

Agenda item 4.(c) i.

## Draft policy brief on enabling environments and challenges to technology development and transfer identified in TNAs, NDCs and CTCN technical assistance.

TEC/2022/25/7

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## Why this Policy Brief?

This policy brief elaborates on enabling environments and challenges to technology development and transfer.

Challenges about implementation of enabling environments for technology development and transfer were reported by countries in their TNAs, NDCs and CTCN TA documents for mitigation and adaptation technologies.

The TEC brief is aiming to:

- (a) Examine enabling environments and challenges based on TNAs, NDCs, CTCN TA and relevant TEC Briefs;
- (a) Based on the resulting mapping, identify policies and strategies to improve enabling environments and address the challenges;
- (a) Assist the TEC in delivering enabling environment related policies and strategies to the policy makers.

# Policy brief on enabling environments and challenges to technology development and transfer identified in TNAs, NDCs and CTCN.

## Content of the Policy Brief

### Approach & Data



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](http://www.tech-action.org) (2011 - 2021)

84 CTCN TAs, information available at the CTCN website [www. https://www.ctc-n.org/](http://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 environment



#### 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

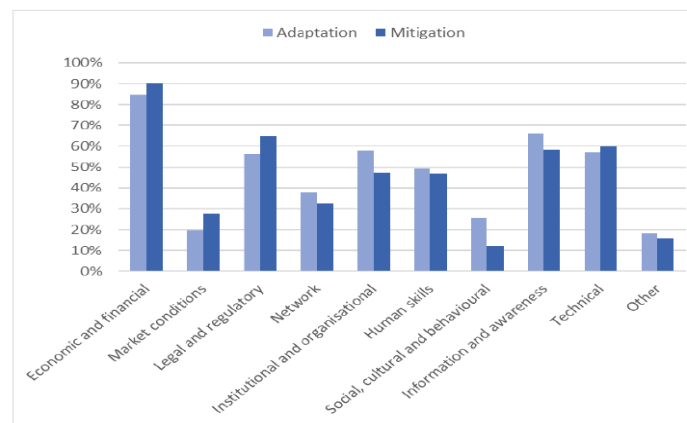
- 90% of the mitigation technologies;
- 85% of the adaptation technologies

#### Adaptation

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

#### Mitigation

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



## Content of the Policy Brief

### • Enablers



#### *SIDS*

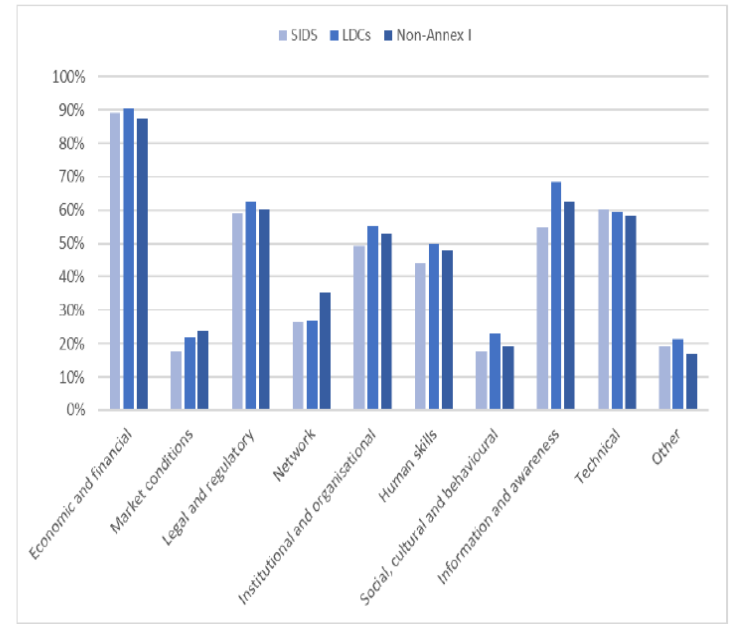
1. Economic and Financial;
2. Technical;
3. Legal and Regulatory;
4. Information and Awareness.

#### *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.



### Thematic dialogue (February 2022)

- **UNEP** Technology transfer & Transmission - Setting the scene;
- **Liberia TNA team** - Overcoming barriers for TNA implementation;
- **Thailand TNA team** - Overcoming barriers for TNA implementation;
- **Econnext** - Investments in Climate Technologies;
- **EBRD** - Support for decarbonization market transition;
- **NDC Partnership** – Experiences with implementing enabling environments.

### The findings of the thematic dialogue:

- The dialogue pointed to the necessity of presenting opportunities, including revisions in related **policy and the broader regulatory enabling frameworks**, beyond a discussion of technology hardware and financing;
- This further leads to private investors, technology suppliers, and consumers being key actors that **governments and state agencies must engage with** to create, steer, and scale up markets for technologies.
- Overcoming of **economic and financial barriers** is central to stimulating technology development and transfer beyond current levels;

### Lessons learned from the private sector:

- **Economic and fiscal policies** supporting the local currency (transferability and convertibility);
- **Rule of Law**, clear policies on land rights and taxes (double taxation treaties, income tax);
- **Trade policies** supporting exports and import of materials and products (customs/duties).

## Highlights

The findings of this policy brief suggest that:

- Economic and financial challenges are not the only challenges for any of the prioritized technologies, which suggests that **successfully implementing technologies must involve more than just overcoming economic and financial challenges;**
- **Multifaceted actions are recommended to ensure that all challenges** hindering successful technology development and transfer **are targeted;**
- **Governments have a major role to play** in creating enabling environments to address the challenges to technology development and transfer by establishing and enforcing appropriate regulatory and institutional frameworks;

## Highlights

The findings of this policy brief suggest that:

- To further stimulate the transition to improved enabling environment conditions for technology development and transfer, a **combination of market stimulation and human capacity development is identified as key** by developing country Parties;
- **Support to programmes designed to strengthen the institutional and scientific capacities**, with regard to technology development and transfer (TDT), of developing country Parties, in particular the LDCs, is reported as critical to creating the long-term enabling environments required for TDT within these countries;
- A need exists for **education and training to assist countries in making early-stage decisions**, also on financing, match countries' planned technology priorities with funding sources, and in general establish an essential bridge between the policy and finance communities.

## Highlights

**Key messages** of this policy brief:

- (a) There are opportunities for **extended cooperation between public and private institutions** that have practical experience in evaluating, using, implementing and financing new technological innovations;
- (b) Sharing examples from countries that have effectively integrated actions on climate technologies, including the **creation of their enabling environments, into government planning and policies** could stimulate the adoption of a similar approach by other countries;
- (c) Public and private institutions, and the operating entities of the Financial Mechanism, have an important position in **leveraging resources to stimulate markets** for technology development and transfer;



## Highlights

**Key messages** of this policy brief:

(d) To enable the development and transfer of **adaptation technologies**, it is important to **acquire information and raise awareness about their potential** to reduce climate vulnerabilities, and to strengthen institutional and organizational aspects;

(e) To enable the development and transfer of mitigation technologies, it is necessary to **enhance technical capacities and to strengthen legal and regulatory frameworks**;

(f) **Incorporating gender considerations** into the enabling frameworks created for technology development and transfer can help ensure that everyone, regardless of gender, can benefit from climate change adaptation and mitigation technologies, and that gender inequalities in those enabling activities and outcomes will be reduced or eliminated.

Thank you for your attention.

