

Technology and Climate Justice

Getting the information right on Losses and Damages to guide the Warsaw International Mechanism

Although anthropogenic climate change is a global phenomenon, the impacts are not equally distributed over developing and developed countries, nor over the poor and rich in each country. Inequality places the impacts of climate change and the burden disproportionately on the most vulnerable and/or transfers them to future generations (AR5, synthesis, pg. 95). Similarly to technology justice, climate justice is an important way of addressing these inequalities as it can identify harm-doing and lead to burden-sharing of costs and benefits (Mechler, Science, 2016).

Technology justice for L&D

Technology can minimise current and future loss and damage by protecting people, properties and ecosystems against climate-related stressors. Inadequate technology and lack of investment in appropriate technology innovation reduces the range of available adaptation options as well as their effectiveness in reducing or avoiding risk from increasing rates or magnitudes of climate change (Synthesis report AR5, table 4.1). Technology can consist of engineering solutions, such as constructing more resistant buildings, flood embankments and related infrastructure, but technical perspectives can also involve 'softer' approaches, such as early warning systems against extreme weather, enhancing communities' preparedness against disasters or the development of drought resistant cultivars (van der Geest, 2015 editorial).

But is technology responding to the challenge of climate change fairly?

- **Access to technology and knowledge** is not equal.
- **Use of technology** is unjust. Technologies are used in unsustainable ways, depleting resources and stacking up problems for future generations (Technology justice, a call to action).
- **Technological innovation and implementation** is not driven by a focus on the most pressing social and environmental challenges (Technology Justice, a call to action).

What needs to change?

To respond to existing technology injustices the following all need to be considered. (1) **Technological innovation and implementation** must respond to the needs and contexts of the poorest and most marginalised. (2) **Governance mechanisms** must curb the use of technologies that adversely affect the environment (Technology justice, a call to action) and/or the poor, and facilitate access for the poorest and most vulnerable to the technology and knowledge that is required. (3) **Funding** is limited and not reaching the critical problems.

These barriers to leverage the power of technology for reducing losses and damages due to climate change for the poorest have to be overcome holistically at the global, regional, national and local level. This proposition will discuss these using examples of flood Early Warning Systems in South Asia.