The CTCN Incubator Programme for LDCs – Technology for NDC implementation

Rationale
- The CTCN Incubator Programme will support Least Developed Countries to achieve specific mitigation and adaptation targets included in the Nationally Determined Contributions (NDCs) through technology interventions.
- The CTCN is mandated by the COP to provide technical support and advice for development of technology needs assessments (TNAs), national technology road maps and actions plans and to support countries in developing draft proposals into fully articulated proposals, building on their TNAs.[1]
- The COP recognises the potential role CTCN can play in supporting the developing country Parties, at their request, to implement technology action plans, including through the Request Incubator Programme for the least developed country Parties;[2]
- The TEC found that TAPs and project ideas in the first rounds of TNAs often lack information about the business case for technology projects and programmes. It therefore recommended to include benefit-to-cost ratios of a technology-related programme and/or project. Such information could be in the form of a financial internal rate of return or an economic rate of return. With such information, policy makers and investors would be better able to screen investments for prioritisation and allocation of resources.[3]
- The TEC found that Technology Roadmaps (TRMs) could provide a ready-to-use structure for individual parts of TAPs, translating the outcomes of TNAs into concrete, time-related actions related to a selected group of technologies. Roadmapping techniques could be used in TAPs or accompany the already prepared TAPs and specify steps towards the desired implementations.[4]

Objective of the Incubator Programme
Support countries in reaching their NDC adaptation and mitigation targets through the deployment of climate technologies.

Baseline problem to address
Lack of linkages, collaboration, and coherence at national level between various processes under the UNFCCC (TNAs conducted but no implementation/investments, GCF funding available but difficulty to formulate projects that can lead to NDC implementation) leading to lack of defined priorities, road maps and action plans to deploy climate technologies.

Proposed approach to address the problem
Bring together key national stakeholders around the NDE to enable a participatory decision planning process and identify specific actions that will enable Least Developed Countries (LDCs) to move one technology forward, in line with their national priorities, through a road map. Capacity-building support to develop GCF concept notes could also be envisaged, depending on the actions recommended in the road map and depending on funds availability.

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[1] Decision 25/CP.19
Modalities and procedures of the Climate Technology Centre and Network and its Advisory Board
[2] Decision -/CP.22
Enhancing climate technology development and transfer through the Technology Mechanism
[3] Good Practices of Technology Needs Assessments Technology Executive Committee (TEC) Subsidiary Body for Scientific and Technological Advice, Forty-third session, Paris, 1–4 December 2015
[4] TEC Brief: 'Using roadmapping to facilitate the planning and implementation of technologies for mitigation and adaptation'
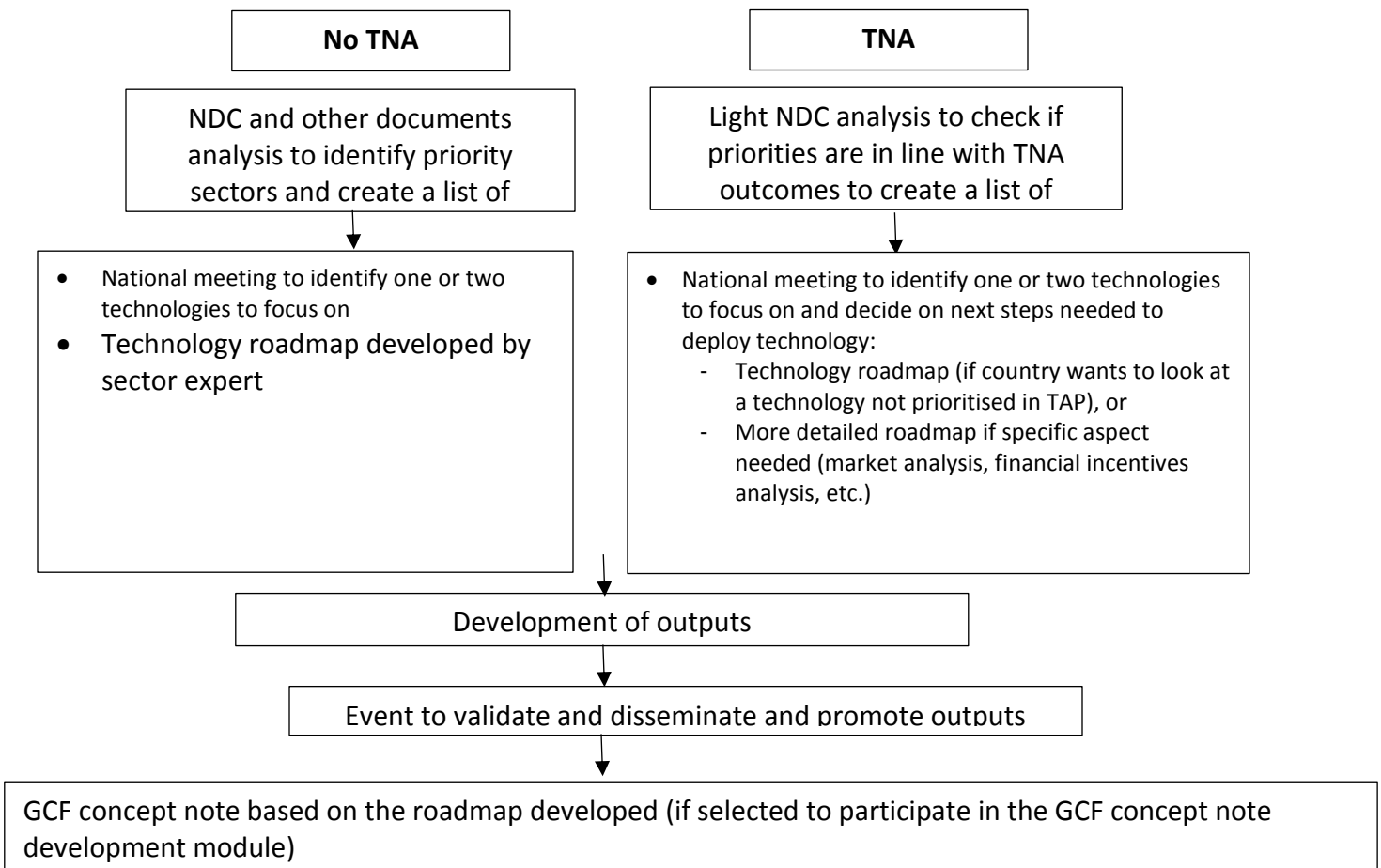
Actors enrolled in the programme
- National climate technology consultant: to review NDC, TNA and national priorities under NDE coordination;
- National coordination (NDE): to coordinate the whole process and liaise with national stakeholders, facilitate the recruitment and supervision of consultants at national level if needed, support the organisation of national stakeholders meetings etc.
- CTCN Regional Consortium Partner: to support analysis and coordinate the programme in country in close consultation with the NDE
- Technology expert: to develop the road map in close consultation with the NDE and CTCN Secretariat and relevant consortium partner.

Actors engaged in the programme:
- National focal points (TNA, GEF, GCF, AF, NAMA, NAPs, National communications, etc.)
- Ministries (environment, agriculture, forest energy, transport, finance, economy, etc.)
- Private sector, civil society, and donor representatives

Budget: 30,000 per country (more expensive if no TNA)

Process: Over 6 months from kick start of programme to final output

No TNA	**TNA**
NDC and other documents analysis to identify priority sectors and create a list of	Light NDC analysis to check if priorities are in line with TNA outcomes to create a list of

• National meeting to identify one or two technologies to focus on
• Technology roadmap developed by sector expert
	• National meeting to identify one or two technologies to focus on and decide on next steps needed to deploy technology:
	  - Technology roadmap (if country wants to look at a technology not prioritised in TAP), or
	  - More detailed roadmap if specific aspect needed (market analysis, financial incentives analysis, etc.)

Development of outputs

Event to validate and disseminate and promote outputs

GCF concept note based on the roadmap developed (if selected to participate in the GCF concept note development module)

Expected Output

"A Technology Roadmap (TRM) serves as a coherent basis for specific 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."[5]

The roadmaps developed under the Incubator are meant as tool to assess feasibility, develop business and financial models for bankable projects and prepare for investment.

Outline of Technology Roadmap

The elements to be included in the roadmap are as follows (adapted from IEA):

Technology:	Development/deployment status
	Technology performance (e.g. conversion efficiency)
	Technology costs
	Technology forecasts (performance /efficiency, cost trends)
	Environmental impacts (air, water and land impacts)
	Technology potential (saturation levels/other limitations)
	Links to other technology areas
	Barriers (economic/financial, policy/regulatory, technology, information/capacity, social)
Markets:	Suppliers and technology system integrators
	Distributors
	Customers (including outlook for demand by end-use sector)
	Import/export
	Financing aspects
	Market penetration and market forecast
	Existing studies/forecasts for the market sector
	Market potential – cost/benefit analysis, financial incentives
Public policy:	Current status
	Existing laws and regulations
Recommendations for large-scale deployment	Objective and specific targets over time for deployment of the technology
	Specific steps needed in the very short term and longer term (including technical feasibility and studies, installation of technologies, etc.),
	level of priority, implementing agency, expected outputs, timeline, budget, funding source, key indicator of success, risks
	Level of support required (technical and financial, Capacity Building) that the country cannot cover itself

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[5] Background paper on technology roadmaps, Technology Executive Committee, TEC/2013/5/5