

## Technology Action Programs as a way forward

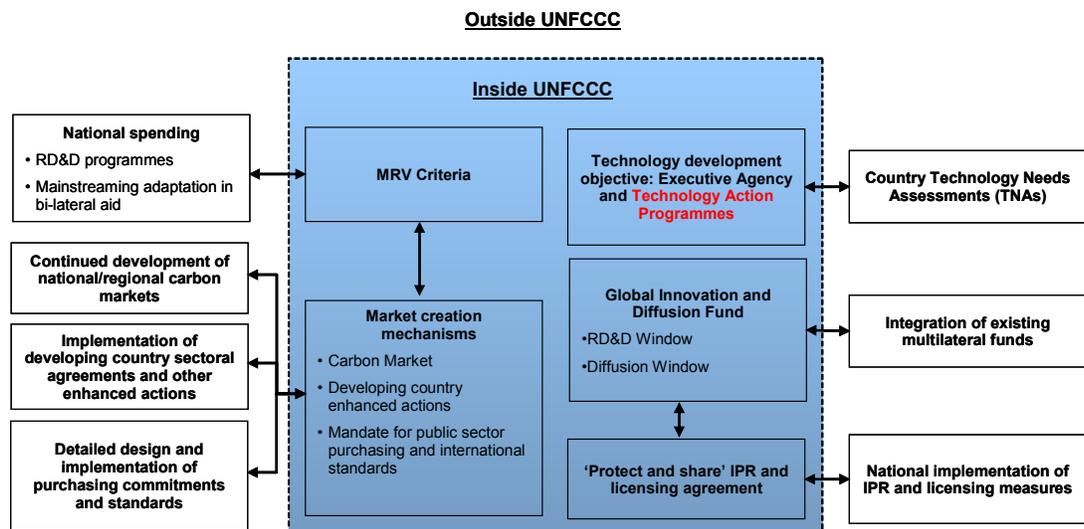
We propose to organize the future technology efforts under the UNFCCC in a set of Technology Action Programs. These programs would run for periods of 5 years, and have clear targets and an adequate working budget.

By creating Action Programs for a set of adaptation and mitigation technologies, the UNFCCC would send clear signals to the private and finance sector, governments, research institutions as well as citizens of the world looking for solutions to the climate problem.

### *Technology Action Programs as part of the solution to the technology challenge*

Solving the technology challenge will require action both inside and outside the UNFCCC. Within the Copenhagen Agreement it is essential that five key areas are addressed:

- Setting overall objectives for technology development and diffusion
- A new multilateral funding mechanism for technology development and diffusion, including existing and near market solutions and to provide capacity building support
- A clear framework for addressing intellectual property barriers when they arise, that protects incentives and ensures sharing.
- Measurable Reportable and Verifiable (MRV) criteria for assessing developed country technology, financing and capacity building support
- Market creation mechanisms to pull technologies down the innovation



## chain

Within this framework the use of Technology Action Programs can guide overall objectives for funding and action on technology cooperation and innovation.

### *The basic idea*

Using Action Programs as a way to scale-up and structure global technology co-operation, makes it possible to divide the technology challenge into manageable pieces, and hence to select tools that are appropriate for the various technologies. The tools needed to enhance the use of a certain technology depends on where in the technology cycle, it is.

Potential examples of focus of Action Programs (this list is illustrative and does not attempt to provide an exhaustive list of Action Programs):

- early warning systems
- pro-poor technologies to avoid salinity intrusion and expansion of salinity-tolerant crops
- wind energy
- solar energy
- renewable energy grid systems and grid loss reduction
- sustainable energy production from biomass, including combination with carbon, capture and storage for *negative* emission technologies
- electric vehicles
- energy efficient appliances and lighting
- energy savings in buildings and passive-energy houses
- phase-out of HFC's and other industrial GHGs
- carbon savings in industrial sectors like cement, steel, and chemicals, including through material substitution

This list is not exhaustive, and considering the size of the technology challenge, at least 20 Action Programs should be established. There should be a balance between the different Action Programs to ensure technologies are developed both to deliver rapid mitigation and to enable the poorest and most vulnerable countries to adapt and increase their resilience to climate change.

A main feature of the Technology Action Programs should be that the inputs / resources available should be predictable. The conditions for participating in the programs would also need to be precisely defined. Clarity on these features as well as information on how developed the technology is and barriers to the transfer and use of the technology, would make it possible to set clear targets for each action program.

Technology Action Programs would create a completely new kind of global technology cooperation for climate friendly technologies. It is, however, worth remembering that a similar global cooperative effort was established under the Montreal Protocol some 20 years ago, and that this effort was highly successful in phasing-out ozone depleting substances. The technology challenge in the climate field is much larger, and therefore a whole set of Action Programs is urgently needed.

### *Participation and finance*

The Technology Action Programs should be developed in relation to developing countries National Adaptation Plans of Action (NAPAs) and Technology Needs Assessments. This should include:

- Capacity building in developing countries for research, development, demonstration and diffusion, in order to ensure access and enhance and increase developing countries own innovative and absorptive capacity; and
- Transfer of skills and know-how; technology information, technological goods and equipment.

However, it would probably not be relevant for all developing countries to participate in all Action Programs, and would in part depend on the individual enhanced actions which they commit to. Developed countries should ensure that all Action Programs are adequately financed. A Global Climate Innovation and Diffusion Fund should be established under the UNFCCC, and the majority of finance for the Action Programs should come from this fund. In addition, providing that the activities meet certain Measurable, Reportable and Verifiable criteria, developed countries could meet a part of their commitments through bilateral or regional activities.

To succeed the Action Programs will need to deliver wider capacity building, networks and infrastructure support rather than relying solely on the narrow project-based transfer of specific technologies. To achieve this Action Programs must include a clear strategy to deliver wide scale diffusion, preferably based on sector-wide or economy-wide initiatives.

Least developed and developing countries require support, both financial and technical, to build their own capacity to absorb technologies and to acquire the necessary skills, know-how, and data to adapt, use, and reproduce technologies, so as to ensure both

innovation and access. National frameworks should be used to achieve a multiplier effect for innovation and capacity building support.

The Action Programs should also serve as a coordination mechanism for activities related to the various technologies in the developed countries, including cooperation on R&D, standards, and government regulations, but they should only finance activities in developing countries.

### *The process*

Development of the Action Programs will take time. We suggest that the idea is taken forward in negotiations between now and COP-15.

At COP-15 in Copenhagen, decisions on what Action Programs to develop should be taken, and agreement on the rules should be reached.

The most mature technology Action Programs should be developed through the next year, and approved at COP-16, whereas most programs should be approved at COP-17 in 2011.

Implementation of the Action Programs should begin as soon as the financial mechanism is established, but developed countries should already at COP-15 commit to financing of pilot activities.

### *Institutional arrangements*

Technology Action Programs for the first 5-year period could be developed by provisional technical expert panels created at COP-15.

The Action Programs should be approved at the COP level.

An Executive Board of Technology with balanced representation of developing and developed countries should be in charge of the funding decisions and responsible for the coordination of the effort through the Action Programs.

For each Action Program one or more existing institutions should be appointed as implementing agency.

The executive board and the implementing agencies should receive advice from one or more Technical Expert Panels, consisting of experts from governmental as well as non-governmental institutions, the research community, and the private sector.

An independent assessment body should evaluate the efficiency of implementation of the Action Programs.

*Your feed-back and co-operation is appreciated*

In the coming months, we will continue our work to make the Technology Action Program idea more concrete, including descriptions of how specific Action Programs can look like, what level of funding is needed etc. We invite governments, NGO's and business groups to work with us on this, and in general we will be happy to receive any comments to our proposal.

**Contacts**

WWF: John Nordbo, [j.nordbo@wwf.dk](mailto:j.nordbo@wwf.dk), Mobile: +4521342292

E3G: Shane Tomlinson, [shane.tomlinson@e3g.org](mailto:shane.tomlinson@e3g.org), Mobile: +447908664334

Environmental Investigation Agency (EIA): Fionnuala Walravens, [Fionnualawalravens@eia-international.org](mailto:Fionnualawalravens@eia-international.org), Mobile: +447939035481

Endorsed by:

Tearfund: Sara Shaw, [sara.shaw@tearfund.org](mailto:sara.shaw@tearfund.org), +44 (0)208 977 9144

Background material: Report "Innovation and Technology Transfer: Framework for a Global Climate Deal", see <http://www.e3g.org>