

Draft paper on
Enabling environments and challenges to technology development and transfer identified in Technology Needs Assessments (TNAs), Nationally Determined Contributions (NDCs), and Technical Assistance (TA) of the Climate Technology Centre and Network (CTCN)

**UNFCCC Technology Executive Committee
23rd Meeting**

7 - 10 and 13 September 2021

Sara Trærup (slmt@dtu.dk),
Léa Jehl Le Manceau,
Lucy Ellen Greghersen
UNEP DTU Partnership



Background

The Technology Executive Committee (TEC) agreed as per activity 1 of the thematic area Enabling environment and capacity building of its workplan for 2019-2022, to examine enabling environments, including challenges and opportunities to incentivize the private and public sector in the development and transfer of technologies, building on TEC previous work on adaptation and mitigation technologies.

- ❖ At TEC 22, the TEC welcomed the draft paper and requested the task force to continue working on the paper and to incorporate relevant information from the TNAs submitted in 2021.

Expected action: The Technology Executive Committee is invited to

- a) The TEC will be invited to consider and agree on the paper and its key findings.

Objectives

The objectives of the paper are to:

1. Examine enabling environment and challenges based on TNAs, NDCs and CTCN Technical Assistance and relevant TEC briefs;
2. Based on the mapping, identify policies and strategies to improve enabling environments and address the challenges; and
3. Assist the TEC in delivering relevant key messages and recommendations to the Parties at COP 26.

141 NDCs, including updated NDCs, submitted by developing country Parties to the UNFCCC, available at the UNFCCC NDC registry <https://www4.unfccc.int/sites/NDCStaging/Pages/Home.aspx> (2015-2021)

71 TNAs, including 787 technologies with identified challenges and enablers, available at the TNA project website www.tech-action.org (2011 - 2021)

84 CTCN TAs, information available at the CTCN website [www. https://www.ctc-n.org/](https://www.ctc-n.org/) and supplemented with information from CTCN Secretariat staff (2014 - 2021)

Data base overview					
	NDCs	TNAs	CTCN TAs	Total, TEC 23	Total, TEC 22
Enablers	1084	3905	567	5556	4896
Challenges	414	4079	555	5049	4421

Level of analysis

- Mitigation, adaptation
- SIDS, LDCs, Non-Annex-I
- Regional
- Sectoral

Enabling environments

Enabling environment

The set of resources and conditions within which the technology and the target beneficiaries operate. All important economic, social, political, organizational and other factors that influence the development and transfer of technologies.

Economic and financial category is reported for

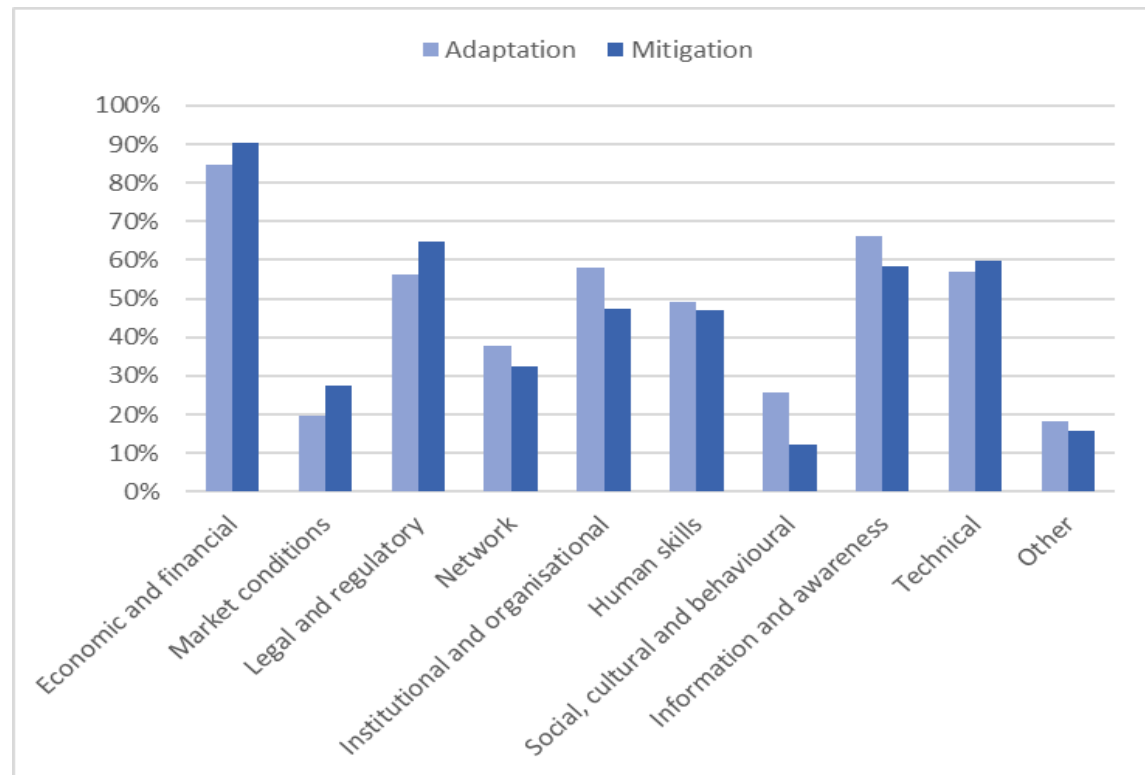
- 90% of the mitigation technologies;
- 85% of the adaptation technologies

Adaptation

1. Economic & Financial
2. Information & Awareness
3. Institutional & Organisational

Mitigation

1. Economic & Financial
2. Legal & Regulatory
3. Technical



Enablers across SIDS, LDCs, Non-Annex I

SIDS

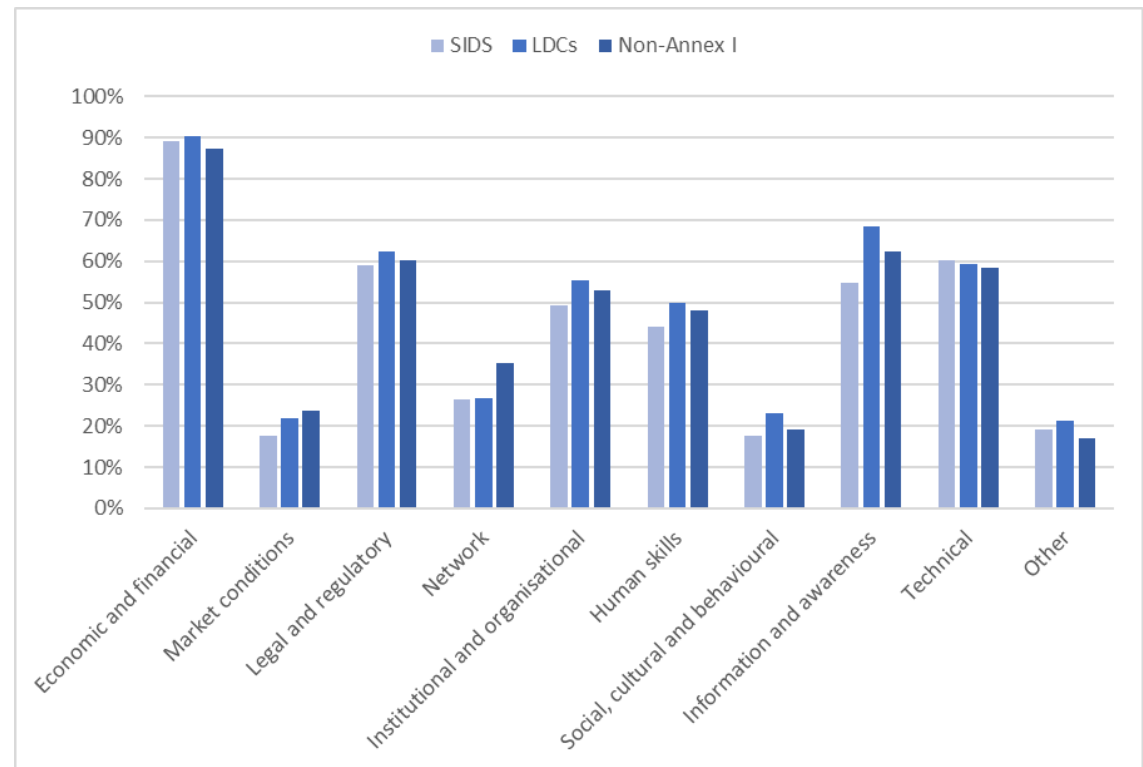
1. Economic and Financial;
2. Technical;
3. Legal and Regulatory;
4. Information and Awareness.

LDCs

1. Economic and Financial;
2. Information and Awareness;
3. Legal and Regulatory;
4. Technical.

Non-Annex I

1. Economic and Financial;
2. Information and Awareness;
3. Legal and Regulatory;
4. Technical.



The findings of this paper suggest that

- a. **overcoming the economic and financial challenges is central to achieving technology development and transfer;**

- b. for none of the prioritized technologies, the economic and financial challenges are listed as the only challenges, suggesting that **successfully implementing technologies must be achieved by more than just overcoming the economic and financial challenge;**

- c. **efforts to realize technology development and transfer should not target the economic and financial aspects narrowly as a single cause.** Instead, multifaceted actions are recommended, ensuring that all challenges hindering successful development and transfers are targeted;

- d. **governments have a major role to play in creating enabling environments** to address the challenges to technology development and transfer by establishing and enforcing the appropriate regulatory and institutional frameworks;

- e. to stimulate the transition to improved enabling environment conditions for technology development and transfer further, a **combination of market stimulation and human capacity development** is identified as key by developing country Parties;

- f. support to **programmes designed to strengthen the institutional and scientific capacities**, with regards to technology development and transfer, of developing country Parties, **in particular for LDCs**, is reported as critical to the creation of the long-term enabling environments required for technology development and transfer within these countries.

- g. there is a **need for education and training, assisting countries in making early-stage decisions on financing, matching country plans technology priorities with funding sources**, and in general establishing an essential bridge between the policy and finance communities.

Suggested Key Messages 1/2

- a. There is opportunities for extended cooperation between public and private institutions, that have practical experience in evaluating, using, implementing and financing new technological innovations.
- b. Governments have a major role to play in creating enabling environments and enforcing the appropriate regulatory and institutional frameworks.
- c. Advancing and deploying innovative and sustainable approaches are crucial to facilitate technology transition, both for adaptation and mitigation, along with sustainable development trajectories.
- d. Sharing good examples from countries that have integrated actions on climate technologies, including the creation of their enabling environments, into government planning and policies, could stimulate adoption of a similar approach amongst other countries.

Suggested Key Messages 2/2

- e. The Operating Entities of the Financial Mechanism have a key position leveraging resources from the public and the private sector to stimulate markets for technology development and transfer.
- f. To enable the development and transfer of adaptation technologies, it is key to establish information and raise awareness about the potential of these to reduce climate vulnerabilities, and to strengthen institutional and organizational aspects.
- g. To enable the development and transfer of mitigation technologies, it is also necessary to enhance technical capacities.
- h. Incorporating gender considerations into the enabling frameworks created for technology development and transfer, will help ensure that both women and men can benefit from climate change adaptation and mitigation technologies and that gender inequalities in project activities and outcomes will be reduced or eliminated.

Concept note for Thematic Dialogue

Suggested event title: Strengthening the means to implementation through the creation of enabling frameworks for technology development and transfer for implementation of the Paris Agreement

Suggested agenda

Opening and rationale, TEC

Session I: Support

2 presentations by

- development finance institution;
- government representative

Session II: Experience sharing

2 Presentations by Country representatives (representing 2 regions)

Session III: Break out groups, incl. reporting back (tbd)

Participants gathered in small groups will share experiences, discuss and consider how to accelerate enablers for climate technology development and transfer.

Summary and Closing remarks, TEC

Expected action:

The Technology Executive Committee is invited to *consider and agree on the paper and its key findings.*

Thank you!