to health facilities over longer distances. These variables appear in addition to the other variables such as per capita GDP, trade openness, government consumption expenditure (as a proxy for health expenditure) population density, age dependency, female population, and urbanisation. Availability of panel data on these three indicators has enabled us to allow for country and time specific effects in the regression. The finally chosen regressions, reported in Table 8, show that random effects formulation is the appropriate one for all these three indicators.

The results clearly show that availability of information through mass media such as televisions has a significant impact in reducing mortality rates amongst mothers and children below 5 years.<sup>7</sup> Other variables such as per capita GDP, trade openness, government consumption expenditure, and urbanisation too have strong negative impact on the three mortality rates. Unlike in the case of education and gender parity indicators, the income elasticity for MMR, CMR and IMR are fairly high at -0.30, -0.43 and -0.46, respectively.

A summary of the income elasticity for all the 11 MDG indicators studied here is reported in Table 9. For all the 11 indicators, we found that there are several non-income factors that have a significant impact on these indicators. They imply that income growth alone may not be adequate to achieve the MDG targets. In the next section we quantify the potential contribution of income growth to achieving MDG targets and the gap, if any, that has to be bridged by non-income factors.

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<sup>7</sup> Our estimations show that radios have a far greater impact than televisions, but we have not retained the radios variable in our final regression as the number of data points is much less than for televisions, which reduces the degrees of freedom.

Before we turn to the next section, one final comment is in order on the above results. One non-income factor that is common to the indicators studied here (except for nutrition) is trade openness. This result is somewhat counter to the widespread belief that the effect of trade openness on poverty is via its effect on growth itself, and does not have significant poverty reducing effect on its own (see for example Pasha and Palanivel, 2004). Our cross-section regression results suggest that the degree of trade openness per se has significant poverty reducing effect, even after controlling for the level of the logarithm of per capita GDP. One possible interpretation in the case of income poverty measures is that between two countries at the same level of per capita income, difference in trade openness might be capturing the differences in the quality of growth between the two countries. In the case of health and education indicators, the people of a country might perceive that greater trade openness results in a higher premium for human capital in the market, and hence their demand for education and health services might increase with trade openness. This behavioural response might have the desired impact on the health and education indicators studied here.

## **4 Income Gap**

### **4.1 Gap Analysis Methodology**

Having estimated the elasticity of several MDG indicators with respect to per capita GDP, we now turn to projection of their values for the year 2015. These income based projections estimate the 2015 MDG values using per capita real GDP growth and income elasticity. Income, of course, is not the only driver of improvement in MDGs. As discussed earlier, there are several other factors influencing the MDGs. We are interested in exploring the relative influence of income and non-income factors. Once the income based projections of MDGs are obtained, we then calculate the gap between the specified targets and projections. This gap could be removed by non-income factors and sector specific policy intervention.

The method for the projection and the gap calculation consists of the following steps:

First, specify targets for 2015 MDG indicators as per Millennium Declaration, which is set with reference to 1990 as the base year with an implicit time horizon of 25 years. In those cases where the value of the indicator for a country is not available for 1990 but available for a later year, the time horizon for implementing the target gets reduced from 25 years and so we have adjusted the achievable target proportionately. For example, poverty reduction target for 2015 is set at 50% of the 1990 level. In case the first year in the database is 1995, only 20 years are available to achieve the target and so 40% ( $=50 \times (20/25)$ ) reduction from 1995 value is targeted.

Second, estimate the required growth in MDG indicator from the latest available data point assuming a compound growth rate derivable from:

$$Y_t = Y_0 (1 + r)^t \quad (2)$$

where  $Y_t$  = MDG target for 2015 (as specified above)

$Y_0$  = MDG value for the latest year in the dataset

$t$  = number of years remaining from latest year to target year

$r$  = required growth rate to achieve the target.

Third, estimate the per capita GDP growth rate using all available data points from 1990 onwards assuming a semi-log trend function of the type:

$$\text{Log } Y = a + b T \quad (3)$$

Fourth, make income based projection of the MDG indicator for 2015 using the formula:

$$Y_{2015} = Y_0 (1 + b.e)^{(2015 - k)} \quad (4)$$

where  $Y_{2015}$  = MDG target value for 2015

$Y_0$  = MDG value for the latest year

$b$  = per capita income growth rate estimated from Equation (3) above

$e$  = elasticity of the MDG indicator with respect to per capita GDP.

Note the income driven growth rate in MDG between the latest data point and 2015 is given by per capita GDP growth rate ( $b$ ) multiplied by the income elasticity ( $e$ ).<sup>8</sup> The assumption here is that the economies would grow at the same rate as observed in post-1990 period. The exponent (2015- $k$ ) in Equation (4) indicates the number of years remaining for attaining the MDG target over the latest year.

Fifth, MDG gap is the difference between target and the projected value for 2015. This gap may be bridged by non-income factors.

Lastly, if a country were to rely only on income, the corresponding required per capita GDP growth rate is obtained so that its feasibility could be checked.

## 4.2 Results

### *Percent below Consumption of \$1 a day*

The results of the gap analysis are presented goal and target wise in Tables 10-20. We start with Goal 1 and Target 1, e.g., percentage of population below per capita consumption of PPP\$ 1 a day and results are in Table 10. The latest value of this indicator given in column 3 of the table shows that incidence of poverty differs largely between various countries in the Asia and the Pacific region as per recent data. Poverty percentage is the highest at 34-36% in

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<sup>8</sup> Note that this projection is based only on income factor, and is not a full fledged forecast of the indicator for 2015. This is by design given our objective to estimate the 'gap' that would arise if one were to rely only income growth for achieving MDGs. Non-income factors would play a critical role in bridging this gap. If, however, the objective of the exercise were to get a forecast of the indicator for 2015, one may fit time trends to capture the effect of both income and non-income factors on the indicators. However, operationally fitting time trends to most of the indicators is infeasible due to paucity of continuous time series data for all the countries studied here.

some of the South Asian countries like Bangladesh, India and Nepal. Cambodia in South-East Asia too falls in this category. The next category might include China, Lao, Mongolia, Pakistan, Philippines and Uzbekistan which have poverty percentage between 12 and 27. All other countries have less than 8% of the population below \$1 a day.

Comparison of MDG target and current achievement reveals several interesting facts on the first of the MDG goals:

- Countries like Armenia, Azerbaijan, Indonesia, Kyrgyz Republic, Pakistan, Russia, Thailand and Vietnam have already achieved the MDG target on poverty ratio. The required MDG growth to achieve the target shown in column 5 must be interpreted carefully in such cases. A positive required growth in poverty ratio means that the MDG goal would be achieved even if there is a poverty increase not exceeding the rate shown in column 5 of Table 10.
- The success of China, the most populated country, in just attaining the MDG target by 2001 could contribute a great deal to the regional achievement on poverty.
- For the countries currently falling short of the target, poverty ratio must fall to meet the target and required growth rates are shown in column 5 with a negative sign. The high poverty incidence countries like Bangladesh, Cambodia, India and Nepal need to reduce their poverty by 4-5% per annum to meet the MDG target. Poverty ratio for some of these large sized countries needs to be carefully monitored to achieve poverty reduction target for the Asia-Pacific region as a whole.
- Georgia, Laos and Uzbekistan face the toughest challenge to meet the MDG target in terms of percentage change in poverty ratio with required reduction of about 15% per annum by 2015. On the other hand, Bangladesh, India and Nepal need to reduce poverty ratio by 17-20 percentage points by 2015.

The projected poverty ratio for 2015 appears in column 6 and the likely gap between the target and the projected value in column 7 for different countries. The projection uses actual post-1990 per capita growth rate (in column 9) and income elasticity of 0.85 estimated for poverty ratio. A positive gap means projected value is better off than the target and negative gap means target not likely to be achieved by income growth factor per se. The most important result from this exercise is that countries which are currently below the target invariably remain so even in 2015. In order to attain the MDG target, they need to grow faster than post-1990 actual growth rate. If faster growth is not feasible, focus must shift to other measures like reduction in inequality.

For some CIS countries, the actual growth rate has been negative and the projected poverty ratio is shown to be higher than the latest available data. For example, Azerbaijan which has already achieved the MDG target may not retain the same status in 2015 if its

economy were to grow at negative rate as during post-1990 period<sup>9</sup>. But, if negative growth was only a transitional problem for these countries, the estimates need not reflect the likely situation in future. This aspect needs further scrutiny.

### *Poverty Gap Ratio*

Results for poverty gap ratio presented in Table 11 are very much similar to population below \$1 a day and so we do not repeat the detailed discussion. Armenia, Azerbaijan, China, Indonesia, Kyrgyz Republic, Pakistan, Russia, and Vietnam have already achieved the MDG target on poverty gap ratio. All other countries are currently deficient and would continue to be so in 2015 too implying that income growth alone cannot help to achieve the MDG targets. A special mention may be made of Thailand which is the only country that lags behind the MDG target in terms of poverty gap ratio but not in terms of percentage of population below \$1 a day. Thailand would remain deficient in 2015 too.

### *Undernourished Population*

So far as the MDG target on undernourished population is concerned, three countries - Azerbaijan, Fiji, and Georgia - have achieved it by 2002 (Table 12). All other countries have higher undernourished population than MDG target. Prevalence of undernourishment is 20% or more in Armenia, Bangladesh, Cambodia, India, Sri Lanka, Pakistan and Thailand. Several countries such as Fiji, Indonesia, Iran, Kazakhstan, Kyrgyz Republic, Korea, Malaysia, Russia and Turkey have less than 10% undernourished population. None of these currently deficient countries can meet the goal in 2015 based on income induced means. Moreover, the required GDP growth rate to bridge the gap turns out to be higher than that for poverty reduction since the income elasticity of nourishment is lower (0.48) than that of poverty (0.86).

### *Net Enrolment Ratio in Primary Education*

Turning now to Goal 2, net primary enrolment ratio is targeted to be 100% by 2015 for all countries. Current enrolment ratio varies between 78 for Nepal to 97.6 for Fiji (Table 13). The required improvement in this indicator is 0.2% to 2.1% per annum by 2015. The income induced improvement in enrolment cannot achieve the target even for a single country appearing in Table 13. The income elasticity of enrolment is only 0.054 (Table 9). With such low elasticity, income growth has virtually negligible effect on attaining enrolment target. Non-income factors would be vital for meeting primary education enrolment target.

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<sup>9</sup> Per capita income of Azerbaijan fell sharply from \$1251 in 1990 to \$489 in 1996. The economy has partly recovered after 1996 and per capita income stood at \$865 in 2003. Several CIS countries, including Russia, had similar experience.

### *Primary Completion Rate*

The target for primary completion rate is also 100% in 2015. Fiji, Indonesia and Vietnam do meet this target by 2003<sup>10</sup>. Kazakhstan, Mongolia and Philippines marginally fall short of the target (Table 14). On the other hand, countries such as Bangladesh, Cambodia, India, Nepal and Vanuatu fall short of the target by more than 15 percentage points. The completion rate must rise by 1-2% per annum for several countries to meet the target. Since the elasticity is low at 0.049, required income growth rates to meet the target are unrealistically high. None of the deficient countries can meet the target solely by relying on income growth. Per capita trend growth rate has been negative for Azerbaijan, Georgia, Kazakhstan and Mongolia, and, if these rates continue, income induced 2015 projection is lower than the latest value. The marginal influence of income on completion rate is best illustrated by the case of Philippines which has a completion rate as high as 97.9% in 2003 and requires a growth of 0.2% per annum in completion rate. The required per capita GDP growth rate is 3.6% per annum to fulfil this small gap in completion rate as against an actual growth of 1.2% since 1990. The MDG target of Philippines cannot be met by income per se unless there is substantial improvement in national income growth.

### *Gender Parity in Education*

Gap analysis of gender parity index (GPI) for primary education is presented in Table 15. Some countries like Armenia, Bangladesh, China, Georgia, Korea, Mongolia and Malaysia have met the GPI target of 1.0 at the primary level. Several other countries, particularly those from the CIS group, are also close to the target. Pakistan has the lowest GPI value of 0.72 among the countries in Table 15. Lao and Nepal occupy the next two positions from below with GPI values of 0.87 and 0.88. Since income elasticity of GPI at primary level is only 0.02, 2015 income driven projection figures hardly changes from latest observed value.

Gender parity in secondary level varies substantially across countries from 0.64 in Cambodia to 1.16 in Mongolia. The lower end includes India, Lao, Nepal, Pakistan and Turkey with GPI values less than 0.8. The index shows values higher than 1.1 for Bangladesh, Maldives, Mongolia, Malaysia, Philippines and Tonga<sup>11</sup>. The income based projected values again change very little by 2015, the maximum change in GPI index being 0.05. Nevertheless, some countries like China, Indonesia and Thailand where observed disparity is very small succeed in attaining the target solely by income instrument.

GPI index in tertiary education varies widely from 0.34 for Tajikistan to 2.37 for Maldives (Table 17). Georgia is the only country with a marginal shortfall of 5% from the

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<sup>10</sup> The data shows these countries have exceeded the target of 100% in primary school completion. The completion rate exceeds 100% possibly because some students directly take admission in standard II or above. If so, the definition of the target itself might need a revision to include such students in the denominator.

<sup>11</sup> Note that if GPI for a country substantially exceeds 1.0, gender disparity removal target is not achieved, though the nature of disparity changes. Hence, it might be more appropriate to define deficiency by taking absolute difference of observed value from 1.

target. But, unfortunately, it has experience negative per capita GDP growth after 1990 and projection based on this growth rate shows further deterioration in GPI. No country in Asia-Pacific region meets the target in 2015. The conclusion again is that non-income factors play important role in gender disparity reduction.

### *Maternal Mortality*

While our estimated income elasticities for education enrolment and gender parity indicators are very low, these are in moderate range for mortality variables. Maternal mortality rate, for example, falls by 0.3 percent for every one percent rise in per capita income. Our gap analysis results for maternal mortality rate are given in Table 18. The rate varies widely across the countries from 20 for Republic of Korea to as high as 540 for India. The list of best performers includes countries such as Georgia, Korea, Malaysia, Thailand, Turkmenistan, Uzbekistan and Vanuatu with a mortality rate of less than 50 per 100,000 live births.

Republic of Korea, Thailand and Vanuatu have already achieved the 2015 MDG targets by 2000. Maternal mortality rate must reduce for all other countries to accomplish the target. Column 6 of Table 18 reveals that for none of these countries income growth of the kind experienced in the past can help to attain the MDG goal. Proportionately speaking, Indonesia requires the least reduction of 2% per annum in maternal mortality rate to meet the MDG target. But, it cannot rely on income alone for this. The required per capita GDP growth rate is 7.5% per annum, a figure very much higher than the average growth rate in post-1990 period. The income driven projected figure for India is 451 which represents a fall of 18% from the 2000 observed value of 540, as against its MDG target of 143 which implies a required fall of 75% from 2000.

### *Child and Infant Mortality*

None of the countries reported in Table 19 and 20 have yet achieved the MDG targets with respect to child and infant mortality rates. Korea is again the best performer in the sphere of child and infant mortality with a rate of 5 per 1000. Cambodia has the highest child mortality rate at 135 and Tajikistan has the highest infant mortality rate at 93. The current shortfalls are large requiring a reduction of 4-8% per annum for most countries for both the indicators. None of the countries are able to achieve the MDG target by means of income. The estimated income elasticity is -0.43 and -0.46 for child mortality and infant mortality respectively. The required per capita income growth to achieve the MDG targets turns out to be much higher than those in past for all the countries. China, which has the highest growth rate of 8.1% per annum requires 13-15% growth to attain its MDG targets for child and infant mortality.

## 5 Conclusion

The MDGs have taken centre stage in setting the global development agenda since 2000. The community of nations have agreed to a comprehensive set of targets to be achieved by the year 2015. However, interesting debate continues to rage on the pathways / instruments to achieve these targets. An influential section believes that economic growth could serve well the purpose. Contrarian real life examples from several countries, however, raise doubt on this position. Against this background this paper examines the factors that affect some of the MDG indicators relating to poverty, education, gender parity and health, and quantifies the extent to which economic growth alone can help in achieving the MDG targets.

Income elasticity of the MDG indicators have been estimated using cross-country data from the Asia-Pacific region, after controlling for several non-income factors and taking care of several econometric issues. Our income elasticity estimates are much lower than those reported in other studies, and suggest a less than proportionate response for all the indicators including measures of income poverty. In fact it is very low for education and gender parity indicators. Given these elasticities and the actual per capita GDP growth performance of different countries in the region we find large substantial shortfall from the MDG targets is likely to occur if the countries were to rely only the economic growth process. No doubt income growth has a substantial but not adequate role in achieving the MDG target with regard to income poverty and nutrition. However, income growth is hardly effective with regard to achieving the targets for education, gender parity and health indicators. In the process of estimating the income elasticities the paper also identifies some important non-income factors that could help in bridging the gap between the targets and the income driven projected levels of the indicators.

We conclude by drawing attention to some major limitations of this study. For each of the indicators we have assumed the income elasticity to be the same across countries covered here. Data limitations did not permit us to estimate the elasticities by different groups of countries. In the process we are unable to distinguish countries that are at different levels of development in the MDG indicators. Further, we have assumed that the each country will grow at the same trend rates as observed during the post-1990 period. In particular, this could be a strong assumption for the CIS countries that experienced negative growth in the 1990s.

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**Table 1: Country Codes**

Country code	Country name	Country code	Country name
AFG	Afghanistan	MHL	Marshall Islands
ARM	Armenia	MMR	Myanmar
AUS	Australia	MNG	Mongolia
AZE	Azerbaijan	MYS	Malaysia
BGD	Bangladesh	NPL	Nepal
BRN	Brunei	NZL	New Zealand
BTN	Bhutan	PAK	Pakistan
CHN	China	PHL	Philippines
FJI	Fiji	PLW	Palau
FSM	Micronesia, Fed. Sts.	PNG	Papua New Guinea
GEO	Georgia	PRK	Korea, Dem. Rep.
HKG	Hong Kong, China	RUS	Russian Federation
IDN	Indonesia	SGP	Singapore
IND	India	SLB	Solomon Islands
IRN	Iran, Islamic Rep.	THA	Thailand
JPN	Japan	TJK	Tajikistan
KAZ	Kazakhstan	TKM	Turkmenistan
KGZ	Kyrgyz Republic	TMP	Timor-Leste
KHM	Cambodia	TON	Tonga
KIR	Kiribati	TUR	Turkey
KOR	Korea, Rep.	UZB	Uzbekistan
LAO	Lao PDR	VNM	Vietnam
LKA	Sri Lanka	VUT	Vanuatu
MAC	Macao, China	WSM	Samoa
MDV	Maldives		

**Table 2: Data on MDG Indicators**

Goal	Target	Indicator	Data availability	Number of observations
1	1	Population below \$1 (PPP) per day consumption, percentage	Scattered	80
1	1	Poverty gap ratio	Scattered	80
1	2	Population undernourished, percentage	Unbalanced panel 4 years - 1991, 1994, 1996, 2002	102
2	3	Net enrolment ratio in primary education, both sexes	Panel over 1999 to 2004	193
2	3	Primary completion rate, both sexes	Panel over 1999 to 2004	181
3	4	Gender Parity Index in primary level enrolment	Panel over 1991 & 1999 to 2004	271
3	4	Gender Parity Index in secondary level enrolment	Panel over 1991 & 1999 to 2004	254
3	4	Gender Parity Index in tertiary level enrolment	Panel over 1991 & 1999 to 2004	201
4	5	Maternal mortality ratio per 100,000 live births	Panel over 3 years - 1990, 1995, 2000;	125
4	5	Children under five mortality rate per 1,000 live births	Panel over 4 years - 1990, 1995, 2000 & 2004;	188
4	5	Infant mortality rate (0-1 year) per 1,000 live births	Panel over 4 years - 1990, 1995, 2000 & 2004;	188

Source: United Nations website on MDGs <http://mdgs.un.org/unsd/mdg/Data.aspx>, accessed on 23 February, 2007.

**Table 3: List of Explanatory Variables Considered in the Analysis**

1. Cereal production (metric tons)
2. Crop production index (1999-2001 = 100)
3. Food production index (1999-2001 = 100)
4. Livestock production index (1999-2001 = 100)
5. Agriculture value added per worker (constant 2000 US\$)
6. Population density (people per sq km)
7. Population density, rural (people per sq km)
8. Consumer price index (2000 = 100)
9. Food price index (2000 = 100)
10. Roads, paved (% of total roads)
11. Radios (per 1,000 people)
12. Television sets (per 1,000 people)
13. General government final consumption expenditure (% of GDP)
14. Trade (% of GDP)
15. Agriculture, value added (% of GDP)
16. GDP per capita (constant 2000 US\$)
17. Employment in agriculture (% of total employment)
18. Employment in industry (% of total employment)
19. Employment in services (% of total employment)
20. Age dependency ratio (dependents to working-age population)
21. Population, total
22. Population, female (% of total)
23. Urban population (% of total)

Source: World Development Indicators CD-ROM, 2005, World Bank.

**Table 4: Regression Results (Goal 1; Target 1)**

Explanatory variables	HCR	PGR
Population density (people per sq km)	0.0972 (1.14)	
Trade (% of GDP)	-0.6744 (-3.52)*	-0.7755 (-3.82)*
Agriculture, value added (% of GDP)	-0.7296 (-2.45)**	-0.4563 (-1.59)
GDP per capita (constant 2000 US\$)	-0.8584 (-4.85)*	-0.7811 (-4.20)*
Age dependency ratio (dependents to working-age population)	1.4822 (2.55)**	1.2338 (2.13)**
Constant	12.9655 (8.23)*	10.8710 (6.07)*
Number of observations	79	79
R-squared	0.51	0.46
F-statistic (d-o-f)	41.35 (5, 73)	32.9 (4, 74)

- Notes: i) HCR - Population below \$1 (PPP) per day consumption, percentage.  
ii) PGR - Poverty gap ratio.  
iii) Estimation is by ordinary least squares with robust standard errors.  
iv) All variables are in natural logarithms.  
v) T-values are reported in brackets below each coefficient. \* / \*\* / \*\*\* indicate significance at 1%, 5% and 10%, respectively.

**Table 5: Regression Results (Goal 1; Target 2)**

Explanatory variables	NTR
Livestock production index (1999-2001 = 100)	-0.6625 (-2.41)**
Food price index / Consumer price index (2000 = 100)	1.5906 (1.85)***
GDP per capita (constant 2000 US\$)	-0.4827 (-2.96)*
Urban population (% of total)	-0.3992 (-1.47)
Constant	10.153 (7.71)*
Number of observations	56
Number of countries	22
R-squared	0.64
Wald test for random effects (d-o-f)	44.78 (4)

- Notes: i) NTR - Population undernourished, percentage.  
ii) A random effects model has been estimated using feasible GLS procedure.  
iii) All variables are in natural logarithms.  
iv) T-values are reported in brackets below each coefficient. \* / \*\* / \*\*\* indicate significance at 1%, 5% and 10%, respectively.

**Table 6: Regression Results (Goal 2; Target 3)**

Explanatory variables	NER	PCR
	OLS	R.E
General government final consumption expenditure (% of GDP)	-0.0388 (-2.44)**	
Trade (% of GDP)	0.0419 (3.56)*	0.1172 (2.34)**
Agriculture, value added (% of GDP)	0.0240 (2.00)**	
GDP per capita (constant 2000 US\$)	0.0537 (5.61)*	0.0493 (1.85)***
Population, female (% of total)	0.7571 (1.75)***	
Constant	0.9912 (0.56)	3.6180 (15.84)*
Number of observations	99	105
Number of countries		29
R-squared	0.39	0.23
F-statistic (d-o-f)	18.6 (5, 93)	
Wald test for random effects (d-o-f)		14.82 (2)

- Notes: i) NER - Net enrolment ratio in primary education, both sexes.  
ii) PCR - Primary completion rate, both sexes.  
iii) OLS - Estimation is by ordinary least squares with robust standard errors.  
iv) R.E - A random effects model has been estimated using feasible GLS procedure.  
v) All variables are in natural logarithms.  
vi) T-values are reported in brackets below each coefficient. \* / \*\* / \*\*\* indicate significance at 1%, 5% and 10%, respectively.

**Table 7: Regression Results (Goal 3; Target 4)**

Explanatory variables	GPP	GPS	GPT
Population density (people per sq km)			-0.0395 (-1.16)
General government final consumption expenditure (% of GDP)	0.0255 (1.31)		0.4216 (4.54)*
Trade (% of GDP)	0.0311 (2.52)**	0.0894 (2.93)*	0.1484 (2.29)**
GDP per capita (constant 2000 US\$)	0.0231 (2.92)*	0.0562 (2.78)*	0.1091 (2.55)**
Population, female (% of total)			5.5043 (3.42)*
Constant	-0.4134 (-5.08)*	-6.6939 (-2.59)*	-24.0224 (-3.88)*
Number of observations	172	169	136
Number of countries	35	38	33
R-squared	0.21	0.26	0.45
Wald test for random effects (d-o-f)	21.49 (3)	30.83 (3)	73.1 (5)

- Notes: i) GPP - Gender Parity Index in primary level enrolment  
ii) GPS - Gender Parity Index in secondary level enrolment  
iii) GPT - Gender Parity Index in tertiary level enrolment  
iv) A random effects model has been estimated using feasible GLS procedure.  
v) All variables are in natural logarithms.  
vi) T-values are reported in brackets below each coefficient. \* / \*\* / \*\*\* indicate significance at 1%, 5% and 10%, respectively.

**Table 8: Regression Results (Goal 4; Target 5)**

Explanatory variables	MMR	CMR	IMR
Population density (people per sq km)		-0.0523 (-1.36)	-0.0633 (-1.64) <sup>***</sup>
Television sets (per 1,000 people)	-0.3705 (-3.99) <sup>*</sup>	-0.0709 (-2.38) <sup>**</sup>	
General government final consumption expenditure (% of GDP)	-0.4070  (-2.01) <sup>**</sup>		
Trade (% of GDP)	-0.3239 (-2.18) <sup>**</sup>	-0.1700 (-2.77) <sup>*</sup>	-0.1550 (-2.59) <sup>*</sup>
GDP per capita (constant 2000 US\$)	-0.3041 (-3.27) <sup>*</sup>	-0.4295 (-8.83) <sup>*</sup>	-0.4623 (-10.01) <sup>*</sup>
Age dependency ratio (dependents to working-age population)			0.9054  (5.35) <sup>*</sup>
Urban population (% of total)	-0.4222 (-1.69) <sup>***</sup>		
Constant	12.3366 (13.26) <sup>*</sup>	8.4786 (19.74) <sup>*</sup>	8.1034 (19.41) <sup>*</sup>
Number of observations	95	93	95
Number of countries	36	38	38
R-squared	0.75	0.86	0.85
Wald test for random effects (d-o-f)	152.52 (5)	339.15 (5)	277.83 (4)

- Notes: i) MMR - Maternal mortality ratio per 100,000 live births  
ii) CMR - Children under five mortality rate per 1,000 live births  
iii) IMR - Infant mortality rate (0-1 year) per 1,000 live births  
iv) A random effects model has been estimated using feasible GLS procedure.  
v) All variables are in natural logarithms.  
vi) T-values are reported in brackets below each coefficient. \* / \*\* / \*\*\* indicate significance at 1%, 5% and 10%, respectively.

**Table 9: Income Elasticity for MDG Indicators**

MDG	Target	Indicator	Elasticity
1	1	Population below \$1 (PPP) per day consumption	-0.858381
1	1	Poverty gap ratio	-0.781137
1	2	Population undernourished, percentage	-0.482716
2	3	Net enrolment ratio in primary education, both sexes	0.053658
2	3	Primary completion rate, both sexes	0.049287
3	4	Gender Parity Index in primary level enrolment	0.023135
3	4	Gender Parity Index in secondary level enrolment	0.056201
3	4	Gender Parity Index in tertiary level enrolment	0.109078
4	5	Maternal mortality ratio per 100,000 live births	-0.304141
4	5	Children under five mortality rate per 1,000 live births	-0.429518
4	5	Infant mortality rate (0-1 year) per 1,000 live births	-0.462271

**Table 10: Gap Analysis - Population below \$1 (PPP) per day consumption (Goal 1; Target 1)**

Country code	MDG latest year	MDG latest value (%)	2015 MDG target (%)	Required MDG growth (%)	2015 MDG projection (%)	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2003	2.0	2.5	2.0	1.5	1.0	-2.4	2.7	-5.1
AZE	2001	3.7	4.4	1.2	5.0	-0.7	-1.4	-2.6	1.2
BGD	2000	36.0	16.5	-5.1	24.1	-7.6	5.9	3.1	2.8
CHN	2001	16.6	16.5	0.0	6.0	10.5	0.1	8.1	-8.1
GEO	2003	6.5	0.8	-16.4	8.6	-7.8	19.1	-2.7	21.8
IDN	2002	7.5	7.7	0.2	6.0	1.7	-0.2	2.0	-2.2
IND	1999	36.0	18.6	-4.0	20.8	-2.2	4.7	3.9	0.8
IRN	1998	2.0	1.0	-4.0	1.5	-0.5	4.7	2.1	2.5
KAZ	2003	2.0	0.9	-6.6	1.9	-1.0	7.7	0.4	7.3
KGZ	2003	2.0	3.5	4.8	2.6	1.0	-5.6	-2.5	-3.2
KHM	1997	34.1	12.3	-5.5	18.4	-6.1	6.4	3.9	2.5
LAO	2002	27.0	3.6	-14.4	17.8	-14.3	16.8	3.7	13.1
LKA	2002	5.6	1.9	-8.0	3.9	-2.0	9.3	3.3	6.0
MNG	1998	27.0	5.6	-8.9	38.8	-33.2	10.3	-2.5	12.8
MYS	1997	2.0	0.9	-4.2	1.2	-0.3	4.9	3.4	1.5
NPL	1996	34.4	13.1	-5.0	24.2	-11.2	5.8	2.1	3.7
PAK	2002	17.0	22.9	2.3	15.1	7.8	-2.7	1.1	-3.8
PHL	2000	15.5	9.5	-3.2	13.2	-3.7	3.7	1.2	2.5
RUS	2002	2.0	2.6	1.9	2.4	0.2	-2.2	-1.5	-0.7
THA	2002	2.0	2.8	2.5	1.5	1.3	-2.9	2.8	-5.7
TJK	2003	7.4	4.4	-4.2	14.5	-10.1	4.8	-6.7	11.6
TKM	1998	12.1	9.1	-1.7	14.6	-5.5	1.9	-1.3	3.2
TUR	2003	3.4	1.0	-9.6	3.0	-2.0	11.2	1.3	10.0
UZB	2000	17.3	1.5	-15.2	18.5	-17.0	17.7	-0.5	18.3
VNM	2002	2.2	6.4	8.6	1.1	5.3	-10.0	5.7	-15.7

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 11: Gap Analysis - Poverty gap ratio (Goal 1; Target 1)**

Country code	MDG latest year	MDG latest value (%)	2015 MDG target (%)	Required MDG growth (%)	2015 MDG projection (%)	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2003	0.5	0.6	1.1	0.4	0.2	-1.4	2.7	-4.1
AZE	2001	0.6	1.0	4.0	0.8	0.2	-5.1	-2.6	-2.5
BGD	2000	8.1	4.0	-4.5	5.6	-1.6	5.8	3.1	2.7
CHN	2001	3.9	4.5	0.9	1.6	2.9	-1.2	8.1	-9.4
GEO	2003	2.1	0.4	-13.3	2.7	-2.3	17.0	-2.7	19.7
IDN	2002	0.9	1.2	2.2	0.7	0.5	-2.8	2.0	-4.7
IND	1999	8.6	4.8	-3.6	5.2	-0.4	4.6	3.9	0.6
IRN	1998	0.5	0.3	-4.0	0.4	-0.1	5.1	2.1	3.0
KAZ	2003	0.5	0.2	-6.6	0.5	-0.3	8.5	0.4	8.1
KGZ	2003	0.5	1.5	9.3	0.6	0.8	-11.9	-2.5	-9.4
KHM	1997	9.7	3.5	-5.5	5.5	-2.0	7.1	3.9	3.1
LAO	2002	6.1	0.5	-18.0	4.2	-3.7	23.1	3.7	19.4
LKA	2002	0.8	0.4	-6.2	0.6	-0.2	7.9	3.3	4.6
MNG	1998	8.1	1.2	-10.5	11.3	-10.0	13.4	-2.5	15.9
MYS	1997	0.5	0.2	-4.2	0.3	-0.1	5.4	3.4	2.0
NPL	1996	9.0	3.4	-5.0	6.5	-3.1	6.4	2.1	4.2
PAK	2002	3.1	7.0	6.5	2.8	4.2	-8.3	1.1	-9.3
PHL	2000	3.0	2.0	-2.6	2.6	-0.6	3.3	1.2	2.1
RUS	2002	0.5	0.5	0.1	0.6	-0.1	-0.1	-1.5	1.4
THA	2002	0.5	0.2	-5.8	0.4	-0.1	7.4	2.8	4.6
TJK	2003	1.3	1.1	-1.5	2.4	-1.3	1.9	-6.7	8.6
TKM	1998	2.6	2.3	-0.6	3.1	-0.8	0.8	-1.3	2.1
TUR	2003	0.8	0.3	-9.2	0.7	-0.5	11.7	1.3	10.5
UZB	2000	4.3	0.2	-18.0	4.6	-4.3	23.0	-0.5	23.5
VNM	2002	0.5	1.1	6.6	0.3	0.9	-8.4	5.7	-14.1

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 12: Gap Analysis - Population undernourished, percentage (Goal 1; Target 2)**

Country code	MDG latest year	MDG latest value (%)	2015 MDG target (%)	Required MDG growth (%)	2015 MDG projection (%)	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2002	29.0	21.8	-2.2	24.4	-2.6	4.5	2.7	1.7
AZE	2002	10.0	14.3	2.8	11.8	2.5	-5.8	-2.6	-3.2
BGD	2002	30.0	15.2	-5.1	24.7	-9.5	10.6	3.1	7.5
FJI	2002	4.0	4.8	1.4	3.6	1.2	-2.9	1.8	-4.7
GEO	2002	13.0	18.5	2.7	15.4	3.1	-5.7	-2.7	-3.0
IDN	2002	6.0	4.3	-2.5	5.3	-1.0	5.2	2.0	3.2
IND	2002	20.0	12.0	-3.9	15.6	-3.6	8.0	3.9	4.0
IRN	2002	4.0	1.9	-5.5	3.5	-1.6	11.4	2.1	9.3
KAZ	2002	8.0	1.1	-14.5	7.8	-6.8	30.0	0.4	29.6
KGZ	2002	4.0	1.0	-9.8	4.7	-3.6	20.4	-2.5	22.9
KHM	2002	33.0	17.5	-4.8	25.7	-8.2	9.9	3.9	5.9
KOR	2002	2.5	1.2	-5.5	1.9	-0.7	11.4	4.5	6.9
LKA	2002	22.0	13.4	-3.7	17.9	-4.4	7.7	3.3	4.4
MYS	2002	3.0	1.4	-5.5	2.4	-1.0	11.4	3.4	8.0
NPL	2002	17.0	9.6	-4.3	14.9	-5.3	8.9	2.1	6.8
PAK	2002	23.0	11.5	-5.2	21.5	-10.0	10.7	1.1	9.7
PHL	2002	19.0	12.5	-3.2	17.6	-5.1	6.6	1.2	5.4
PNG	1996	15.0	7.2	-3.8	14.7	-7.5	7.9	0.2	7.6
RUS	2002	3.0	1.7	-4.4	3.3	-1.6	9.0	-1.5	10.6
THA	2002	21.0	14.4	-2.9	17.6	-3.2	5.9	2.8	3.1
TUR	2002	3.0	1.2	-6.8	2.8	-1.6	14.1	1.3	12.8
VUT	2002	12.0	5.8	-5.5	12.2	-6.4	11.4	-0.3	11.6

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 13: Gap Analysis - Net enrolment ratio in primary education, both sexes (Goal 2; Target 3)**

Country code	MDG latest year	MDG latest value (%)	2015 MDG target (%)	Required MDG growth (%)	2015 MDG projection (%)	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2003	84.0	100.0	1.5	85.5	14.5	27.3	2.7	24.5
AZE	2003	82.8	100.0	1.6	81.4	18.6	29.5	-2.6	32.1
BGD	2003	93.4	100.0	0.6	95.3	4.7	10.6	3.1	7.6
FJI	2000	97.6	100.0	0.2	99.0	1.0	3.0	1.8	1.3
GEO	2003	91.7	100.0	0.7	90.1	9.9	13.5	-2.7	16.2
IDN	2003	94.6	100.0	0.5	95.8	4.2	8.6	2.0	6.7
IND	2003	85.8	100.0	1.3	88.0	12.0	23.9	3.9	20.0
IRN	2003	86.5	100.0	1.2	87.7	12.3	22.7	2.1	20.6
KAZ	2003	92.3	100.0	0.7	92.5	7.5	12.5	0.4	12.1
KGZ	2003	85.8	100.0	1.3	84.5	15.5	23.9	-2.5	26.4
KHM	2003	97.2	100.0	0.2	99.7	0.3	4.4	3.9	0.5
LAO	2003	85.0	100.0	1.4	87.0	13.0	25.4	3.7	21.8
MNG	2003	79.7	100.0	1.9	78.4	21.6	35.6	-2.5	38.1
MYS	2003	93.2	100.0	0.6	95.2	4.8	11.0	3.4	7.6
NPL	2003	78.0	100.0	2.1	79.1	20.9	39.0	2.1	36.9
PHL	2003	93.8	100.0	0.5	94.5	5.5	10.0	1.2	8.7
VNM	2002	92.9	100.0	0.6	96.7	3.3	10.6	5.7	4.9
VUT	1999	90.6	100.0	0.6	90.4	9.6	11.5	-0.3	11.8

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 14: Gap Analysis - Primary completion rate, both sexes (Goal 2; Target 3)**

Country code	MDG latest year	MDG latest value (%)	2015 MDG target (%)	Required MDG growth (%)	2015 MDG projection (%)	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2003	92.7	100.0	0.6	94.2	5.8	12.9	2.7	10.1
AZE	2003	91.9	100.0	0.7	90.5	9.5	14.3	-2.6	16.9
BGD	2003	72.6	100.0	2.7	73.9	26.1	54.9	3.1	51.8
FJI	2001	102.7	100.0	-0.2	103.9	-3.9	-3.9	1.8	-5.6
GEO	2003	91.5	100.0	0.7	90.0	10.0	15.1	-2.7	17.8
IDN	2003	100.6	100.0	0.0	101.8	-1.8	-1.0	2.0	-3.0
IND	2003	83.6	100.0	1.5	85.6	14.4	30.5	3.9	26.6
IRN	2003	86.6	100.0	1.2	87.7	12.3	24.5	2.1	22.4
KAZ	2003	99.6	100.0	0.0	99.8	0.2	0.7	0.4	0.3
KGZ	2003	90.6	100.0	0.8	89.3	10.7	16.8	-2.5	19.2
KHM	2003	69.4	100.0	3.1	71.0	29.0	62.7	3.9	58.8
LAO	2003	73.3	100.0	2.6	74.9	25.1	53.2	3.7	49.6
MNG	2003	97.8	100.0	0.2	96.4	3.6	3.8	-2.5	6.3
MYS	2003	91.0	100.0	0.8	92.8	7.2	16.0	3.4	12.6
NPL	2003	70.5	100.0	3.0	71.4	28.6	60.0	2.1	57.8
PHL	2003	97.9	100.0	0.2	98.6	1.4	3.6	1.2	2.4
VNM	2003	100.8	100.0	-0.1	104.2	-4.2	-1.3	5.7	-7.0
VUT	1999	83.3	100.0	1.1	83.1	16.9	23.3	-0.3	23.6

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 15: Gap Analysis - Gender Parity Index in primary level enrolment (Goal 3; Target 4)**

Country code	MDG latest year	MDG latest value	2015 MDG target	Required MDG growth (%)	2015 MDG projection	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2003	1.02	1.00	-0.16	1.03	-0.03	-7.1	2.7	-9.9
AZE	2003	0.97	1.00	0.25	0.96	0.04	11.0	-2.6	13.6
BGD	2003	1.02	1.00	-0.16	1.03	-0.03	-7.1	3.1	-10.2
CHN	2003	1.00	1.00	0.00	1.02	-0.02	0.0	8.1	-8.1
GEO	2003	1.00	1.00	0.00	0.99	0.01	0.0	-2.7	2.7
IDN	2003	0.98	1.00	0.17	0.99	0.01	7.3	2.0	5.3
IND	2003	0.94	1.00	0.52	0.95	0.05	22.3	3.9	18.4
IRN	2003	0.97	1.00	0.25	0.98	0.02	11.0	2.1	8.9
KAZ	2003	0.99	1.00	0.08	0.99	0.01	3.6	0.4	3.2
KGZ	2003	0.99	1.00	0.08	0.98	0.02	3.6	-2.5	6.1
KHM	2003	0.91	1.00	0.79	0.92	0.08	34.1	3.9	30.2
KOR	2003	1.00	1.00	0.00	1.01	-0.01	0.0	4.5	-4.5
LAO	2003	0.87	1.00	1.17	0.88	0.12	50.5	3.7	46.8
LKA	2003	0.99	1.00	0.08	1.00	0.00	3.6	3.3	0.3
MAC	2002	0.94	1.00	0.48	0.94	0.06	20.6	0.7	19.9
MDV	2003	0.98	1.00	0.17	0.99	0.01	7.3	4.5	2.7
MNG	2003	1.02	1.00	-0.16	1.01	-0.01	-7.1	-2.5	-4.6
MYS	2003	1.00	1.00	0.00	1.01	-0.01	0.0	3.4	-3.4
NPL	2003	0.88	1.00	1.07	0.89	0.11	46.3	2.1	44.2
PAK	2003	0.72	1.00	2.78	0.72	0.28	120.0	1.1	118.9
PHL	2003	0.99	1.00	0.08	0.99	0.01	3.6	1.2	2.4
PNG	1999	0.93	1.00	0.45	0.93	0.07	19.7	0.2	19.4
RUS	2003	0.99	1.00	0.08	0.99	0.01	3.6	-1.5	5.1
THA	2003	0.96	1.00	0.34	0.97	0.03	14.7	2.8	11.9
TJK	2003	0.95	1.00	0.43	0.93	0.07	18.5	-6.7	25.2
TON	2001	0.98	1.00	0.14	0.99	0.01	6.2	2.0	4.3
TUR	2003	0.94	1.00	0.52	0.94	0.06	22.3	1.3	21.1
UZB	2003	0.99	1.00	0.08	0.99	0.01	3.6	-0.5	4.1
VNM	2003	0.94	1.00	0.52	0.95	0.05	22.3	5.7	16.7

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 16: Gap Analysis - Gender Parity Index in secondary level enrolment (Goal 3; Target 4)**

Country code	MDG latest year	MDG latest value	2015 MDG target	Required MDG growth (%)	2015 MDG projection	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2003	1.02	1.00	-0.16	1.04	-0.04	-2.9	2.7	-5.7
AZE	2003	0.97	1.00	0.25	0.95	0.05	4.5	-2.6	7.1
BGD	2003	1.11	1.00	-0.87	1.13	-0.13	-15.4	3.1	-18.5
CHN	2003	0.97	1.00	0.25	1.02	-0.02	4.5	8.1	-3.6
GEO	2003	1.00	1.00	0.00	0.98	0.02	0.0	-2.7	2.7
IDN	2003	0.99	1.00	0.08	1.00	0.00	1.5	2.0	-0.5
IND	2003	0.79	1.00	1.98	0.81	0.19	35.3	3.9	31.4
IRN	2003	0.94	1.00	0.52	0.95	0.05	9.2	2.1	7.1
KAZ	2003	1.00	1.00	0.00	1.00	0.00	0.0	0.4	-0.4
KGZ	2003	1.01	1.00	-0.08	0.99	0.01	-1.5	-2.5	1.0
KHM	2003	0.64	1.00	3.79	0.66	0.34	67.4	3.9	63.5
KOR	2003	1.00	1.00	0.00	1.03	-0.03	0.0	4.5	-4.5
LAO	2003	0.74	1.00	2.54	0.76	0.24	45.2	3.7	41.6
LKA	2003	1.05	1.00	-0.41	1.07	-0.07	-7.2	3.3	-10.5
MAC	2002	1.04	1.00	-0.30	1.05	-0.05	-5.4	0.7	-6.1
MDV	2003	1.11	1.00	-0.87	1.14	-0.14	-15.4	4.5	-20.0
MNG	2003	1.16	1.00	-1.23	1.14	-0.14	-21.9	-2.5	-19.4
MYS	2003	1.14	1.00	-1.09	1.17	-0.17	-19.3	3.4	-22.7
NPL	2003	0.77	1.00	2.20	0.78	0.22	39.2	2.1	37.0
PAK	2003	0.74	1.00	2.54	0.75	0.25	45.2	1.1	44.2
PHL	2003	1.10	1.00	-0.79	1.11	-0.11	-14.1	1.2	-15.3
PNG	1999	0.76	1.00	1.73	0.76	0.24	30.8	0.2	30.5
RUS	2003	1.00	1.00	0.00	0.99	0.01	0.0	-1.5	1.5
THA	2003	0.99	1.00	0.08	1.01	-0.01	1.5	2.8	-1.3
TJK	2003	0.83	1.00	1.56	0.79	0.21	27.8	-6.7	34.6
TON	2001	1.10	1.00	-0.68	1.12	-0.12	-12.1	2.0	-14.0
TUR	2003	0.75	1.00	2.43	0.76	0.24	43.2	1.3	41.9
UZB	2003	0.97	1.00	0.25	0.97	0.03	4.5	-0.5	5.0
VNM	2003	0.93	1.00	0.61	0.97	0.03	10.8	5.7	5.1

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 17: Gap Analysis - Gender Parity Index in tertiary level enrolment (Goal 3; Target 4)**

Country code	MDG latest year	MDG latest value	2015 MDG target	Required MDG growth (%)	2015 MDG projection	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2003	1.12	1.00	-0.94	1.16	-0.16	-8.6	2.7	-11.4
AZE	2003	0.82	1.00	1.67	0.79	0.21	15.3	-2.6	17.9
BGD	2003	0.50	1.00	5.95	0.52	0.48	54.5	3.1	51.4
CHN	2003	0.84	1.00	1.46	0.93	0.07	13.4	8.1	5.3
GEO	2003	0.95	1.00	0.43	0.92	0.08	3.9	-2.7	6.6
IDN	2003	0.80	1.00	1.88	0.82	0.18	17.2	2.0	15.2
IND	2003	0.67	1.00	3.39	0.71	0.29	31.1	3.9	27.2
IRN	2003	1.08	1.00	-0.64	1.11	-0.11	-5.9	2.1	-8.0
KAZ	2003	1.32	1.00	-2.29	1.33	-0.33	-21.0	0.4	-21.3
KGZ	2003	1.19	1.00	-1.44	1.15	-0.15	-13.2	-2.5	-10.7
KHM	2003	0.41	1.00	7.71	0.43	0.57	70.7	3.9	66.8
KOR	2003	0.61	1.00	4.21	0.65	0.35	38.6	4.5	34.1
LAO	2003	0.57	1.00	4.80	0.60	0.40	44.0	3.7	40.3
LKA	1991	0.55	1.00	2.52	0.60	0.40	23.1	3.3	19.8
MAC	2002	0.53	1.00	5.00	0.54	0.46	45.9	0.7	45.1
MDV	2003	2.37	1.00	-6.94	2.52	-1.52	-63.6	4.5	-68.2
MNG	2003	1.69	1.00	-4.28	1.64	-0.64	-39.2	-2.5	-36.7
MYS	2003	1.41	1.00	-2.82	1.47	-0.47	-25.9	3.4	-29.3
NPL	2003	0.34	1.00	9.41	0.35	0.65	86.2	2.1	84.1
PAK	2003	0.81	1.00	1.77	0.82	0.18	16.2	1.1	15.2
PHL	2003	1.28	1.00	-2.04	1.30	-0.30	-18.7	1.2	-19.9
PNG	1999	0.55	1.00	3.81	0.55	0.45	34.9	0.2	34.7
RUS	2003	1.35	1.00	-2.47	1.32	-0.32	-22.6	-1.5	-21.1
THA	2003	1.14	1.00	-1.09	1.18	-0.18	-10.0	2.8	-12.8
TJK	2003	0.34	1.00	9.41	0.31	0.69	86.2	-6.7	93.0
TON	2001	1.62	1.00	-3.39	1.67	-0.67	-31.1	2.0	-33.0
TUR	2003	0.75	1.00	2.43	0.76	0.24	22.2	1.3	21.0
UZB	2003	0.80	1.00	1.88	0.79	0.21	17.2	-0.5	17.7
VNM	2003	0.77	1.00	2.20	0.83	0.17	20.2	5.7	14.5

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 18: Gap Analysis - Maternal mortality ratio per 100,000 live births (Goal 4; Target 5)**

Country code	MDG latest year	MDG latest value	2015 MDG target	Required MDG growth (%)	2015 MDG projection	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2000	55	13	-9	49	-36	30.9	2.7	28.2
AZE	2000	94	6	-17	106	-100	56.7	-2.6	59.3
BGD	2000	380	213	-4	330	-118	12.5	3.1	9.4
BTN	2000	420	100	-9	357	-257	30.0	3.5	26.5
CHN	2000	56	24	-6	38	-15	18.3	8.1	10.1
FJI	2000	75	23	-8	69	-47	25.4	1.8	23.6
GEO	2000	32	8	-9	36	-28	28.4	-2.7	31.1
IDN	2000	230	163	-2	210	-48	7.5	2.0	5.5
IND	2000	540	143	-8	451	-308	27.9	3.9	24.0
IRN	2000	76	30	-6	69	-39	19.8	2.1	17.7
KAZ	2000	210	16	-16	206	-190	51.9	0.4	51.5
KGZ	2000	110	28	-9	123	-96	29.0	-2.5	31.5
KHM	2000	450	118	-9	376	-258	28.1	3.9	24.1
KOR	2000	20	33	3	16	16	-10.8	4.5	-15.3
LAO	2000	650	130	-10	550	-420	33.5	3.7	29.8
LKA	2000	92	35	-6	79	-44	20.5	3.3	17.2
MNG	2000	110	16	-12	123	-107	39.4	-2.5	41.9
MYS	2000	41	20	-5	35	-15	15.4	3.4	12.0
NPL	2000	740	375	-4	671	-296	14.6	2.1	12.4
PAK	2000	500	85	-11	476	-391	36.6	1.1	35.6
PHL	2000	200	70	-7	189	-119	22.2	1.2	21.0
PNG	1995	390	233	-3	384	-152	8.4	0.2	8.2
RUS	2000	67	19	-8	72	-53	26.8	-1.5	28.3
THA	2000	44	50	1	39	11	-2.8	2.8	-5.6
TJK	2000	100	33	-7	136	-103	23.7	-6.7	30.5
TKM	2000	31	13	-6	33	-20	18.5	-1.3	19.8
TUR	2000	70	45	-3	66	-21	9.5	1.3	8.3
UZB	2000	24	14	-4	25	-11	12.0	-0.5	12.5
VNM	2000	130	40	-8	100	-60	24.8	5.7	19.2
VUT	1995	32	70	4	33	37	-13.1	-0.3	-12.8

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 19: Gap Analysis - Children under five mortality rate per 1,000 live births (Goal 4; Target 5)**

Country code	MDG latest year	MDG latest value	2015 MDG target	Required MDG growth (%)	2015 MDG projection	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2000	37	13	-7	31	-18	15.8	2.7	13.0
AZE	2000	93	26	-8	110	-84	19.0	-2.6	21.6
BGD	2000	92	49	-4	75	-26	9.5	3.1	6.5
BTN	2000	100	35	-7	79	-44	15.7	3.5	12.1
CHN	2000	41	16	-6	24	-8	14.0	8.1	5.9
FJI	2000	22	10	-5	20	-9	11.6	1.8	9.8
GEO	2000	45	12	-8	54	-42	19.8	-2.7	22.5
IDN	2000	48	30	-3	42	-12	7.2	2.0	5.2
IND	2000	94	41	-5	73	-32	12.7	3.9	8.7
IRN	2000	44	24	-4	38	-15	9.4	2.1	7.3
KAZ	2000	73	18	-9	71	-54	21.0	0.4	20.6
KGZ	2000	70	20	-8	82	-62	19.0	-2.5	21.4
KHM	2000	135	32	-9	104	-73	21.4	3.9	17.5
KOR	2000	5	3	-3	4	-1	7.9	4.5	3.5
LAO	2000	101	54	-4	80	-26	9.6	3.7	5.9
LKA	2000	19	11	-4	15	-5	8.9	3.3	5.7
MNG	2000	65	36	-4	76	-41	9.1	-2.5	11.6
MYS	2000	14	7	-4	11	-4	10.0	3.4	6.6
NPL	2000	95	48	-4	83	-35	10.4	2.1	8.3
PAK	2000	108	43	-6	101	-58	13.9	1.1	12.8
PHL	2000	40	20	-4	37	-17	10.2	1.2	9.0
PNG	1995	98	33	-5	96	-63	12.2	0.2	12.0
RUS	2000	25	8	-7	28	-20	17.2	-1.5	18.7
THA	2000	22	12	-4	18	-6	9.0	2.8	6.2
TJK	2000	120	24	-10	184	-160	23.8	-6.7	30.6
TKM	2000	99	23	-9	108	-84	21.3	-1.3	22.6
TUR	2000	44	27	-3	41	-13	7.4	1.3	6.2
UZB	2000	71	20	-8	73	-54	19.0	-0.5	19.5
VNM	2000	30	17	-4	21	-3	8.2	5.7	2.5
VUT	1995	50	20	-4	51	-31	10.2	-0.3	10.4

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).

**Table 20: Gap Analysis - Infant mortality rate (0-1 year) per 1,000 live births (Goal 4; Target 5)**

Country code	MDG latest year	MDG latest value	2015 MDG target	Required MDG growth (%)	2015 MDG projection	MDG Gap 2015	Required PC-GDP growth (%)	Actual PC-GDP growth (%)	PC-GDP growth gap
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
ARM	2000	33	12	-7	27	-16	14.5	2.7	11.8
AZE	2000	77	21	-8	92	-71	17.9	-2.6	20.5
BGD	2000	66	33	-5	53	-20	9.8	3.1	6.7
BTN	2000	77	35	-5	60	-25	11.0	3.5	7.4
CHN	2000	33	13	-6	19	-6	13.5	8.1	5.4
FJI	2000	18	8	-5	16	-8	11.0	1.8	9.2
GEO	2000	41	11	-8	49	-39	18.4	-2.7	21.1
IDN	2000	36	20	-4	31	-12	8.5	2.0	6.5
IND	2000	68	28	-6	52	-24	12.6	3.9	8.6
IRN	2000	36	18	-5	31	-13	9.9	2.1	7.8
KAZ	2000	63	15	-9	61	-46	19.7	0.4	19.3
KGZ	2000	60	17	-8	71	-54	17.7	-2.5	20.2
KHM	2000	95	23	-9	72	-49	19.4	3.9	15.4
KOR	2000	5	3	-4	4	-1	9.0	4.5	4.5
LAO	2000	77	40	-4	60	-20	9.4	3.7	5.7
LKA	2000	16	9	-4	13	-4	8.8	3.3	5.5
MNG	2000	50	26	-4	59	-34	9.4	-2.5	11.9
MYS	2000	11	5	-5	9	-3	10.3	3.4	7.0
NPL	2000	69	33	-5	59	-26	10.4	2.1	8.3
PAK	2000	85	33	-6	79	-46	13.2	1.1	12.2
PHL	2000	30	14	-5	28	-14	11.2	1.2	10.0
PNG	1995	72	24	-5	70	-46	11.4	0.2	11.1
RUS	2000	20	6	-7	22	-16	16.0	-1.5	17.5
THA	2000	19	10	-4	16	-5	8.7	2.8	5.9
TJK	2000	93	18	-10	147	-129	22.1	-6.7	28.9
TKM	2000	77	19	-9	84	-65	19.3	-1.3	20.6
TUR	2000	38	22	-4	35	-13	7.7	1.3	6.4
UZB	2000	59	16	-8	61	-45	17.7	-0.5	18.2
VNM	2000	23	13	-4	15	-3	8.6	5.7	2.9
VUT	1995	40	16	-5	41	-25	9.8	-0.3	10.1

- Notes: i) PC-GDP is per capita gross domestic product (constant 2000 US \$).  
ii) The MDG projection for 2015 in Col. (6) is based solely on growth rate in per capita GDP.  
iii) Col. (7) = Col. (4) – Col. (6).  
iv) Col. (10) = Col. (8) – Col. (9).