



CHILDREN in focus

Paying the price

The economic cost of
failing to educate girls





**There is no tool for
development more effective
than the education of girls.**

Kofi Annan, former UN Secretary General

paying the price

Is it possible to put a price on girls' education?

Perhaps it is impossible to quantify the difference it makes to individuals' confidence, well-being and life-chances. But there is increasing evidence that we can make a serious estimate of the cost to economies of failing to educate girls to the same standard as boys.

This report presents a new analysis of the economic cost of failing to educate girls. Based on World Bank research and economic data and UNESCO education statistics, **it estimates the economic cost to 65 low and middle income and transitional countries of failing to educate girls to the same standard as boys as a staggering US\$92 billion each year.** This is just less than the \$103bn annual overseas development aid budget of the developed world.

The message is clear: investment in girls' education will deliver real returns, not just for individuals but for the whole of society.



Introduction: the importance of girls' education

Education is vital to the future prospects and development of children across the globe. Gaining a good education is at least as important for girls as it is for boys.

For girls and boys, education is the foundation stone on which future employment prospects and opportunities are built. Those who miss out on education as children often struggle to gain employment as adults. When they do find work, the uneducated typically earn less than their peers. Even in areas where employment is the exception rather than the norm, education is a child's passport to a brighter future. For those who grow up in rural areas, education offers the chance to make more of the resources available to them, whether that is by increasing the productivity of their land, selling on excess produce, or managing their household budget.

For girls in particular, schooling offers the chance of independence. Girls who are educated are less likely to be exploited, less likely to fall victim to trafficking and less likely to be infected with HIV. Girls' education also creates a virtuous cycle: women who are educated are more likely to have healthy children of their own.¹

Unfortunately, despite recent improvements, girls' education is still too often seen as an unnecessary luxury in many male dominated societies. Even worse, it may be opposed by men fearful of the effect increased female independence may have on traditional communities.

But those who oppose girls' education are doing great damage not only to the girls and their families but also to wider communities and economies.

1 World Bank (2008) Human Development Network: Girls' Education, <http://go.worldbank.org/1L4BH3TG20>
2 Unicef (2007) Progress for Children 2007 – MDG 3: Promote gender equality and empowerment, http://www.unicef.org/progressforchildren/2007n6/index_41798.htm

paying the price

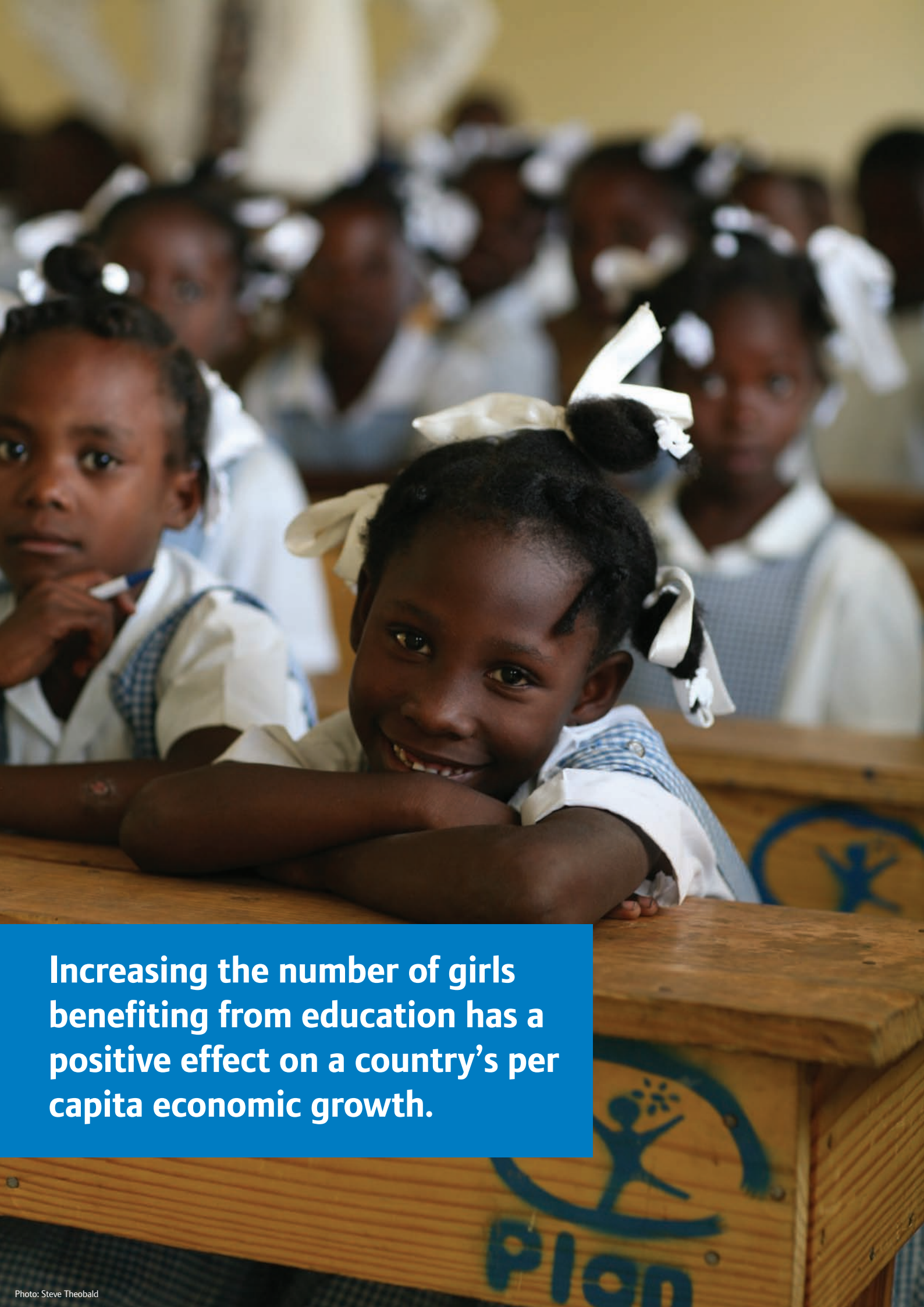
Girls' education: recent improvements and continuing challenges

The United Nations Convention on the Rights of the Child (1988) and Millennium Development Goals (2000) committed the international community of governments, international organisations and NGOs to work to provide education for all girls and boys and to eliminate gender disparities at both primary and secondary level.

This commitment has yielded results. The latest UN figures show that more girls are in education than ever before. In 2005, global primary net enrolment rates were 85 per cent for girls, up from 78 per cent 15 years earlier. At secondary level, girls' enrolment increased 10 percentage points to 57 per cent over the same period.²

This global improvement is reflected at national level. Between 1999 and 2005, 17 additional countries achieved gender parity in primary school attendance, bringing the total proportion that have done so to almost two-thirds (63 per cent). At secondary level, nineteen countries reached gender parity between 1999 and 2005. But only one out of every three countries (37 per cent) has as many girls as boys at secondary schools.

But wide differences remain between different regions and countries and even within countries. Girls still account for 60 per cent of children out of school in Arab countries and 66 per cent of non-attendees in South and West Asia. By contrast, more girls than boys attend schools in many countries in Latin America, the Caribbean, North America and Western Europe.



Increasing the number of girls benefiting from education has a positive effect on a country's per capita economic growth.

paying the price

The economic cost: failure to educate girls is a missed opportunity for all

Failure to educate girls has a direct impact both on their families and on wider society. Data shows a striking correlation between under-5 mortality rates and educational attainment of mothers.³ And girls whose mothers are educated are more likely to be healthy and go to school themselves.⁴

A 63-country study by the International Food Policy Research Institute (IFPRI) found that more productive farming as a result of female education accounted for 43 per cent of the decline in malnutrition achieved between 1970 and 1995.⁵

A number of studies have shown that increasing the number of girls benefiting from education has a positive effect on a country's per capita economic growth.⁶ This is true for both primary and secondary education.

Dollar and Gatti's study for the World Bank, **Gender Inequality, Income and Growth: Are Good Times Good For Women?** examined the effect of girls' education in 100 countries. It found: "An exogenous increase in girls' access to education creates a better environment for economic growth... the result is particularly strong for middle income countries. Thus, societies that prefer not to invest in girls pay a high price for it in terms of slower growth and reduced income."⁷

The research suggests that, after adjusting for other factors such as the lower fertility rates of educated women, increasing the share of women with secondary education by one percentage point increases a country's annual per capita income growth by an average of 0.3 percentage points.

3 Unicef (2005) Investing in the Children in the Islamic World, http://www.unicef.org/publications/files/Investing_Children_Islamic_World_full_E.pdf

4 Plan (2007) Because I am a Girl: The state of the world's girls 2007, Plan, London.

5 Smith & Haddad (1999) Explaining Child Malnutrition in Developing Countries: a cross-country analysis, IFPRI Food Consumption and Nutrition Division Discussion Paper 60, Washington DC.

6 King & Mason (2001) Engendering Development: Through gender equality in rights, resources and voice, World Bank and Oxford University Press, Washington DC.

7 Dollar & Gatti (1999) Gender Equality, Income and Growth: Are good times good for women? World Bank Policy Research Report on Gender and Development, Working Paper Series No. 1. Washington DC.



Plan's analysis: counting the cost country by country

The table (pages 10 and 11) shows the cost to individual countries of failing to educate girls to the same standard as boys. Costs were calculated using Dollar and Gatti's findings, the latest UNESCO figures showing the gap between boys' and girls' secondary schooling⁸ and the latest World Bank estimates of economic output.⁹ Only low and middle income and transition countries where fewer girls than boys attained secondary education were included in the analysis.

It is important to note that these figures are an estimate of the likely losses suggested by Dollar and Gatti's research. Individual characteristics of each country, particularly the structures of their economies and education systems will have an impact on the exact economic cost of failing to educate girls. Nevertheless, this analysis provides an important indication of the likely cost to low and middle income and transition countries of failing to educate girls.

Obviously, greater increases in economic growth would result if, rather than estimating the gains that could be made by educating girls to the same level as boys, the analysis examined the result of educating 100 per cent of girls to secondary level. However, Plan rejected this approach. The purpose of the analysis is to highlight the economic cost of giving girls unequal educational opportunities compared to boys rather than examine the (much larger) gains that could be made from universal education. That work would require an alternative approach which placed an economic value on the education of boys as well as girls.

Plan's analysis shows that a total of 65 low, middle income and transition countries fail to offer girls the same secondary school opportunities as boys. In total, these countries are missing out on annual economic growth of an estimated \$92 billion. This compares to \$103.7bn overseas development aid provided by the Organisation for Economic Cooperation and Development group of 22 developed countries in 2007.¹⁰

8 UNESCO (2007) Education for All Global Monitoring Report 2008, http://portal.unesco.org/education/en/ev.php-URL_ID=49591&URL_DO=DO_TOPIC&URL_SECTION=201.html

9 World Bank (2008) World Development Indicators Database <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GN.pdf> (Accessed March 2008)

10 OECD (2008) Debt relief is down: Other ODA rises slightly, http://www.oecd.org/document/8/0,3343,es_2649_201185_40381960_1_1_1_1,00.html

paying the price

Reflecting on the numbers

Countries in South and West Asia and sub-Saharan Africa have the worst record on educating girls to secondary level. India alone misses out on potential economic growth worth about \$33bn per annum. Other major losers include Turkey (\$20bn) and Russia (\$9.8bn).

Nine countries in sub-Saharan Africa have a gap of 10 percentage points or more between the proportion of girls educated to secondary level and the proportion of boys. Yet, despite this poor record, the region's total lost annual growth (\$5.3bn) is limited by the small size of its economies.

By contrast, just two countries in South and Central America fail to educate girls to the same standard as boys. Indeed, many have more girls in secondary education than boys.

Note on methodology: The results shown in the table were calculated using the formula $G \times 0.003 \times E$ where G was the percentage point difference between girls' and boys' secondary attainment, 0.003 the magnitude of effect identified by Dollar and Gatti and E was economic output.

There are no up-to-date, reliable global statistics showing the gap between adult female and male secondary attainment by country. This analysis is therefore based on UNESCO data showing the current gap between boys' and girls' upper secondary participation. These are used as a proxy for adult secondary educational achievement.

Given that the gap between girls' and boys' education has closed in recent years, the gap between the secondary educational attainment of men and women is likely to be even greater than that suggested by current statistics on boys' and girls' education. This analysis is therefore more likely to under- rather than overestimate lost economic growth.

Country	% Girls enrolled in upper secondary education	Education gender gap (percentage points)	Total GNI (\$million)	Estimated lost growth (\$million)
Djibouti	13	8	857	20
Egypt	72	6	101,658	1,829
Iraq	26	11	N/A	N/A
Mauritania	19	3	2,325	20
Morocco	33	4	57,977	695
Oman	82	2	22,994	137
Saudi Arabia	84	7	289,194	6,073
Syria	31	1	30,699	92
Yemen	25	30	16,444	1,479
Arab States				10,350
Albania	54	5	9,273	139
Bulgaria	118	4	30,733	368
Russia	98	4	822,364	9,868
Macedonia	73	4	6,237	74
Turkey	59	17	393,903	20,089
Ukraine	89	5	90,616	1,359
Central and Eastern Europe				31,899
Azerbaijan	67	3	15,712	141
Kazakhstan	83	5	57,982	869
Tajikistan	41	26	2,572	200
Uzbekistan	83	8	16,179	388
Central Asia				1,600
Cambodia	20	11	6,906	227
Indonesia	48	3	315,759	2,841
Lao	31	12	2,879	103
Papua New Guinea	5	2	4,637	27
Solomon Islands	13	5	331	4
Timor Leste	33	1	865	2
Vanuatu	24	17	369	18
East Asia and Pacific				3,227
Bolivia	77	4	10,293	123
Cayman Islands	88	1	N/A	N/A
Peru	71	2	82,739	496
Turks and Caicos Islands	82	7	N/A	N/A
Latin America and the Caribbean				619

Country	% Girls enrolled in upper secondary education	Education gender gap (percentage points)	Total GNI (\$million)	Estimated lost growth (\$million)
Afghanistan	4	11	8,092	267
Bangladesh	32	3	69,921	629
India	40	12	906,537	32,635
Iran	75	3	207,643	1,868
Maldives	15	6	902	16
Nepal	22	4	8,051	96
Pakistan	12	10	122,295	3,668
Sri Lanka	69	3	25,731	231
South and West Asia				39,413
Benin	14	13	4,665	181
Burkina Faso	5	4	6,311	75
Burundi	6	3	794	7
Cameroon	28	18	18,054	974
Chad	4	12	4,746	170
Comoros	24	6	406	7
Congo	17	8	3,806	91
DRC	12	13	7,742	301
Eritrea	14	13	888	34
Ethiopia	14	10	12,874	386
Gambia	27	12	488	17
Ghana	22	5	11,778	176
Guinea	14	13	3,732	145
Kenya	26	3	20,469	184
Malawi	13	5	2,263	33
Mali	10	6	6,128	110
Mauritius	78	3	6,833	61
Mozambique	3	2	6,924	41
Niger	3	1	3,696	11
Nigeria	28	6	92,358	1,662
Rwanda	10	1	2,341	7
Senegal	10	5	8,909	133
Swaziland	30	5	2,737	41
Togo	10	21	2,229	140
Uganda	8	4	8,917	107
Zambia	15	5	7,476	112
Zimbabwe	25	4	4,466	53
Sub-Saharan Africa				5,271
Total				92,382

All figures are rounded down to the nearest \$1m and therefore totals may be higher than suggested by summing figures for individual countries.

N/A – Calculation of the effect of the failure to educate girls to the same standard of boys was not possible because reliable data on economic output was not available.

Photo: Steve Theobald



International Headquarters

plan-international.org/education +44 (0) 1483 755155

National Organisations

Australia
plan.org.au +61-3-9672-3600

Belgium
plan-belgie.org +32-2504-6000

Canada
plancanada.ca +1-416-920-1654

Denmark
plandanmark.dk +45-35-30-0800

Finland
plan.fi +358-9-6869-8000

France
planfrance.org +331-44-899090

Germany
plan-deutschland.de +49-40-611400

Ireland
plan.ie +353-1-659-9601

Japan
plan-japan.org +81-3-5481-3511

Korea
plankorea.or.kr +82-2-790-5436

Netherlands
plannederland.nl +31-20-549-5555

Norway
plan-norge.no +47-22-007600

Spain
plan-espana.org +34-91-524-1222

Sweden
plan-sverige.org +46-8-5877-5500

Switzerland
plan-international.ch +41-44-288-9050

United Kingdom
plan-uk.org +44-207-482-9777

United States
planusa.org +1-401-738-5600

Regional Offices

Americas
roa.ro@plan-international.org +507-317-1700

Asia
aro.ro@plan-international.org +66-2204-2630-4

Eastern and Southern Africa
resa.ro@plan-international.org +27-11-666-8400

West Africa
waro.ro@plan-international.org +221-33-869-7430



Published by Plan Ltd, Text © Plan 2008
Plan, International Headquarters
Chobham House, Christchurch Way, Woking
Surrey GU21 6JG United Kingdom
Tel +44 (0) 1483 755155
Fax +44 (0) 1483 756505
Email info@plan-international.org
www.plan-international.org