



Technology Executive Committee

Possible integration of the TNA process with NAMA and NAP processes

Why this TEC Brief?

Policymakers in developing countries, and other related stakeholders, have at their disposal various planning tools for developing and implementing policies and measures for the development and transfer of environmentally sound technologies (ESTs). One of these tools is technology needs assessments (TNAs).

This TEC Brief is aimed at informing policymakers about interlinkages and the possible integration of the TNA process with Nationally Appropriate Mitigation Actions (NAMA) and National Adaptation Plans (NAP) processes, with a view to making use of robust methodologies, avoiding duplication of efforts of countries in the planning process and enhancing the implementation of mitigation and adaptation actions.



Key messages¹:

- (a) When identifying and preparing actions under NAMA and NAP, Parties should take into account:
 - The methodology and results of TNAs;
 - The examples and lessons learned of Parties that have undertaken such efforts.
- (b) Several concrete steps included in each of the planning tools have the potential to be interlinked or integrated. These include: development goals and planning; identification of priority areas and sectors; prioritization of identified needs and actions in national planning; and preparation of strategies, policies, programmes and projects.
- (c) When elaborating TNA reports, Parties should evaluate the technical, economic, environmental and financial viability of prioritized technologies that may be considered when elaborating concrete project proposals that could be used in NAP and NAMA.

The TNA process at the national level

How is the process carried out at the national level?

The goal of a TNA is to identify technologies for mitigation and adaptation that also support a country's development objectives. To achieve this goal, the TNA process contains the following key steps (see Figure 1 below):

- (a) To identify key priorities, based on a country's long term vision of climate and development;
- (b) To identify strategic sectors or areas to support these priorities;
- (c) To prioritize technologies for mitigation and adaptation within the prioritized sectors;
- (d) To identify barriers to, and enabling frameworks for, development and transfer of these technologies;
- (e) To formulate technology action plans (TAPs) for projects, programmes or strategies;
- (f) To prepare specific project ideas for each prioritized sector.

TNA linkages with other processes

WHY SHOULD TNAS BE INTEGRATED WITH NAMAS AND NAPs?

Within the TNA and NAMA processes, the Parties undertake their efforts in the context of sustainable development, supported and enabled by technology, financing and capacity-building, aimed at achieving a deviation in emissions relative to 'business as usual' emissions in 2020.

Climate change mitigation is mostly applied through implementation of ESTs and in order to develop NAMA there is a necessity to identify and prioritize the appropriate technologies on the national level.

TNAs for adaptation could contribute in particular to elements of NAPs, as identified in "Initial guidelines for the formulation of national adaptation plans by least developed country Parties". In developing NAPs, consideration would be given to identifying specific needs, options and priorities on a country-driven basis, coordinated with sustainable development objectives, policies, plans and programmes. These elements are in line with the steps in a TNA.

¹ The key messages were distilled from the discussions with TNA stakeholders and experts during the TNA workshop organized by the UNFCCC in collaboration with the GEF, UNDP, UNEP and the CTI in June 2011 in Bonn, Germany, during the experience-sharing workshop on TNA organized by UNEP and UNFCCC in September 2012 in Bangkok, Thailand, and from the TEC-7 in-session expert workshop on TNAs organized in September 2013 in Bonn, Germany.

This TNA-based support could complement the support to NAPs that is provided by national adaptation programmes of actions (NAPAs). Based on the experience with NAMAs and NAPs, Table 1 presents an overview of commonalities and differences between the TNA, NAMA and NAP processes.



Table 1. Overview of commonalities and differences between processes

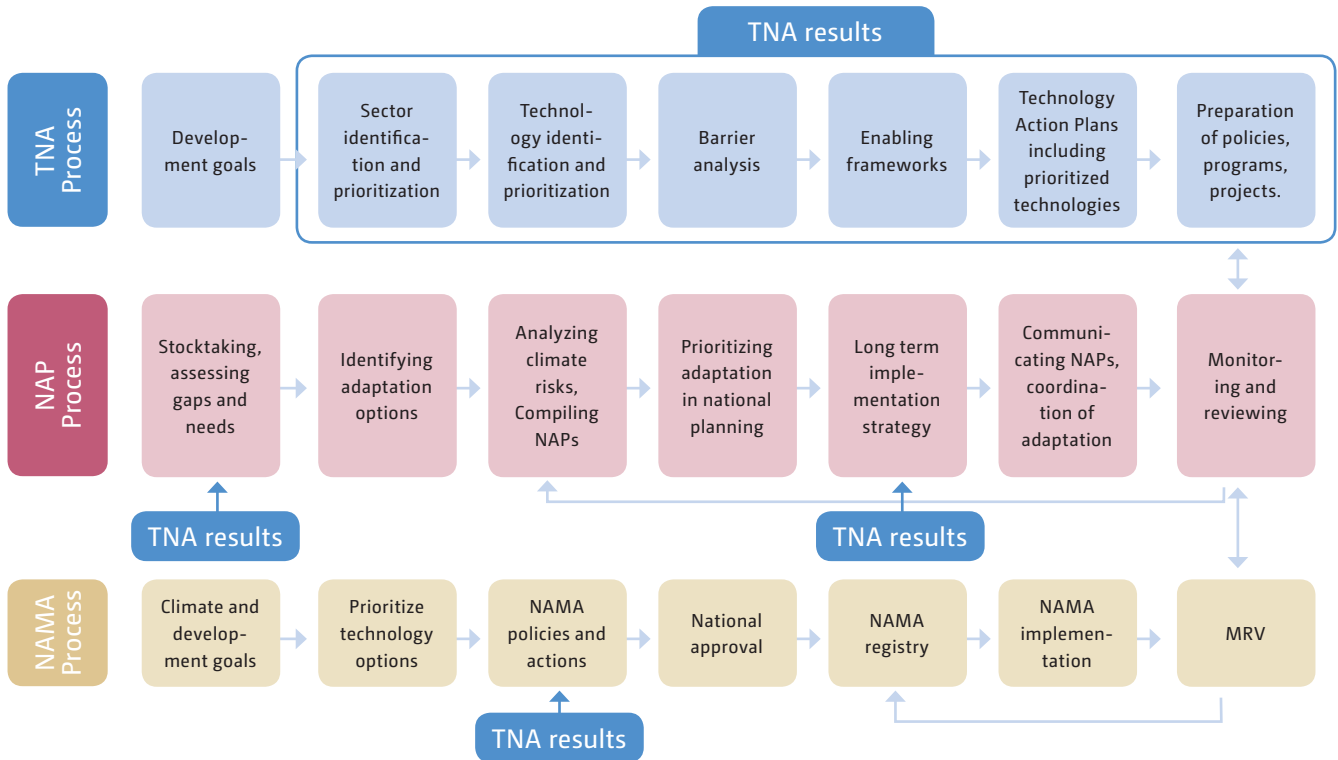
a. To what extent are TNA, NAMA and NAP processes embedded in a country's long-term development vision?	
Commonalities	Differences
<ul style="list-style-type: none"> • Common focus on a country's overall sustainable development context • Strategic (sub)sectors and areas identified in a TNA could be used as inputs for NAMAs and NAPs • Processes are generally participatory 	<ul style="list-style-type: none"> • While the TNA process has a comprehensive and widely used methodology, the methodologies for NAMA and NAP processes are in their initial stages of development.
b. How are technologies or measures for mitigation and adaptation in the country identified?	
Commonalities	Differences
<ul style="list-style-type: none"> • TNA procedures are in principle suitable for other policy concepts that identify technologies and actions for climate policy and sustainable development. • TNA technology portfolios and TAPs could provide input for NAMA and NAP processes. 	<ul style="list-style-type: none"> • While TNAs explicitly focus on technology choices, the prioritization of technologies in NAMAs and NAPs is usually an implicit step before policy action is formulated.
c. What actions are envisaged?	
Commonalities	Differences
<ul style="list-style-type: none"> • There is a common focus on actions either at the technology or sector and national levels. • The identification of actions to accelerate technologies for mitigation and adaptation in the TNA could possibly benefit the formulation of NAMAs and NAPs. 	<ul style="list-style-type: none"> • While a TNA focuses mainly on technologies and measures for mitigation and adaptation, NAMAs and NAPs can be overarching, focusing on broader mitigation, adaptation and development issues

HOW COULD THE TNA PROCESS BE INTERLINKED WITH NAMA AND NAP PROCESSES?

Figure 1 provides an overview of the main steps in the processes of the three planning tools: technology needs assessments, national adaptation plans, and nationally appropriate mitigation actions. The figure shows possible interlinkages between TNAs and the other two planning tools; specifically it provides an overview of concrete steps in each planning tool where TNA results could be

effectively used. Consideration could also be given to possible interlinkages of individual steps in these processes since several of them are similar. These steps in the process include: development goals and planning; identification of priority areas and sectors; prioritization of identified needs and actions in national planning; and implementation of strategies, policies, programmes and projects.

Figure 1: Possible input of TNA results into other planning tools



HOW COULD TNAS CONTRIBUTE TO NAMA AND NAP PROCESSES?

Prioritization of sectors, technologies and measures:

The TNA methodology can be used for a detailed prioritization of sectors, as well as technologies and measures to be included in NAMA or NAP. In the case of technologies and measures, the TNA methodology can also possibly be implemented. This supports the process of embedding NAMA in national mainstream processes.

Clarity on the scale of implementation: In cases where several NAMAs have been identified, the scale at which these actions could potentially be implemented within a country is sometimes unclear. For instance, implementation could be at full technical potential, at a scale required for meeting country and/or sector goals, or in the form of an isolated project. TNAs and TAPs could provide this information as they give an idea of the scale of technology implementation: as a project, a sector programme, or a national strategy.

Identification of actions to accelerate development and transfer of technologies and mitigation and adaptation measures: In a TNA, stakeholders analyse how the development and transfer of priority technologies can be accelerated in the country. This is done by finding gaps and barriers in the enabling environment for prioritized technologies and by identifying actions to provide solutions to these gaps and barriers.

A national strategy for technology development and transfer with action plans, technology programmes, and/or technology projects helps to **create an enabling environment** in a country for technologies for mitigation and adaptation. Each of these outputs could be considered as an input for a NAMA and a NAP.

WHAT BENEFITS WOULD INTERLINKAGES OF THE TNA, NAMA AND NAP PROCESSES BRING?

Exchanging data and knowledge: TNAs, NAMAs and NAPs could be impeded by a lack of data or a limited exchange of data between countries. Interlinkages of

TNAs with other processes could support collaboration on data collection between the processes and help rationalize existing data and resources.

Ensuring high-level attention and recognition: Given that particularly NAMA and NAP have received relatively high-level policy attention and recognition. Establishing clear policy interlinkages between the processes could enhance the political recognition of TNAs.

Financing and implementing TNA results:

The challenge of attracting investors and the lack of financing resources are key obstacles to implementing TNA-identified technologies and TAPs. If TNA outputs were considered as NAMAs or under NAPs, funding and investment support allocated to NAMAs and/or NAPs would also, indirectly, support implementation of TNA results.

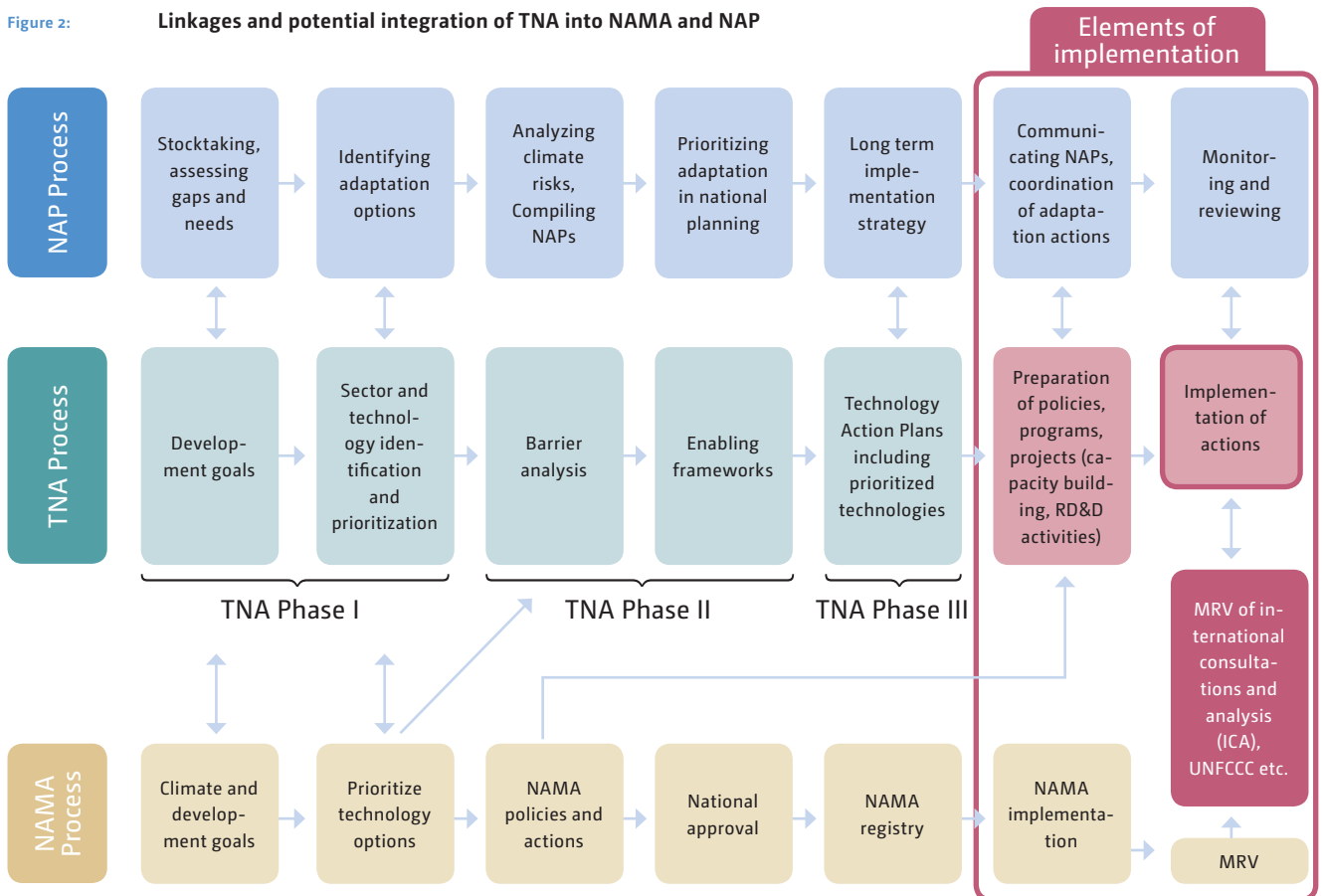
Next to the possible contribution of TNAs in terms of providing inputs to NAMA and NAP, **harmonized processes** could also help to accelerate the implementation of TNA results, more specifically the data could be allocated more efficiently to process steps that were harmonized. TNA outputs could then receive increased recognition by high-level public and private decision makers, which would also support the implementation of TNA outputs.

Establishing interlinkages between TNAs, NAMA and NAP would help countries to rationalize the outputs from these processes. Non-harmonized processes could result in duplications and ‘blind spots’ or result in a patchwork of potentially conflicting messages to policymakers, financial entities, capacity-building supporters and other stakeholders.

HOW COULD THE TNA PROCESS BE INTEGRATED WITH NAMA AND NAP PROCESSES?

Figure 2 clarifies the relationship between TNA and NAMA and NAP processes, and how the methodologies developed for TNA Phase I (prioritizing sectors and technologies), Phase II (identifying barriers and enabling

frameworks) and Phase III (technology action plan) could be applied in NAMA and NAP processes, and vice-versa, with a view to strengthening implementation of the prepared actions.



Reference

- TEC Brief “Results and success factors of TNAs” (October 2013)
- TEC Brief “Using roadmapping to facilitate the planning and implementation of technologies for mitigation and adaptation” (October 2013)
- Initial guidelines for the formulation of national adaptation plans by least developed country Parties (FCCC/CP/2011/9/Add.1)
- Synthesis report on technology needs identified by Parties not included in Annex I to the Convention (FCCC/SBSTA/2006/INF.1)
- Second synthesis report on technology needs identified by Parties not included in Annex I to the Convention (FCCC/SBSTA/2009/INF.1)
- Third synthesis report on technology needs identified by Parties not included in Annex I to the Convention (FCCC/SBSTA/2013/INF.7)
- Handbook for conducting technology needs assessment for climate change. United Nations Development Programme (November 2010)

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About the Technology Executive Committee

The Technology Executive Committee (TEC) is the policy component of the Technology Mechanism established by the Conference of the Parties (COP) in 2010 through its decision 1/CP.16 to facilitate the implementation of enhanced action on technology development and transfer to support action on mitigation and adaptation. Along with the Climate Technology Centre and Network (CTCN), the other component of the Technology Mechanism, the TEC is mandated to facilitate the effective implementation of the Technology Mechanism and to undertake work on areas including technology needs, policies and programme priorities for technology transfer related activities, enabling environments for and barriers to the development and transfer of technology, and technology roadmaps and action plans.