Do the Millennium Development Goals Restrict the Provision of Global Public Goods through the Education Sector?

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Abstract

Education can strengthen or hinder the provision of global public goods including political, environmental and demographic stability. This fact is not explicit in the Millennium Development Goals (MDGs) which largely determine the international development agenda and, for education, focus only on primary education and gender equity. Global public goods are seen in resulting programs, not as education sector objectives, but as fortuitous externalities. Are the MDGs distorting the sector's ability to achieve global public goods? Are they enhancing their achievement? Or are they largely irrelevant in terms of actual outcomes? This article addresses these questions by analyzing the relationships between education, global public goods and the MDGs, looking also at underlying political and managerial issues. The findings suggest a need to be less concerned about the MDGs and more about these underlying issues.

1. Introduction

Education is a basic human right, enshrined in the Universal Declaration of Human Rights (United Nations 1948). But, as we shall see, it may not fit the definition of a global public good. The Declaration sets universal education in the context of its intended social/political impact: 'strengthening of respect for human rights and fundamental freedoms … understanding, tolerance and friendship among all nations, racial or religious groups … maintenance of peace'. And education can help secure the global public goods of political, environmental and demographic stability. But this depends on the kind of education and its management. Education can also exacerbate political instability and environmental degradation and encourage an increase in population growth.

The World Declaration on Education for All (EFA) agreed at Jomtien in 1990 (UNESCO 1990) notes that: '… the world faces daunting problems: notably mounting debt burdens, the threat of economic stagnation and decline, rapid population growth, widening economic disparities among and within nations, war, occupation, civil strife, violent crime, the preventable deaths of millions of children and widespread environmental degradation. These problems constrain efforts to meet basic learning needs, while the lack of basic education among a significant proportion of the population prevents societies from addressing such problems with strength and purpose.' There is an 'understanding that education can help ensure a safer, healthier, more prosperous

and environmentally sound World'. The Declaration sets the focus on basic education, signaling a paradigm shift for the international development community towards this level of education.

The impact of Jomtien was reinforced a decade later in Dakar by agreement on six EFA Goals (UNESCO 2000). Yet more significant was the modified transmission of two of these goals at the United Nations Millennium Summit (United Nations 2000) to become the second and third Millennium Development Goals (MDGs): universal completion of primary schooling and gender equity at all levels of education. MDGs now dominate the international development agenda globally and as a country programme allocation and monitoring tool. The latter typically involves just the first indicator for each MDG, e.g. primary education net enrolment rate (NER) for MDG 2. Jolly et al (2005) comment that 'although the value of goal setting is often questioned, the record of achievement is more positive; goals have provided a spur to national policies and a benchmark for success or failure'. In contrast, Vandemoortele (2009) notes that the MDGs were originally intended, not as national targets, but for global poverty monitoring. 'Their misinterpretation .. begs the question whether Africa is missing the targets or whether the world is missing the point…..The very idea that the region is to achieve the MDGs is utopian.'

No rationale is given for the MDG focus on universal primary education (UPE) and gender equity. And as noted by Bray (1986), the link between UPE and wider development is not straightforward. Bray recommended 'more critical appraisal of objectives, of the mechanisms through which they can be achieved, and of overall priorities.' The MDGs have been criticized as merely subtracting from the original EFA goals (e.g. Ahmed 2004). Indeed, the Board of the EFA Fast-track Initiative (FTI), 'a global partnership between donors and developing countries to speed the progress towards the Millennium Development Goal of universal primary education [UPE] by 2015' (FTI 2010 a), recently decided that all EFA goals will in future be eligible for its financial support, including life-long learning, adult literacy and improving the quality of education, with a continuing emphasis on basic education (FTI 2010b).

Does this matter? Are the MDGs beneficial or more likely to reduce education's impact on such global public goods as political, environmental and demographic stability? Or do they and other international development frameworks have little real impact on outcomes?

This article addresses these questions as follows. Section 2 identifies, from a number of education sector elements, those necessary to secure political, environmental and demographic stability. Section 3 compares these with the elements prioritized in the MDG and EFA frameworks. The elements comprise:

(a) access to the following levels of education: pre-primary; primary (or UPE); secondary; tertiary (or higher); technical and vocational education and training (TVET); adult education;

(b) the following issues in relation to all levels of education: quality; curriculum; management; budget.

References to these are underlined in sections 2 and 3 as they occur. Thus the underlined words in all quotations are the present author's emphasis and not part of the original quotation. This division is chosen purely on the basis of this analysis and does not imply any disregard for other aspects of education that do not assist the comparison.

Section 4 then compares the results of this analysis with actual educational outcomes in sub-Saharan Africa (SSA) and with the likely impact of practical and political factors. Section 5 looks as the particular case of education and population growth in the Yemen.

The final section 6 uses the findings of the previous sections to assess whether the impact of the MDGs is likely to have been positive, negative, or of little effect either way.

2.   Education and global public goods

Public goods and global public goods

Public goods are defined as being 'non rival - consumption by one person does not reduce the supply available for others - and non excludable - people cannot be prevented from consuming them …Providing such goods …is a function of international organizations.' (World Bank 2004a).

Global public goods are those which 'tend towards universality in the sense that they benefit all countries, population groups and generations' (Kaul et al 1999). According to Anand (2004), a global public good needs to: '(i) cover more than one group of countries; (ii) benefit not only a broad spectrum of countries but also a broad spectrum of the global population; (iii) meet the needs of the present generations without jeopardizing those of the future generations.'

Education may not be a public good according to the above definition, even though it may be provided by and benefit the public. Examples of the arguments for and against are those of Labaree 2000 and Pisciotta 1984 respectively. The amount of education a person receives from freely available sources does not deprive others, and such sources are in principle available to all. However, it is easy to exclude a child from school, especially where the school has reached its capacity or is a competitive-entry or fee-paying school. Moreover, an increase in the number of pupils in a class reduces the attention that the teacher can give to each – one person's consumption reduces that available for another.

On the other hand, many desired outcomes of what might be termed a 'good education' are indisputably public goods. Examples of these are considered below, along with their dependence on the nature of the education provided.

Political, environmental and demographic stability as examples of global public goods

Governments value education's ability to help economically, socially and culturally

disparate groups live peacefully together and contribute to the common good. Such political stability is non-rival, non-excludable and benefits all countries, populations and generations. Political instability can lead to mass migration, disruption in international trade, the spread of terrorism, and political instability and violent conflict in other states. Political stability is thus a global public good.

Environmental stability – the absence of environmental degradation – is also a global public good in terms of the above definitions. It is non-rival, non-excludable and the global impact of localized environmental degradation is evident in, for example, global warming, dwindling international rivers and lakes, and shrinking fish stocks in international waters.

Most parts of SSA and West Asia are experiencing demographic instability in terms of rapidly increasing populations and a decrease in the average age of the population. It is likely to be several decades before these regions approach the final, stable phase of the demographic cycle in which the birth rate has fallen to balance the death rate. Demographic stability is a global public good in terms of the above definitions. Its absence exacerbates competition for national and global resources, political instability and international conflict over resources, national levels of poverty with international aid and trade implications, environmental degradation and large scale migration.

Education and political stability

At least two countries, Sierra Leone and Morocco, have suffered violent political instability from a failure to provide sufficient access to primary education to deprived minority groups (Sommers 2009, El Ahmadi 2009). On the positive side, primary schools provide a physical governmental presence throughout a country, a direct link between a government and its people encouraging the allegiance of the local population. During and after armed conflict, schools can provide a haven of normality and local stability.

The school curriculum is also important for national stability, as recognized in article 26 of the Human Rights Charter: 'Education … shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.' (United Nations 1948) Without an assured common curriculum in line with the Human Rights Declaration, separate education can build barriers and lack of understanding between different social levels, ethnic groups and sects. Bias, or just accusations of bias, in the curriculum has exacerbate conflicts and division; the issue of textbook bias provided the justification for breaking off peace talks in the Middle East (Brown 2002). Education can pass on the best of national and community culture, international awareness, and centuries of global human experience and achievement. Education can help people think for themselves and not be pawns of indoctrinators and extremists. This is particularly true at secondary level and above. The creation of Imam Hatip secondary schools in Turkey, Islam-oriented but with a full curriculum in line with the Human Rights Declaration, is an example of a

government education initiative to counter sectarian extremism (IslamOnline 2010).

Accountable management is also important in avoiding political instability (Swift 2009). Poor government oversight of schools in the hands of political extremists spreads indoctrination in violent sectarianism and provides recruitment bases for terrorists. Systems of accountability need to ensure the local community have an adequate voice and sense of ownership; problems here may have contributed to violence in Nigeria [Bauchi 2009]. Good management of schools also ensures the intended curriculum is taught effectively.

Young people who are illiterate and unemployed can contribute to political instability by adding to any local violent eruptions and supporting better educated political extremists. Adult education can provide them with the skills needed to contribute constructively to society. Unemployed school-leavers and university graduates can also be a source of instability. Whilst the level of employment depends on job creation it also depends on the knowledge and skills of job applicant and potential entrepreneurs. The quality of education at all levels but particularly secondary level is thus important, as is an adequate provision of good quality TVET.

Education and environmental stability

Whilst as early as 1762, Rousseau preferred young children to learn from the environment than from books (Rousseau 1762), environmental education as such began in the 1960s and 1970s, notably around the 1972 Stockholm UN Conference on the Environment (United Nations 1972) that created the United Nations Environmental Program. The ensuing 1975 Belgrade Charter defined environmental education as 'comprehensive lifelong learning … to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones linked to environmental issues.' (UNESCO 1975) The major emphasis is on the curriculum, whether environmental education is envisaged as an additional area or just more relevant teaching of traditional subject matter (Swift 1983). The Belgrade Charter definition also presupposes UPE and adult education sufficient to engage the 'world population' in 'lifelong learning'.

To provide the engineers, architects, geologists, accountants needed for a country to manage and sustain its environment, there has to be an adequate provision of good quality education at secondary and tertiary level and TVET skills.

What happens in the classroom is not the only impact of schools on the environment. Most donor-funded school construction programs require environmental screening to ensure that school design and management are conducive to the environment. This has budgetary implications in terms of, for example, safe water supplies and measures for waste disposal. A school that is well-maintained, with efficient supplies of water and energy and good systems and management of waste disposal, will help engender these

concepts amongst the students, especially if engaged in school maintenance.

Education and demographic stability

Education's usually portrayed role in relation to rapid population growth is that of a victim. Such growth hinders the sector's ability to maintain, let alone increase, enrolment rates, outstrips the ability of the economy to maintain reasonable per-student expenditures, and reduces the likelihood of students gaining employment at the end of the process. Yet education can also play an active role in reducing fertility and thereby population growth. In most situations, there is a negative correlation between a mother's level of education (up to secondary level) and/or level of literacy and the net fertility rate (Cochrane 1979). The correlation is greatest for secondary education   A potential mother's education affects biological supply (e.g. from age of marriage, child survival), demand for children (e.g. from changes in the family's economy), and fertility control (e.g. knowledge of, access to and attitudes towards contraceptives). The first of these requires girls to remain in school long enough for this to take effect. The mother's family economy depends on the quality of her education in enabling her to find employment after school. Fertility control depends on these issues being part of the curriculum.

The ability to keep girls from poor, conservative communities in school long enough for this to occur is helped by including scholarships and other incentives in the budget. The quality of education is also an incentive to parents. Retaining girls in education is also helped by providing a gender-sensitive curriculum and by designing and managing schools to provide a 'girl friendly' school environment. One element of this is the provision of adequate sanitary facilities and sanitary pads. A school that shows no respect for girls and women in its teaching or practices may lead in due course to an increase the birth rate, whether from teenage pregnancies, girls leaving school for early marriage, or a lack of partnership in future family planning. A schoolgirl's pregnancy is not just likely to deprive her of further education, but to discourage other parents from sending their daughters to school.

Adult education linked to family planning or leading to female employment can also reduce fertility, especially in poorer, conservative communities that tend to have the highest fertility rates. Moreover, adult literacy classes that include school-age girls and operate in an informal setting can provide an alternative entry into education for girls who were prevented from enrolling in primary education. In Egypt, girls from deprived neighborhoods have eventually reached university graduation after starting their education through adult literacy classes.

The 1994 Cairo International Conference on Population and Development (United Nations 1994) added a gender and population emphasis to the statement in the Declaration of human rights that 'everyone has the right to education' which should be designed [via the curriculum] 'to strengthen respect for human rights and fundamental freedoms, including those relating to population and development.' 'Beyond the achievement of the

goal of universal primary education in all countries before the year 2015, all countries are urged to ensure the widest and earliest possible access by girls and women to secondary and higher levels of education, as well as to vocational education and technical training, bearing in mind the need to improve the quality and relevance of that education.'

3. Education and International Development Frameworks

Educational emphases of the International Development Frameworks

The Basic Human Rights (HR) statement that 'everyone has a right to education' (United Nations 1948) is much more than UPE, even though it emphasizes that elementary education shall be free (with implications for the budget) and compulsory. The Declaration requires that 'technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.' The curriculum (by implication) 'shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.' Education governance/management should be on the basis that 'parents have a prior right to choose the kind of education that shall be given to their children.' (United Nations 1948) There is no specific reference to pre-primary, adult or secondary education - or to gender equity in Article 26 referring to education, though this is covered in Article 2.

The Dakar EFA goals (UNESCO 2000) are, in summarized form, as follows:
1. Expanded and more equitable early childhood care and education;
2. Compulsory, free, good quality primary education for all by 2015 (again with implications for the budget);
3. Equitable access to youth and adult life skills programs;
4. Adult literacy halved by 2015, especially for women;
5. Gender equity at primary and secondary by 2005, throughout by 2015.
6. Improved quality of education, especially literacy, numeracy, life skills (which are taken in the UNESCO Global Monitoring Reports to include TVET).

The second MDG has the following target: 'Ensure that all boys and girls complete a full course of primary schooling' (UNDP 2010). The indicators are based on this: NER, proportion of students reaching final grade, but also the adult literacy rate. However, this is an indicator for primary completion and does not implying in itself any targeting of adult education, nor of educational quality. Both the target and first indicator of the gender MDG equate to the EFA gender equity goal. The second and third indicators refer, essentially, to gender equity in employment and politics. The implication may be that this will result from greater equity in education, but this is not made explicit.

The EFA Fast Track Initiative (FTI), although until recently based only on the education MDG, also provides an international development framework of its own in terms of a set of indicative budgetary norms (FTI 2006).

<u>Comparison of international framework emphases with education for global public goods</u>

Table 1 compares the education emphases of the above international development frameworks with those shown in section 2 to be required for the global public goods (GPGs) of political, environmental and demographic stability.

Table 1. Education emphases of International Development Frameworks and those required for political, environmental and demographic stability

Education Priorities	In international frameworks				Required to stabilise the:		
	HR	**EFA**	**MDGs**	**FTI**	**State**	**Environment**	**Population**
(a) Levels of education							
Pre-primary		+					
Primary	+	+	+	+	+	+	+
Secondary					+	+	+
Tertiary	+					+	+
TVET	+	+			+	+	+
Adult		+			+	+	+
(b) Issues							
Gender equity	+	+	+	+			+
Quality		+			+	+	+
Curriculum	+				+	+	+
Management					+	+	+
Budget	+	+		+		+	+

The analysis of prioritized levels of education provides examples of unanimity and strong divergence. UPE is common to all the frameworks and to a priority for all three GPGs. On the negative side, none of the international frameworks emphasize secondary education (other than in terms of gender equity) yet this is also key to all three GPGs. Adult education and TVET are vital to all three GPGs, yet neither is referred to in the MDGs. The Human Rights Declaration is the only framework highlighting tertiary education which is important for two of the GPGs. The EFA emphasis on pre-school education is not a priority for the three GPGs considered in this article but is important for other GPGs.

The analysis of priority issues shows similar divergence. Those key to all three GPGs are the quality of provision, the curriculum, and education management. Yet only the EFA makes specific reference to the first of these, only the HR Declaration to the curriculum, and none refer to educational management.

Whilst this does not purport to be an in-depth analysis, it does highlight differences

between the international frameworks and especially between these frameworks and the kind of education needed to achieve some important global public goods.

4. Assessing the impact of International Development Frameworks on education

(a) Is education development in sub-Saharan Africa in line with international goals?

Whilst it is not possible to identify a clear counterfactual for these global goals, we can compare outcomes in SSA with less developed countries (LDCs) as a whole and over the period of the MDGs and EFA goals. The logic here is that Africa has been the main focus of attention in regard to these goals, being the largest per-capita recipient of donor funds for this sector. It also has a high population growth and significant political and environmental instability. The purpose of the next section is to look at a specific example of the application of these frameworks in West Asia.

Table 2 examines a number of levels of education and gender equity using gross and net enrolment rates (GER and NER), gross intake rates to year 1 of primary school (GIR) and other data from the 2010 MDG and EFA Global Monitoring Reports (World Bank 2010a), UNESCO 2010) and UNESCO Institute of Statistics Database [USIS 2010]. Regional data for SSA is limited, especially prior to 1991, but this is a useful baseline for the impact of EFA and the MDGs.

Table 2. Education enrolments in sub-Saharan Africa, relative growth and comparison with developing country averages. (- means no available data)

Level or issue	Indicator	2007 value		Average per annum growth in value:			
		value	As fraction of LDC average	1991-07	1991-99	1999-03	2003-08
Pre-primary	GER	15%	42%	5.0	-	-	-
Primary	GIR	116%	99%	2.1	1.1	3.5	2.8
	GER	99%	99%	1.6	0.8	2.5	2.3
	NER	73%	85%	2.1	-	-	-
	Completion	60%	71%	0.6	-	-	-
Secondary	GER	34%	56%	0.7	-	-	-
Tertiary	GER	6%	33%	0.2	-	-	-
TVET	% of school age group	2%	33%	-	-	-	-
Gender equity (primary+ secondary)	Female % of male enrolment	86%	91%	0.4	-	-	-

The values for primary education and gender equity have the highest SSA percentages in comparison with the LDC. Apart from the huge increase in the tiny pre-primary enrolments, primary education enrolment, intake and gender equity rates – but not so much completion rates - also show the largest increases since 1991, accelerating in the late 1990s. Secondary and tertiary education have increased at a lower rate. This is compatible with a large MDG impact and a high EFA impact on pre-primary education though not on TVET.

The above process cannot be used for the impact of EFA on adult education. However, the 2010 EFA Global Monitoring Report (p.1) makes the global comment that: 'Literacy remains among the most neglected of all education goals' with 38% of adults illiterate in SSA compared with 20% in LDCs as a whole (p.95). This also reflects the quality of education. The EFA report notes that: 'In some countries in sub-Saharan Africa, young adults with five years of education had a 40% probability of being illiterate' whilst 'there is a shortage of 1.2 million primary teachers in sub-Saharan Africa'. (UNESCO 2010)

It is not possible from these sources to assess the curriculum: it is not mentioned in the World Bank 2010 GMR and only briefly in the EFA 2010 GMR. The poor state of education management and governance and the need for improvement to reach the marginalized were a major feature of the EFA 2009 GMR (UNESCO 2009).

There is little SSA regional data on education budgets, or for most countries in the region. However, much of the information from the Global Monitoring Reports and UNESCO database that there is suggests adherence with the FTI table of global norms, but with large variations:

- Public recurrent resources for education: 2.8 to 3.6% of Gross Domestic Product (GDP); around 20% of domestically generated revenues (but Eritrea 2% of GDP, Congo 9% revenues, Kenya 7% of GDP and 35% of revenues);
- Primary education 42 to 64% of total expenditure (but Congo 27% and Niger 70%).

However, two of the areas most divergent from the FTI guidelines are very low non-salary recurrent expenditure and a high proportion of pupils in private education.

Budgets in SSA for areas not in the FTI guidelines are far from international norms. Adult and pre-primary education receive only a fraction of the global average whilst per-pupil expenditures for secondary and tertiary education are greatly in excess of the global means as a fraction of per capita GDP.

Overall, education outcomes match the MDG emphasis on primary access and gender equity more than the other EFA goals such as adult education and the quality of education. Areas not prioritized by either EFA or the MDGs, notably tertiary education and TVET, show the least progress. But is this just the result of promoting the MDGs and EFA goals?

(b) <u>Should we expect the MDGs to have high impact?</u>

The MDG goals of UPE and gender-equity have much higher political commitment from the World Bank and other major donors than the EFA goals. Whilst many UN conferences are major political events, the resulting commitments tend to be vague and their implementation difficult to measure, and there is little in-country lobbying or motivation. In contrast, the MDGs are precise and measurable and are often the main criteria used to justify large loans and grants, especially major budgetary support given that they form one of the bases for agreement of poverty reduction strategy papers. FTI, until this year linked to the MDGs rather than the full EFA goals, is important in (a) being a major global and in-country forum between education ministries and the major aid agencies (b) providing access to large sums of flexible funding.

On the other hand, progress against UPE isn't just a result of the MDGs. UPE was on the political agenda in many countries long before Jomtien let alone the Millennium Summit. And many countries in SSA made tremendous gains in primary enrolment rates long before Jomtien. And comparing the proportion of a country's budget spent on primary education (USIS 2010) with the country's aid dependency (World Bank 2010b) there is not the correlation we might expect if MDGs were playing a key role. Progress on gender-equity at primary and secondary education may be mainly the outcome of UPE policy and actions rather than the impact of MDG3, especially given the relative lack of emphasis and progress on reaching equity at other levels of education.

(c) <u>How are national political considerations likely to affect education priorities?</u>

One might expect governments to focus on all aspects of education important for political stability. However, politicians at all levels tend to focus on immediate political priorities. Thus getting a school up and running to win over the local population is a higher priority than the quality of provision. Immediate measures to reduce unemployment, for example keeping high staffing levels in the public sector, are more politically important than improving secondary and technical and vocational education to meet future employment needs, especially given the low esteem of TVET as a second class education. Discovering and clamping down on present subversive activity in the education sector is more politically important than developing peace building skills and attitudes amongst schoolchildren. Avoiding offence to the elite by maintaining high per-student subsidies for secondary and tertiary level education is more important than converting the subsidies into scholarships for girls from low income families. There is little political incentive to prioritise gender equity at higher levels of education and even less for adult education. It can be politically useful to provide the bones of a system to claim that something is being done to combat illiteracy, especially if this can then be used to immediately reduce graduate unemployment. But getting more efficient adult literacy and adult skills programs are unlikely to bring large political benefits commensurate with the effort.

(d) How are management issues likely to affect education priorities?

Financial management constraints distort expenditures, notably in the bias towards salaries and infrastructure and against quality, equity and efficiency. Salary payments are usually the most difficult area to cut when adjusting actual allocations to marry over-ambitious budgets with immediately available funds. Contracts are involved and teachers' unions are often powerful entities. And many capital allocations linked to primary school building programs and discrete projects are locked into agreements with development banks and donors. It is much easier to cut non-salary running costs, even though this is to the detriment of quality (e.g. inadequate in-service teacher training and textbooks), efficiency (e.g. no fuel for the inspectorate) and equity (e.g. no scholarships and similar incentives). The tendency of ministries of finance to cut not-salary recurrent expenditures deters budgetary reform toward balanced, program-based budgeting by sector ministries. This may explain the deviations from FTI guidelines for salaries and capital expenditures. The fact that this built-in bias does not affect the total spent on education or proportional allocations to primary education may explain greater adherence to FTI guidelines in these areas.

This salary/infrastructure bias may also explain why TVET tends to be highly capital intensive, supply-driven through schools and colleges, with operating costs covering little more than salaries to the detriment of quality and relevance. In contrast, effective skills training requires high non-salary running costs for materials and for instructor training costs, both pedagogical training for instructors with practical skills, or skills upgrading to keep abreast of technology and the changing labor market. Efficient TVET also requires a high degree of collaboration between government staff and institutions on the one hand and industry and commerce on the other. This is expensive, not least in time and training.

Low running costs also reduce morale and accountability. Teachers who are not inspected become isolated and disillusioned, and it is unsurprising that many of them fail even to turn up to teach for much of the time.

Physical and financial management concerns hinder the expansion of government secondary and tertiary education. In many countries, major expansion is only feasible with a significant reduction in per-student subsidies and focusing some of the subsidies on student scholarships, especially for girls from disadvantaged families and communities, and on student loans. The management difficulties and likely loss of funds constrain such reforms. Expansion is often achieved more through the private sector, but with insufficient funding and development of accountability measures to ensure quality and equity.

Financial and other management issues also constrain the growth and quality of adult education. This tends to involve a remote, highly dispersed clientele with difficult communications and training and oversight practicalities, including pedagogical and financial and other management skills at the front line. Adult education requires a high degree of coordination between government and civil society, inter-ministry collaboration, and coordination between local, sub-national and national government. In practice, the management system tends to absorb the overwhelming bulk of available funds, with little

left for effective teaching. A poor record of success in adult education deters any increased allocation.

The curriculum at all levels is problematic for a number of reasons. Most curricula are over-crowded, especially for double shift and other schools with low pupil-teacher contact time. There is no time to include an adequate emphasis on civics, environmental education and family-life education. And even if there were, there is little chance of provided adequate training to teach these areas effectively. This also seems a low priority when pupils are failing to gain even a basic level of literacy and numeracy. Moreover, the curriculum is a sensitive area, especially sex or family-life education and any linkage with politics or efforts to encourage sectarian tolerance and understanding.

Thus there is a strong management bias against reforms in areas other than universal primary access and gender equity. This is reinforced by political bias in favor of the groups that have political voice. For example, illiterate women in rural areas have little political voice and are unlikely to bring down governments; disaffected elites and out-of-school urban youths are a political threat.

It may be these management and political considerations rather than the MDGs 2 and 3 that have resulted in progress here but not in other EFA goals or areas needed to achieve global public goods.

5. Case study: education strategies and population growth in the Yemen

Yemen is an example of a non-African country with significant problems in regard to political, environmental and demographic stability. The population growth rate is 2.7% with a total fertility rate of 4.8 children per woman (CIA 2010). Adult literacy is low: 71% male and 30% female. Yemen receives a modest level of donor assistance ($16 per capita aid dependency, 2.5% of GNI (World Bank 2010b) but with an education bias in donor funding and with government expenditure on education at 5.2% of GDP (USIS 2010). Enrolments reflect an MDG UPE emphasis but with some of the highest gender disparities in the world especially at secondary level. GER for all students and for female students (in parentheses) are as follows: pre-primary 1% (1%); primary 94% (76%); secondary 51% (37%). But female enrolments in grade 1 increased significantly over the decade 1999-2008: 8.3% compared with 5.9% for both sexes. Primary enrolment as a whole grew by 4.7% per annum over the decade, secondary by 6% p.a. and tertiary by 5% p.a. (USIS 2010)

Yemen's high population growth rate was identified in Chapter 2 of the 2003 Poverty Reduction Strategy Paper (PRSP) as first of the four major development challenges, followed by water, human resources and governance institutions (MPIC-Yemen 2006). Low levels of female education are seen as contributing to population growth: 'relevant surveys show the significantly strong relationship between educational levels of women and the fertility rate, since the actual fertility rate reaches 6.9 among illiterate women as compared to 3.2 among mothers who completed basic education' (page 28). Deficiencies

are highlighted (page 36) in adult education and TVET: 'one technical graduate for every 17 university graduates, whereas the proportion should be 4 technical graduates per university graduate.' But neither the ensuing education strategy nor the poverty strategy goals mention the education fertility link. The remainder of the PRSP focuses strongly on the MDGs. Yet the education sector goals comprise more than the MDG emphasis: increased and more equitable enrolment in basic education (which now includes adult education), increased access to TVET, and expanded, modernized university education.

Yemen's Population Action Plan (PAP) is based on the National Population Strategy (2001-2005) but neither are readily accessible (Madsen 2010). A 2004 report on PAP design and costing recommends a largely awareness-raising education component (World Bank 2004b).

One education program likely to reduce female fertility is the multi-partner Secondary Education Development and Girls Access Program. (World Bank 2008) Fertility reduction is not part of the project's objectives and there is no mention of the PAP. Expected 'reduced fertility rates' are mentioned as 'externalities of the project' with reference to 'Health Outcomes' (page 64) and in the economic appraisal (page 15), but are not part of the internal rate of return calculation.

6. Conclusion

The global public goods (GPGs) considered in this paper are sidelined in education strategies and are not well reflected in education outcomes. The MDGs are helpful insofar as universal primary education is important for all three GPGs, and gender equity is key to population stabilization. But the MDGs fail to deal with other aspects of education crucial to these GPGs, notably secondary, technical/vocation and adult education, education quality, education management and the curriculum.

TVET, adult education and the quality of education do feature in the Dakar EFA goals. But there are reasons why the MDGs are likely to be more politically important, notably a much stronger role in guiding major international development funds.

However, any distortion that might arise from the MDGs in practice is likely to be minor compared with that arising from national political considerations and especially from financial and other management issues. It is likely that the latter are more important determinants of poor progress in expanding secondary education, TVET and adult education, and in quality improvements generally and through the curriculum. These management issues include the built-in expenditure bias towards salaries and infrastructure, related failures in morale and accountability, relatively high per-student subsidies at secondary and tertiary levels, the need for improved collaboration, coordination, communication and market-driven processes in adult education and TVET, and more rational and efficient management of the curriculum.

If the international development community wishes to lay more emphasis on all areas of education important for achieving global public goods, responding to a

resurgence of interest in political, environmental and demographic stability, then it is these management issues that need to be the focus of attention.

References

Ahmed, S. (2004). *Report of the National Consultation on MDG and EFA*, Dhaka: Campaign for Popular Education (CAMPE).

Anand, P. B. (2004). "Financing the Provision of Global Public Goods", *World Economy*, 27 (2), p.215-237.

Bauchi, P. et al. (2009), "Nigeria: why we hit Bauchi, Borno, says Boko Haram, allAfrica.co [http://allafrica.com/stories/200907311070.html.] (Accessed on June 6th 2010)

Bray, M. (1986). "If UPE is the Answer, what is the Question? A comment on weaknesses in the rationale for universal primary education in less developed countries", *Int. J. Educational Development*, 6 (3), p.147-158.

Brown, N. (2002). "The International Controversy Regarding Palestinian Textbooks", Presentation to the Georg Eckert Institute for International Textbook Research, [http://home.gwu.edu/~nbrown/Georg_Eckert.htm] (Accessed on June 6th 2010)

CIA (2010). The World Factbook. Langley Virginia: US Central Intelligence Agency. [https://www.cia.gov/library/publications/the-world-factbook] (Accessed on June 6th 2010)

Cochrane, S. (1979). *Fertility and Education: What Do We Really Know?* Baltimore: Johns Hopkins University Press.

El Ahmadi, M. (2009). "Another way of understanding Moroccan extremism", Partners in Humanity. Archive 3. Washington D.C.: Common Ground News Service.

FTI (2006). Appraisal of the Primary Education Component of an Education Sector Plan, World Bank, Washington D.C.: FTI Secretariat

FTI (2010a). Education for All Fast Track Initiative, Washington D.C.: World Bank. [http://www.efafasttrack.org/] (accessed on 1st June 2010)

FTI (2010b). Education for All Fast Track Initiative, Washington D.C.: World Bank. [http://www.educationfasttrack.org/] (accessed on 1st June 2010)

IslamOnline (2010). "Turkey's model madrasas" [http://www.islamonline.net/servlet/Satellite?c=Article_C&cid=1262372022034&pagenam e =Zone-English-News%2FNWELayout]   (Accessed on June 6th 2010)

Jolly, R., Emmerij, L. and Weiss, G. (2005). *The Power of UN ideas: Lessons from the first 60 years*, New York: UN Intellectual History Project.

Kaul, I., Grunberg, I. and Stern, M. A. (Eds). (1999). *Global Public Goods: International Cooperation in the 21st Century*. Oxford: Oxford University Press, p.16.

Labaree, D. (2000). "No exit: education as an inescapably public good", in L.Cuban & D.Shipps (Eds.), *Reconstructing the Common Good* (p.110-129), Stanford U.S.A.: Stanford University Press.

Madsen, E. (2010). *The effects of a very young age structure in Yemen*. Washington DC: Population Action International

MPIC-Yemen (2006) *Poverty Reduction Strategy Paper*. Sana'a: Yemen Ministry of Planning and International Cooperation

[http://www.mpic-yemen.org/2006/prsp/English/Default.html] (Accessed on June 6th 2010)

Pisciotta, J. (1984). "Education is not a public good", *Annual Meeting of the South-western Economics Association*, Fort Worth, Texas. ERIC microfiche ED254433, Washington D.C.: Institute of Education Sciences.

Rousseau, J. (1762). *Emile, or On Education*. Trans. Allan Bloom. New York: Basic Books..

Sommers, M. (2009). "Education Amidst Conflict: The Youth Challenge", *PRAXIS The Fletcher Journal of Human Security*, XXIV, p.32.

Swift, D. (1983). *Physics for Rural Development: a Sourcebook for Teachers and Extension Workers in Developing Countries*. Chichester: John Wiley

Swift, D. (2009), "Parents, Providers and Political Extremists: Analysing Accountability for Quality Education in a Global Context", Journal of International Cooperation Studies, 17 (1), p.1-17.

UIS (2010). *UIS Data Centre*. Montreal: UNESCO Institute of Statistics [*www.uis.unesco.org*] (Accessed on June 6th 2010)

UNDP (2010) Millennium Development Goals. New York: UNDP

United Nations. (1948). *The Universal Declaration of Human Rights*, UN Department of Public Information. New York

United Nations (1972). Declaration of the Unite Nations Conference on the Human Environment. Report of the Stockholm Conference. Nairobi: UNEP

United Nations (1994). *International Conference on Population and Development*: New York: United Nations.

United Nations (2000). *Millennium Declaration*, Document DPI/2163. New York: UN Department of Public Information

UNESCO (1975). *The Belgrade Charter: A framework for Environmental Education*. Paris: UNESCO.

UNESCO (1990). *World Declaration on Education for All, Meeting Basic Learning Needs*, Jomtien World Conference on Education for All, Paris: UNESCO

UNESCO (2009). *Overcoming inequality: why Governance matters: EFA Global Monitoring Report 2009*. Paris: UNESCO

UNESCO (2000). *The Dakar Framework for Action, Education for All: Meeting our Collective Commitments*, Dakar World Conference on Education for All. Paris: UNESCO

UNESCO (2010). *Reaching the Marginalised: EFA Global Monitoring Report 2010*. Paris: UNESCO

Vandemoortele, J. (2009). "The MDG Conundrum: Meeting the Targets without Missing the Point", *Development Policy Review*, 27 (4), p.355-371.

World Bank (2004a), *Beyond Economic Growth Student Book*, Glossary, Washington, DC., [http://www.worldbank.org/depweb/english/beyond/global/glossary.html] (accessed on 1st June 2010)

World Bank (2004b). *Yemen Population Action Program Design and Costing*. Washington DC:

World Bank

World Bank (2008). *Secondary Education Development and Girls Access Project: Project Appraisal Document*. Washington DC: World Bank

World Bank (2010a). *The MDGs after the Crisis: Global Monitoring Report 2010*. Washington D.C.: World Bank

World Bank. (2010b). *Aid Dependency Statistics Table 6.11*. Washington D.C.: World Bank. [http://siteresources.worldbank.org/DATASTATISTICS/Resources/table6_11.pdf] (Accessed on June 6th 2010)