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FINANCIAL AND FISCAL COMMISSION

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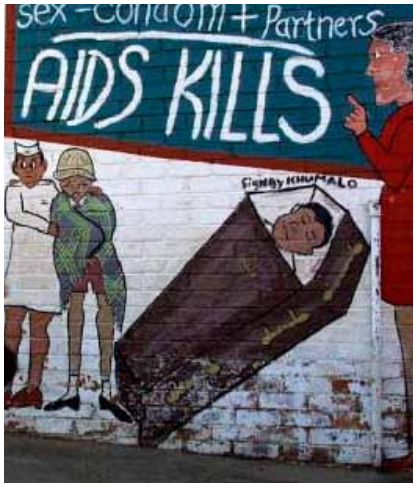
POLICY BRIEF

Can South Africa Attain the Millennium Development Goals by 2015?

EXECUTIVE SUMMARY

A recent study[1] by the Financial and Fiscal Commission (the Commission) is one of the first studies of its kind that takes a detailed look at the economic impact of different options for using increased domestic revenue to reach the outstanding MDGs.

In South Africa, progress in achieving the health-related Millennium Development Goals (MDGs) has been slow. Based on current trends, the country will not reach the MDGs for child mortality (Goal 4), maternal mortality (Goal 5), and HIV/AIDS, malaria and tuberculosis (Goal 6). Four scenarios were analysed. The first tested the feasibility of reaching all the MDGs in 2015, which was found not to be probable given the time constraint. The second and third scenarios assessed the attainment of MDG2 and MDG6 respectively, and the results were quite promising. However, in both these simulations, it was assumed that government has to borrow (from the domestic firms) to finance the policy, which is not sustainable in the long run. The last scenario analysed the impact of a combined policy: reaching the MDG target and increasing indirect taxes to finance the policy. The indirect tax was found to have a harmful impact on households' consumption and on the economy, and eventually reduced the benefits of the policy.



1. Mabugu, R, Robichaud, V, Maisonnave, H, and Chitiga, M. 2011. Realising Millennium Development Goals Through Intergovernmental Transfers, Chapter 4 in Financial and Fiscal Commission (2011). 2012/13 Submission for the Division of Revenue Technical Report, Midrand, South Africa.

BACKGROUND

Given that 2015 is just a few years away, can South Africa achieve the MDGs? Table 1 shows the progress made by South Africa since 1994 towards reaching these goals.

Table 1 South Africa – Millennium Development Goals, 1990–2015

	1990	1995	2000	2005	2006	2007	2008
1. Eradicate extreme poverty and hunger	2015 target: half 1990 $1-a-day poverty/malnutrition rates						
Population below $1 a day (%)	..	6.3	11.3	..	5	..	..
Poverty gap at $1 a day (%)	..	0.6	3.2	..	1.1	..	..
Percentage share of consumption held by poorest 20%	..	3.6	2.9	..	2.8	..	..
Prevalence of child malnutrition (% of children under 5)	..	3	..	..	3	..	..
2. Achieve universal primary education	2015 target: net enrolment of 100%						
Net primary enrolment ratio male (%)[2]	90	..	96	98.1	97.9	98.1	98
Net primary enrolment ratio female (%)[3]	90	..	96	98.4	98.6	98.2	98.8
Youth literacy rate (% ages 15–24)	..	93.9	93.5	88.8	89.5	90.1	90.3
3. Promote gender equality	2005 target is to have education ratio to 100						
Ratio of girls to boys in primary education	1:1.05	1:1.03	1:1.02		1:1.05		1:1.04
		(1996)	(1999)	..		..	(2009)
Ratio of girls to boys in secondary education	1:0.89	1:0.88	1:0.89			1:0.95	1:0.94
		(1996)	(1999)				
Ratio of young illiterate females to males (% ages 15–24)	..	101	99.9	..	..	..	..
Share of women employed in the non-agricultural sector (%)	42.6	43.6	44.6	44	42.9	42.9	..
Proportion of seats held by women in national parliament (%)	3	25	30	32.8	32.8	33	..
4. Reduce child mortality	2015 target = reduce 1990 under 5 mortality by two thirds						
Under 5 mortality rate (per 1,000)[4]	61.7	63.2	77.4	78.5	74.6	69.4	65.3
Infant mortality rate (per 1,000 births)	45	45	50	55	56	56	48
Immunisation, measles (children under 12 months)	79	76	77	80.1	86.6	87.6	93.3
5. Improve maternal health	2015 target = reduce 1990 maternal mortality by three quarters						
Maternal mortality ratio (modelled estimate per 100,000 births)	230	260	380[5]	440[6]	400	400	410[7]
Births attended by skilled health staff (% total)	..	82	84	92	..	..	94.3
				(2003)			(2009)

2. Overall before 2005 and by gender from 2005.
3. Overall before 2005 and by gender from 2005.
4. http://data.worldbank.org/country/south-africa
5. http://www.indexmundi.com/facts/south-africa/maternal-mortality-ratio (sourced from WHO, UNICEF, UNFPA and the World Bank).
6. http://data.worldbank.org/indicator/SH.STA.MMRT
7. http://data.worldbank.org/indicator/SH.STA.MMRT

Table 1 South Africa – Millennium Development Goals, 1990–2015. Continued

	1990	1995	2000	2005	2006	2007	2008
6. Combat HIV/AIDS, malaria and other diseases	2015 target = halve and begin to reverse prevalence of diseases						
Contraceptive prevalence rate (% women aged 15–24)[8]	0.8	6.2	15.9	18.2	18.2	18.1	8.7
Poverty gap at $1 a day (%)[9]	57	..	56.3	59.9	14.8	12.7	..
			(1998)	(2003)			
Number of children orphaned by HIV/AIDS (thousands)	..	..	660	1200[10]	..	1400[11]	1800[12]
Incidence of tuberculosis (per 100,000 people)	224	392.4	580[13]	645[14]	940	948[15]	960[16]
Tuberculosis cases detected under DOTS (%)	72.8	41.2	62.6	71.7	76.6	78.	72.13
7. Ensure environmental sustainability	2015 target = various						
Forest area (% of land area)[18]	7.58	7.58	7.58	7.58	7.58	7.58	7.58
Nationally protected areas (% of total land area)[19]	..	6.1	..	..	6.1	..	6.05
GDP per unit of energy use (2005 PPP $ per kg of oil equivalent)[20]	3.03	2.74	2.99	3.15	3.25	3.29	..
CO2 emissions (metric tons per capita)[21]	9.47	9.03	8.37	8.72	8.74	8.82	..
Access to an improved water source (% of population)	83	84	89	91.7	92.2	92.7	92
Access to improved sanitation (% of population)	55	56	57	66.7	68.2	70.1	69.7
8. Develop a global partnership for development	2015 target = various						
Youth unemployment rate (% of total labour force ages 15–24)	..	..	44.2	..	..	46.9	..
Fixed line and mobile telephones (per 1,000 people)	94.3	116	302.3	825.1	825.1	889	..
Fixed line and mobile telephones (per 100 people)[22]	9.43	11.6	30.23	82.51	93.49	97.87	101.52
Personal computers (per 1,000 people)	7.1	28.1	66.4	84.60	84.6	..	..
Personal computers (per 100 people)[23]	0.71	2.81	6.59	8.46			
9. General Indicators	2015 target = various						
Adult literacy rate (% of people ages 15 and over)[24]	..	82.4	85.2	..	..	88	89
Total fertility rates (births per woman)[25]	3.66	3.11	2.87	2.67	2.63	2.58	2.54
Life expectancy at birth (years)[26]	61.9	60.49	55.79	2	52	51	51

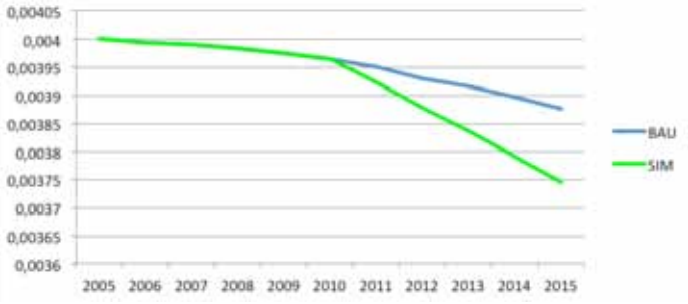
Note: Where data is not available for a specific year, data is given for the closest year, where possible. Worked up to MDG6 (prevalence of HIV). Some explanations and sources are given in footnotes.

Sources: Statistics South Africa, 2010[27], World Bank (1999)[28] and various sources in the notes above.

8. http://www.tradingeconomics.com/south-africa/prevalence-of-hiv-total-percent-of-population-ages-15-49-wb-data.html for 1990 to 2007.
9. http://www.tradingeconomics.com/south-africa/contraceptive-prevalence-percent-of-women-ages-15-49-wb-data.html
10. http://www.un.org/esa/population/publications/AIDS_Wallchart_web_2007/HIV_AIDSchart_2007.pdf
11. http://www.nationsencyclopedia.com/WorldStats/HNP-children-orphaned-hiv-aids.html
12. http://www.aids.org.za/page/orphaned-children
13. http://www.who.int/whosis/whostat/2010/en/index.html
14. http://www.hsrc.ac.za/research/output/outputDocuments/5632_Setswe_TBandHIVAIDS.pdf
15. http://www.usaid.gov/our_work/global_health/id/tuberculosis/countries/africa/safrica_profile.html
16. http://www.who.int/whosis/whostat/2010/en/index.html
17. http://www.nationsencyclopedia.com/WorldStats/MDI-tuberculosis-case-detection-rate.html for 1990 and 2008, and http://www.nationsencyclopedia.com/WorldStats/ADI-tuberculosis-cases-detected-dots.html for 1995 to 2007.
18. http://www.nationsencyclopedia.com/WorldStats/WDI-environment-land-forest-area-of.html; http://data.worldbank.org/indicator/AG.LND.FRST.ZS
19. http://www.tradingeconomics.com/south-africa/terrestrial-protected-areas-percent-of-total-surface-area-wb-data.html
20. http://www.tradingeconomics.com/south-africa/gdp-per-unit-of-energy-use-constant-2005-ppp-dollar-per-kg-of-oil-equivalent-wb-data.html
21. http://www.tradingeconomics.com/south-africa/co2-emissions-metric-tons-per-capita-wb-data.html from 1990 to 2006
22. http://www.tradingeconomics.com/south-africa/mobile-and-fixed-line-telephone-subscribers-per-100-people-wb-data.html
23. http://www.tradingeconomics.com/south-africa/personal-computers-per-100-people-wb-data.html
24. http://data.un.org/Search.aspx?q=literacy+rates+africa
25. http://www.tradingeconomics.com/south-africa/fertility-rate-total-births-per-woman-wb-data.html
26. http://www.tradingeconomics.com/south-africa/life-expectancy-at-birth-total-years-wb-data.html; http://data.worldbank.org/indicator/SP.DYN.LE00.IN
27. StatsSA. 2010. Millennium Development Goals: Country Report 2010. Available at http://www.statssa.gov.za/news_archive/Docs/MDGR_2010.pdf
28. World Bank. 1999. South Africa Country Assistance Strategy: Building a Knowledge Partnership. Washington: The World Bank Group.

As Table 1 shows, some of the MDGs have already been reached. However, it seems unlikely, or even impractical, that the health-related goals (MDGs 4 and 5) will be reached because the actual values are far from the target values. The Commission's study looked at the amount of additional public spending needed to reach some of the goals and the effect that some MDGs have on other MDGs. For instance, MDG6, the HIV/AIDS MDG, which will probably be reached, directly affects MDG4 (HIV-positive children under the age of five are more likely to die than HIV-negative children) and MDG5 (more HIV-positive mothers die giving birth than HIV-negative ones).

Figure 2 Impact on MDG5



RESEARCH FINDINGS

The MDG2 is universal primary education by 2015. Increased government spending on primary education would have a positive impact on MDG2, other MDGs and the rest of the economy. This is because increasing public spending is not only about increasing teachers' salaries. Increasing the education budget means that the government hires more teachers, gives subsidies to children for transport, builds new schools, and so on. Figures 1, 2 and 3 show the positive impact that increasing education spending has on the other MDGs.

Figure 1 Impact on MDG4

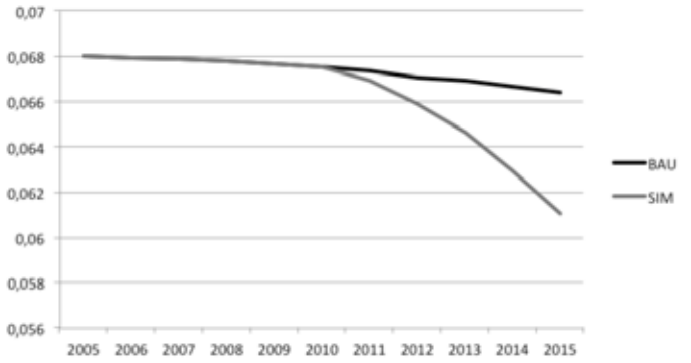
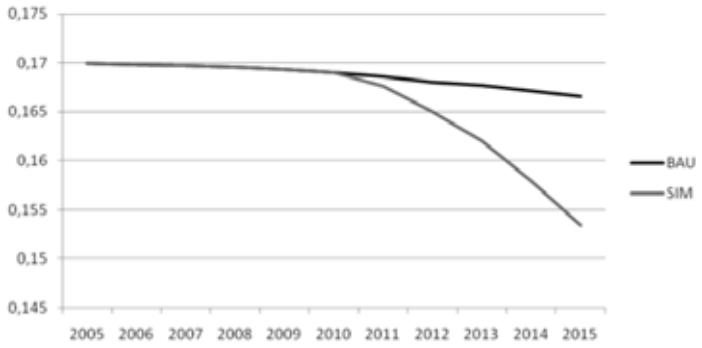


Figure 3 Impact on MDG6



Increasing education spending has a very positive short-term effect on employment, as people are hired to teach and to build schools. The impact on student behaviour is also positive because of the fall in the number of student drop-outs. The long-term benefits include improved skills in the labour force. However, over a longer timeframe, higher education spending leads to an increase in the unemployment rate of skilled workers as some sectors hire fewer people and reduce their production, instead of generating enough qualified people who could find a job and pay taxes. If the government financed the increased education spending through higher direct and indirect taxes, similar positive effects would be felt in the education system. However, in the long term employment and production in all sectors would decrease.

The next scenario assumes that MDG6 (HIV indicator) is reached in 2015, and government increases its spending on health services. In other words, the government builds extra hospitals where necessary, improves the transport system to enable people to reach health centres, allows more people to access free treatment, and implements the Department of Health's Ten-Point Plan effectively. As Figures 4 and 5 show, targeting MDG6 has positive knock-on effects for other MDGs, especially MDG4 and MDG5 (child and mother mortality rates).

Figure 4 Impact on MDG4

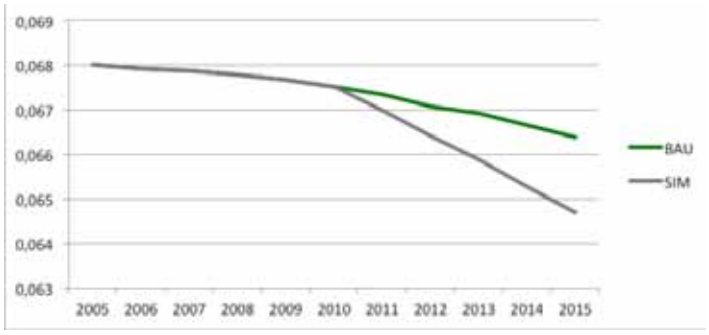
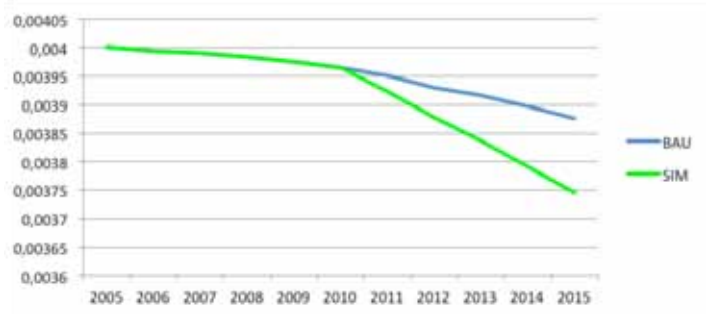
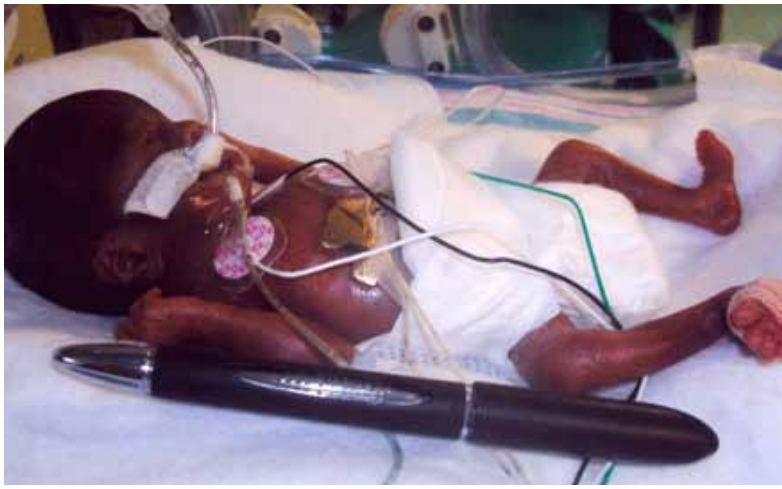


Figure 5 Impact on MDG5



The general improvement of health also affects the education indicator (MDG2), as children who are not sick can go to school and follow a normal school life. However, the impact is less strong than that of increasing spending on education. Nevertheless, the entire economy benefits from increased employment, as the government hires people to build new care centres and new doctors and nurses. Unemployment decreases for each type of worker and especially for skilled and highly skilled workers. The increased spending leads to an increase in public borrowing (mainly from the domestic firms), which affects total investment. Increased government spending also reduces private investment, which has a crowding-out effect as scarce productive resources are transferred from the private to the public sector.



Increased government spending on primary education would have a positive impact on MDG2, other MDGs and the rest of the economy. This is because increasing public spending is not only about increasing teachers' salaries. Increasing the education budget means that the government hires more teachers, gives subsidies to children for transport, builds new schools, and so on.

To avoid this crowding-out effect and the negative impact on total investments in the long term, the same simulation was run but with the addition of a uniform tax on commodities in order to keep government's deficit constant. As in the previous scenario, the health-related MDGs (4 and 5) improve, and child and maternal mortality decrease. However, a slight decrease is observed in MDG2, as this indicator depends on the graduation rate, which relies on several factors. Among them, households' per capita consumption decreases sharply, due to the tax financing option adopted and explains the slight decrease in MDG2 observed.

CONCLUSION

This study looked at ways in which government might reach the Millennium Development Goals by increasing spending. Reaching all the MDGs within four years seems unlikely, even impossible, especially MDG4 and MDG5 (child and mother-related health goals), as the actual values are too far away from the target values. The results were quite promising for universal primary education (MDG2) and combating HIV/AIDS (MDG6), but in both simulations government has to borrow (from the domestic firms) to reach the MDG target. This is not sustainable in the long run, and increasing indirect taxes in order to reach the MDG target would harm households' spending, eventually reducing any benefits.

This does not mean that little progress can be made to improve public health resources in South Africa. The following recommendations emerge from the study:

1. National, provincial and local government should further reprioritise expenditures in respect of Equitable Share and Conditional Grants for 2012/13 to move towards attaining the MDGs. In this respect,

   - Government should prioritise MDG 2 (universal education) and MDG 6 (HIV indicators) in the interim as their attainment will have positive impacts on other MDGs (positive spillovers).

   - The time frame for attaining all outstanding MDGs simultaneously should be extended beyond 2015 to make the task feasible.

2. Government, and in particular the departments of health, should ensure that the Health 10 Point Plan is implemented.

3. Government should weigh up carefully the impact of increasing spending against the risk associated with increasing taxation rates, spending levels and deficit finance.

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