

Technology Executive Committee

Synthesis of transport-related information from technology needs assessments of developing countries

Work of the TEC on technology road maps

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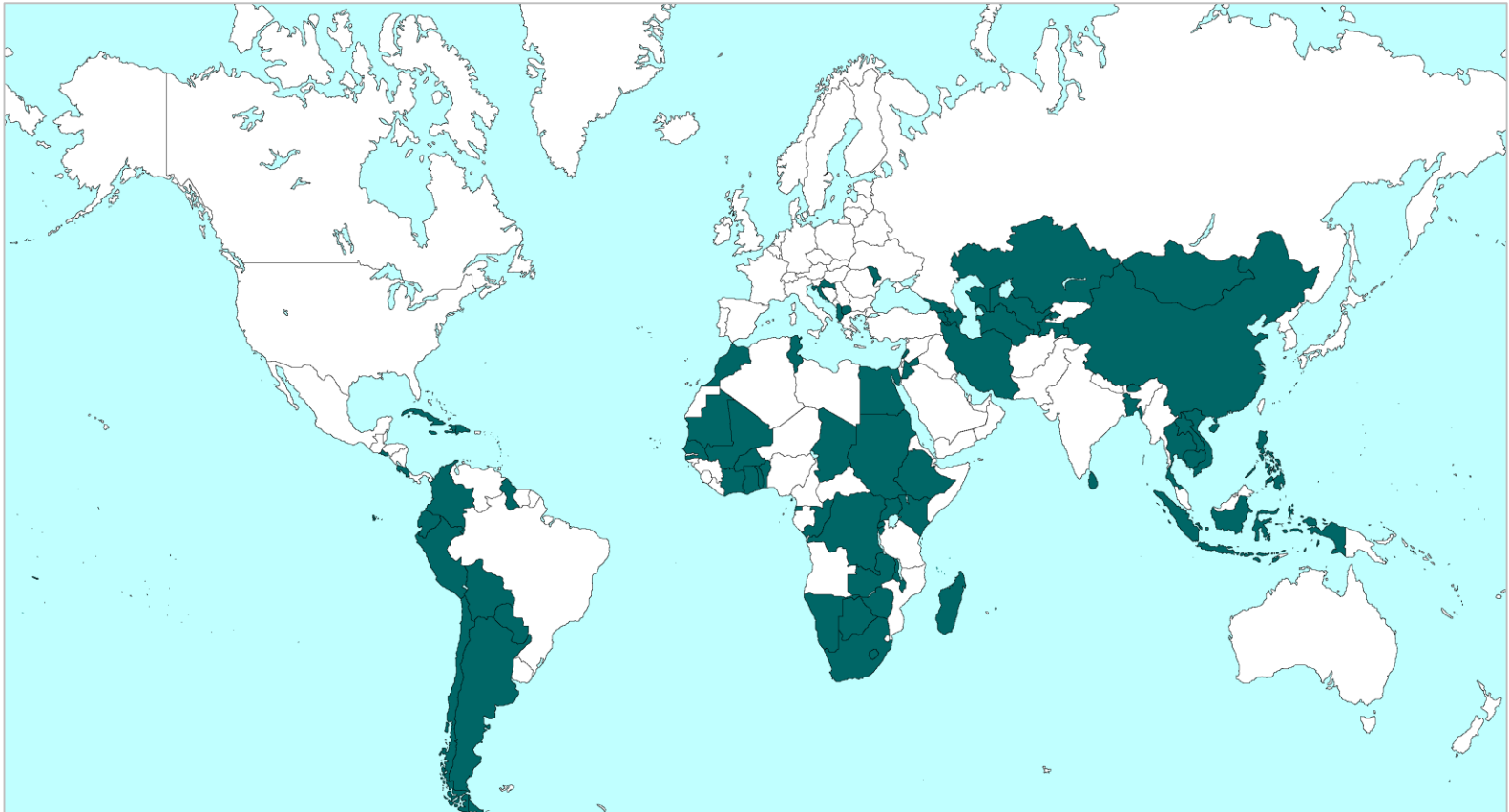


What are technology needs assessments?

- Developing countries conduct TNAs to identify country-driven priorities for mitigation and adaptation technologies
- TNAs identify needs for new equipment, techniques, and practical knowledge and skills, to mitigate greenhouse gases and adapt to adverse impacts of climate change
- TNAs encourage developing countries to prioritize technology needs that can form the basis of environmentally sound technology projects and programmes.
- Following the TNA, Technology Action Plans (TAPS) are developed to begin implementing priorities.

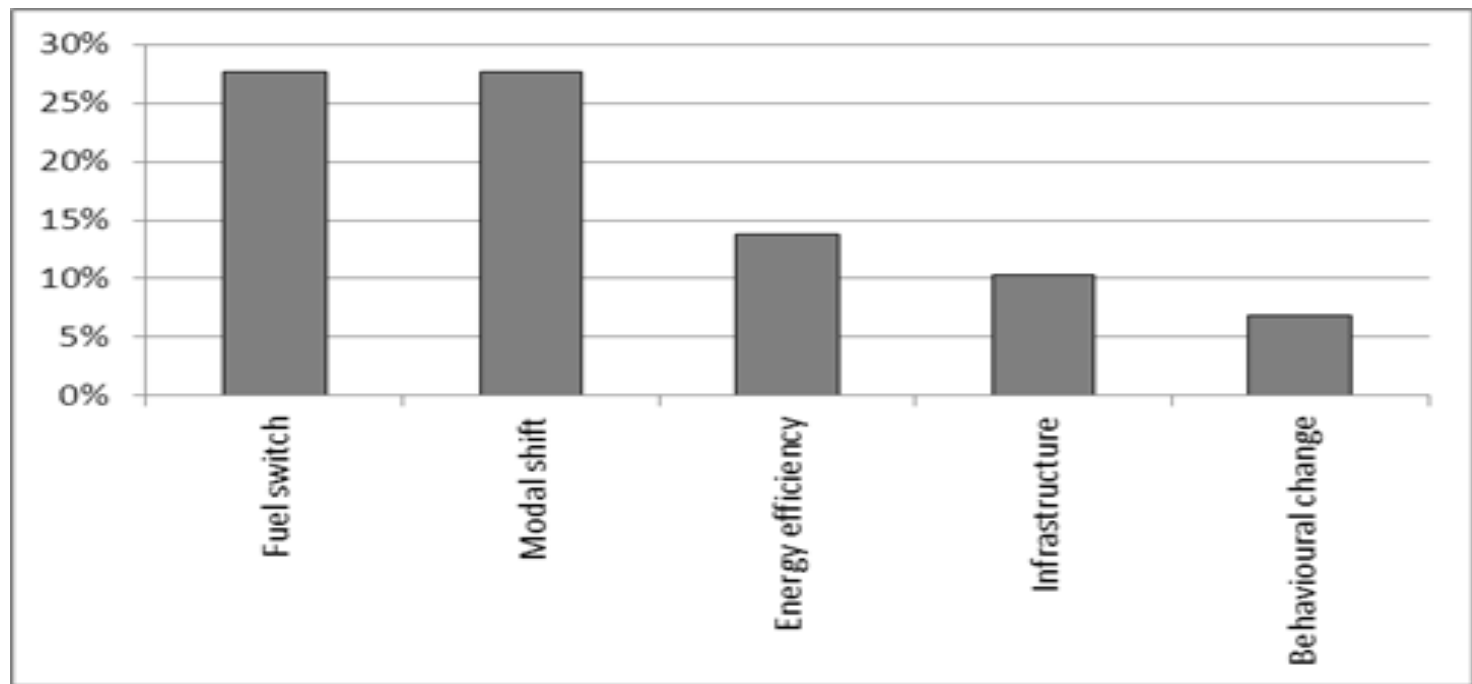
More than 90 countries have submitted TNAs since 2001

- Applying rich methodologies
- Identifying technology priorities



41% of mitigation energy sector TNAs included transport

- Out of that more than 25 % of Parties prioritized:
 - technologies relating to fuel switching**, such as electric or liquefied natural gas vehicles, and
 - modal shifts**, such as mass rapid transit road or rail systems.



Transport actions identified by countries in their TAPs

Transport related technology inclusive needs in developing countries in the TAPs of the Phase I of Global TNA project						
Policy, law and regulatory	Infrastructure	Fuel switch from fossil to innovative modes		Technical and emission efficiency	Information and awareness	Other
		Public transport	Individual transport			
Revise transport policy, laws, regulations	Upgrading physical infrastructure	Diffusion of urban mass transport	Introduction of "green" vehicles	Set up vehicle technical and emission control centers	Increasing awareness on clean air benefits	Intelligent transport systems
Refinement of policies to promote public transport	Accommodate pedestrian facilities	Electrification of railway system	Development of smart car facilities	Implementation of emission control standards	Creation of awareness on low emissions transport modes	Car pooling & park and ride systems
Review policy and legal framework	Creation of infrastructure including walkways and sidewalks	"Innovative fuel" buses for public transport		Enhance vehicle inspection and maintenance	Enhancing access to information traffic related information	Introduction of automated fine systems for violation of road rules
Establishment of a tax system for low occupancy vehicles	Sign boards and info displays by main roads	Establish a multi-modal transport system		Promotion of emission control equipment facility	Sharing awareness on efficient driving modes	Establishment a registration system for driver/rider traffic information
Regulations for car pooling and transit	Increasing security of parking lots, improving existing infrastructure					Explore PPP opportunities and options
	Creation of a back up systems in case of interrupted power supply					Financing arrangements through PPP for land purchase

Co-benefits of the TNA process

- Countries benefit from technology needs identified under the TNA and TAP processes, including transport related needs and actions, which can:
 - i. Provide support for preparation of nationally determined contributions (NDCs) and adaptation plans,
 - ii. Show how mitigation transport technologies can support national economic, social and environmental goals.



What is a technology road map (TRM)?

- Strategic planning tool serving as a coherent basis for increasing technology development and transfer activities, providing a common (preferably quantifiable) objective, time-specific milestones and a consistent set of concrete actions; developed jointly with relevant stakeholders, who commit to their roles in the TRM implementation
 - **In some cases, a TRM can be similar to a TAP, as both are planning tools for implementation of action**

Some TRMs on transportation reviewed

- Technology roadmap electric and plug-in hybrid electric vehicles, IEA, 2009
- Roadmap for electric vehicles technology in Ireland – Sustainable Energy Authority of Ireland, 2011
- Roadmap for rechargeable energy storage system onboard electric drive buses, USA, 2010

TEC Brief: *Using roadmapping to facilitate the planning and implementation of technologies for mitigation and adaptation* (October 2013)





Thank you!

***More information about the TEC at:
www.unfccc.int/ttclear/tec***

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