

Easy Digest:

The Links between Climate Change & Education



IMPATIENCE EARTH

Summary

- Education is one of the most powerful instruments for improving health, gender equality, peace, and stability. It is critical for developing the human capital that will end extreme poverty.
- Similarly, education is a powerful driver of climate change mitigation and resilience.
- The relationship between climate and education can be one that reinforces education gains and generates positive climate outcomes or one that threatens education and results in poor outcomes for people and planet.
- Impactful solutions must centre education as not only a mechanism to address poverty but as a critical tool in the fight against climate change.

Climate Change Directly & Indirectly Threatens Education

Direct Impacts on Education

- Climate change directly threatens education simply by extreme weather events (exacerbated by climate change) making it physically impossible or difficult for students to access educational spaces. Events like devastating floods create barriers to education by forcing schools to close or making schooling unstable as school spaces are used for emergency shelter. Resuming education as normal can take untold amounts of time.



- Those who are displaced by climate change impacts face even greater challenges to accessing education again because of barriers, such as a lack of documentation, residency requirements and language differences [1].
- Climate change also has a gendered impact on access to education. Climate impacts exacerbate existing inequalities by, for example, increasing the time girls dedicate to doing household chores or contributing to supporting income generation. This reduces the amount of time girls spend in school [2].

Indirect Impacts on Education

- Climate change can indirectly threaten education through its effect on decisions made around labour and the household. Take for example, prolonged heat stress that materialises because of climate change. Prolonged heat stress affects the productivity of workers and is linked to droughts and lower crop yields or crop failure, each of which has a resulting negative impact on household income [3]. In circumstances such as these, some families are left with no option but to remove their children from school in order for them to contribute to labour and household income.
- Another way that climate change can indirectly threaten education is through the impact that climate-related impacts have on children’s development. Oxford University’s ‘Young Lives’ longitudinal research project is a study that has and continues to follow the lives of 12,000 children in poor communities around the world, since 2001. The study found that poor diets and child malnutrition (both of which have been documented to increase in the aftermath of climate shocks) affect children’s physical growth, cognitive skills, and ultimately, their progress in school. Adverse childhood experiences (of which climate change-related shocks is one) have direct impacts on diet, nutrition, and ultimately, on learning. In this way, climate change can have a more insidious and long-term impact on education.



Equal Access to Quality Education Engenders Positive Climate Outcomes

Education affects climate outcomes in two major ways:

- ‘Education attainment’: the impact that an individual attaining an education has on climate resilience and outcomes.
 - **Higher education levels are associated with greater climate resilience.** The International Institute for Applied Systems Analysis found that populations, in general, are significantly less vulnerable to climate change if efforts are made to improve their level of education. Higher levels of education are associated with the implementation of disaster preparedness measures; evacuation at times of emergency; diversified and better access to useful information (including weather forecasts and warnings); and greater social capital, including support and networks [4]. A study of weather-related disasters in developing countries found that if at least 70% of women between ages 20 and 39 achieve at least a lower-secondary education, disaster-related deaths in 130 countries could be reduced by 60% by 2050.
- ‘Climate education’: the impact that developing skills or educating individuals about climate has on climate outcomes.
 - **Education about climate change and the environment can lead to the attitude & behaviour change necessary for a climate-conscious society.** The latest Pearson Global Learner Survey has found that after being educated about climate change, 84% of respondents reported taking action in their own lives to reduce their personal impact on the environment [5]. In addition, one of the biggest impacts of teaching climate education in school is the influence that children have on their parents – who can make the necessary behavioural changes and vote for the right people.
 - Despite this important link, a study commissioned by the Global Education Monitoring report found that there is a long way to go before climate education is a standard offering in schools. The study found that while nearly three-quarters of national curriculum frameworks mentioned sustainable development, only one-third referenced climate change [6]. The glaring gap has sparked a series of initiatives to tackle inadequate climate education, such as the Teach the Teacher campaign. The campaign provided teachers with student-led lessons on up-to-date climate science in advance of COP26 in Glasgow. The campaign also called on governments to introduce integrated, mandatory and assessed climate education into national curricula.

- **Education generates the workforce needed for a transition to a green economy.** Education has a key role to play in equipping people to take up the ‘green jobs’ required to support the transition to a low-carbon, nature-positive economy. Green jobs are those which focus on reducing carbon emissions, restoring nature or making environmental improvements. They are critical to the collective efforts required to deliver upon globally agreed climate and biodiversity goals. Indeed, the International Labour Organisation (ILO) estimates that 24 million jobs worldwide could be created in the green economy by 2030 - enough to reduce global unemployment by around 10%. However, the role that education can play in supporting the creation of these jobs is not being fully realised. As it stands, 89% of people believe the education system in their country needs to do more to equip students with the skills required to secure green jobs in the future [7]. Indeed, the lack of support in this area has left many young people (15-30 years old) feeling ill-equipped to enter the green workforce [8].
- **Education also has a key role to play in equipping people with the skills required to address climate impacts and reduce carbon emissions.** This is critical in areas that are most affected by climate change – for example where training in climate-smart agriculture can support the production of nutritious, high-quality food even in times of environmental stress.



Low-Income Communities and Girls Are Most Affected

Climate change impacts everyone, but it does not and will not impact everyone the same. Those living at the nexus of poverty, unstable livelihoods and social inequality are especially vulnerable [9].

- Low-income communities are especially vulnerable to education disruption because they have fewer resources (like financial resources, family support, and social safety nets) to prevent, cope and adapt to the impacts of climate change. In practical terms, the lack of resources can materialise in many ways. From families having no recourse to tutoring when public schools close, to parents not having the time or knowledge resources to step in during this time, to a lack of means to pay for transportation to a new school - the list can go on. That low-income communities are often located in areas that are more vulnerable to the impacts of climate change, only works to compound the problem this vulnerable group faces [10].
- Women and girls are also especially vulnerable when climate change-related events occur. But in education, it is girls who are particularly impacted because of responses to weather-related adverse events - including early marriage and withdrawal from school and forcing girls to stay in existing conditions of poverty, vulnerability, and marginalisation [11]. These practices work only to exacerbate pre-existing gender inequalities. The stakes are high because hard-won gains for girls' education could be reversed.



Conclusion

Climate change and education are powerfully linked. A lack of quality education can not only exacerbate existing social inequalities, but also exacerbate the climate crisis. Education must be firmly centred – not just as a mechanism to address poverty but as a key tool in the fight against climate change.

What does this mean for climate philanthropy?

It is clear that education is currently being under-utilised as a solution to both the causes and effects of the climate crisis. Climate philanthropy has the potential to significantly influence the dual crises of climate change and educational inequity. By harnessing its resources and networks, philanthropy can lay the groundwork for a future where education serves as a cornerstone of climate resilience and action.

- **Direct reductions in carbon emissions can be achieved** by funding educational programmes which teach about sustainable livelihoods and lifestyles
- **Philanthropy can support the upskilling of a future-ready green workforce** to take on jobs in sectors such as nature restoration, emissions reduction, regenerative agriculture and renewables.
- **Supporting educational efforts should be seen as a way to improve climate resilience.** Education helps communities to adapt to climate impacts and respond to disasters amongst those communities most affected by climate-related natural disasters.
- **Investments in educational infrastructure alongside capacity-building for educators in climate literacy are crucial** – such an approach can tackle educational inequality and climate action together
- **Grassroots projects that address local, context-specific educational and climate related challenges** should be supported, learning from the needs of those on the ground
- **The inextricable crossover between gender and climate** must not be ignored, with young girls and particularly those in low-income communities most vulnerable to both climate change and education disruption.

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References

- [1] UNESCO (2023) *Asia-Pacific regional synthesis - Climate change, displacement and the right to education*. Available [here](#)
- [2] OECD (2023), SIGI 2023 Global Report: *Gender Equality in Times of Crisis*. Available [here](#)
- International Labour Organisation (2019) *Working on a warmer planet*. Available [here](#)
- [3] International Labour Organisation (2019) *Working on a warmer planet*. Available [here](#).
- [4] K4D (2021) *Education, Girls' Education and Climate Change*. Available [here](#)
- [5] Pearson (2021) *Global Learner Survey*. Available [here](#)
- [6] UNESCO (2020) *Inclusion and Education*, pg. 33. Available [here](#)
- [7] Pearson (2021) *Global Learner Survey*. Available [here](#)
- [8] Plan International (2022): *Young People and Green Skills*. P= 2,229 across 53 countries. Available [here](#)
- [9] IPCC (2022) *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Pg 1177. Available [here](#)
- [10] World Bank Group (2016) *Shock Waves: Managing the Impacts of Climate Change on Poverty*. Pg 16. Available [here](#)
- [11] K4D (2021) *Education, Girls' Education and Climate Change*. Available [here](#)

