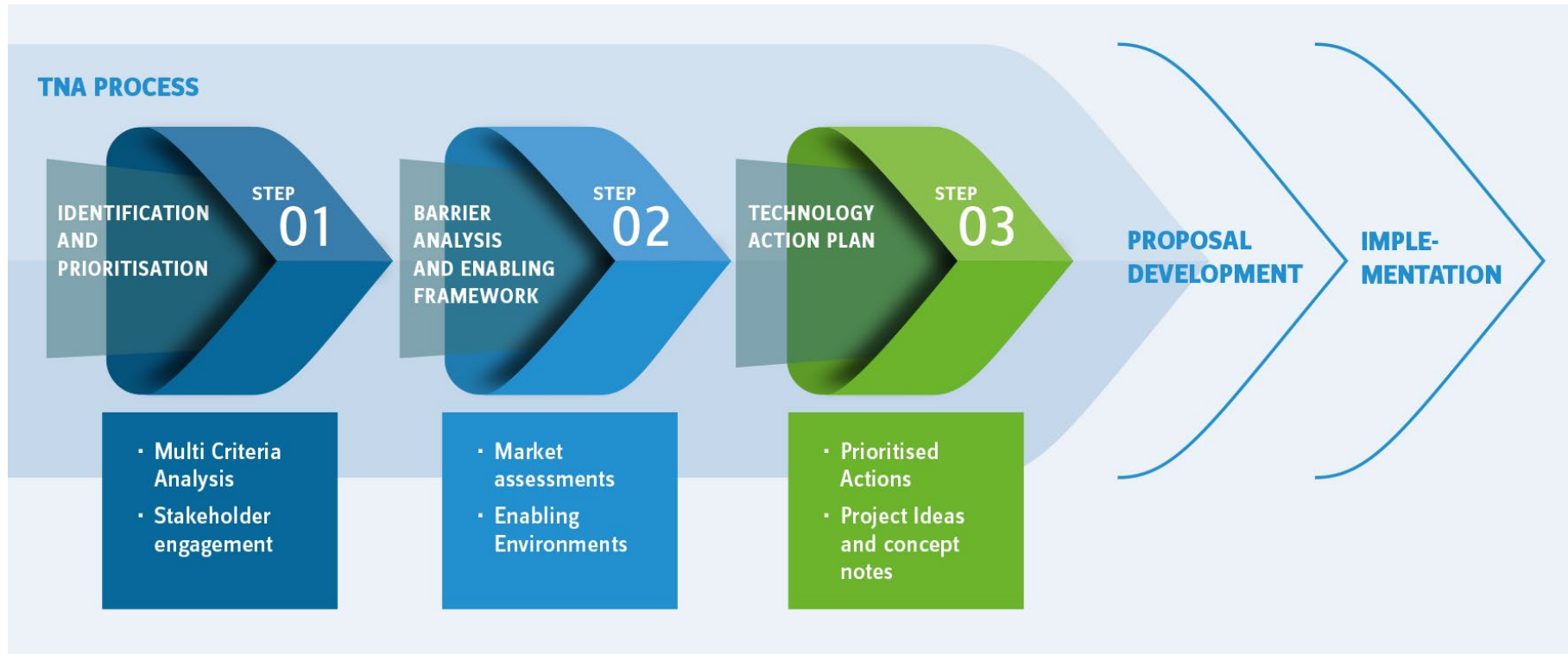


# Technology needs assessments and action plans to achieve the Paris Agreement



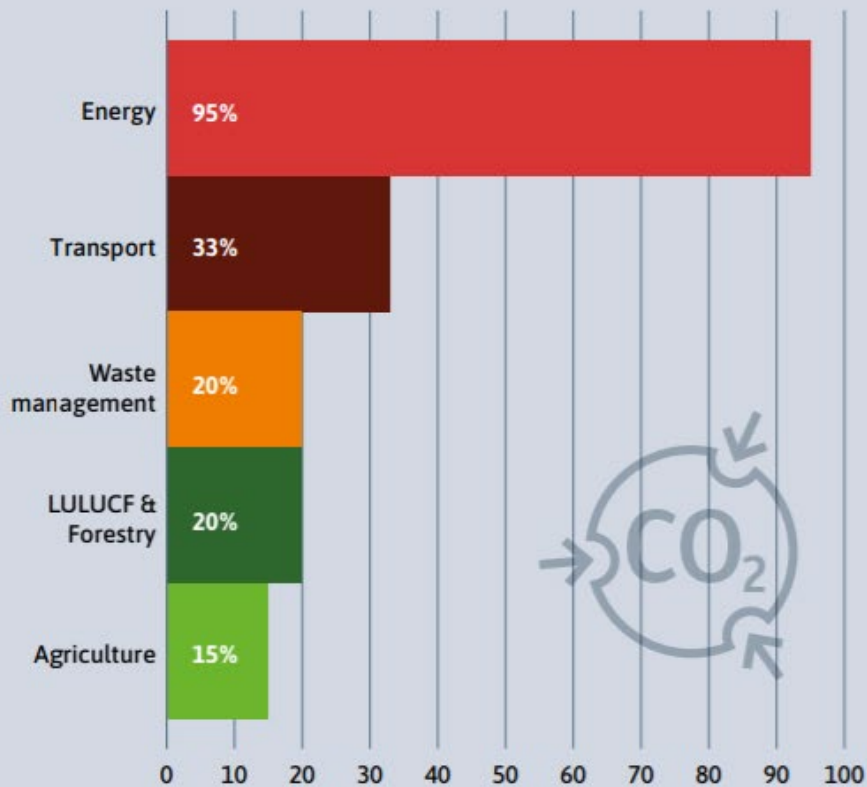


TNAs are a set of activities that identify and analyse mitigation and adaptation technology priorities of developing countries

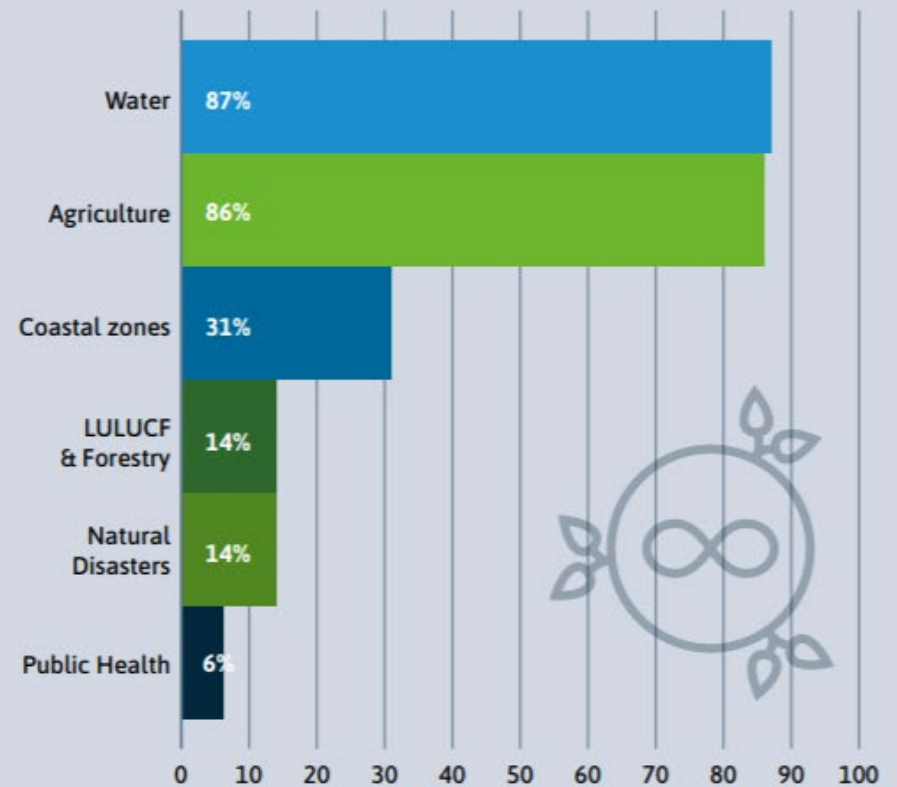
- **country driven, implemented by national TNA teams**
- **stakeholder involvement**
- **capacity building**
- **align with national development objectives**
- **explore synergies with other national processes, strive towards implementation of NDCs**

# Priority sectors

SECTORS FOR CLIMATE CHANGE MITIGATION



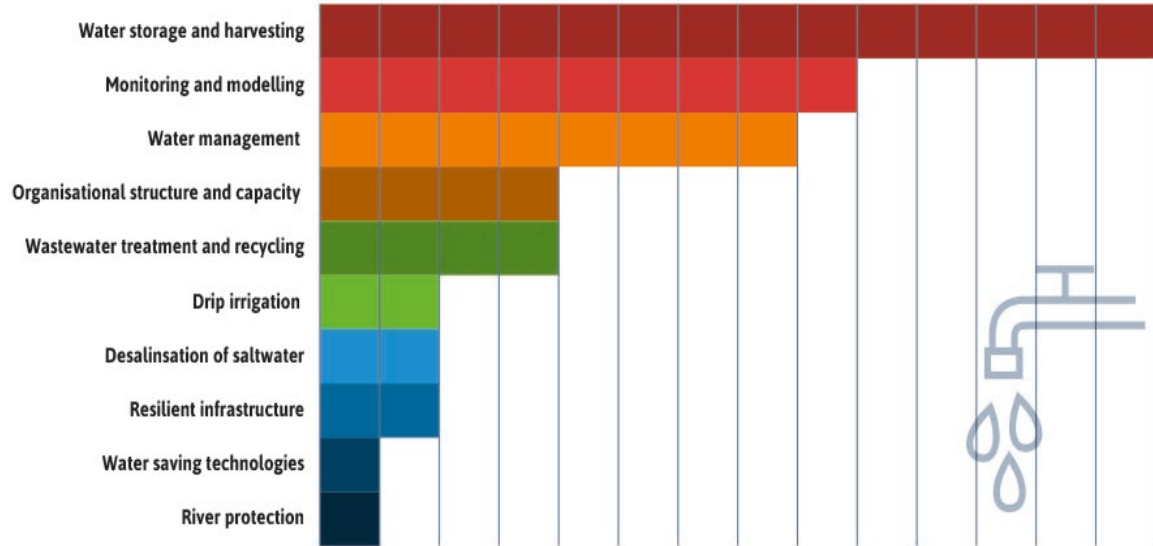
SECTORS FOR CLIMATE CHANGE ADAPTATION



Data from 80 countries' TNAs 2009-2020

WATER SECTOR TECHNOLOGY PRIORITIES

Number of times a technology has been prioritized



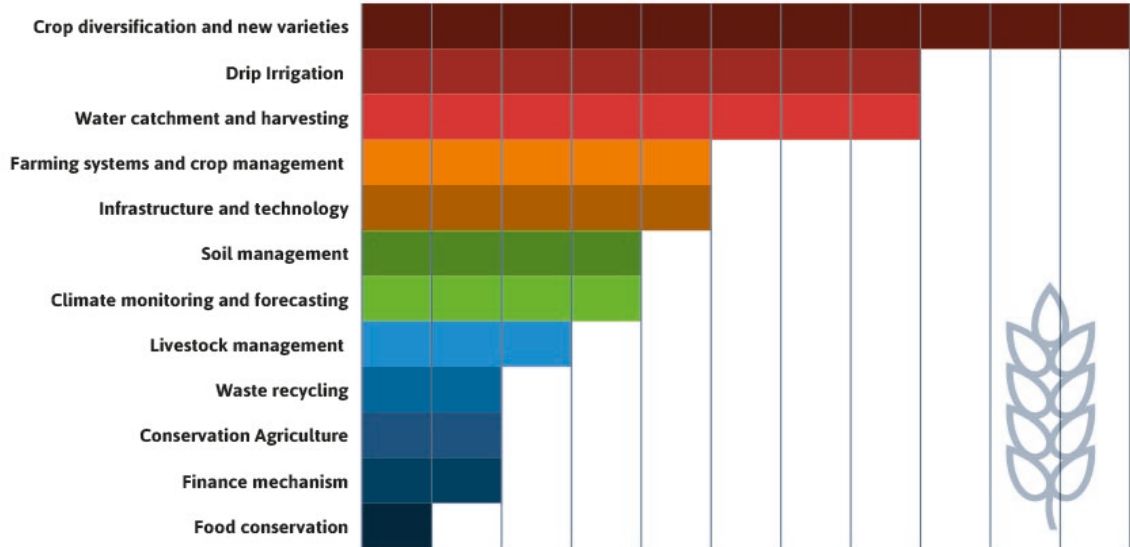
Priority technologies, adaptation

Water



AGRICULTURE SECTOR TECHNOLOGY PRIORITIES

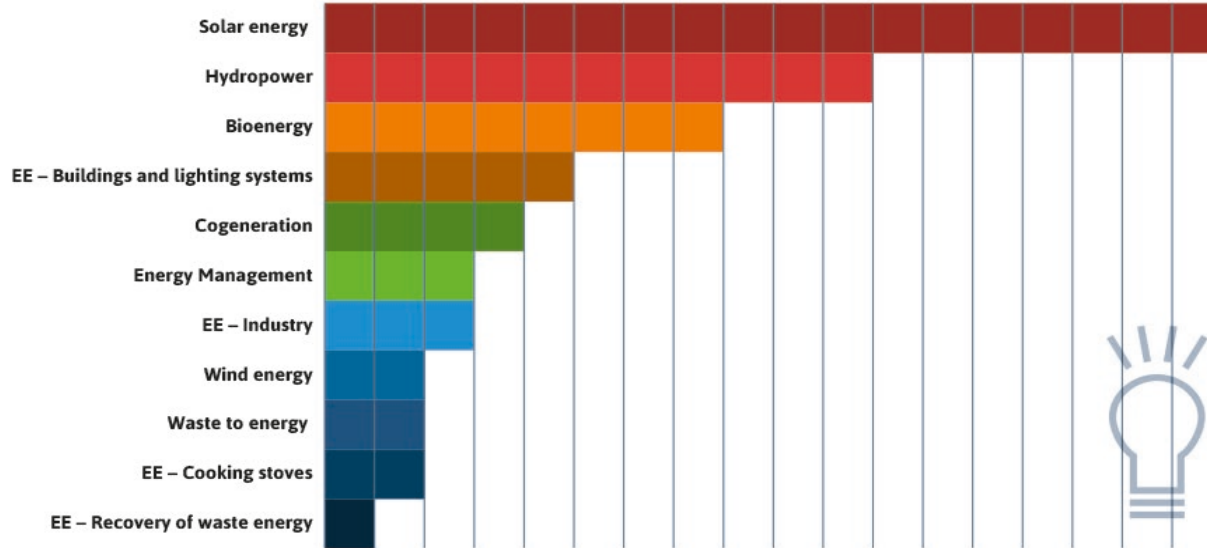
Number of times a technology has been prioritized



Agriculture



Number of times a technology has been prioritized

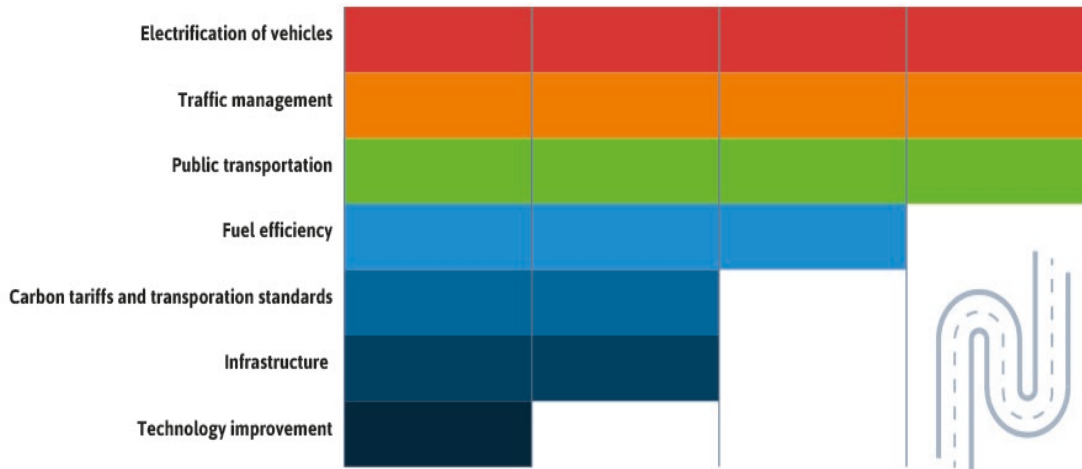


## Priority technologies, mitigation

### Energy



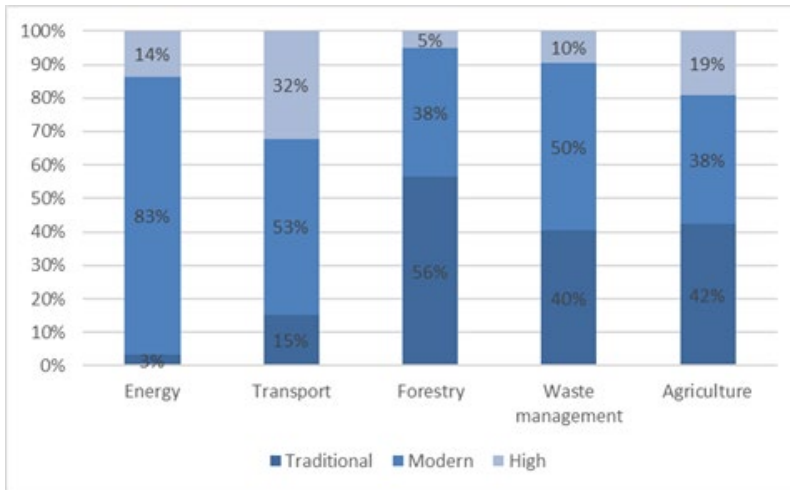
Number of times a technology has been prioritized



### Transport

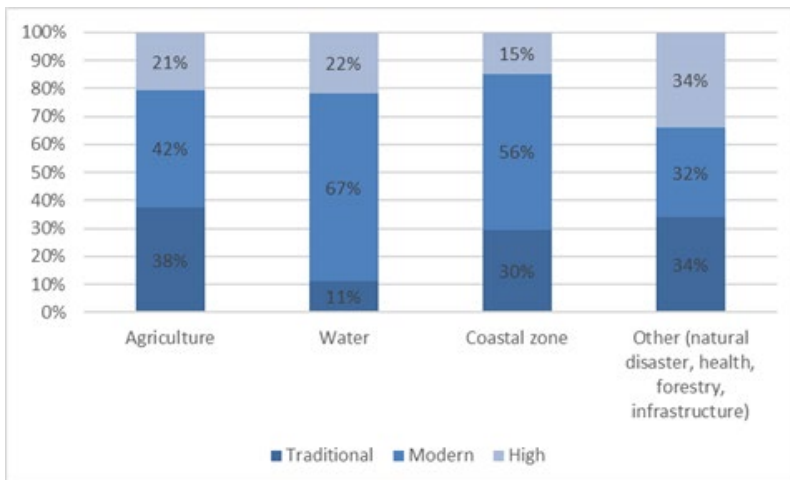


## Type of technologies, maturity characteristics



### Mitigation sectors

- Share of traditional technologies is the highest in the sectors of forestry and agriculture;
- energy and transport sectors have the lowest share of traditional technologies;
- energy and transport sectors are characterized by a high share of modern technologies;
- among all sectors, the transport sector is the one where most priority technologies are identified in the category of high technologies.



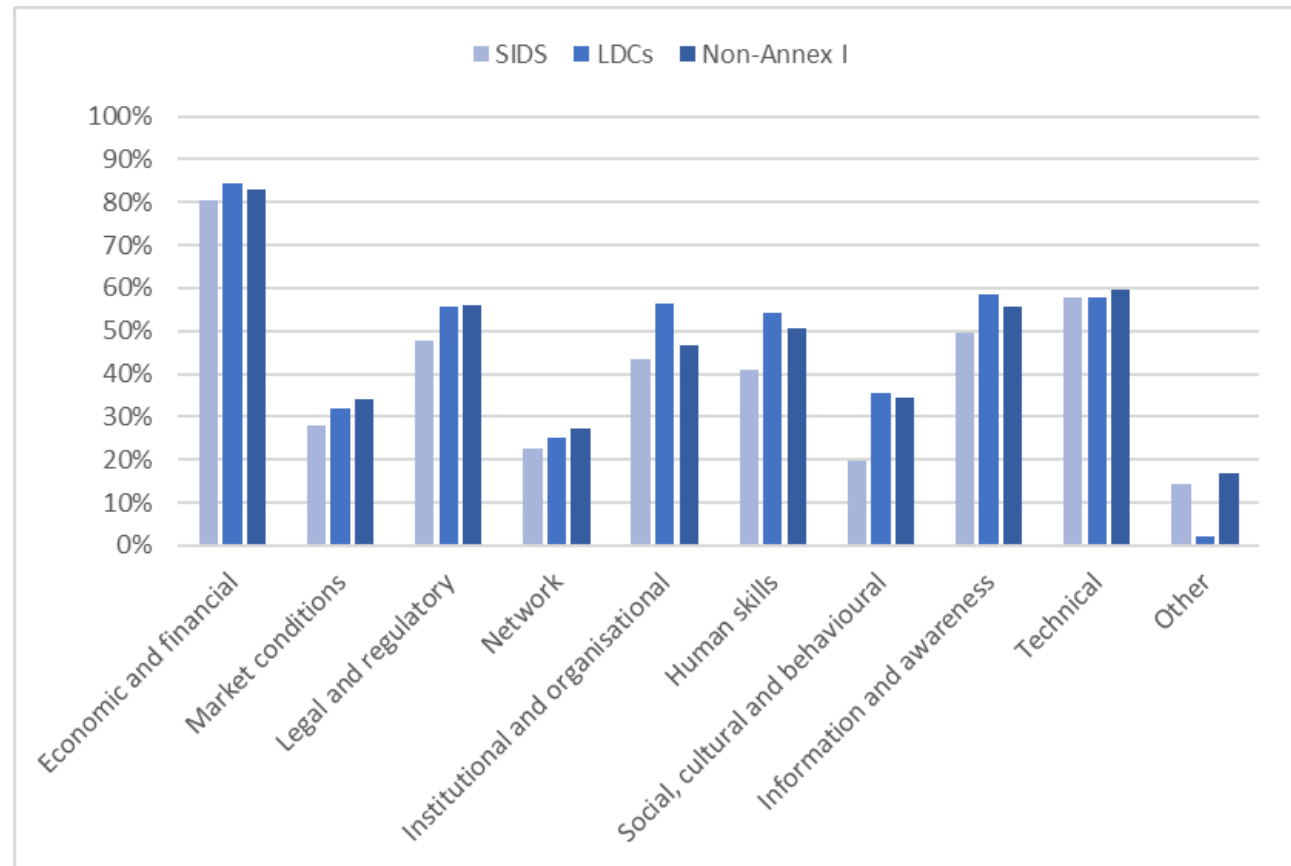
### Adaptation sectors

- Share of modern technologies remains the highest share amongst the three key sectors;
- share of high technologies remains the lowest compared to the share of traditional and modern technologies for the agriculture and coastal zone sector;
- for the water sector, high technologies are the second largest share of prioritized technologies in terms of maturity.

The majority of identified technology gaps are within the category of modern technology. The remaining technologies are distributed close to equally between traditional and high technologies, with slightly more gaps in traditional technologies.

## Distribution of challenges to technology transfer

- Across Non-Annex I Parties, LDCs and SIDS, economic and financial challenges stand out as the single most important category.



4421 challenges reported in TNAs, NDCs and CTCN Technical Assistance

# 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*

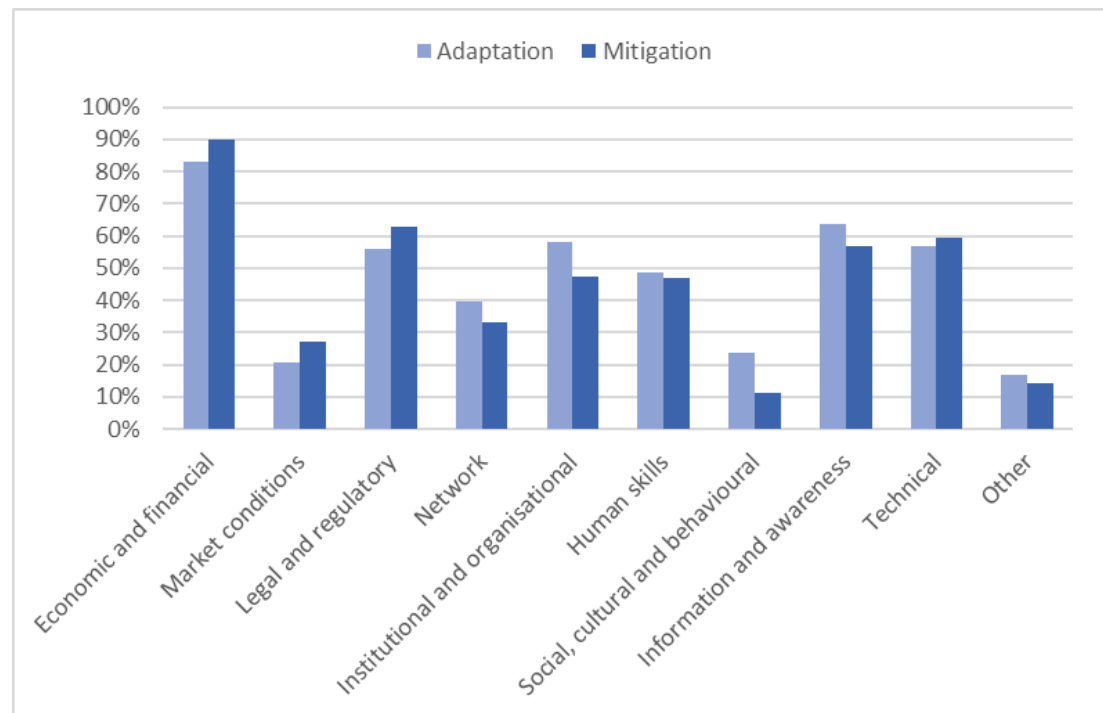
- 90% of the mitigation technologies;
- 84% of the adaptation technologies

### **Adaptation**

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

### **Mitigation**

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



4896 enablers reported in TNAs, NDCs and CTCN Technical Assistance



# Enablers across SIDS, LDCs, Non-Annex I

## **SIDS**

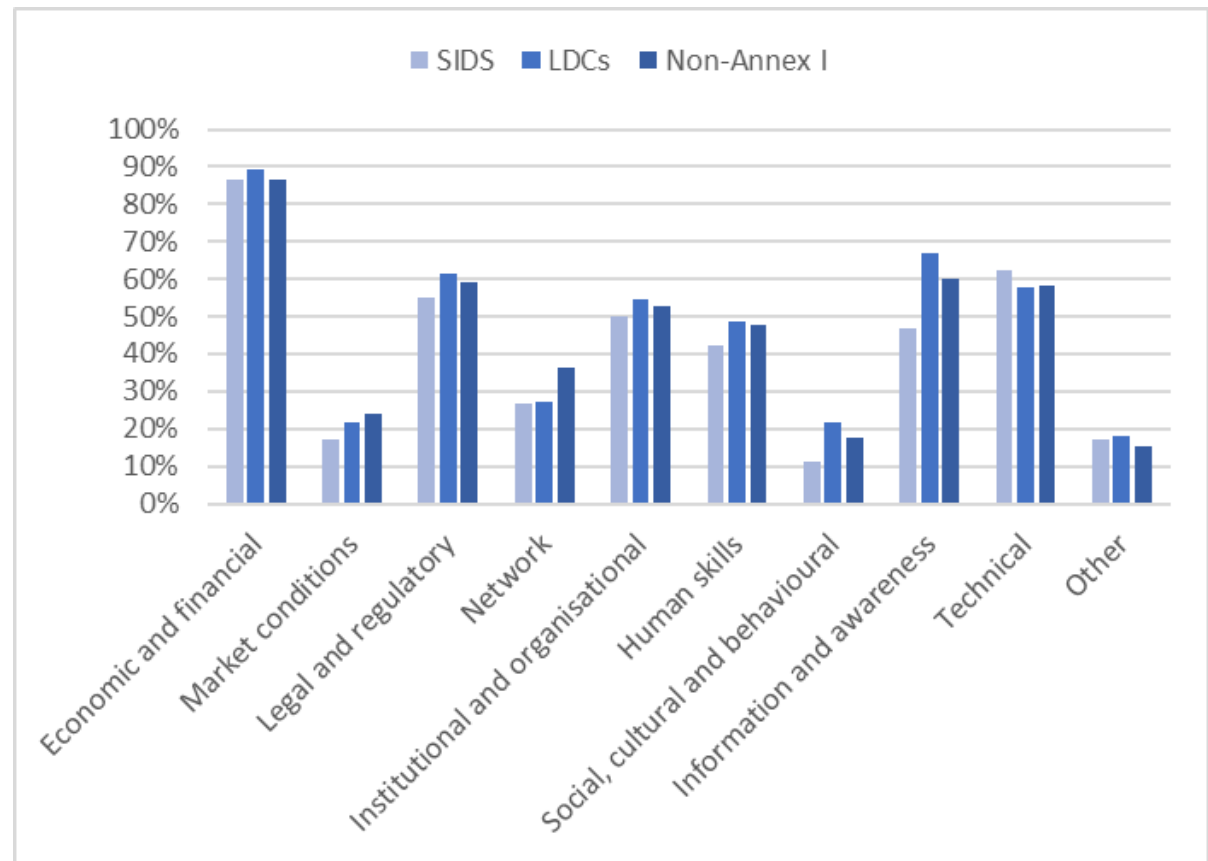
1. Economic and Financial;
2. Technical;
3. Legal and Regulatory
4. Institutional & Organisational

## **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.



## From plans to implementation

*- main challenges identified by countries*

- Economic and financial challenges are the most frequently reported challenge for technology transfer and diffusion across all adaptation and mitigation technologies
  - high up front cost of technologies,
  - difficulties in obtaining loans,
  - uncertainties regarding returns on investments,
  - and a general lack of financial resources
  
- the economic and financial challenges are never the only challenges, suggesting that successfully implementing technologies must be achieved by more than just overcoming the economic and financial challenge.

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

**XacBank**, used the Technology Needs Assessment when developing three Green Climate Fund funding proposals

- to identify technologies that pose the greatest potential for reducing carbon emissions in the Mongolian context
- as a source of information on the barriers and enabling framework conditions needed for technology transfer and implementation in Mongolia



"Energy Efficient Consumption Loan Programme" (USD 10 million), approved October 2018

"Renewable Energy Program #1 - Solar" (USD 8.65 million), approved October 2017

"MSME Business Loan Program for GHG Emission Reduction" (USD 20 million), approved December 2016



We work with developing countries on their Technology Needs and Action Plans to achieve national Sustainable Development Goals and the Paris Agreement

[Read more](#)

The TNA project is implemented by the United Nations Environment Programme and the UNEP DTU Partnership on behalf of the Global Environment Facility.



- [www.tech-action.org](http://www.tech-action.org)
- <https://unfccc.int/ttclear/tna>
- <https://www.ctc-n.org/>



Thank you!  
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