



EMPLOYMENT



EMPOWERING WOMEN



EARLY BIRTHS



NUTRITION



TOLERANCE



CHILD HEALTH



ECONOMIC GROWTH



MOTHERS' LIVES



ENVIRONMENT

# Education transforms lives



United Nations  
Educational, Scientific and  
Cultural Organization



Developed by an independent team and published by UNESCO, the Education for All Global Monitoring Report is an authoritative reference that aims to inform, influence and sustain genuine commitment towards Education for All.

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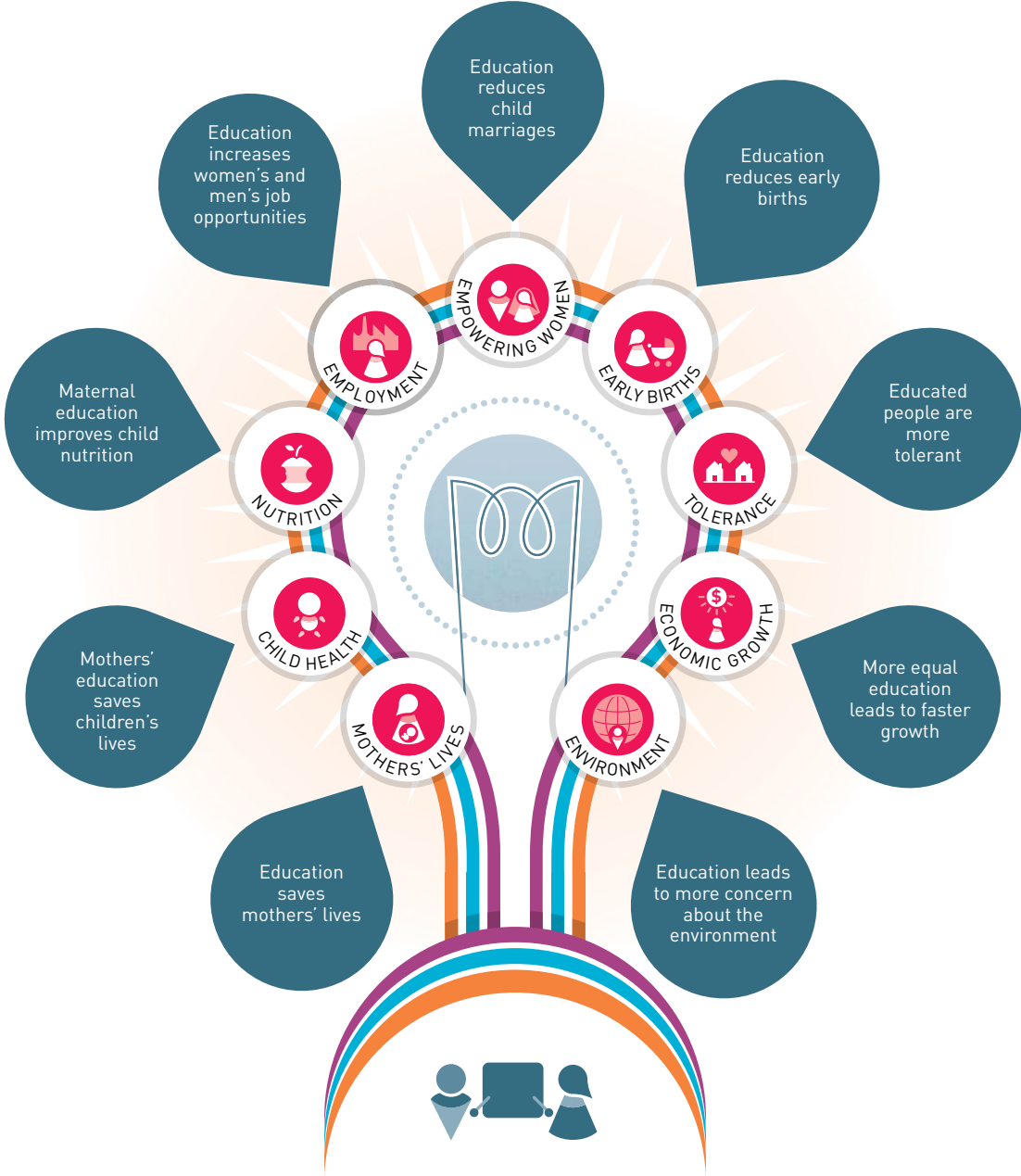
**Education transforms lives**

**Education lights every stage of the journey to a better life, especially for the poor and the most vulnerable.**

Education's unique power to act as a catalyst for wider development goals can only be fully realized, however, if it is equitable. That means making special efforts to ensure that all children and young people – regardless of their family income, where they live, their gender, their ethnicity, whether they are disabled – can benefit equally from its transformative power. Education empowers girls and young women, in particular, by increasing their chances of getting jobs, staying healthy and participating fully in society – and it boosts their children's chances of leading healthy lives.

To unlock the wider benefits of education, all children need the chance to complete not only primary school but also lower secondary school. And access to schooling is not enough on its own: education needs to be of good quality so that children actually learn. Given education's transformative power, it needs to be a central part of any post-2015 global development framework.

# EDUCATION TRANSFORMS LIVES



**A mother's education is crucial for her own health.** Every day, almost 800 women die from preventable causes related to pregnancy and childbirth, including pre-eclampsia, bleeding, infections and unsafe abortion. Educated women are more likely to avoid these dangers, by adopting simple and low cost practices to maintain hygiene, by reacting to symptoms, and by making sure a skilled attendant is present at birth.

Education reforms increased education attainment among young women by 1.8 years in **Kenya**, accounting for a **34%** decline in the maternal mortality ratio.

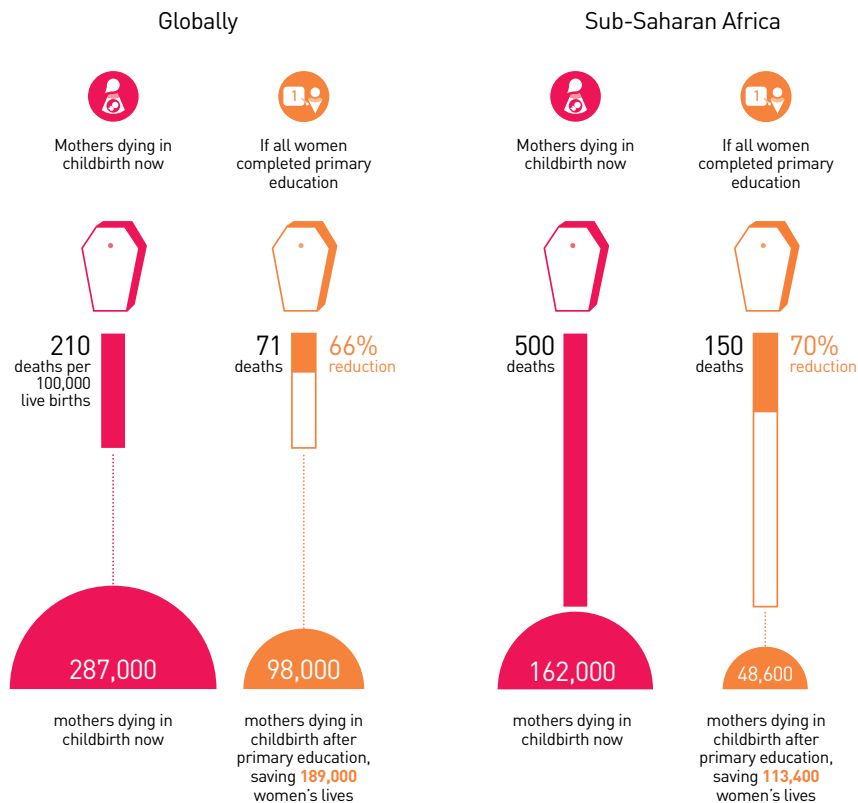
In **Nepal**, **49%** of literate mothers have a skilled attendant at birth, compared with **18%** of mothers who are not literate.

The benefits of being literate when it comes to having a skilled attendant at birth can be far greater for mothers from poor households. In **Cameroon**, **54%** of literate mothers from poor households have the benefit of a skilled attendant, compared with **19%** of mothers who are not literate.



# A MATTER OF LIFE AND DEATH

Educated mothers are less likely to die in childbirth



## Why does education reduce maternal deaths?

**Educated women are more likely to avoid complications during pregnancy, such as pre-eclampsia, bleeding and infections by:**

- 1 adopting simple and low-cost practices to maintain hygiene
- 2 reacting to symptoms such as bleeding or high blood pressure
- 3 making sure a skilled attendant is present at birth

**Educated women are more likely to:**

- 1 use public health care services
- 2 not give birth as teenagers
- 3 have fewer children

**Educating girls can save millions of lives.** There are few more dramatic illustrations of the power of education than the estimate that the lives of 2.1 million children under 5 were saved between 1990 and 2009 because of improvements in girls' education. Education is one of the most powerful ways of improving children's health. Educated mothers are better informed about specific diseases, so they can take measures to prevent them. They can recognize signs of illness early, seek advice and act on it.

**India** and **Nigeria** account for more than a third of child deaths worldwide. If all women in both countries had completed secondary education, the under-5 mortality rate would have been **61%** lower in India and **43%** lower in Nigeria, saving 1.35 million children's lives.

In **Burkina Faso**, if all women completed primary education, the under-5 mortality rate would fall by **46%**; if they completed secondary education, it would fall by **76%**.

In **low income countries**, mothers who have completed primary school are **12%** more likely than mothers with no education to seek appropriate health care when their child has symptoms of **diarrhoea**.

In **sub-Saharan Africa**, which accounts for **70%** of the world's HIV infections, **91%** of literate women know that **HIV** is not transmitted by sharing food, compared with **72%** of those who are not literate.

In the **Arab States**, a one-year increase in maternal education is associated with a **23%** decrease in the number of children under the age of five dying from **pneumonia**.

In **Cameroon**, where the female secondary gross enrolment ratio was 47% in 2011, if all women had had secondary education, the incidence of **malaria** would have dropped from **28%** to **19%**.

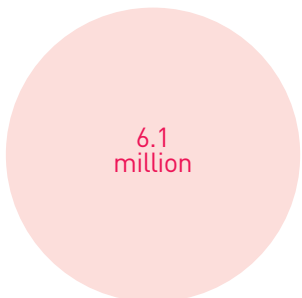




# SAVING CHILDREN'S LIVES

A higher level of education reduces preventable child deaths

Number of children under 5 that died in low and lower middle income countries in 2011



Reduction in deaths in low and lower middle income countries:



If all women had primary education



15% fewer child deaths



If all women had secondary education

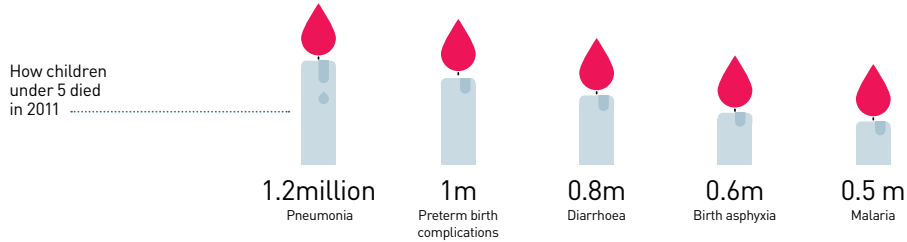


49% fewer child deaths



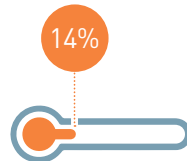
# EDUCATED MOTHERS, HEALTHY CHILDREN

Higher levels of education for mothers lead to improved child survival rates



## Pneumonia

One additional year of maternal education would decrease child deaths from pneumonia by:



Equivalent to:



170,000  
lives saved per year

**Maternal education reduces factors putting children at risk of pneumonia such as:**

- 1 malnutrition and low birth weight
- 2 failing to carry out measles vaccination in the first 12 months
- 3 burning fuel that gives off harmful smoke

## Birth complications

A literate mother is on average:



23%  
more likely to seek support from a skilled birth attendant

# EDUCATED MOTHERS, HEALTHY CHILDREN

Higher levels of education for mothers lead to improved child survival rates

## Diarrhoea

Reduction in diarrhoea in low and lower middle income countries if all mothers had primary education:



Reduction in diarrhoea if all mothers had secondary education:



**Educated mothers are more likely to:**

- 1 properly purify water
- 2 seek care from a health provider when a child has diarrhoea
- 3 administer rehydration solutions, increase fluids, and continue feeding

## Malaria

In areas of high transmission, the odds of children carrying malaria parasites is **22% lower** if their mothers have primary education than if their mothers have no education



In areas of high transmission, the odds of children carrying malaria parasites is **36% lower** if their mothers have secondary education than if their mothers have no education

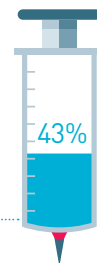


## Immunization

Increase in vaccination for diphtheria, tetanus, and whooping cough (DTP3) in low and lower middle income countries if all mothers had primary education:



Increase in DTP3 vaccination if all mothers had secondary education:



**Education is vital to eliminate malnutrition in the long term – especially education that empowers women.** Malnutrition is the underlying cause of more than a third of global child deaths. Educated mothers are more likely to ensure that their children receive the best nutrients to help them prevent or fight off ill health, know more about appropriate health and hygiene practices, and have more power in the home to make sure children's nutrition needs are met.

In **South Asia**, **22 million** fewer children would be stunted if all mothers reached secondary education.

In **Honduras**, the chances of children being stunted – short for their age – is **54%** if they are born to mothers with less than primary education, falling to **33%** for those born to mothers with primary education, and to **10%** if they are born to mothers with at least secondary education.

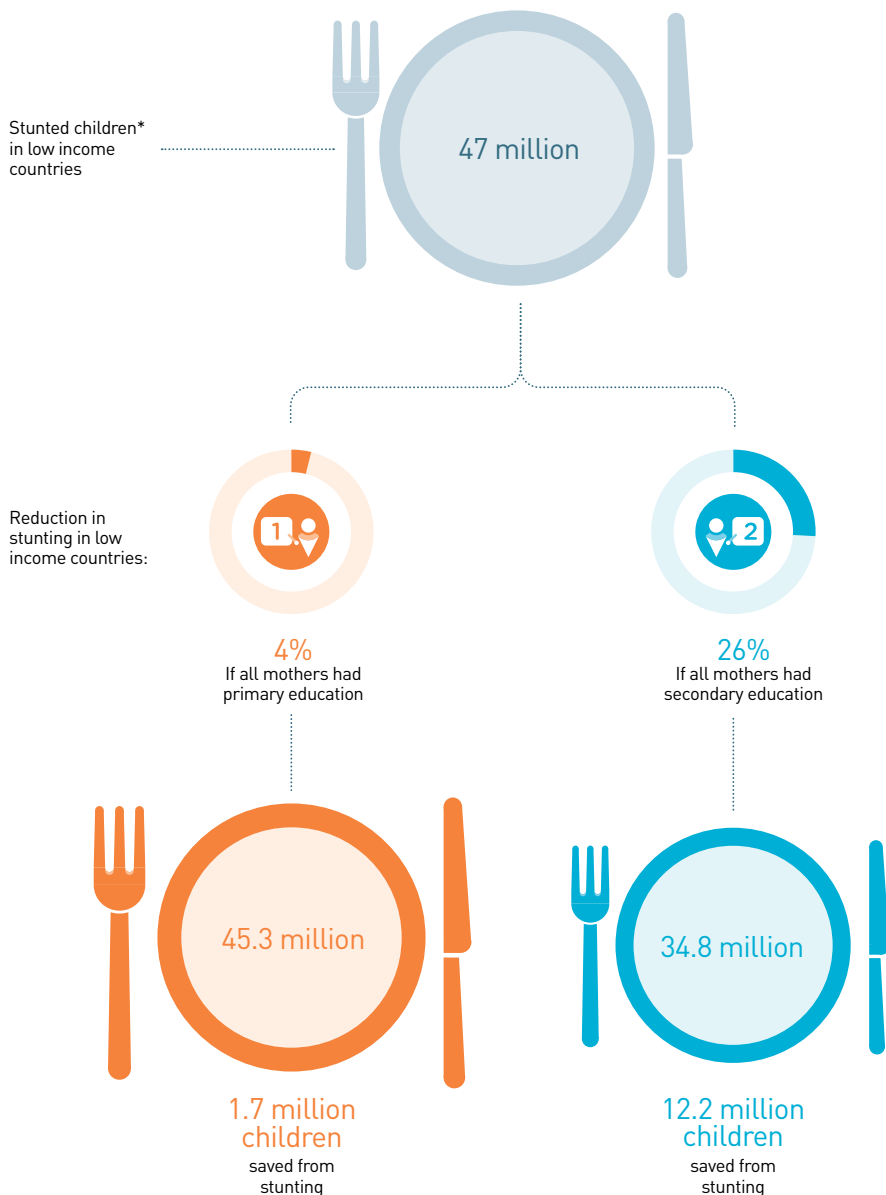
By age 1 – when adverse effects of malnutrition on life prospects are likely to be irreversible – in **Viet Nam**, children whose mothers have reached lower secondary education are **67%** less likely to be stunted than those whose mothers have no education.

In the **United Republic of Tanzania**, children aged 6 months to 23 months whose mothers had at least secondary education were **almost twice as likely** to consume food rich in micronutrients as children whose mothers had less than primary education.



# EDUCATION KEEPS HUNGER AWAY

Mothers' education improves children's nutrition



\*Stunting is a manifestation of malnutrition in early childhood.

**Education enhances job opportunities, helping households to escape poverty.** Educated men and women are more likely not just to be employed, but to hold jobs that are secure and provide good working conditions and decent pay. By benefiting women in particular, education can help narrow gender gaps in work opportunities and pay. As well as helping lift households out of poverty permanently, education guards against them falling – or falling back – into poverty.

If all students in low income countries left school with basic reading skills, **171 million people** could be lifted out of poverty, which would be equivalent to a **12%** cut in world poverty.

In **El Salvador**, only **5%** of working adults with less than primary education have an employment contract, compared with **47%** of working adults with secondary education.

In **Jordan**, **25%** of women with only primary education who live in rural areas work for no pay, compared with **7%** of those with secondary education.

In the **United Republic of Tanzania**, **82%** of workers who have less than primary education live below the poverty line. By contrast, working adults with primary education are **20%** less likely to be poor, while secondary education reduces the chances of being poor by almost **60%**.

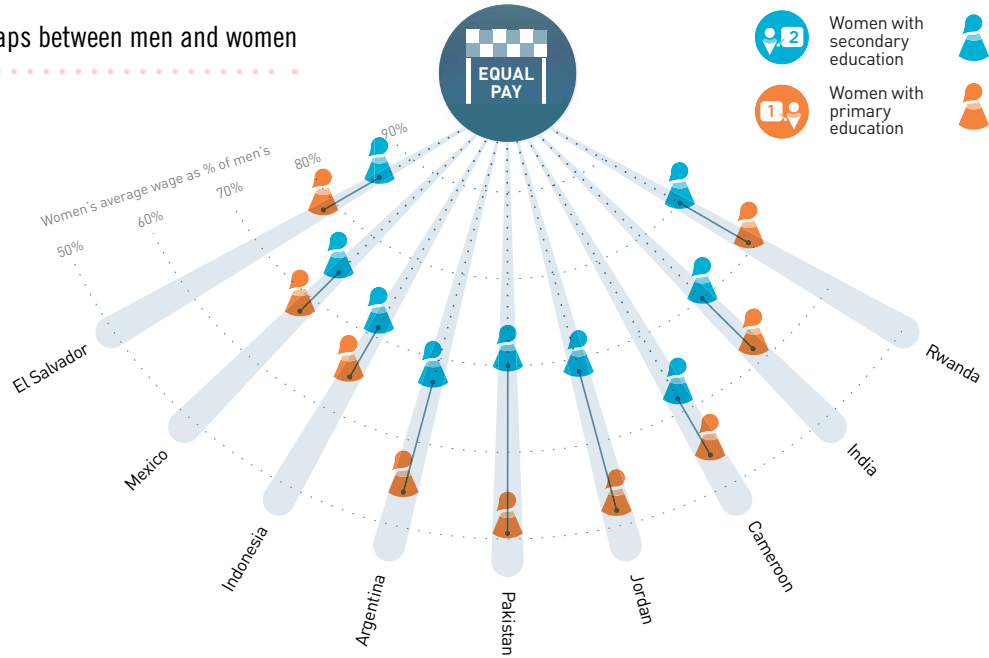
In **Pakistan**, working women with good literacy skills earn **95%** more than women with weak literacy skills.

In rural **Indonesia**, an additional year of schooling reduced the chances of falling back into poverty by **25%**.



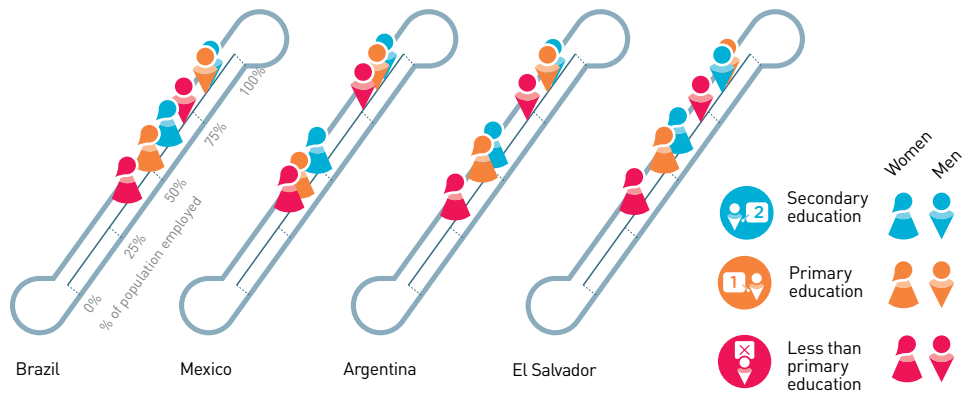
# WAGE GAPS

Education narrows pay gaps between men and women



# JOB SEARCH

Educated men and women are more likely to find work



**Education empowers women to overcome discrimination.** Girls and young women who are educated have greater awareness of their rights, and greater confidence and freedom to make decisions that affect their lives, improve their own and their children's health and chances of survival, and boost their work prospects. One in eight girls is married by the age of 15 in sub-Saharan Africa and South and West Asia, and one in seven has given birth by the age of 17. Ensuring that girls stay in school is one of the most effective ways of averting child marriage and early birth. Education is also a key factor in hastening the demographic transition to lower birth and mortality rates.

In **Ethiopia**, **32%** of girls with less than primary education were married before the age of 15, compared with less than **9%** of those with secondary education.

In **Angola**, the fertility rate of a woman with no education was **7.8 children**, compared with **5.9 children** for a woman with primary education and **2.5 children** for a woman with secondary education or more.

In **Pakistan**, while only **30%** of women with no education believe they can have a say over the number of children they have, the share increases to **52%** among women with primary education and to **63%** among women with lower secondary education.

If all countries expanded their school systems at the same rate as the **Republic of Korea** and **Singapore**, there would be almost **850 million fewer people** in the world by 2050 than if enrolment rates remained at 2000 levels.





# LEARNING LESSENS EARLY MARRIAGES AND BIRTHS

Women with higher levels of education are less likely to get married or have children at an early age

## Child marriage

Child marriages for all girls by age 15 in sub-Saharan Africa and South and West Asia



2,867,000



2,459,000



1,044,000



14%

fewer marriages if all girls had primary education



64%

fewer marriages if all girls had secondary education

## Early births

Early births for all girls under 17 in sub-Saharan Africa and South and West Asia



3,397,000



3,071,000



1,393,000



10%

fewer girls would become pregnant if all girls had primary education



59%

fewer girls would become pregnant if all girls had secondary education

## Fertility rate\*

Average number of births per woman in sub-Saharan Africa:



No education



6.7



Primary education



5.8



Secondary education



3.9

\*Fertility rate is the average number of children that would be born to a woman over her lifetime

**Education is indispensable in strengthening the bonds that hold communities and societies together.** Education helps people understand democracy, promotes the tolerance and trust that underpin it, and motivates people to participate in politics. Education's role is especially vital in regions and countries where lack of tolerance is associated with violence and conflict.

Across 18 **sub-Saharan African countries**, those of voting age with primary education are **1.5 times more likely** to express support for democracy than those with no education, and the level doubles among those who have completed secondary education.

In **Tunisia**, while only **22%** of those with less than primary education agree that democracy, despite its drawbacks, is the best system of governance, **38%** of those with secondary education do so.

In **Turkey**, citizens with secondary education are around **twice as likely** as those with only primary schooling to sign a petition and participate in a peaceful demonstration.

In **Central and Eastern Europe**, those with secondary education are **16%** less likely than those who have not completed secondary education to express intolerance towards immigrants.

In **India**, those with secondary education were **19%** less likely to express intolerance towards people speaking a different language compared with those with less than primary education.

In countries in **sub-Saharan Africa**, the risk of conflict in the areas with the highest education inequality is **almost double** that of the areas that have the lowest education inequality.



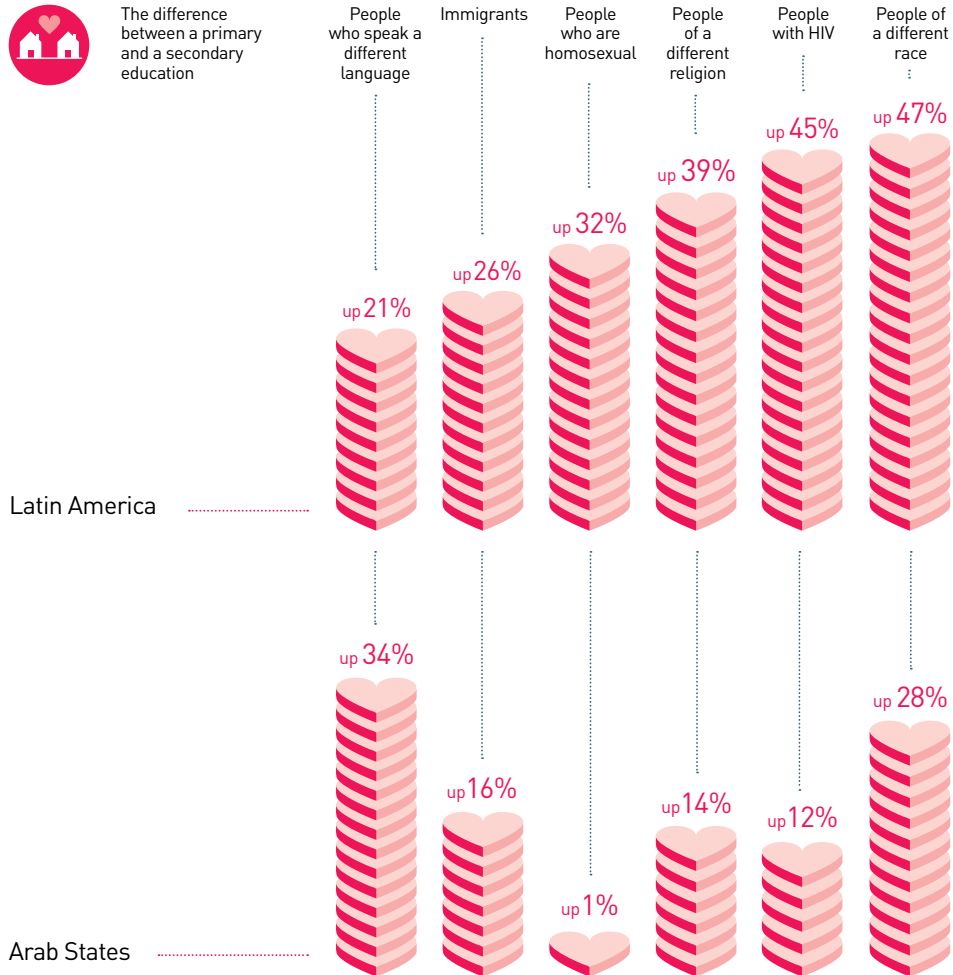
# LOVE THY NEIGHBOUR

Education increases tolerance



The difference between a primary and a secondary education

Increase in tolerance towards...\*



\*Answers are in response to the question:

"Who would you prefer not to live next door to?"

**Equal education boosts economic growth.** Education not only helps individuals escape poverty by developing the skills they need to improve their livelihoods, but also generates productivity gains that boost economic growth substantially. For growth to reduce poverty, however, it needs to overcome inequality by improving the lives of the poorest and marginalized the most. Education is vital to achieve this goal because it can help ensure that the benefits of growth are fairly shared.

In 1965, adults in **East Asia and the Pacific** had, on average, spent 2.7 more years in school than those in **sub-Saharan Africa**. Over a 45-year period, average annual growth in income per capita was **3.4%** in East Asia and the Pacific, but **0.8%** in sub-Saharan Africa. The difference in education levels explains about half of the difference in growth.

In **Guatemala**, adults just had 3.6 years of schooling, on average, in 2005. If Guatemala had matched the regional average, it could have **more than doubled** its average annual growth rate between 2005 and 2010.

If education inequality in **sub-Saharan Africa** had been halved to the level of **Latin America and the Caribbean**, the annual per capita growth rate over 2005–2010 would have been **47%** higher.



# EDUCATED GROWTH

Education equality accelerate prosperity

Equality in education can be measured using the Gini coefficient\*

Complete inequality:

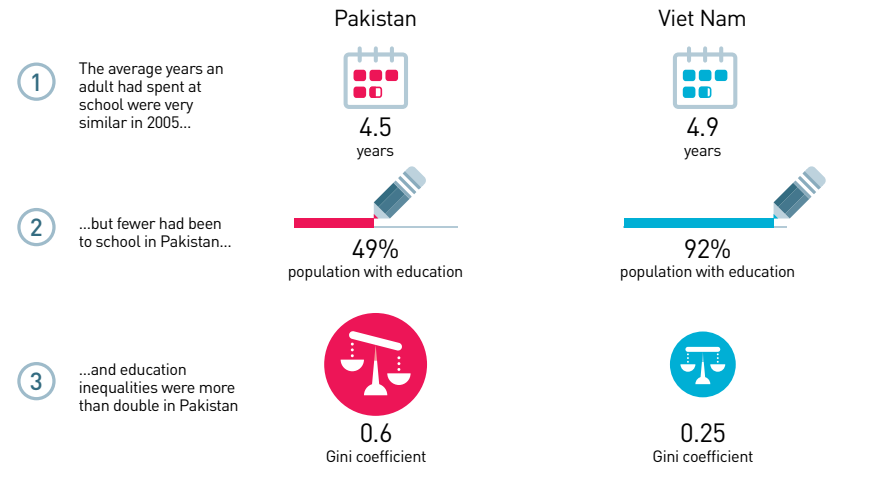


1.0  
Gini coefficient

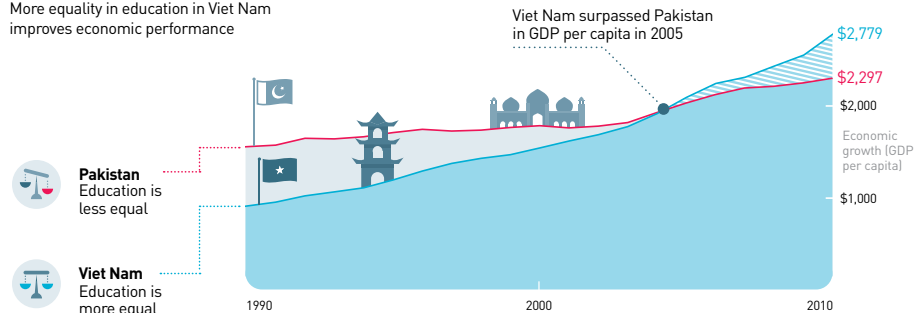
Perfect equality:



0.0  
Gini coefficient



More equality in education in Viet Nam improves economic performance



\*A statistical measure of inequality. Perfect equality [where everyone goes to the school for the same amount of time] would equal 0 and perfect inequality [where only one person goes to school] would equal 1

**Education is part of the solution to global environmental problems.** People with more education tend not only to be more concerned about the environment, but also to follow up that concern with action that promotes and supports political decisions that protect the environment. By improving knowledge, instilling values, fostering beliefs and shifting attitudes, education has considerable power to change environmentally harmful lifestyles and behaviour. Education can encourage people to use energy and water more efficiently and recycle household waste. In poor countries affected by climate change, education helps people adapt to its effects.

Across **29 countries**, **25%** of people with less than secondary education expressed concern for the environment compared to **37%** of people with secondary education and **46%** of people with tertiary education.

In **Germany**, **46%** of people with tertiary education had signed a petition or taken part in a demonstration in relation to the environment over the previous five years, compared with **26%** of those with secondary education and **12%** of those with less than secondary education.

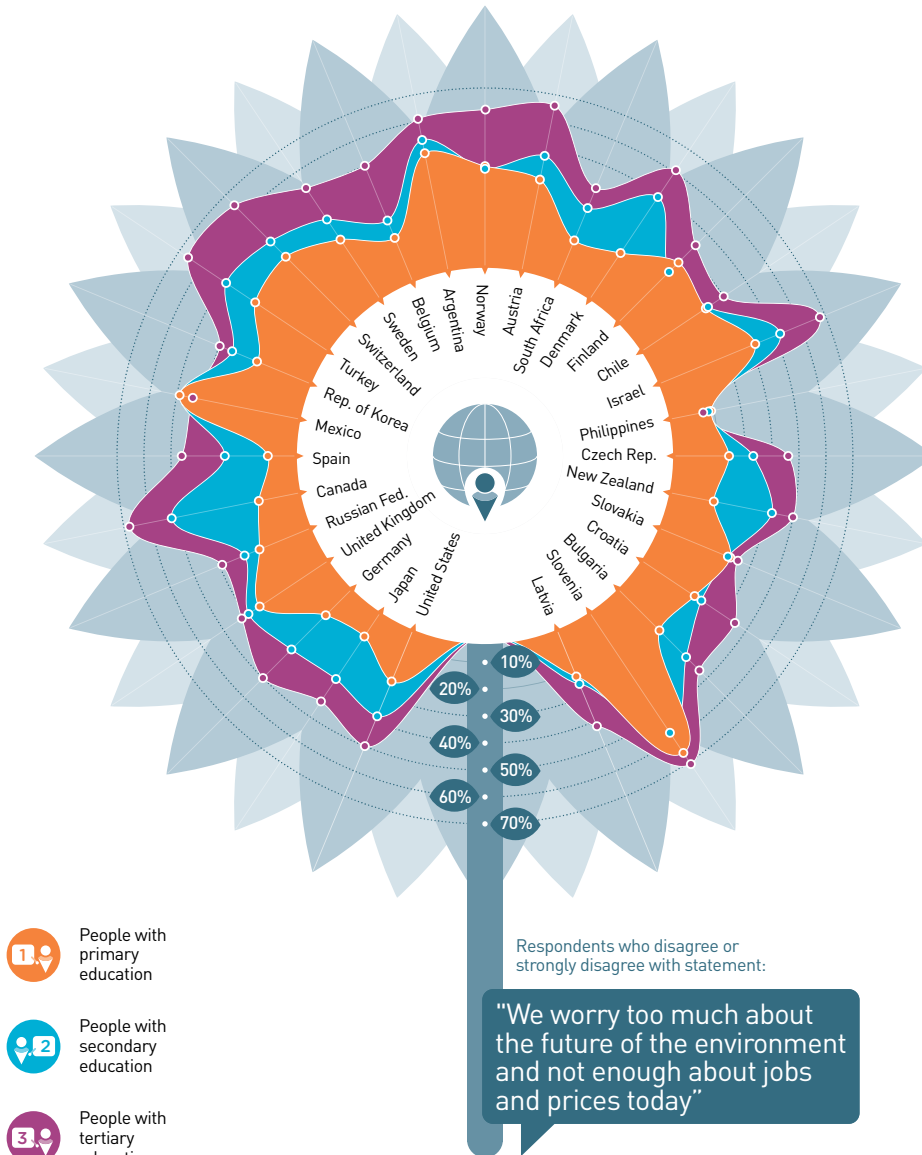
Investing between US\$11 billion and US\$14 billion per year in basic education for girls **globally** would help their households make better choices to counter the effects of expected weather-related disasters.

In **Ethiopia**, six years of education improve by **20%** the chance that a farmer will adapt to climate change by adopting techniques such as soil conservation, variation in planting dates and changes in crop varieties.



# SCHOOLING CAN SAVE THE PLANET

Higher levels of education lead to more concern about the environment



# SOURCES

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## 1 – A matter of life and death

Introduction: WHO. 2013. *Maternal mortality: Fact sheet N°348*. Geneva, World Health Organization. [www.who.int/mediacentre/factsheets/fs348/en](http://www.who.int/mediacentre/factsheets/fs348/en). [Accessed 28 March 2013.]

Kenya: Bhalotra, S. and Clarke, D. 2013. Educational attainment and maternal mortality. Background paper for *EFA Global Monitoring Report 2013/14*.

Nepal: EFA Global Monitoring Report team calculations, based on the 2011 Demographic and Health Survey.

Cameroon: EFA Global Monitoring Report team calculations, based on the 2011 Demographic and Health Survey.

### Infographic:

WHO. 2012. *Trends in Maternal Mortality: 1990 to 2010 – WHO, UNICEF, UNFPA and The World Bank Estimates*. Geneva, World Health Organization.

Bhalotra, S. and Clarke, D. 2013. Educational attainment and maternal mortality. Background paper for *EFA Global Monitoring Report 2013/14*.

## 2 – Saving children's lives

Introduction: Gakidou, E., Cowling, K., Lozano, R. and Murray, C. J. L. 2010. Increased educational attainment and its effect on child mortality in 175 countries between 1970 and 2009: a systematic analysis. *The Lancet*, Vol. 376, No. 9745, pp. 959–74.

Arab States, Burkina Faso, Cameroon, India and Nigeria: Gakidou, E. 2013. Education, literacy and health outcomes. Background paper for *EFA Global Monitoring Report 2013/14*.

Low income countries and sub-Saharan Africa: EFA Global Monitoring Report team calculations, based on Demographic and Health Survey data from 2005–2011.

### Infographic (Saving children's lives):

UNICEF. 2012. *Levels & Trends in Child Mortality: Report 2012 – Estimates developed by the UN Inter-agency Group for Child Mortality Estimation*. New York, UNICEF.

Gakidou, E. 2013. Education, literacy and health outcomes. Background paper for *EFA Global Monitoring Report 2013/14*.

### Infographic (Educated mothers, healthy children):

Causes of death: UNICEF. 2012. *Committing to Child Survival: A Promise Renewed – Progress Report 2012*. New York, UNICEF.

Pneumonia, diarrhoea and immunization: Gakidou, E. 2013. Education, literacy and health outcomes. Background paper for *EFA Global Monitoring Report 2013/14*.

Birth complications: EFA Global Monitoring Report team calculations based on Demographic and Health Survey data from 2005–2011.

Malaria: Fullman, N., Burstein, R., Lim, S. S., Medlin, C. and Gakidou E. 2013. Nets, spray or both? The effectiveness of insecticide-treated nets and indoor residual spraying in reducing malaria morbidity and child mortality in sub-Saharan Africa. *Malaria Journal*. Vol. 12:62.

## 3 – Education keeps hunger away

Introduction: Headey, D. D. 2013. Developmental drivers of nutritional change: A cross-country analysis. *World Development*, Vol. 42, February, pp. 76–88.

Honduras: ICF International. 2012. MEASURE DHS STATcompiler. Calverton, Md., ICF International.

United Republic of Tanzania: EFA Global Monitoring Report team calculations, based on the 2010 Demographic and Health Survey.

Viet Nam: Sabates, R. 2013. Can maternal education hinder, sustain or enhance the benefits of early life interventions? Background paper for *EFA Global Monitoring Report 2013/14*.

### Infographic:

UNICEF. 2013. *The State of the World's Children 2013*. New York, UNICEF.

EFA Global Monitoring Report team calculations, based on Demographic and Health Survey data from 2005–2011.

## 4 – Wage gaps and job search

Global: EFA Global Monitoring Report team calculations based on Hanushek, E. A. and Woessmann, L. 2012. GDP projections. Background paper for *EFA Global Monitoring Report 2012*, and Ravallion, M. 2001. Growth, inequality and poverty: looking beyond averages. *World Development*, Vol. 29, No. 11, pp. 1803–15.

El Salvador, Jordan and United Republic of Tanzania: Understanding Children's Work. 2013. Education and employment outcomes. Background paper for *EFA Global Monitoring Report 2013/14*.

Pakistan: Aslam, M., Bari, F. and Kingdon, G. 2012. Returns to schooling, ability and cognitive skills in Pakistan. *Education Economics*, Vol. 20, No. 2, pp. 139–73.



Indonesia: McCulloch, N., Weisbrod, J. and Timmer, P. 2007. *Pathways out of poverty during an economic crisis: an empirical assessment of rural Indonesia*. Washington, DC, World Bank. (Policy Research Working Paper 4173.)

Infographic:

Understanding Children's Work. 2013. Education and employment outcomes. Background paper for *EFA Global Monitoring Report 2013/14*.

### **5 – Learning lessens child marriage and early birth**

Ethiopia: EFA Global Monitoring Report team calculations, based on the 2011 Demographic and Health Survey.

Angola: ICF International. 2012. MEASURE DHS STATcompiler. Calverton, Md., ICF International.

Pakistan: Aslam, M. 2013. Empowering women: education and the pathways of change. Background paper for *EFA Global Monitoring Report 2013/14*.

Republic of Korea and Singapore: Lutz, W. and KC, S. 2011. Global human capital: integrating education and population. *Science*, Vol. 333, No. 6042, pp. 587–92.

Infographic:

EFA Global Monitoring Report team calculations, based on Demographic and Health Survey data from 2005–2011.

United Nations. 2011. *World Population Prospects: The 2010 Revision*. New York, United Nations, Department of Economic and Social Affairs, Population Division.

### **6 – Love thy neighbour**

18 sub-Saharan African countries: Evans, G. and Rose, P. 2012. Understanding education's influence on support for democracy in sub-Saharan Africa. *Journal of Development Studies*, Vol. 48, No. 4, pp. 498–515.

Tunisia: Prepared for *EFA Global Monitoring Report 2013/14* by the Arab Barometer team.

Central and Eastern Europe and Turkey: Chzhen, Y. 2013. Education and democratisation: tolerance of diversity, political engagement, and understanding of democracy. Background paper for *EFA Global Monitoring Report 2013/14*.

Sub-Saharan Africa: Fjelde, H. and Østby, G. 2012. Economic Inequality and Inter-group Conflicts in Africa. Oslo, Peace Research Institute Oslo. (Unpublished).

Infographic:

Chzhen, Y. 2013. Education and democratisation: tolerance of diversity, political engagement, and understanding of democracy. Background paper for *EFA Global Monitoring Report 2013/14*.

### **7 – Educated growth**

Global, East Asia and the Pacific, sub-Saharan Africa, Latin America and the Caribbean, and Guatemala: Castelló-Climent, A. 2013. Education and economic growth. Background paper for *EFA Global Monitoring Report 2013/14*.

Infographic:

(1) Castelló-Climent, A. 2013. Education and economic growth. Background paper for *EFA Global Monitoring Report 2013/14*.

(2) Barro, R. J. and Lee, J.-W. 2013. Barro-Lee Educational Attainment Dataset. [www.barrolee.com](http://www.barrolee.com). (Accessed 4 April 2013.)

(3) Heston, A., Summers, R. and Aten, B. 2012. Penn World Table Version 7.1. Philadelphia, Pa., Center for International Comparisons of Production, Income and Prices, University of Pennsylvania.

### **8 – Schooling can save the planet**

Germany: National Centre for Social Research. 2013. Education and attitudes towards the environment. Background paper for *EFA Global Monitoring Report 2013/14*.

Global: Blankespoor, B., Dasgupta, S., Laplante, B. and Wheeler, D. 2010. *Adaptation to Climate Extremes in Developing Countries: the Role of Education*. Washington, DC, World Bank. (Policy Research Working Paper 5342.)

Ethiopia: Deressa, T. T., Hassan, R. M., Ringler, C., Alemu, T. and Yesuf, M. 2009. Determinants of farmers' choice of adaptation methods to climate change in the Nile Basin of Ethiopia. *Global Environmental Change*, Vol. 19, No. 2, pp. 248–55.

Infographic:

National Centre for Social Research. 2013. Education and attitudes towards the environment. Background paper for *EFA Global Monitoring Report 2013/14*.





[www.education-transforms.org](http://www.education-transforms.org)

[www.efareport.unesco.org](http://www.efareport.unesco.org)

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