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RISØ
CENTRE

*ENERGY, CLIMATE
AND SUSTAINABLE
DEVELOPMENT*

Technology Needs Assessment (TNA) project

Workshop on
Technology needs of developing countries and
options to address them:
Focus on science and R&D capabilities
UN HQ, New York City
30 April 2013

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UNEP Risoe Centre (URC)



What is the TNA?

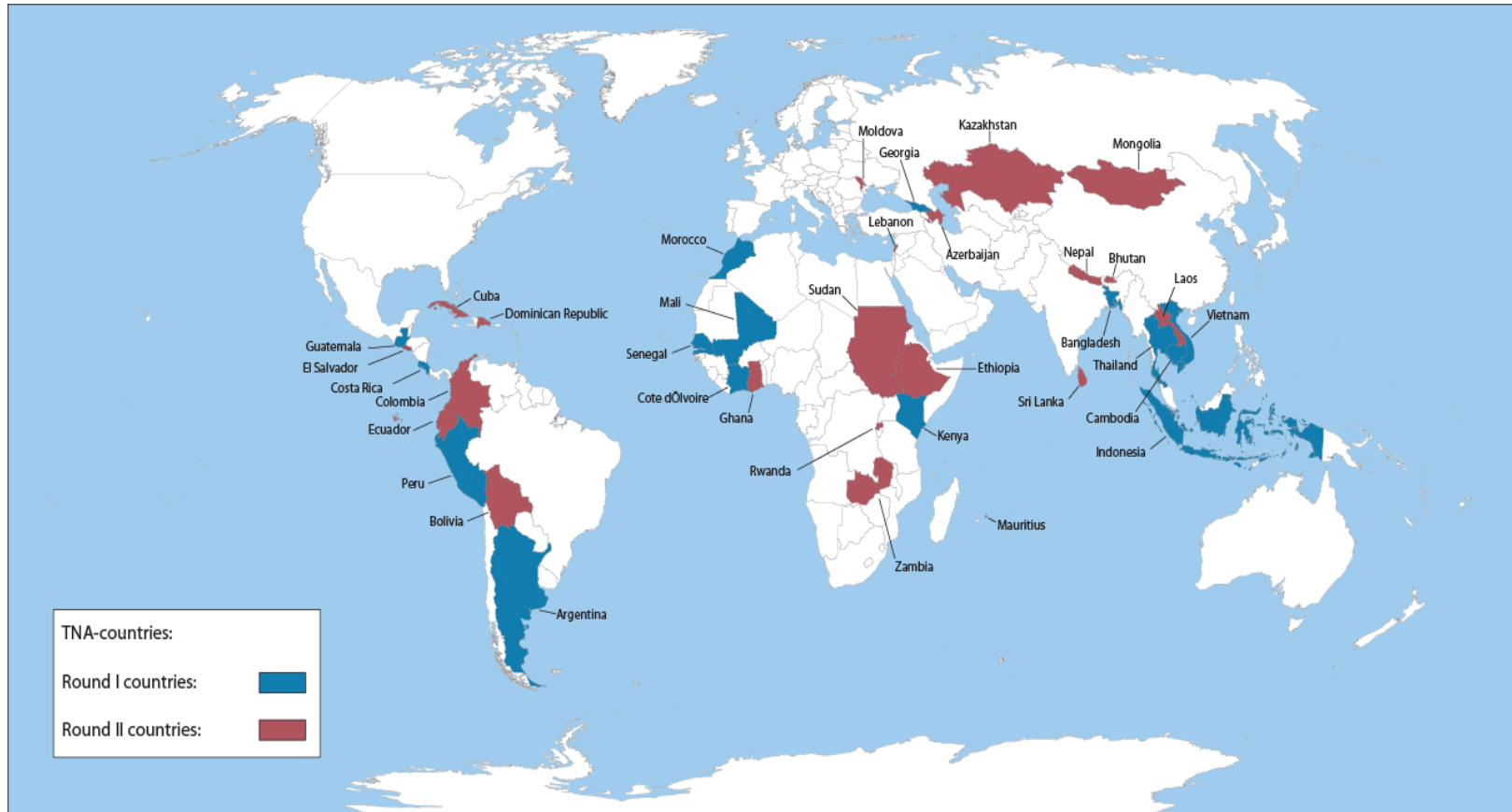
□ A set of country-driven activities leading to the identification, selection and implementation of environmentally sound technologies to decrease CO₂ emissions (mitigation) and to decrease vulnerability to climate change (adaptation).

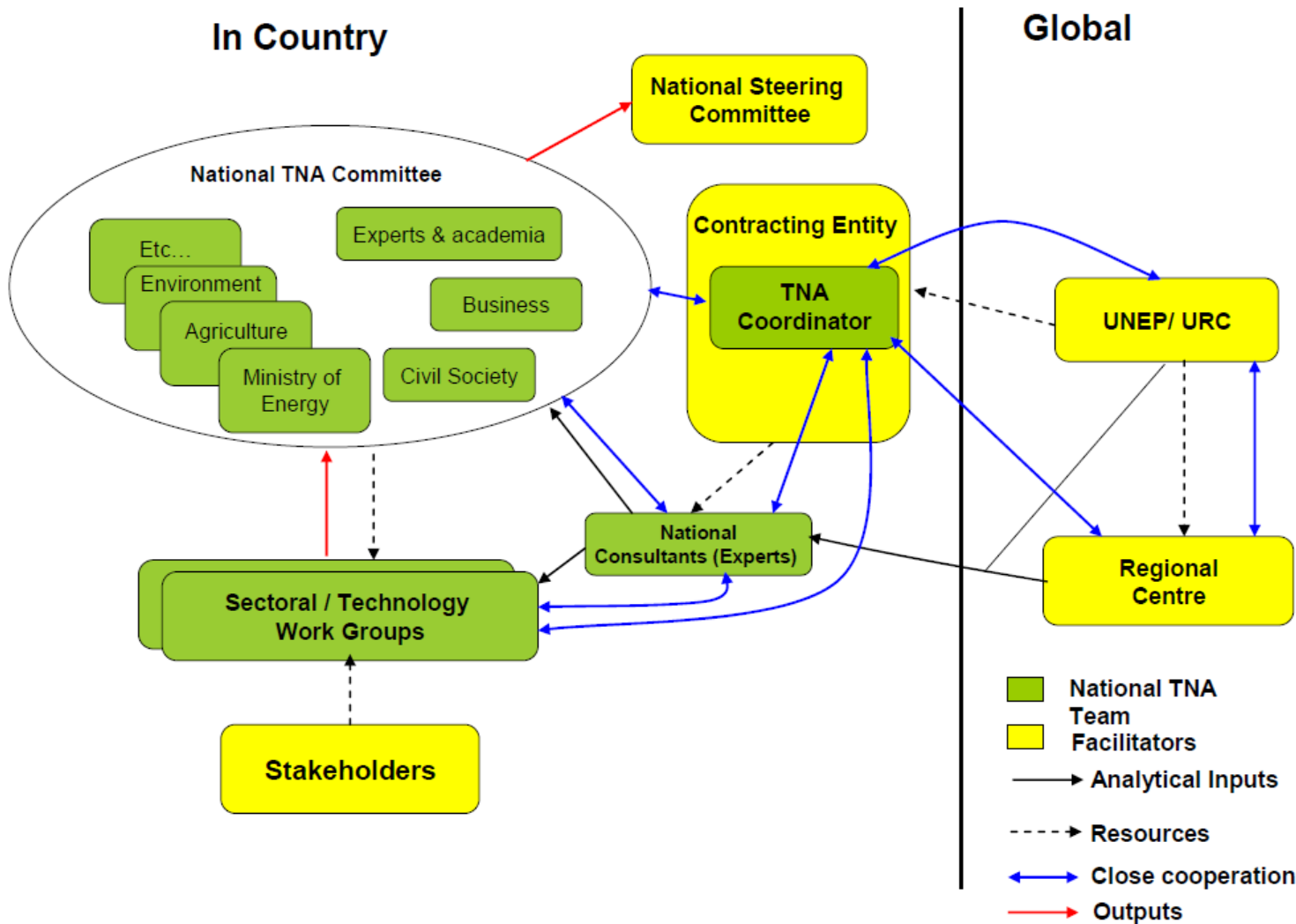
Origin

□ Emanates from the Poznan Strategic Programme on Technology Transfer (14th UN Climate Change Conference, Poland 2008) leading to a new round of TNAs.

- ❑ It is implemented by UNEP/UNEP Risoe Centre and it is funded by the GEF.
- ❑ The project provides funding (USD120 thousand to each country) and targeted technical and methodological support to 36 countries to conduct Technology Needs Assessments (TNAs).
- ❑ Two rounds of countries (15 + 21) from Africa & Mediterranean, Asia & CIS and Latin America & the Caribbean started activities in early 2010
- ❑ Project ends in April 2013
- ❑ Countries will, in a participatory process involving local stakeholders, identify sectors, prioritise technologies, recommend an enabling framework for the diffusion of the technologies, and develop project ideas.
- Four reports: TNAs, BA&EF, TAPs and Pls

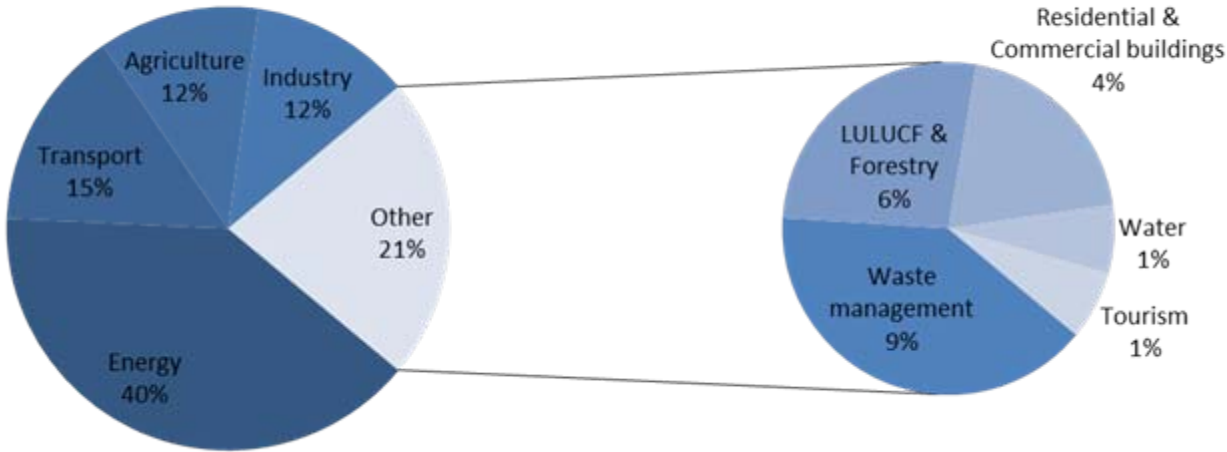
Participating countries



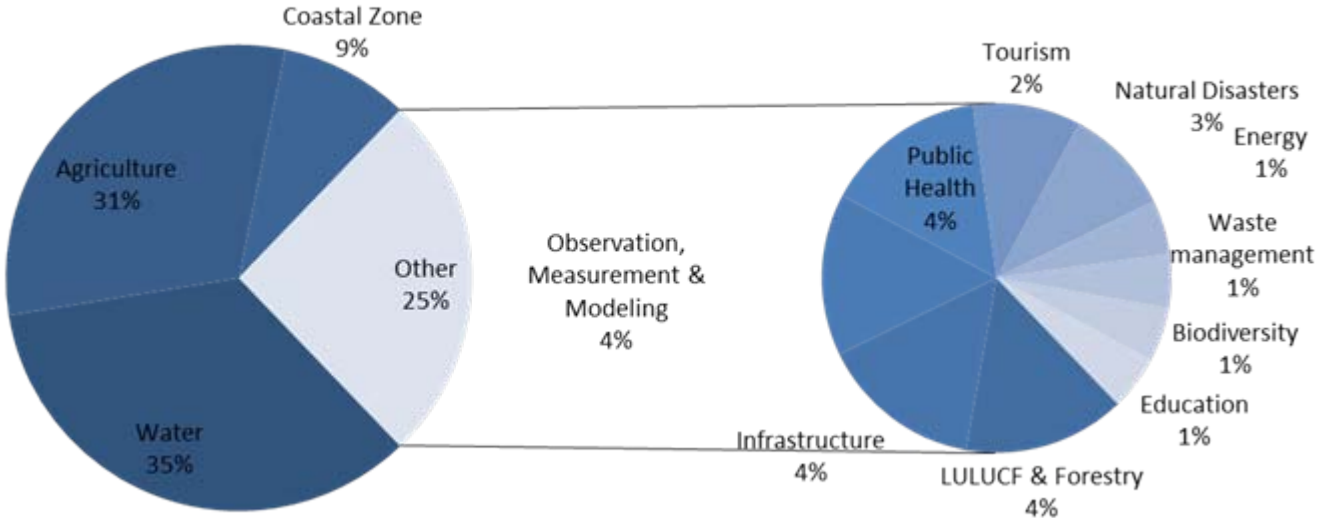


Sectors prioritized by countries

Mitigation Sectors



Adaptation Sectors



Most prevalent technologies for mitigation

- *Solar PV*
- *Hydro power*
- *Wind energy*
- *Combined heat and power*
- *EE lighting*
- *EE buildings*
- *Mode shifts (transport)*
- *Urban Mass Transit*
- *Biogas*
- *Tillage practices*

Most prevalent technologies for adaptation

- *Sprinkler and drip irrigation*
- *Rainwater harvesting*
- *Rainwater collection from ground Surfaces - small reservoirs and micro-catchments*
- *Wetland restoration*
- *Increased reservoir technology*
- *Sustainable livestock management*
- *Agro-forestry*
- *Biotechnology for climate change Adaptation of crops*
- *Crop diversification and new varieties*
- *Seasonal to inter-annual prediction*

Asia and CIS

- ✓ 12 TNA reports completed (except Kazakhstan and Nepal)
- ✓ 11 TAP reports completed (except Kazakhstan, Laos and Nepal)

Africa and Mediterranean

- ✓ 11 TNA reports completed (except Ethiopia)
- ✓ 11 TAP reports completed (except Ethiopia)

Latin America and the Caribbean

- ✓ 8 TNA reports completed (except Bolivia and Guatemala)
- ✓ 8 TAP reports completed (except Bolivia and Guatemala)

In total: 31 TNA reports completed + 30 TAP reports completed + 30 BA&EF reports + 30 PI reports

Other project outputs

September 2012 Launching of 4 additional Guidebooks on:
 Financing Adaptation, Financing Mitigation,
 Mitigation Building Sector and Mitigation Agriculture Sector

TNA Guidebook Series

Accessing International Funding for Climate Change Adaptation
 – A Guidebook for Developing Countries –

TNA Guidebook Series

Accessing International Financing for Climate Change Mitigation
 – A Guidebook for Developing Countries –

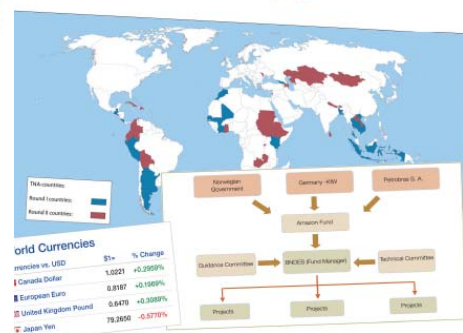
TNA Guidebook Series

Technologies for Climate Change Mitigation
 – Building Sector –

TNA Guidebook Series

Technologies for Climate Change Mitigation
 – Agriculture Sector –

Fund Name	Minimum project value	Type	Total fund size (including previous use of funds)	Amount currently available (as of date)	Eligible sectors and activities	Geographical focus	Website
UNFCCC funds							
Adaptation Fund (AF)	\$500 million	Grant	\$500 million (Jan 2012)	\$500 million (Jan 2012)	All vulnerable developing countries when "adequate resources" is available to meet adaptation activities	Developing countries that are eligible for AF	http://www.adaptation-fund.org
Least Developed Countries Fund (LDCF)	\$500 million	Grant	\$500 million (Jan 2012)	\$500 million (Jan 2012)	All vulnerable developing countries identified in the UNFCCC Adaptation Fund for Least Developed Countries (AF-LEDC) must be in the eligible "developing countries" identified in the AF-LEDC	Least Developed Countries who have completed a National Adaptation Plan (ANAP)	http://www.lDCF.org/af/af.html
Special Climate Change Fund (SCCF)	\$1 billion	Grant	\$1 billion (Jan 2012)	\$1 billion (Jan 2012)	Special funding mechanism established by the UNFCCC to assist developing countries in all vulnerable sectors. It provides information available to all eligible countries. It covers technology transfer, including, as a primary objective, the implementation of the technology needs assessment.	All Least Developed Countries, African, Asian, and Latin American developing countries (AF-LEDC)	http://www.scf-fund.org/af/af.html



Ecuador

The results of the TNA project will be used in the preparation of the National Climate Change Strategy.

Indonesia

Emissions reduction measures and technologies identified in the TAP will help define an enabling policy/regulatory framework for growth of a domestic solar PV panels manufacturing industry.

Mauritius

The prioritised mitigation technologies in the TAP, namely utility-scale wind, PV and waste heat recovery from boilers are closely linked with the Long-Term Energy Strategy 2009 – 2025 - the blueprint for the development of the energy sector in Mauritius.

Thailand

Assessment results will be used to establish a baseline for specifying mitigation and adaptation targets for the country.

Argentina

- the Secretary of Industry will develop a Nationally Appropriate Mitigation Action (NAMA) on co-generation for heat and power in industrial plants based on the TNA report;
- the Ministry of Science, Technology and Innovation will call for proposals to further analyse the development and/or implementation of innovative fertilizers to optimize the use of nitrogen in crop lands;
- the Secretary of Energy is developing a NAMA on the use of agricultural waste for power generation

Costa Rica

TAP will be used as a platform to design and structure sectoral NAMAs in Transport and Energy.

Vietnam

Using results from the technology prioritization, Viet Nam is promoting preparation and implementation of activities to mitigate GHG emissions in line with NAMAs.

Lessons learned

- *TNA process very useful to most of the participating countries*
 - *Link the TNA process to national sustainable development plans*

- *Level of commitment varies tremendously among participating countries*
 - *Identify key local partners and stakeholders*

- *Capacity level very poor in some of the countries*
 - *Devote enough time, and if necessary, be intrusive in the identification and selection of local consultants*

- *Type of requested assistance to implement TNAs also varies*
 - *Be flexible and adapt to the needs*

New TNA phase

PIF including 24 countries submitted by end of November – cleared by the GEF in April 2013.

Three main components:

- Facilitate the preparation of TNAs/TAPs
- Improvement of existing methodologies/guidebooks and development of new ones.
- Identifying/strengthening networking activities towards development and better use of TNAs and TAPs.

Beneficiary countries:

Armenia, Bolivia, Burkina Faso, Burundi, Egypt, Gambia, Grenada, Guyana, Honduras, Jordan, Madagascar, Malaysia, Mauritania, Mozambique, Panama, Philippines, Seychelles, Swaziland, Tanzania, Togo, Tunisia, Turkmenistan, Uruguay, Uzbekistan



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Thank you!

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