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How the Millennium Development Goals are Unfair to Africa

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Summary. — Those involved in the millennium development goal (MDG) campaign routinely state "Africa will miss all the MDGs." This paper argues that a series of arbitrary choices made in defining "success" or "failure" as achieving numerical targets for the MDGs made attainment of the MDGs less likely in Africa than in other regions even when its progress was in line with or above historical or contemporary experience of other regions. The statement that "Africa will miss all the MDGs" thus has the unfortunate effect of making African successes look like failures.

Key words — human development, millennium development goals, poverty, foreign aid, Africa

1. INTRODUCTION

One of the centerpieces of foreign aid efforts in the new millennium has been the effort to attain seven millennium development goals (MDGs) for developing countries by the year 2015, representing progress on a range of economic and social indicators. [1] These goals were first agreed at a summit of virtually all world leaders at the UN in 2000, and they have since occupied a great deal of the attention of the UN, World Bank, International Monetary Fund, and bilateral aid agencies in their dealing with low-income countries. The MDGs were meant as a major motivational device to increase development efforts in and on behalf of poor countries, and the resulting publicity and aid increases suggest they can claim considerable achievement on that score.

A less-discussed angle on the MDGs is that they are also measures of performance. A notable feature of the MDG campaign is that it has emphasized the failure of Sub-Saharan Africa compared to other regions. Those involved in the MDG effort have been virtually unanimous, that Sub-Saharan Africa stands out in that it will not meet ANY of the goals, as the following quotes attest:

"Africa...is the only continent not on track to meet any of the goals of the Millennium Declaration by 2015." (UN World Summit Declaration, 2005).

"in Africa... the world is furthest behind in progress to fulfill {the MDGs}...Africa is well behind target on reaching all the goals." (Blair Commission for Africa, 2005).

"Sub-Saharan Africa, which at current trends will fall short of all the goals." (p. xi, foreword by James Wolfensohn and Rodrigo de Rato, World Bank and IMF Global Monitoring Report, 2005).

"Sub-Saharan Africa, most dramatically, has been in a downward spiral of AIDS, resurgent Malaria, falling food output per person, deteriorating shelter conditions, and environmental degradation, so that most countries in the region are on a trajectory to miss most or all of the Goals... The region is off-track to meet every MDG." (p. 2, 19 UN Millennium Project, Investing in Development, Main Report, 2005).

"At the midway point between their adoption in 2000 and the 2015 target date for achieving the MDGs, Sub-Saharan Africa is not on track to achieve any of the Goals." (United Nations, Africa, & the Millennium Development Goals, 2007).

"However, at the mid point of the MDGs, Sub-Saharan Africa is the only region which, at current rates, will meet none of the MDG targets by 2015." Africa Progress Panel (the follow-up to Blair Commission for Africa, communiqué, 2007).

"Among all regions of the world it is in Africa that we stand a real risk of not meeting the MDGs by 2015." Nigerian President Umaru Musa Yar'Adua, World Economic Forum, Davos, 2008.

The World Bank makes the same point graphically in figures displayed prominently on its MDG website as of February 2008, shown below as Figure 1. [2] Similar pictures are shown in World Bank and International Monetary Fund (2007) (the Global Monitoring Report on the MDGs for 2007) showing Africa to be more off-track than other regions.

This paper argues that the MDGs are poorly and arbitrarily designed to measure progress against poverty and deprivation, and that their design makes Africa look worse than it really is. This paper does not argue that Africa's performance is good in all areas, only that its relative performance looks worse because of the particular way in which the MDG targets are set. [3] As a result, some African successes are portrayed as failures.

If this point is correct, does this imply someone is to blame? The MDGs emerged from a process of consultation between many international agencies and poor country governments, which has continued to evolve over time, and so identifying who did what is nearly impossible and is not attempted in this paper. This paper just evaluates the design that had stabilized before 2005 and led to the statements on Africa above, which were made in 2005 or later.

In addition, the MDGs were also meant to be a benevolent tool for advocacy for greater development effort in and for poor countries, and in and for Africa in particular, so criticizing them as performance measures may seem to miss the point. Indeed, the very production of the highly publicized reports from which the quotes are taken above highlight the MDGs' success in focusing more attention on Africa. However, the

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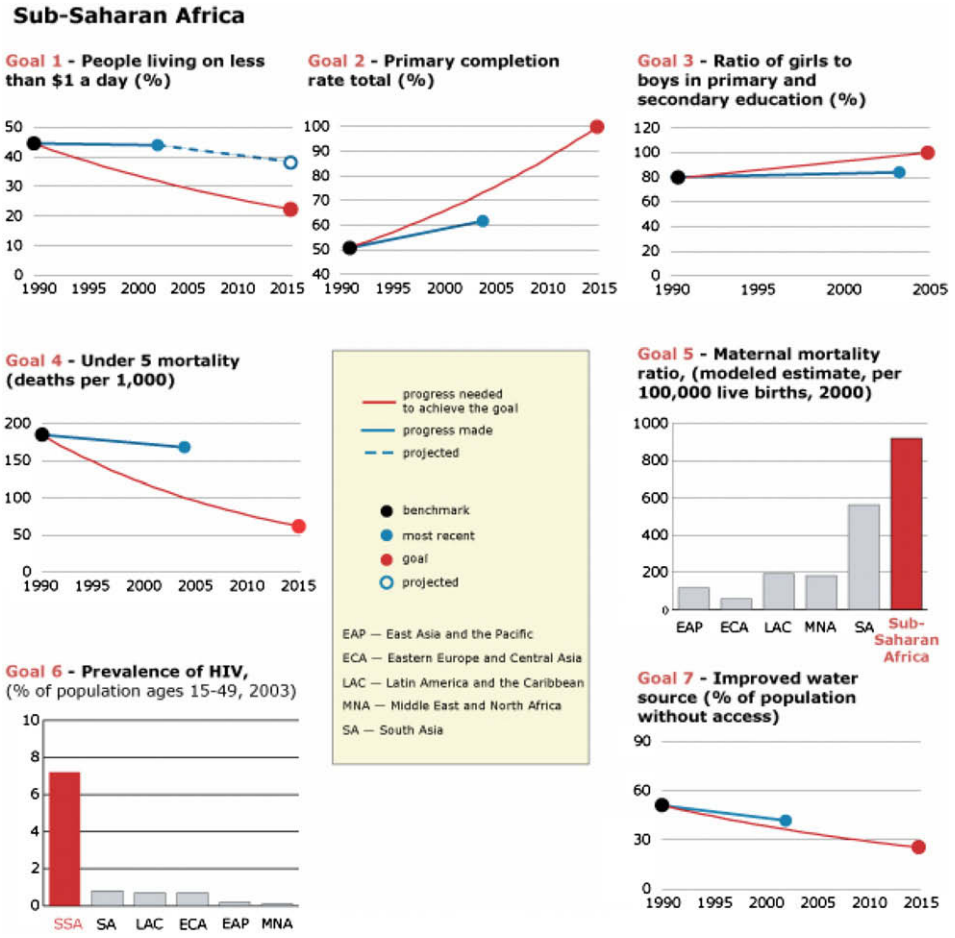

Figure 1. *World Bank graphic showing the failure of Africa to meet the MDGs.*

statements on Africa's failure to meet all the MDGs given above ARE performance evaluations, even if they are meant to induce greater development effort in Africa. Even the most well-intentioned advocacy does not justify methodological inaccuracy on measuring performance. This paper evaluates methodological accuracy on performance to give a fresh perspective on the MDGs.

Measuring social and economic progress is not at all as straightforward as the discussion of the MDGs makes it seem. Setting targets in a particular way will make some regions look better and others look worse depending on a number of choices that any target-setting exercise must make. These choices include the following:

1. Absolute changes *versus* percentage changes.
2. Change targets *versus* level targets.
3. Positive *versus* negative indicators.

Combinations of these three dimensions yield five different possible targets for each indicator: (1) absolute change in positive indicator, (2) percent change in positive indicator, (3) absolute change in negative indicator, (4) percent change in negative indicator, (5) level indicator.

There are other issues this paper will discuss that affect the evaluation of progress on the MDGs, such as the availability and reliability of data, and the redundancy across indicators.

There has been very little discussion of these choices that were made in setting the MDGs. Sometimes, the choices made just seem a priori to make no sense; other times, they seem arbitrary; they require particular assumptions on social welfare functions which there is no attempt to justify; finally, the choices do not seem consistent across the seven MDGs. Unfortunately, as this paper will argue, many of the choices made had the effect of making Africa's progress look worse than is justified compared to other regions, leading to the blanket statements about Africa's failure made above.

2. REVIEW OF THE BIAS AGAINST AFRICA FOR EACH OF THE MDGS

I will go through the seven MDGs one by one to discuss these issues. Although there are only seven (eight including the international one) MDGs, there are 32 target indicators underlying them (not counting those for the eighth). I will focus on the indicator that is most discussed in highlighting Africa's failure to meet the MDG in each case (nicely summarized by the picture above, which highlights the one that has received most of the coverage in aid agency documents for each goal). I do not cover all of the above issues for each MDG, but only the ones that seem most salient for that MDG. At the end, I will summarize the effects of the choices among five possible measures of progress for all the MDGs.

Note that I also do not claim that Africa is the only region in which performance looks worse because of MDG design for each MDG. I just emphasize the consistency of the pattern that Africa looks worse on ALL the MDGs because of MDG design, which contributes importantly to the blanket

statements cited above that Africa will miss all the MDGs, a claim that has not been widely publicized for any other region.

(a) *Goal 1: reducing the poverty rate by half by 2015 compared to its level in 1990*

There is much about the poverty goal that is arbitrary. First, as many authors have pointed out, a goal of reducing poverty rates places great value on growth that moves an individual from below to above the absolute poverty line, while it places zero value on growth that increases income of those who still remain below the poverty line. There is no rational basis in welfare economics for such extreme weighting.

Second, should one target a relative change in poverty rates or an absolute change in poverty rates? If Latin America halves poverty rates from 10% to 5%, is that to be preferred to Africa cutting poverty from 50% to 35%? The absolute change (and hence the percent of the population affected) is three times greater in Africa in this hypothetical example, but the proportional cut is less. The question can be illuminated further by discussing hypothetical social welfare functions. If the social utility gain of lifting 1% of the population out of poverty declines, the higher is initial poverty, then the percent change in the poverty rate is appropriate to compare changes in social welfare across episodes. If the social utility gain is constant regardless of initial conditions, then the absolute change would be the correct measure for this purpose. There has been no discussion that I can find justifying one welfare assumption or the other.

The goal of a proportional reduction in poverty (cutting poverty rates in half) does not recognize that the percentage reduction in poverty is a highly nonlinear function of *per capita* income (or, closely related, the initial poverty rate). There is a broad empirical consensus that income distribution within countries is well approximated by a log-normal distribution. With a log-normal, one can easily simulate the implied percentage reduction in poverty for the same growth rate (known as the poverty elasticity of growth).[4] The simulation shows that the poverty elasticity increases from 0.5 for the poorest countries to 4 for the richest countries.

If one starts with a low initial *per capita* income, then the elasticity will be low. This means that it will take more growth of mean income to achieve the same percentage reduction in poverty than it would in a country with a high *per capita* income. What is happening intuitively is that as the entire income distribution (approximated by a bell curve in the log of income) shifts to the right, the fraction below an absolute poverty line at first does not decline very much in percentage terms in the fat part of the distribution (which is where you are if *per capita* income is low and initial poverty is high). Then, as the mean *per capita* income increases, the poverty line becomes located near the tails of the distribution, and the poverty rate falls off very rapidly as income grows (Figure 2). This conclusion is logically inescapable once one accepts the empirical approximation of a log-normal for the income distribution, and hence it is not necessary to look for empirical confirmation (other than the empirical confirmation of the log-normal). Africa is thus disadvantaged in this goal of cutting poverty in half by having the lowest *per capita* income of any region.

For whatever it is worth, empirical estimates of poverty-reduction elasticities do confirm the logic of the above argument. The empirical estimates are noisy, as poverty rates can change due to changes in income distribution as well as changes in mean income, not to mention measurement error, so they are actually not as clean a test as the simple logical argument made above (if research empirically confirms the log-normal). However, a collection of poverty elasticities for various low and middle-income regions for two different poverty lines reported in World Bank and IMF (2007, p. 42) do confirm the logical prediction that elasticities fall with higher initial poverty. Chen and Ravallion (2004) also found that Africa had a lower poverty-growth elasticity than other regions (although they were discussing it for the poverty gap rather than the poverty headcount measure discussed here).

Hence, Africa needs higher economic growth than other regions to attain MDG #1 to compensate for its low-poverty

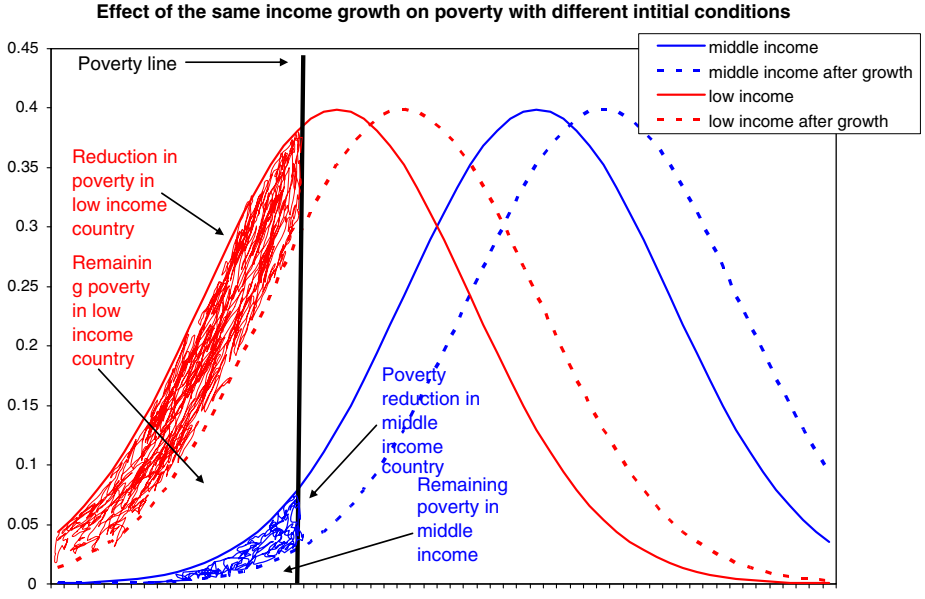

Figure 2. *Nonlinear effects of growth on poverty.*

elasticity. Reports discussing the MDGs thus require extraordinary rates of growth in Africa. The Africa Progress Panel (the panel of eminent statespersons headed by Kofi Annan, organized by Tony Blair to follow up on the G8's 2005 Summit on Africa) said in 2007: "In 2006, Africa's growth stood at 5.4%... far short of the 7% annual growth that needs to be sustained to make substantial inroads into poverty reduction." Growth of 5.4% in GDP (strangely this discussion is of GDP growth rather than GDP per capita growth) is eminently respectable (if sustained until 2015, it would be in the top fifth of GDP decade growth rates recorded across all 4 decades and all countries from 1965 to 2005). [5] However, this excellent performance would not be enough to attain MDG #1 because of Africa's low-poverty elasticity. Instead, Africa would have to achieve the even rarer goal of 7% growth over the next decade (i.e., be in the top tenth of decade growth rates recorded over 1965–2005 for all countries). (Clemens *et al.* (2007) previously made the same point about the unrealism of Africa's "required growth to meet the MDGs").

The World Bank and IMF (2005, p. 23) ratchet up Africa's requirements even further. Their calculation is that 17 African countries (out of the 28 they analyzed) would need 6% *per capita* growth over 2005–15 (at least they are discussing *per capita* rather than aggregate GDP growth). This would be quite an achievement, as less than 5% of country-decade growth experiences over 1965–2005 were higher than 6% *per capita*. For all 28 countries they analyze, they arrive at an also extraordinary required growth *per capita* of 5.2%. Yet anything below these remarkable and largely unprecedented growth rates will be (and is being) stigmatized as "Africa's failure to meet the MDGs."

Recent African growth is an unambiguous success story—average GDP growth performance 2000–07 of 5.2% (the highest growth in Africa's history for a 7-year period, and above the historical averages for all countries). Yet this success is made into a failure by the design of MDG #1.

The bias against Africa in the first MDG comes from penalizing it for its high initial poverty rate, which makes a proportional reduction in poverty harder than for a country with a low-poverty rate (Latin America and the Middle East/North Africa, for example, are "on track" to meet the MDG #1 with lower growth rates). [6]

(b) *Goal 2: attain universal primary enrollment by 2015*

MDG #2 is different than most of the other MDGs in that it is a level end-goal rather than a changes goal (i.e., changes in either relative or absolute terms). This creates an obvious bias against the region that starts off farthest from the absolute target of 100%, which in this case is Africa. Africa has the farthest to go, so once again the campaign makes failure in Africa more likely than in other regions.

This flaw in MDG #2 has been admirably exposited by Clemens (2004). He pointed out that most African countries have actually expanded primary enrollments far more rapidly over the last 5 decades than Western countries did during their development, but Africans still would not reach the target of universal enrollment by 2015. For example, the World Bank condemned Burkina Faso in 2003 as "seriously off-track" to meet the second MDG, yet Burkina Faso has expanded elementary education at more than twice the rate of Western historical experience, and is even well above the faster educational expansions of all developing countries in recent decades.

If MDG #2 had been stated as a relative goal of proportional increases in elementary enrollments (in the spirit of MDG #1), policymakers would be talking about an African success story rather than Africa's failure to meet an MDG. Here there is a nonlinearity that is biased in Africa's favor—those starting off the lowest have the highest proportional increase in enrollment ratios. But the goal was not stated in this way. In log terms, Africa has been rapidly converging to other developing countries in primary enrollment.

Africa also does very well if the graph had been put in terms of absolute changes rather than proportional changes. In absolute terms, Africa is still converging rapidly to other developing countries in primary enrollment (Figure 3, with data from World Bank World Development Indicators and Global Development Network Growth Database).

In short, once again there is an African success (catching up to other developing countries in primary enrollment in both relative and absolute terms) relabeled as a failure because of the design of MDG #2.

MDG #2 was actually stated in terms of primary completion ratios rather than gross enrollment ratios. This may have

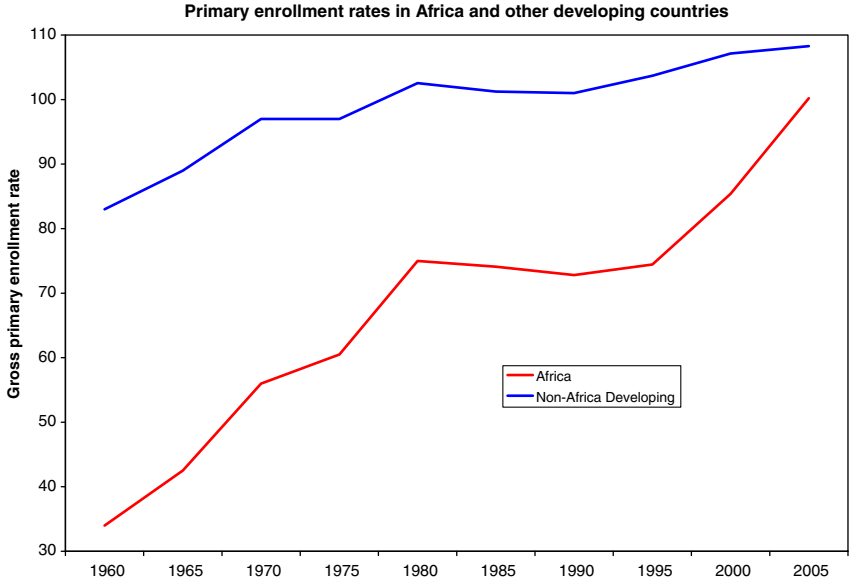

Figure 3. *Africa's convergence on primary enrollment.*

been a sensible choice, as the primary completion rate is a better measure of who actually gets a full elementary education than gross primary enrollment figures. The latter can be inflated by students repeating grades without actually completing a full course of elementary schooling. However, the two are correlated in practice (correlation coefficient of about 0.5), and the enrollment ratios are available for a much longer time series and larger set of countries, hence my use of them in the figures above.

In any case, Africa has also been relatively catching up since 1991 in primary completion ratios. [7] Some countries are particular standouts for their rapid increases in primary completion, such as Benin and Togo.

However, MDG #2 was actually stated as a level goal of 100% primary completion rates by 2015. Hence, no matter how fast the progress of African countries or how remarkable the increases relative to Western historical norms or contemporary developing country experience, Africa will fail to meet the second MDG if it fails to pass this finish line (as it will likely fail to do because it started much further away).

(c) *Goal 3: gender equality*

MDG #3 of gender equality is measured by ratios of girls to boys in primary and secondary schools. It also sets an absolute level target of a ratio of 100% ratio of girls to boys. This gives it one other curious feature.

For the primary education component of Goal 3, the goal of gender equality in primary education is redundant if Goal 2 of universal primary education is achieved. Obviously, if all boys and girls are in primary school, there will also be gender equality in primary schooling. I have not seen any discussion of this redundancy in the MDG discussions by the aid agencies.

There really are two parts to this argument, the first logical and the second empirical.

1. If MDG2 of universal primary enrollment is achieved, then the primary enrollment component of MDG3 of gender equality will be achieved.
2. If there is a shortfall of universal primary education, that shortfall tends to be because of worse performance on girls' schooling than on boys' schooling.

Because of the logical truism (1), the regions that completed MDG2 in effect got to count it twice also as MDG3, at least for primary schooling. Africa did not have this opportunity because of the way MDG2 was constructed, and so again Africa is penalized relative to other regions.

Second, gender inequality in schooling and overall enrollment are highly correlated in practice (correlations around 0.7 for both primary and secondary). This is not a new finding, it is well understood in the literature. For example, Birdsall, Levine, and Ibrahim, 2005 (the report of a task force that tellingly studied the education and gender equality MDGs together) wrote:

More than 100 million children of primary school age are not in school, with the worst shortfalls in Africa and South Asia. Girls are disproportionately affected, particularly in Sub-Saharan Africa, South Asia, and East Asia and the Pacific, where 83% of all out-of-school girls live (p. 1).

So MDG2 for universal schooling and MDG3 in gender equality in schooling are uncomfortably close to measuring the same thing (albeit only for primary schooling). This argument is perhaps not as compelling a statement of bias against Africa as some of the other arguments in this paper, because many of the MDG targets might be correlated with each other. However, a region like Africa far away from the absolute target in one will likely be far away from the absolute target in the other. In particular, since the target is defined in terms of attaining an absolute level, it is once again true the region that started with the lowest enrollment ratios (in this case, both primary and secondary enrollment ratios) will have the furthest goal in attaining the related absolute level goals of universal enrollment and gender equality in schooling. The use of the level target also hurts two other regions that started initially low on gender equality, like the Middle East and South Asia. It is again unclear why absolute level targets are used for some goals and proportional changes for others.

Even aside from the redundancy issue, the actual behavior of female to male primary enrollment shows Africa doing better in terms of percentage changes than other regions (Figure 4, with data from World Bank World Development Indicators). The same is true of absolute changes, and for either positive or negative indicators (i.e., if it were male to female primary enrollment).

The theme of making success look like failure recurs again. Africa is catching up to other developing countries in gender equality, but the design of MDG #3 labels Africa's performance a failure.

(d) *Goal 4: reducing child mortality by two-thirds*

The MDGs return back to the world of changes with Goal 4. Once again the changes are in percentage terms, that under-five mortality be reduced by two-thirds compared to its level in 1990. Child mortality has been falling everywhere, including in Africa. Over the long haul, Africa has shown a steady decline in child mortality from 260 in 1960 to 140 in 2005 (data in this section are from the World Bank's World Development Indicators). Why is Africa off-track to meet MDG #4?

Examining the history of reductions in child mortality with data going back to 1960 (at five-year intervals), there is a strong regularity—the higher the initial mortality, the lower the subsequent percentage reduction in mortality (Clemens *et al.*, 2007 make a closely related point, that many social indicators, including school enrollment, gender equality, and child mortality follow an S-shape curve over time, which would generate the prediction that percentage reductions would be lower at high initial mortality).

Let us analyze the historical pattern of when percentage reductions of two-thirds or greater were realized over 25-year periods during the interval 1960–2005 (using overlapping episodes such as 1960–85, 1965–90, and 1970–95). This is useful for assessing the likelihood of Africa achieving such a reduction over the 25-year period 1990–2015. These exercises use under-five mortality in the median African country in 1990 as a benchmark to divide the whole pooled, overlapping sample into those episodes that began above this benchmark to those that began below it. Of episodes that began above the Africa 1990 benchmark, only 11% succeeded in reducing child mortality by two-thirds. Those that began below the benchmark achieved this two-thirds reduction three times more often than those above it. To look at it another way, 84% of episodes of more than a 66.67% reduction in mortality began below the Africa 1990 benchmark mortality.

Figure 5 shows the continuous relationship between initial mortality and subsequent median percentage reduction over 25 years. The relationship is very nonlinear, with high mortality countries showing a median reduction of about 35–40%, then the percentage reduction sharply increases as initial mortality falls, to again level off at 60–65% mortality reduction over 25 years at low mortality. Africa in 1990 (the highest mortality region) fell right at the inflection point, and hence

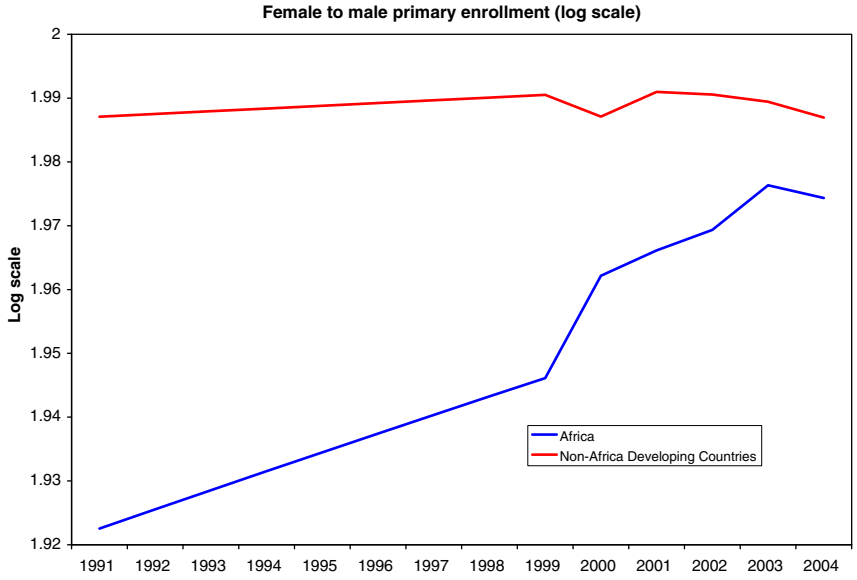

Figure 4. *Africa's convergence in gender equality in primary enrollment ratios.*

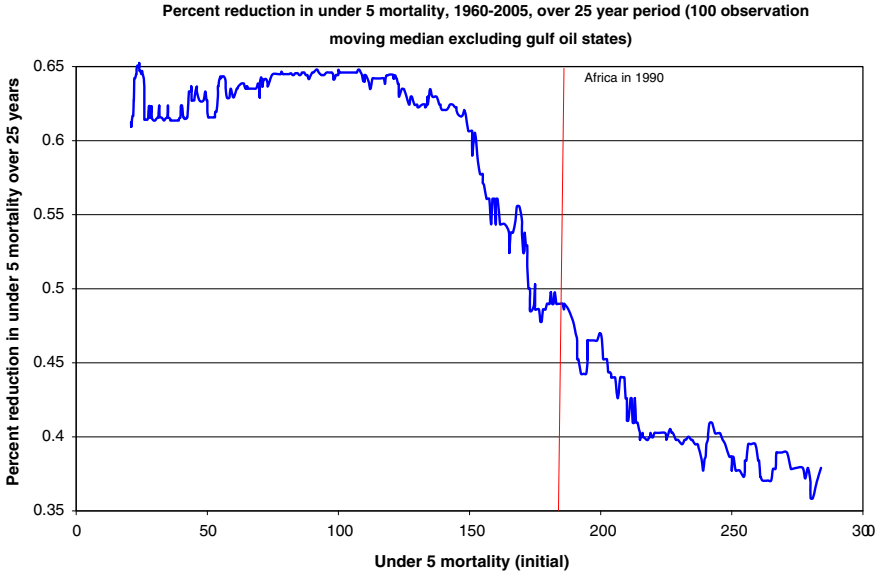

Figure 5. *Relationship between initial child mortality and subsequent 25-year percentage reduction.*

was less likely than other regions to achieve this percentage reduction.

This analysis is simply based on the historical evolution of child mortality rates, it does not consider the details of epidemiology of deaths at high and low mortality. Whatever these details, they averaged out to show the patterns given above.

It all depends on how you state the goal—a goal of proportional reduction is more likely to be met by initially low mortality countries, while a goal of absolute reduction in the child mortality rate would be more likely to be met in the initially high mortality countries. Since the goal was stated in proportional terms and Africa was the highest mortality region, the goal as stated was less likely to be met in Africa.

Which type of goal is right? Is an absolute reduction of 140 child deaths per 1000 a greater improvement in human welfare than a two-thirds reduction of mortality in a country that started with 50 child deaths per 1000? The answer depends again on the nature of the social welfare function. If the disutility of an additional child death is lower when mortality is already high, then percentage change would be more appropriate. If the disutility of a child death is the same in high mortality and low mortality countries, then absolute change is the correct welfare measure.

What seems clear is that the relationship between percentage increases and initial mortality made it more unlikely that a high mortality region like Africa would attain the proportional goal. Africa's success at achieving a large absolute reduction in child mortality is labeled by MDG #4 a failure. In this sense, MDG #4 is also biased against Africa.

(e) *Goal 5: maternal mortality and Goal 6: fight AIDS, TB, and Malaria*

Africa is said to be off-track on both Goal 5 of reducing maternal mortality by two-thirds over its 1990 level and Goal

6 of beginning to halt and reverse the spread of major diseases like AIDS, TB, and Malaria.

It is not clear on what basis all of the above statements about "Africa missing all the MDGs" are made so confidently, as most official agencies monitoring the MDGs present no time series data on maternal mortality and the prevalence of AIDS. For example, the picture above in Figure 1 on how "Africa is missing the goals" shows that the LEVEL of maternal mortality was higher in Africa in 2000, and that the LEVEL of HIV prevalence was higher in Africa in 2003 than in other regions. However, even if these numbers are accurate, they are irrelevant to whether Africa is "on track" to meet Goals 5 and 6, which are about trends in maternal mortality and HIV prevalence, not about levels. The World Bank web site on monitoring the MDGs shows only a year 2000 observation for maternal mortality and 2003 and 2005 observations for HIV prevalence.[8] Other sources (such as UN-DESA) do show a trend line for HIV Prevalence in Africa from 1990 to 2005. However, given the inconsistency with which some sources use these data and others do not, the lack of underlying country time series (UN-DESA itself has extremely sparse country time series on HIV prevalence, for example), and the recent major revision of HIV prevalence rates, the conclusion remains that HIV Prevalence trends are usually judged to be unreliable. Similarly, the 2007 UN "MDGs Report—Statistical Annex" showed only a year 2000 observation for maternal mortality.[9] The UN MDG Info web site does contain data for 1990, 1995, and 2000 on maternal mortality, but these data were apparently judged to be too shaky to use in the UN's own reports on the MDGs. The 2007 World Bank and IMF Global Monitoring Report says that the "The MDG target—to reduce by 75% the maternal mortality ratio during 1990–2015—remains difficult to measure" and that "no current direct estimates of the maternal mortality ratio or trends exist." Attaran (2005) has previously pointed out the lack of reliable data on maternal mortality.

This is yet another way in which the MDG exercise is biased against Africa—even when there are no reliable data, Africa is still said to be failing.

(f) *Goal 7: reduce proportion without clean water by half*[10]

The data on the percent of the population with access to clean water are also very shaky, but here at least some numbers do exist over time. Whether Africa is "on track" to meet this goal turns out once again to depend on arbitrary assumptions about how to measure progress. Here yet another issue raises its head, should progress be measured as the increase in a positive indicator or the reduction in a negative indicator? (This issue is relevant for all MDGs and will be covered in a summary table below—this section focuses on it because the choice in Goal 7 was contrary to usual measures, unlike the other cases).

Goal 7 is stated in terms of a negative indicator, percent of the population WITHOUT clean water, although the statistic that is reported in the World Bank's World Development Indicators and that has been used for many years in development work is the positive indicator of percent WITH clean water. Whether Africa is converging to other regions depends entirely on whether you look at percent WITH clean water or percent WITHOUT. How to choose whether to target a positive or a negative indicator? Goals 1 and 2 were negative indicators, Goals 3 and 4 were positive indicators, Goals 5 and 6 were negative indicators again (albeit ones without data), so there is little consistent pattern to indicate which to choose for Goal 7.

Figure 6 shows how much difference it makes, using log scales as again is the most appropriate whenever a percent change goal is involved. On the percent WITHOUT, Africa is diverging from the rest of developing countries from 1970 to 2004, while Africa is converging to other developing countries on the percent WITH clean water. Obviously, percentage changes are higher when one starts from a lower base, which gives the advantage to other regions on WITHOUT and the advantage to Africa on WITH.

How can the verdict on clean water depend on something so arbitrary as "with" *versus* "without?" Of course, "with" and "without" only give different verdicts if the goal is defined as percentage change rather than absolute change. Africa is closing the absolute gap on clean water (which of course the same in absolute terms for "with" or "without" measures). If the social utility gain of another 1% of the population with access to clean water is the same regardless of initial conditions, then absolute change is once again the correct welfare measure.

If initial conditions matter in the social welfare function such that percentage change is the correct welfare measure, they matter in opposite ways in the "with" and "without" percentage change calculation. In the "with" calculation, the utility gain of an additional 1% of the population getting access to clean water is less, the *higher* is the percent that already have it. In the "without" calculation, the utility gain of an additional 1% getting access to clean is less, the *lower* is the percent that already have it. I have not found any attempt to justify one assumption or the other.

In any case, if one just stuck to the usual indicator of percent with access to clean water, one would again be talking about an African success story—the relative and absolute catching up of Africa to other developing countries. Instead, the design of MDG #7 calls African performance in this area a failure.

3. CONCLUSIONS AND INTERPRETATIONS

The strong conclusion that Africa is missing the MDGs depends on arbitrary and arcane choices as to how you set up the MDGs. Although not necessarily intentionally, they were actually set up in a way that made it more unlikely that Africa will attain them than other regions. In sum for each of the seven MDGs:

1. It was less likely that Africa compared to other regions would achieve a 50 reduction in poverty over 25 years because it had the lowest *per capita* income, which is associated with the smallest percentage reduction in poverty for the same rate of growth.
2. It was less likely that Africa would attain the LEVEL target of universal primary enrollment because it started with the lowest initial primary enrollment and completion.
3. The primary enrollment component of gender equality in schooling is numerically equivalent to universal enrollment, so other regions that were closer to attaining goal #2 got to count the attainment of goal #2 twice (at least for the primary component of goal #3). In addition, even though Africa is catching up in gender equality in changes, the goal was stated as a LEVEL target.
4. A two-thirds reduction in child mortality is less likely when you start at very high mortality, as Africa did.
5. Africa was said to be failing the goal of reducing maternal mortality by two-thirds, but there were no reliable data on maternal mortality trends.
6. Africa was said to be failing to reduce AIDS, Malaria, and TB prevalence, but there were no reliable data on trends in these prevalence rates.

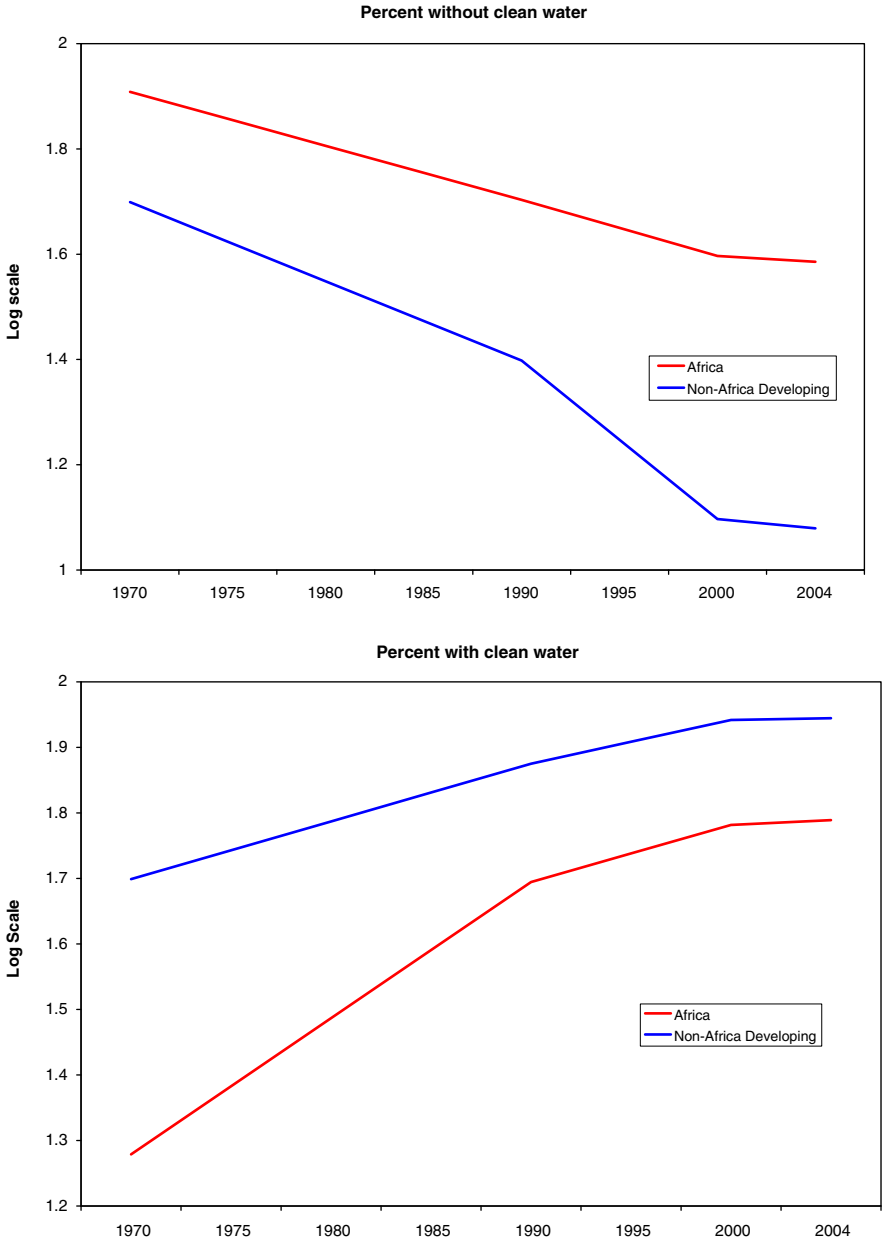

Figure 6. *Relative convergence on WITH and WITHOUT indicators for clean water.*

7. Africa was relatively falling behind on reducing the percent WITHOUT access to clean water, but it would have been relatively catching up if it had been measured the conventional way of percent WITH access to clean water. The choice of WITH and WITHOUT for percentage change measures depends on assumptions on social welfare that have not been subjected to any serious scrutiny. If one just uses the usual indicator of percent WITH access to clean water, Africa is catching up to other regions.

Table 1 gives a summary of whether Africa's initial conditions made it easier or harder to meet the MDG for each indicator, depending on the five possible ways to formulate the target. A "+" indicates it would have been easier, and a "−" that it would have been harder. We see that the table has a majority of +'s. However, the specific way the MDG campaign chose to formulate the target for each indicator consistently gives a "−."

Besides this design issue, this paper has shown that Africa is converging on many conventional measures of social indicators to other developing regions, focusing on those relevant to the MDGs. This finding is consistent with Kenny (2005), who finds worldwide convergence of social indicators.

Hence, the implied picture of general failure in Africa—that it is failing to meet ALL seven MDGs—is not fair to Africa. It generates a more negative picture than is justified. It turns some successes into failures. The negative picture matters because it is demoralizing to African leaders and activists, and because it might have real consequences for things like private foreign investment to reinforce the stereotype that "Africa always fails."

Table 1. *Summary of five different ways to formulate MDG target for each indicator*

	Usual indicator		Reverse indicator		Level
	Percentage change	Absolute change	Percent change	Absolute change	
Whether it is easier (+) or harder (−) for Africa to meet MDGs than other regions, given comparative initial conditions					
Poverty rate	−	+	+	+	−
Primary enrollment	+	+	−	+	−
Gender equality in primary enrollment	+	+	+	+	−
Gender equality in secondary enrollment	+	+	+	+	−
Child mortality	−	+	−	+	−
Maternal mortality	No data				
HIV prevalence		No data			
Clean water	+	+	−	+	−
MDG formulation highlighted in yellow					

The obvious question to ask is why did the MDG set up portray universal failure in Africa when actually there were important successes? There are two possibilities—that it was accidental or that it was intentional. There are also two different ways to interpret the MDGs—as performance measures or as ambitious targets meant to motivate extra effort toward achieving them. On the former, I have no way of knowing which possibility holds. If it was accidental, then it points at the least to carelessness about the MDG campaign, which did not think through setting up the MDGs in a way that gave a fair portrait of progress in all regions. On the latter, both interpretations appear in the discussion of MDGs. The blanket statement that "Africa is failing to meet all the MDGs" seems to emphasize the performance interpretation.

One of the original designers of the MDGs recently protested that they were meant to apply only at the only global level, not at the country or regional level (Vandemoortele, 2007), and he also criticizes the demoralizing effect of labeling Africa an MDG "failure." The goals' design may have been motivated by what would make the most sense at the global level—for example, one could not have a global changes goal of, say, doubling primary completion if it was already more than 50%. Obviously this perspective was lost along the way, as the quotes in the introduction from the most prominent players in the MDG campaign make clear. The bias may have happened accidentally when the global goals were shifted to become regional and country goals.

The other possibility is that the bias against Africa was intentionally condoned (including the possibility that the bias-inducing shift from the global to the regional and country level was intentionally condoned). I am not suggesting any sinister conspiracy, just a possibility that the greater "ambition" of the goals for Africa was understood and accepted. If so, perhaps it was motivated by the desire to draw more attention to Africa, raise more foreign aid resources, and spur other actions to solve Africa's problems.

A UN Millennium Project statement in 2005 seems to imply this latter interpretation:

> In every country that wants to achieve the Goals, particularly those with basic conditions of stability and good governance, the starting assumption should be that they are feasible unless technically proven otherwise. *In many of the poorest countries, the Goals are indeed ambitious,* but in most or even all *countries they can still be achieved by 2015 if there are intensive efforts by all parties*—to improve governance, actively engage and empower civil society, promote entrepreneurship and the private sector, mobilize domestic resources, *substantially increase aid in countries that need it to support MDG-based priority investments*, and make suitable policy reforms at the global level, such as those in trade. (Investing in Development, p. 55, italics added).

Even under the latter, more benevolent, interpretation, it seems undesirable to exaggerate the "Africa as failure" image, which in turn exaggerates the role of "the West as Savior" for Africa (as the MDG campaign has often played out in practice). It is demoralizing to have goals for Africa that can only be attained with progress that is nearly without historical precedent from other regions or in Africa itself. Africa has enough problems without international organizations and campaigners downplaying African success when it happens.

NOTES

1. Plus there is one goal relating to foreign aid and other items of "development cooperation" between rich and poor countries, which is not discussed here because it relates mainly to action of rich countries.

2. World Bank http://ddp-ext.worldbank.org/ext/GMIS/gdmis.do?siteId=2&menuId=LNAV01REGSUB6.

3. Previous criticisms of the MDGs include Clemens, Kenny, and Moss (2007) and Clemens (2004) (also nicely summarized in Clemens & Moss, 2005), who argued the goals were excessively ambitious and would require progress that is historically unprecedented. This is closely related to points made in this paper about the Africa bias, but these previous papers did not focus on Africa *per se*. These authors also discussed whether increased aid would make achievement of the MDGs more likely (no was their answer), which this paper does not cover.

4. This point is far from original, it is noted by many previous authors. Bourguignon (2003)Bourguignon (2003)' as per list. Kindly check and approve." /–> has an admirably clear discussion of the simple mechanics of poverty reduction with a log-normal income distribution, building on the work of many previous authors like Chen and Ravallion (2004) and Kakwani (2000, 1990). Lopez and Serven (2006) defend the log-normal approximation to income distribution. Kraay (2006) discusses similar issues. The log-normal distribution is a sufficient but not a necessary condition for the relationship between the poverty elasticity and *per capita* income.

5. *Source*: the World Development Indicators. I defined the 4 decades 1965–75, 1975–85, 1985–95, and 1995–2005 and analyzed all developed and developing countries with complete data for any or all of the decades. As is conventional in growth analysis, I excluded the Persian Gulf oil

countries and the transition countries, since both groups were subject to extraordinary collapses and recoveries based on oil production and prices in the former, and the transition from Communism in the latter. However, the conclusions would not be altered if I included these groups.

6. One other factor behind Africa missing MDG #1 is that the benchmark year was back-dated to 1990, even though the MDG exercise began in the year 2000. Africa had a poor decade in the 1990s, and thus has to grow even faster in 2000–15 to offset the poor growth and poverty reduction in the 1990s.

7. Because the primary completion data are very noisy and have some gaps, I use interpolation and a moving median of three observations to smooth the series and make it continuous.

8. http://ddp-ext.worldbank.org/ext/GMIS/gdmis.do?siteId=2&menuId=LNAV01HOME3.

9. http://unstats.un.org/unsd/mdg/Resources/Static/Data/2007%20Stat%20Annex%20current%20indicators.pdf.

10. Instead of "clean water" the MDG actually uses the words "sustainable access to safe drinking water." The actual data come in the form of "percent of population with access to an improved water source." There is a serious issue about the level of water quality required to qualify for words like "safe," "improved," or "clean." I use the idiomatic "clean water" for clarity of exposition rather than the various jargon words used in aid agencies.

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