

# Backgrounder

## Climate change

### Keywords:

Least Developed Countries, UNFCCC, climate change adaptation, technology transfer, finance



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## Technology transfer for Least Developed Countries

*The UNFCCC's technology transfer activities must meet the Least Developed Countries' needs*

To the farmers, villagers, islanders and city dwellers of the 48 Least Developed Countries (LDCs), climate change is not a distant problem. It is a daily reality and brings problems including drought, increasingly saline drinking water and rising seas. In the first ten years of the 21st century, droughts in the LDCs increased by 44 per cent compared with the previous decade, and the frequency of severe storms increased by 40 per cent.

The world desperately needs an effective international climate agreement that can offer everyone a sustainable future. Under the UNFCCC, nations are negotiating the next international climate agreement which is to be signed in December 2015 and come into effect in 2020. Technology transfer will be a fundamentally important piece of the 2015 agreement, especially for the LDCs who will struggle to adapt without it.

### Technology transfer and the UNFCCC

On paper at least, technology transfer already has a prominent place in the UNFCCC. It is essential if the LDCs and other developing countries are to quickly adapt to climate change and shift to cleaner development pathways. Technology transfer involves governments, private sector enterprises, financial institutions, non-governmental organisations and research and education institutions.

The UNFCCC makes special provisions for the most vulnerable countries' technology transfers. The convention's statutes stress that developed countries are to take all practicable steps to promote, facilitate and finance the transfer of environmentally sound technologies to developing countries. UNFCCC Article 4.9 specifically states that parties shall take full account of the specific needs and special situations of the LDCs in

### KEY TERMS

**The Least Developed Countries (LDC) Group:** a group of 48 of the world's poorest nations acting as a bloc within the UN climate change negotiations. Especially vulnerable to climate change, the LDCs have done the least to cause it.

**Technology transfer:** integrating technologies into nations that do not yet have them. Technology transfer is viewed broadly as the flow of know-how, experience and equipment.

**Climate adaptation:** the process by which countries, communities and individuals adjust to the challenges of climate change.

**Climate mitigation:** actions to limit the scale of climate change, generally by reducing emissions of greenhouse gases.

**Capacity building:** building capability and competence among individuals, organisations and institutions.

### VITAL STATISTICS

**211:** number of technology transfer projects in the LDCs reported to the UNFCCC from 1992–2012

**US\$20 billion:** estimated cost of adequately funding technology transfer to the LDCs from 1992–2012

**US\$1.43–3.35 billion:** reported funding allocated to LDC technology transfer projects from 1992–2012

**More than double:** developed nations spent approximately US\$940 million on technology to mitigate greenhouse gas emissions in the LDCs. That's more than double the US\$460 million devoted to adaptation in these vulnerable countries.

their actions regarding funding and transfer of technology. All parties to the UNFCCC agreed to these tenets over 20 years ago in 1992.

In 2010, the UNFCCC established its Technology Mechanism composed of a Technology Executive Committee (TEC) and a Climate Technology Centre and Network (CTCN). Fully operational as of 2014, the Technology Mechanism is meant to help developing countries address their nationally determined mitigation and adaptation technology needs. The Technology Mechanism, its TEC and the CTCN present an enormous opportunity to create tools that truly help develop and transfer technology. Their connection to the 2015 agreement, which nations are currently negotiating, will guide the UNFCCC's technology activities for the foreseeable future.

### The LDC's technology transfer needs

The LDC Group has identified three primary needs for technology transfer through the UNFCCC: adaptation technologies, capacity-building activities and adequate funding. Comparing these stated needs with investments in technology transfer projects (investments before the Technology Mechanism became fully operational) shows clearly that the UNFCCC's technology activities have not met the LDCs' needs over the past two decades.

The LDCs identify adaptation technologies as their top priority for the technology transfer process. Most of the convention's technology transfer projects in LDCs do address adaptation, but they are not nearly enough. More than double the money spent on adaptation has been spent on mitigation in the LDCs. Between 1992 and 2012, 107 adaptation technology transfer projects received US\$464 million, whereas US\$938 million went to fund 93 mitigation projects. This mismatch reflects a history of preference for mitigation rather than adaptation activities under the UNFCCC.

The LDCs' second most desired technology transfer has been for projects that include capacity building. Yet only one third of the 211 technology transfer projects conducted in the LDCs have had a specific capacity-building component. Effective capacity building is complex and requires two paradigm shifts. The first is recognition that both developed and developing countries need capacity building to address climate change. The second is a move away from trying to replicate

developed country models in developing countries and instead using technology transfers to address specific local needs.

The LDCs have also asked for adequate funding for technology transfer. The total funding that developed countries reported spending on LDC technology transfer projects from 1992 to 2012 ranges from US\$1.43 billion to US\$3.35 billion. The low estimate excludes co-financing measures such as loans, and even the higher estimate is inadequate for truly addressing the LDCs' technology transfer needs. These amounts are estimated because some developed countries omitted financial data in their reporting to the UNFCCC.

An analysis of estimates from the Expert Group on Technology Transfer and other levies proposed by the LDC group indicates that US\$20 billion would have been needed to adequately fund the projects conducted from 1992 to 2012. The lack of funds for LDC technology transfer projects undoubtedly reflects developed countries' continuing underfunding of their commitments to the LDCs.

### Technology transfer and the 2015 agreement

Nations must establish a working framework within the 2015 agreement that addresses the LDCs' technology transfer needs and those of other developing nations. In light of the past preference for mitigation, LDC negotiators could call for a mandated balance between adaptation and mitigation technology support. Establishing a special technology programme dedicated to LDCs might also ensure that future work meets the needs of the most vulnerable. Over the next few months, the LDCs must carefully consider what changes the Technology Mechanism should implement under the 2015 agreement and bring these proposals to the negotiating table.



#### Knowledge Products

The International Institute for Environment and Development (IIED) promotes sustainable development, linking local priorities to global challenges. We support some of the world's most vulnerable people to strengthen their voice in decision making.

**One third:** the proportion of technology transfer projects in LDCs with a specific capacity building component

### KEY SPACES

**UNFCCC:** adopted in 1992, the United Nations Framework Convention on Climate Change (UNFCCC) is the international body charged with addressing climate change, particularly in stabilising greenhouse gas concentrations at a level that would prevent dangerous human interference with the climate system.

**The 2015 agreement:** a new treaty is being negotiated under the UNFCCC. It will apply to all nations and govern the future international climate regime. Countries have agreed to finalise the treaty by the end of 2015. It comes into force in 2020.

**Technology Executive Committee (TEC):** the UNFCCC's Technology Mechanism has a Technology Executive Committee that sets the overall policy direction at the international level for accelerating technology development and transfer.

**Climate Technology Centre and Network (CTCN):** the CTCN is a branch of the UNFCCC's Technology Mechanism that provides practical assistance to help governments prepare and implement the technological transitions that are required to address climate change.

### SOURCES

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UNFCCC Technology Work: <http://unfccc.int/focus/technology/items/7000.php>

### FIND OUT MORE

Our work on global climate negotiations is part of the support programme for the LDCs run by IIED's Climate Change Group and partners. This group drives our efforts to strengthen the voices of the world's most vulnerable countries and communities to ensure fair and equitable solutions to climate change. Find out more at [www.iied.org/helping-vulnerable-countries-achieve-equitable-solutions-climate-law-policy-making-processes](http://www.iied.org/helping-vulnerable-countries-achieve-equitable-solutions-climate-law-policy-making-processes).