Technology Needs Assessments under the UNFCCC

TEC-14

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Looking back

- TNA was introduced under the Convention at **COP-7 (2001)**, which encouraged "…developing countries …to undertake assessments of country-specific technology needs, subject to the provision of resources, as appropriate to country-specific circumstances."

- **In 1999**, the GEF Council agreed that "some of the immediate capacity building priorities of non-Annex I Countries, identified in the COP decision 2/CP.4, may initially be met through additional funding under expedited procedures for enabling activities. Based on the above COP Decision, the **GEF identified a list of eligible activities for the top-up projects**, including identification and submission of technology needs, and capacity building to assess the technology needs. Consequently, **the GEF funded the development of the first 69 TNAs reports since 1999 until 2008**.

- **In 2008**, TNA development was included in the **Poznan Strategic Programme on Technology Transfer (PSP)** as a key component for "scaling up the level of investment in technology transfer in order to help developing countries address their needs for ESTs." **Three Phases of the TNA process funded under the PSP in 2013-2019).**

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Looking back

- The COP-18 recognized that TNAs and their syntheses "are a **key information source** for the work of the TEC in prioritizing its activities under the Technology Mechanism, and could be a rich source of information for governments, relevant bodies under the Convention and other stakeholders.

- The COP-21 identified several TNA supportive **elements in the PA**:

    - Shared long-term vision, on the **importance of realizing technology development and transfer**,
    - **Importance of technology**, noted for the implementation of mitigation and adaptation actions, **cooperative action** on TDT,
    - **Technology Mechanism**, and **Technology Framework**,
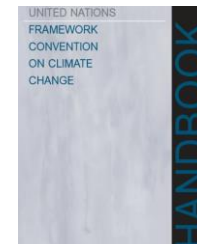   - **Support**, including financial support for developing countries.

Looking back

- The COP-21 initiated the elaboration of the Technology Framework (PA, Article 10, para 4), the framework should facilitate:

    - Undertaking and updating of TNAs, as well as the enhanced implementation of their results, **particularly TAPs and project ideas, through the preparation of bankable projects**;
    - Provision of enhanced **financial and technical support for the implementation of the results of the TNAs**;
    - **Assessment of technologies** that are ready for transfer;
    - **Enhancement of enabling environments** for and the addressing of barriers to the development and transfer of socially and ESTs.
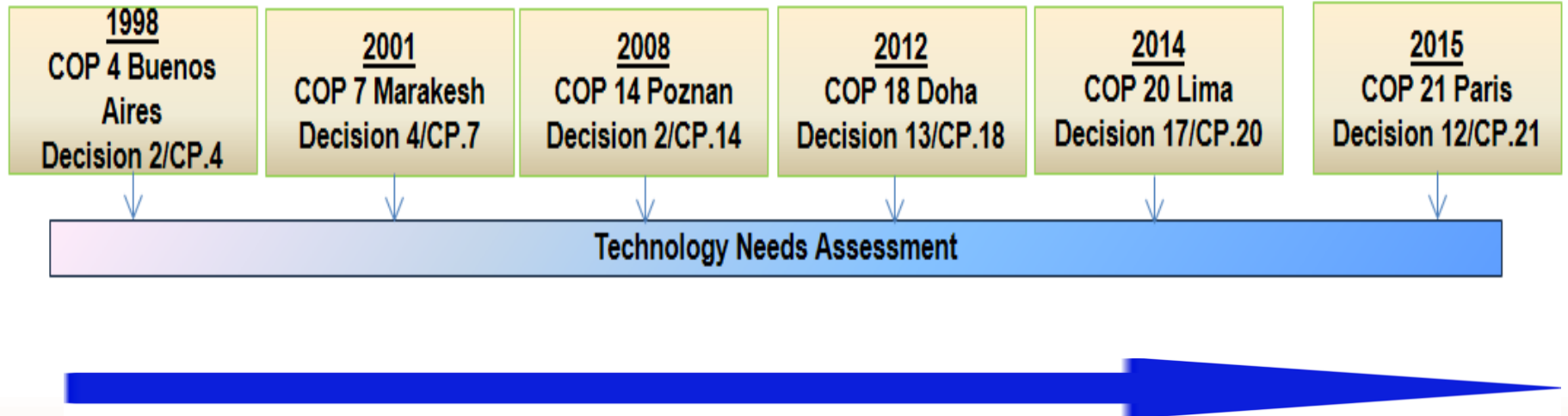
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TNA in the Technology Framework

- Under the UNFCCC TNAs became one of the key themes of the technology framework established to implement Art. 4.5 of the Convention.

- The COP-16 established the Technology Mechanism and decided that the TEC shall further implement the Technology Framework.

- The views submitted by Parties on the structure and principles of the technology framework (under the P.A.) and on thematic area Implementation
  - Parties focused on:
  - undertaking and updating the TNAs,
  - enhancing the implementation of TNA results, and
  - enhancing coherence between TNA and the NDCs and the NAPs, and climate resilient LEDS.

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

HANDBOOK

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TNA related COP Decisions

| 1998 COP 4 Buenos Aires Decision 2/CP.4 | 2001 COP 7 Marakesh Decision 4/CP.7 | 2008 COP 14 Poznan Decision 2/CP.14 | 2012 COP 18 Doha Decision 13/CP.18 | 2014 COP 20 Lima Decision 17/CP.20 | 2015 COP 21 Paris Decision 12/CP.21 |

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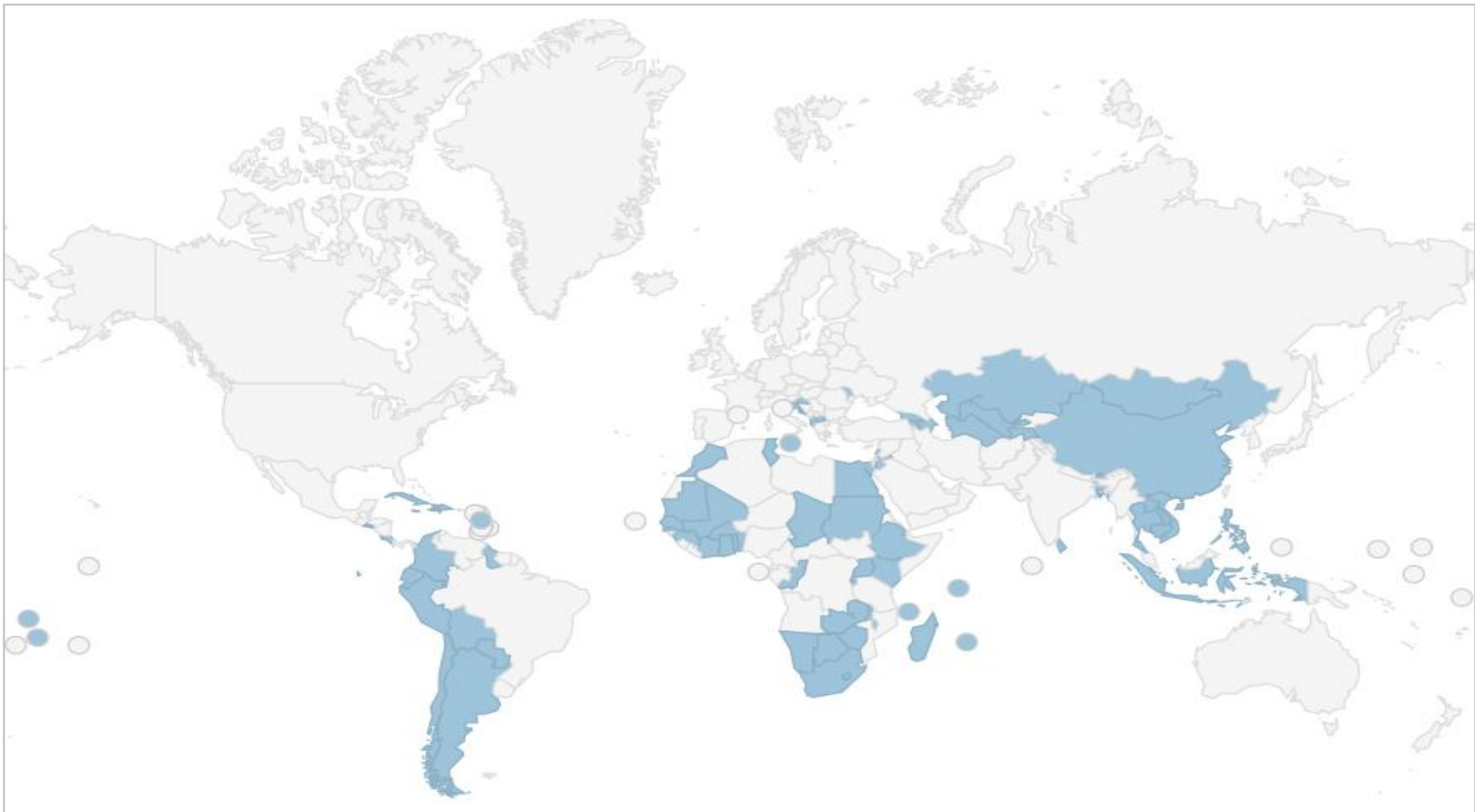
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TNAs – what they are?

- TNAs are set of **country-driven activities** that identify mitigation and adaptation technology priorities of developing countries

- TNAs track **evolving needs for new equipment, techniques, practical knowledge and skills** to mitigate greenhouse gases and adapt to adverse impacts of climate change

- TNAs aim to assist developing countries in **identifying priority technology needs** which can form basis of environmentally sound technology projects and programmes (ESTs).

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•Since 2001, **more than 85 developing countries** have successfully assessed their technology needs for climate change mitigation and adaptation

A brief evolution of technology needs assessments

First generation

•**1999-2008**
•GEF provided funding
•UNDP, UNEP, and regional organizations provided technical support

Second generation

2009-2013 - TNA Global Project, phase I
GEF provided support to 36 developing countries
UNP managed the project

2014-2017 - TNA Global Project, phase II
GEF providing support to 26 developing countries
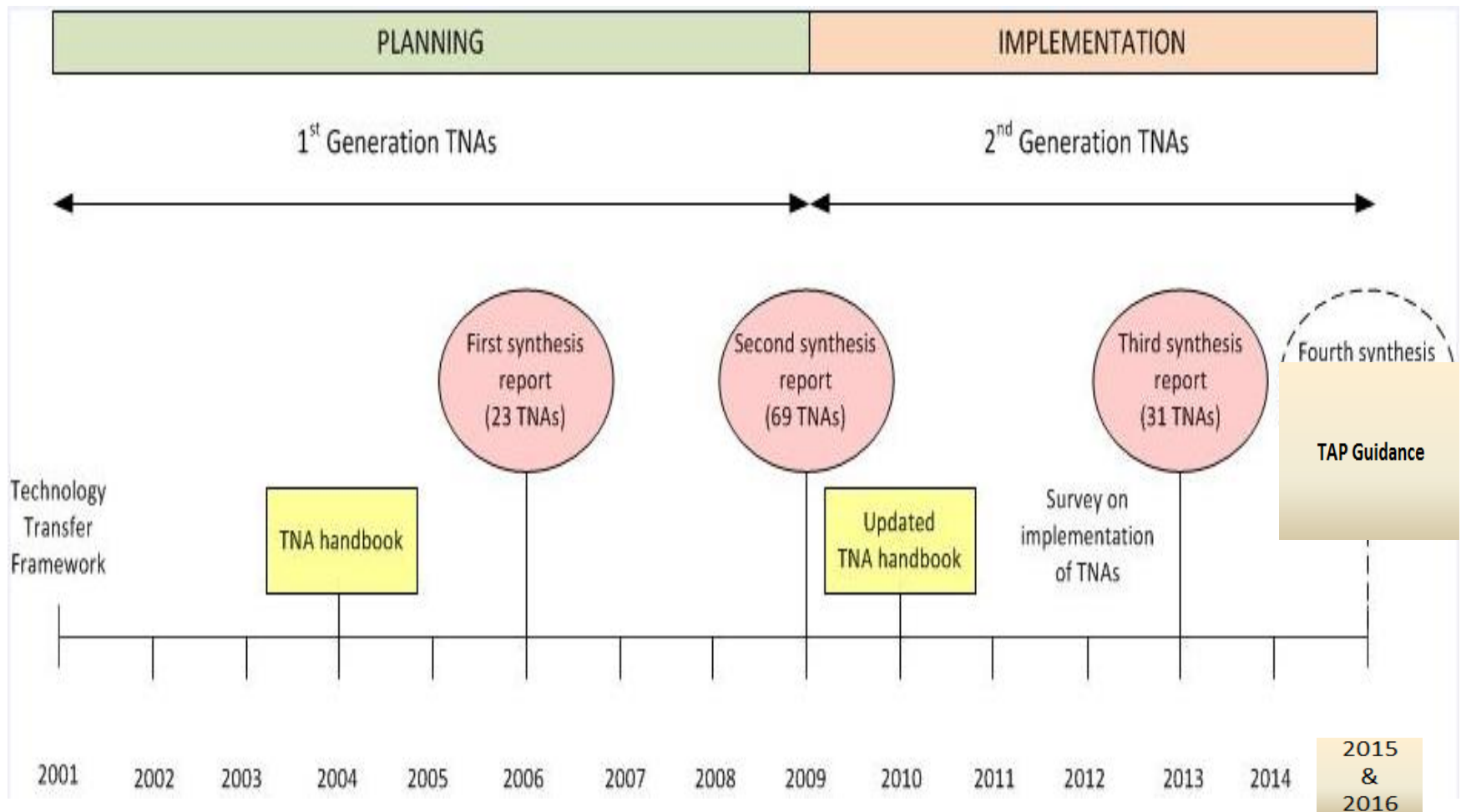UNP managing the project

2017- TNA Global Project, phase III
GEF to provide support for more than 20 LDCs and SIDs
UDP to manage the project

Technology Needs
Assessment

A brief evolution of technology needs assessments

PLANNING	IMPLEMENTATION

1st Generation TNAs — 2nd Generation TNAs

- First synthesis report (23 TNAs)
- Second synthesis report (69 TNAs)
- Third synthesis report (31 TNAs)
- Fourth synthesis

TAP Guidance

Technology Transfer Framework

TNA handbook

Updated TNA handbook

Survey on implementation of TNAs

2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 & 2016
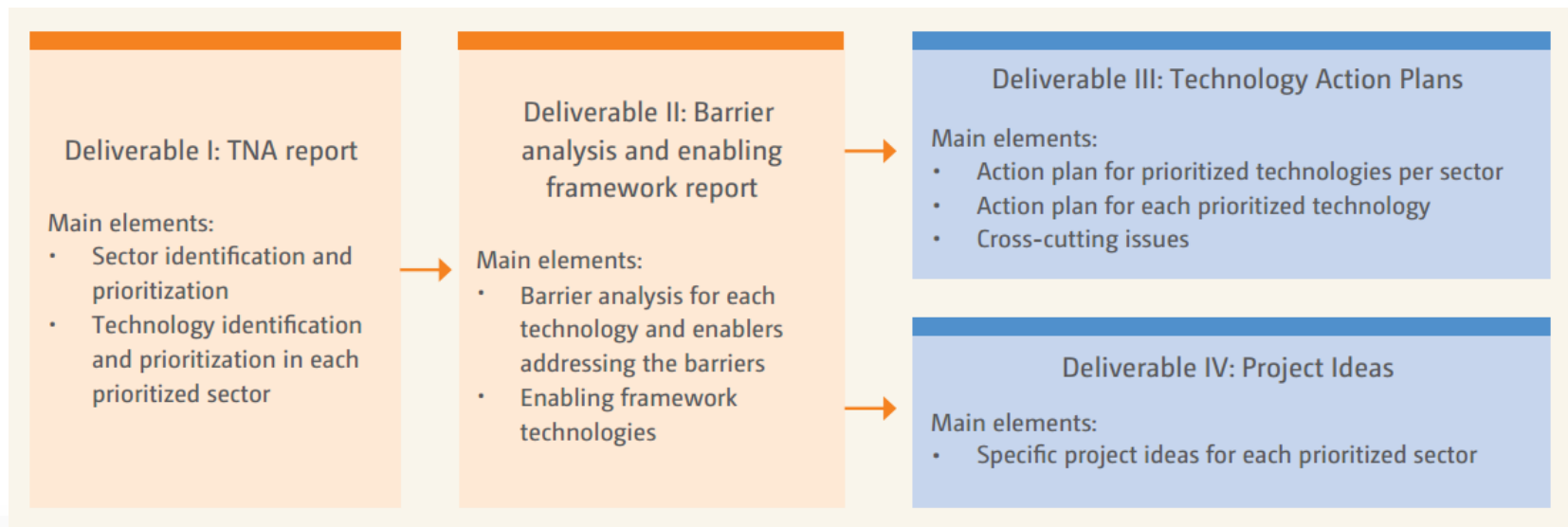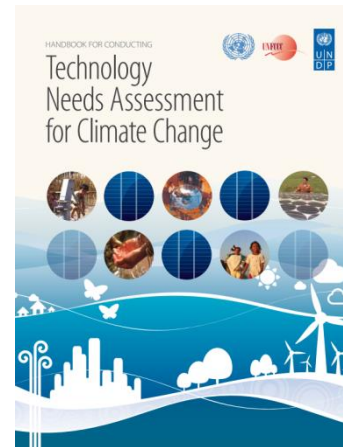
Guidance

2004: First TNA handbook

2010: Revised and updated TNA handbook

2010–2014: UNEP DTU guidebooks

2015: Lima mandated TAP guidance

Deliverable I: TNA report

Main elements:
- Sector identification and prioritization
- Technology identification and prioritization in each prioritized sector

Deliverable II: Barrier analysis and enabling framework report

Main elements:
- Barrier analysis for each technology and enablers addressing the barriers
- Enabling framework technologies

Deliverable III: Technology Action Plans

Main elements:
- Action plan for prioritized technologies per sector
- Action plan for each prioritized technology
- Cross-cutting issues

Deliverable IV: Project Ideas

Main elements:
- Specific project ideas for each prioritized sector
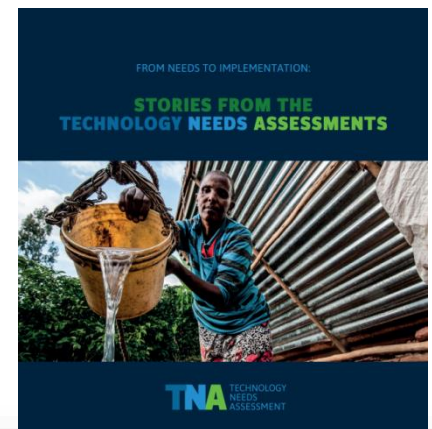
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Evolution of TNA process

- The TNA process successfully went through 2 generations, managed by the UNDP&UNEP, and the UNEP, respectively.

- TNA methodology evolved significantly, and could be an example for other assessment processes,

- Implementation of TNA results is enhancing, and there is further potential to <u>close the implementation gap</u>, of often well drafted technology action plans, and project ideas.

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Countries have received support for their priority projects:

- GHG and Mitigation projects (Cambodia),
- Wind power related projects (Vietnam),
- Solar Fort project (Kenya),
- Agroforestry and forest galleries (El Salvador),

- CTCN technical assistance: Ghana, Ivory Coast, Kenya, Mali, Senegal, Viet Nam, Colombia, Dominican Republic, Bhutan, etc.

FROM NEEDS TO IMPLEMENTATION:
STORIES FROM THE TECHNOLOGY NEEDS ASSESSMENTS

TNA TECHNOLOGY NEEDS ASSESSMENT

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Rainwater Harvesting from Greenhouse tops

The Ministry of Environment has installed rainwater harvesting systems in **3 pilot sites** of agricultural greenhouses in different locations in Lebanon. Following positive encouraging results, the MoE aims at disseminating these practices to a wider pool of beneficiaries once funding is made available.

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Conservation agriculture

- Funded by the EU, and with the aim of increasing resilience of farmers to the impacts of climate change, the Lebanese Agriculture Research Institute (LARI) has experimented the adoption of good agricultural practices and conservation agriculture in over 80 hectares of agricultural land and with 28 farmers in the Bekaa region.

Countries requested for:

- More support at national level including for capacity strengthening,

- To be better equipped to prepare funding requests,

- Support after the TAP completion,

- Enhanced dissemination of the results and use of TNA/TAP outputs,

- Monitoring of follow-up actions to TNA/TAP process,

- Enhanced experience sharing between countries.

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The TEC engagement in the TNA process:

TEC-5

- Background paper on TNA implementation status including **success stories**
- Background paper on inter-**linkages** between TNA and national and international climate policy making processes

TEC-6

- Draft TEC technology policy brief: the results of the TNAs and integration of TNAs with **NAMAs and NAPs**

TEC-7

- Provisional agenda of the **in-session TNA workshop**
- Executive summary of the **third synthesis report on TNAs**

TEC-8

- Summary of in-session workshop on TNAs
- Background note on **project ideas identified from TNAs**

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The TEC engagement in the TNA process

TEC-9

- Draft paper on **good practices of TNAs**
- Draft paper on **linkages with TNAs and other planning processes**

TEC-11

- Guidance on **enhanced implementation of TNA results**
- Background note on a **public call for inputs on TNA guidance**
- Draft final paper on **good practice of the TNAs**

TEC-12

- Background paper on the **implementation of TAPs of developing countries**
- Updated **guidance on technology actions plans**

TEC-13

- Draft paper on **linkages between TNA and NDC process**
- Draft paper on **aligning TNAs with NAP process**
- Outline of the methodology for **monitoring the results of TNAs in the TNA process:**

**Technology Needs
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TEC key messages on TNAs to Parties through the COP-22

- The TNA process should be **integrated with other mitigation and adaptation processes.** Strengthening linkages of TNA process with NDC and NAP processes would enhance their effectiveness and responsiveness towards implementation in developing countries. Technology action plans developed as part of the TNA process should be viewed as a platform for NDCs and NAPs implementation.

- **Enhanced financial, technical, and capacity building support** are needed to facilitate the implementation of technology action plans and updating of TNAs, which will bring economic, environmental and social benefits to countries. Further funding to conducting TNAs and to implement TNA results, beyond the current scope of the Global TNA project funding, is encouraged.

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TEC key messages on TNAs to Parties through the COP-22

- **A monitoring and evaluation system of TNA results** would deliver feedback, enhance learning, improve decision making and could be fed into national reporting systems.

- **Cooperation between countries** could help them implement the results of TNAs, beyond the current technical support provided, and beyond the current scale of implementation. Such cooperation may include information sharing on regional implementation of environmentally sound adaptation and mitigation technologies, related success stories, lessons learned, opportunities and challenges.

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Thank you

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