

# UNFCCC webinar on synthesis reports for the technical assessment component of the first global stocktake

12 May 2022



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- This webinar is being recorded.
- Please keep your microphone and camera off unless speaking.
- There is a limited time for a Q&A session for each theme. Please focus your questions on the methodologies and assumptions used in the preparation of the synthesis reports.
- To pose a question, please raise your hand with the Teams option, and we will give the floor in order of requests.
- In case we cannot answer all questions during the dedicated time, please submit any additional questions through Mentimeter. Answers will be posted in the UNFCCC website in due course.
- For Mentimeter: **scan the QR code** or go to [www.menti.com](https://www.menti.com) and use the **code 4040 0953**
- The Teams chat in this call should be restricted to technical questions only.





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# Overview of the GST and synthesis reports (SYR) as included in paragraph 23 of decision 19/CMA.1



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The **global stocktake (GST)** is designed as the ambition mechanism of the Paris Agreement (Art. 14). It aims to:

- **assess the collective progress under the Paris Agreement**, towards achieving its purpose and its long-term goals, considering **mitigation, adaptation and the means of implementation and support**, in the light of equity and the best available science.
- **identify opportunities for enhanced action and support.**

The **first GST will conclude in 2023** and will inform Parties in **updating and enhancing NDCs** and upscaling **international cooperation** for climate action.

**Decision 19/CMA.1** sets the modalities for the GST.

The GST consists of three components:

## **1.Information collection and preparation**

## **2.Technical assessment:** including through information analysis and meetings of a **technical dialogue**

- The technical dialogue is conducted by **2 co-facilitators** (Harald Winkler from South Africa and Farhan Akhtar from the United States of America)

## **3.Consideration of outputs:** which will focus on discussing the implications of the findings of the technical assessment with a view to informing Parties in updating and enhancing their climate actions and support.

Decision 19/CMA.1 requests the secretariat, under the guidance of the co-facilitators of the technical dialogue, to **prepare for the technical assessment four synthesis reports:**

- A [synthesis report on the state of greenhouse gas emissions by sources and removals by sinks and mitigation efforts](#) undertaken by Parties, including the information referred to in Article 13, paragraph 7(a), and Article 4, paragraphs 7, 15 and 19, of the Paris Agreement;
- A [synthesis report on the state of adaptation efforts, support, experience and priorities](#), including the information referred to in Article 7, paragraphs 2, 10, 11 and 14, of the Paris Agreement, and the reports referred to in Article 13, paragraph 8, of the Paris Agreement;
- A [synthesis report on the overall effect of Parties' NDCs and overall progress made by Parties towards the implementation of their NDCs](#), including the information referred to in Article 13, paragraph 7(b), of the Paris Agreement;
- A [synthesis report on the finance flows, including the information referred to in Article 2, paragraph 1\(c\), and means of implementation and support and mobilization and provision of support](#), including the information referred to in Article 9, paragraphs 4 and 6, Article 10, paragraph 6, Article 11, paragraph 3, and Article 13, in particular paragraphs 9 and 10, of the Paris Agreement.

It also requested the secretariat to organize this **webinar to clarify the methodologies and assumptions used to aggregate the inputs** for these reports.

The relevant constituted bodies are also preparing synthesis reports on their various topics for the GST.

All reports can be found in the [GST information portal](#).



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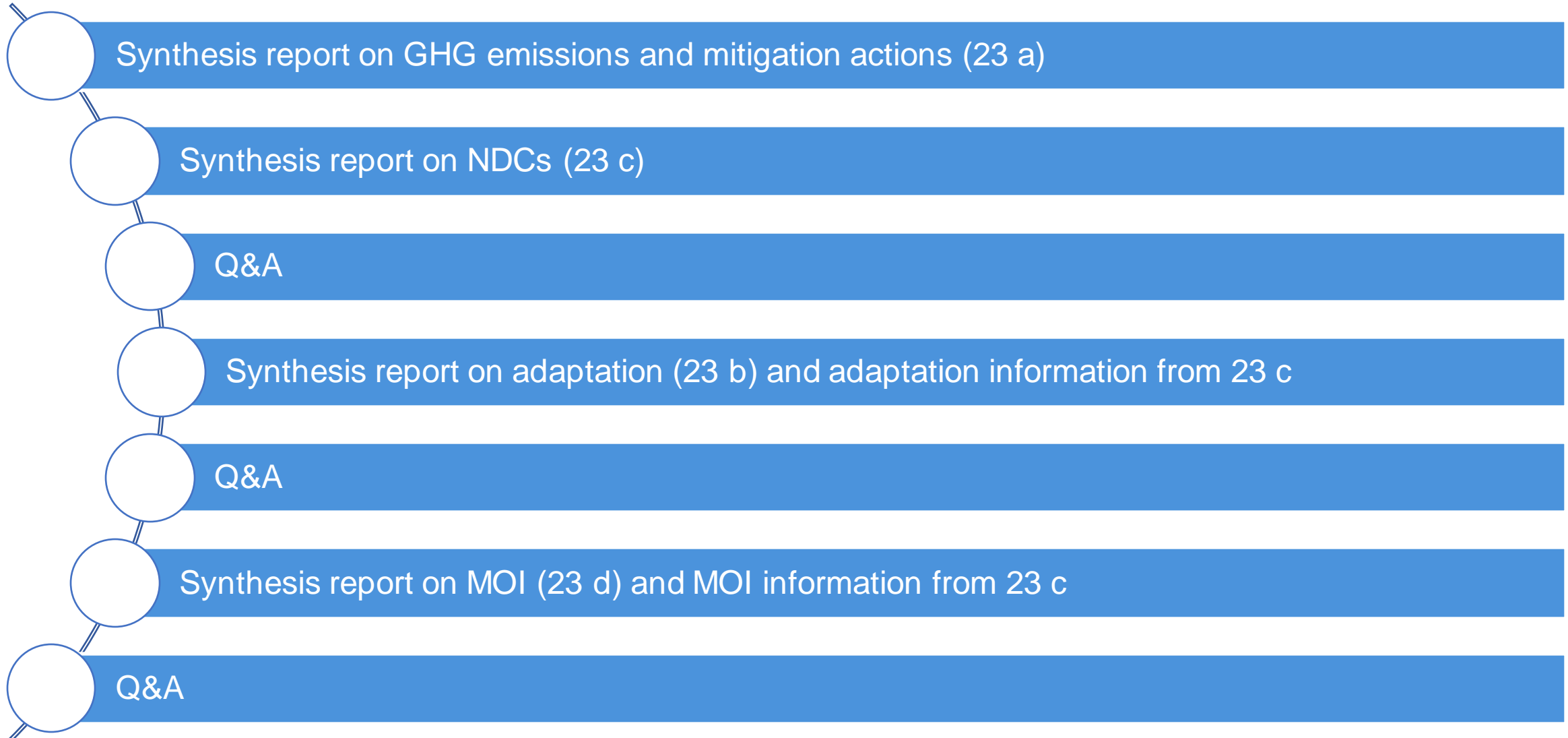
## **GST technical dialogue co-facilitators:**

- **Harald Winkler  
(South Africa)**
- **Farhan Akhtar (USA)**



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**State of greenhouse gas  
emissions by sources and  
removals by sinks and  
mitigation efforts  
undertaken by Parties,  
including the information  
referred to in Article 13,  
paragraph 7(a), and Article  
4, paragraphs 7, 15 and 19,  
of the Paris Agreement**



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- The synthesis report is prepared by the secretariat based on a mandate from CMA 1 (para. 23(a), decision 19/CMA.1)
- The aim of this synthesis report is to present **information at a collective level**, taking into account previous experience in preparing such reports
- The synthesis report will serve as **one of the inputs to the technical assessment process of the global stocktake**
- The synthesis report comprises two main chapters:
  - Chapter III on the **state of and trends in GHG emissions by sources and removals by sinks** presents an analysis of Parties' total aggregate emissions and emissions by gas and by sector, examining their levels and trends across the time series
  - Chapter IV on **mitigation efforts undertaken by Parties** includes:
    - **National mitigation planning and implementation processes**, including institutional frameworks for the planning, implementation and MRV of mitigation actions, and **an analysis of existing mitigation actions** by type, scope, coverage and status
    - **Long-term low-emission development strategies** and related pledges to reach net zero emissions by around mid-century communicated by Parties
    - **Mitigation co-benefits** resulting from Parties' adaptation actions and/or economic diversification plans and their contribution to mitigation outcomes
    - **Social and economic consequences of response measures** reported by Parties

## I. Introduction

- A. Mandate
- B. Scope of work

## II. Overview and key information

## III. State of and trends in greenhouse gas emissions by sources and removals by sinks

- A. Overview
- B. Emission trends
- C. Emissions by sector
- D. Emissions by gas
- E. Comparison with modelled data

## IV. Mitigation efforts undertaken by Parties

- A. Overview
- B. National mitigation policies and institutional frameworks
- C. Domestic mitigation actions
- D. Long-term low-emission development strategies and pledges
- E. Impact of the implementation of response measures



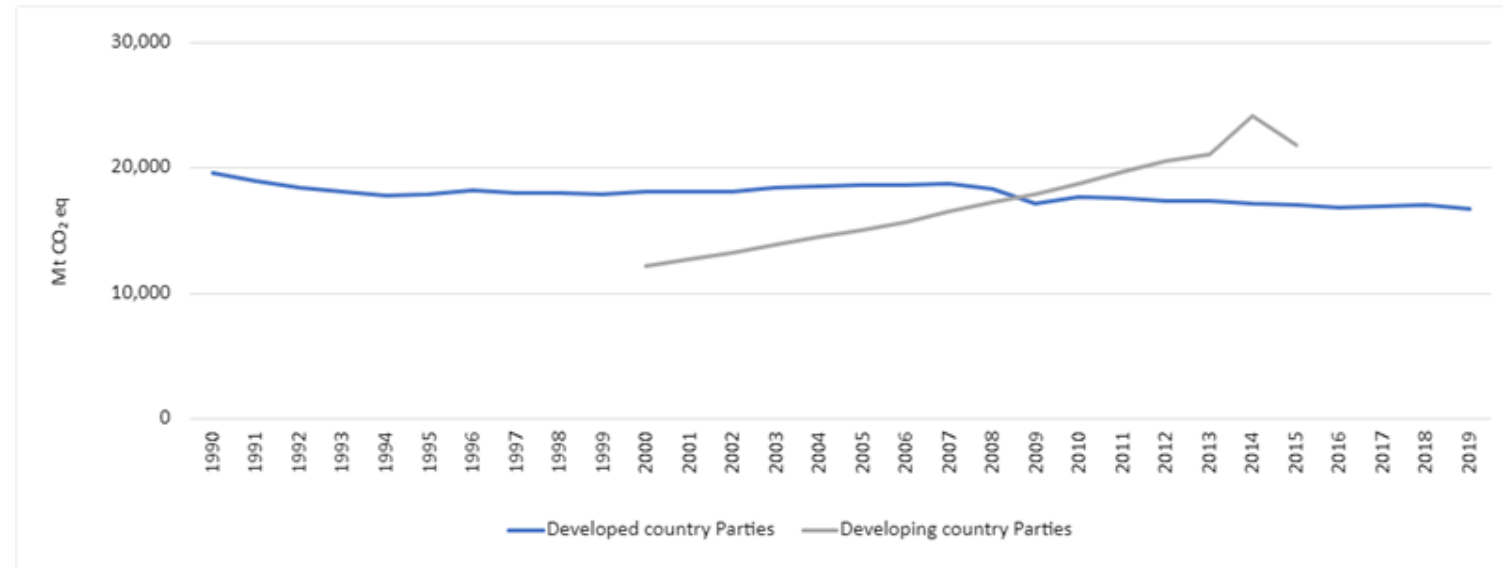
# GHG emissions/removals: key messages and information



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- Total GHG emissions (without LULUCF) of developed country Parties decreased by 14.8% between 1990 and 2019; those of developing country Parties increased by 79.2% between 2000 and 2015

- Total GHG emissions of the developed and developing country Parties taken together rose by 28.0 per cent between 2000 and 2015



Greenhouse gas emissions without land use, land-use change and forestry in 1990–2019 (Figure 2, synthesis report on 23(a))

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- The LULUCF sector was a net sink for both groups of Parties, particularly from 2006 onwards
- The decrease in the emissions of developed country Parties may be attributed to the structural changes in their economies, particularly in the case of EIT Parties, combined with the impact of the PaMs and mitigation actions implemented
- The increase in the emissions of developing country Parties is due primarily to rapid economic and population growth in those Parties



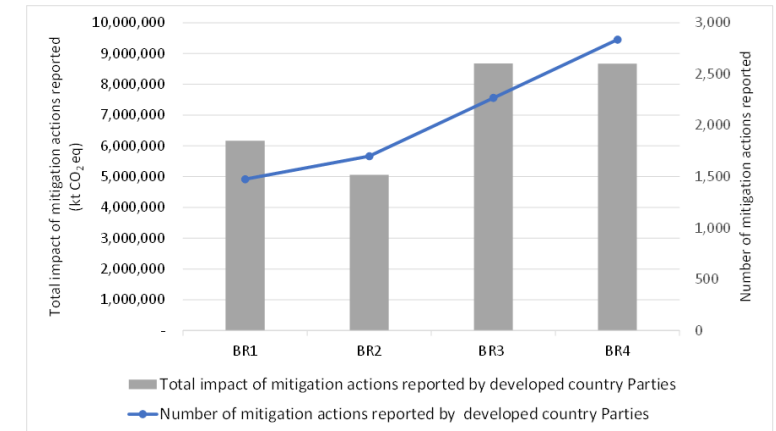
- Source of information:
  - GHG inventories of developed country Parties for 1990–2019
  - NCs and BURs of developing country Parties
- Information is presented for 43 developed country Parties
- Information is presented for 55 of 154 developing country Parties for 2000–2015
  - These group of Parties reported GHG emissions/removals by sector and by gas for more recent years
  - In order to fill gaps and generate a complete time series, estimates were either:
    - interpolated linearly on the basis of two known values
    - extrapolated from the most recent available data – at a maximum 3 years prior to the latest year of the time series (2015)

# Mitigation efforts undertaken by Parties: Key messages and information

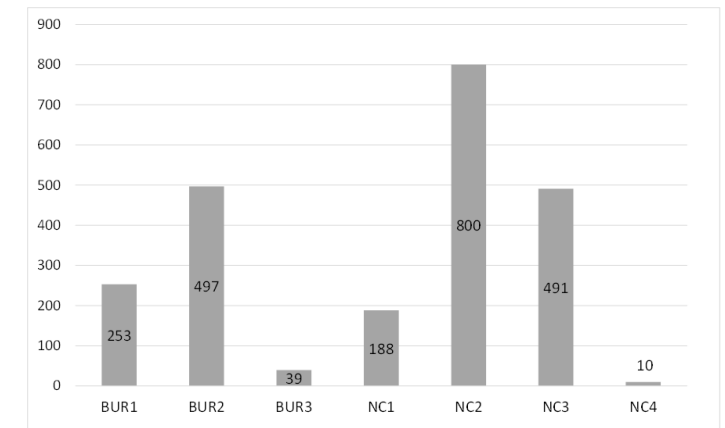


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- In order to achieve their post-2020 targets, Parties **continue to expand and diversify the mitigation measures** established in the context of their 2020 targets and NAMAs
- Depending on their national circumstances, **Parties are taking diverse approaches to establishing institutional arrangements** to support the formulation and implementation of national mitigation policies (climate acts, long-term targets, strategies, plans and political decision-making structures)
  - **many developing country Parties still face challenges** in setting up institutional arrangements or domestic MRV systems owing to a **lack of financial resources and human capacity**
- **The energy sector remains the focus of the mitigation actions** reported by Parties dominated by measures promoting energy use from renewable sources, decarbonizing energy supply and promoting energy efficiency
  - developing country mitigation actions while also focusing on the energy sector, address the agriculture and LULUCF sectors, particularly deforestation
- **Parties favor hard instruments (e.g. regulatory, economic, fiscal, and voluntary agreement) over soft instruments (e.g. research, information and education) to implement mitigation actions**
- **Mitigation actions targeting a single gas (CO<sub>2</sub>) account for the largest share of the total impact of the actions reported by developed country Parties, and the number of developing country Parties reporting impacts of mitigation actions**



Total number of mitigation actions and mitigation impacts reported by developed country Parties in their biennial reports



Number of mitigation actions reported by developing country Parties in their national communications and biennial update reports



- The information of mitigation actions includes analyses of **institutional arrangements**, and of **mitigation actions** by their **scope, coverage, type of instrument** and **status**, which is based on the information reported by developed and developing countries in their BRs and BURs/NCs respectively
- Developed and developing country Parties report the information on mitigation actions in their BRs and BURs following **different reporting requirements** in terms of **scope, coverage** and **level of detail**
- Information is from the **most recent** GHG inventories and BRs of developed country Parties and BURs/NCs of developing country Parties submitted by **31 January 2022**:
  - **43** of **44** developed country Parties (including the EU) had submitted BR4s; Ukraine had submitted its BR1 only
  - As at 31 Jan 2022, out of **154** developing country Parties, the following submissions were received: 78 - BUR1; 36 – BUR2; 21 – BUR3; and 10 –BUR4
    - The information on **national mitigation policies and institutional arrangements** of developing country Parties is from the latest BURs and NCs submitted by **151** developing country Parties by **31 January 2022** (at which point Equatorial Guinea, Libya and South Sudan had not yet submitted BURs or NCs)
    - The information on **domestic mitigation actions** is from the latest submissions (NCs and BURs) received by **31 August 2019** from the same developing country Parties



- Synthesized information in 50 LT-LEDS representing 60 Parties communicated to the secretariat by the end of December 2021.
- **Long-term target:**
  - 94% LT-LEDS provided information on quantified long-term mitigation targets
    - Quantified targets were expressed in several ways: net zero emissions, climate neutrality, carbon neutrality, absolute emission reduction target (percentage reduction from base year) etc.
  - 6% LT-LEDS focused on policies and actions without presenting a quantified long-term mitigation target.
- **Mitigation Policies and measures:**

98% LT-LEDS outlined priority areas most commonly, energy supply, transport, agriculture, LULUCF, industry, waste and buildings.
- **Socioeconomic aspects of the transition:**

All of the LT-LEDS highlighted socioeconomic aspects; for example, impact on GDP and employment, required investment, needs of support for vulnerable groups, and just transition.

- **EU and member states**

- 50 LT-LEDS representing 60 Parties (in addition to **1 LT-LEDS** communicated by Croatia and European Commission **on behalf of EU and its 27 member states**, **17 LT-LEDS** were communicated by **individual EU member states**. 10 EU member states had not communicated its own LT-LEDS.)
- In principle, LT-LEDS from EU and individual EU member States are considered separately
- “GHG emissions trajectories”(2. (b)), “Share in global GHG emissions, GDP, Population, Energy consumption”(Figure24): only EU level information is considered.

- **Long-term target types**

- Counted both “absolute emission reduction target” and “net zero emissions or neutrality target” in one LT-LEDS -> total number of long-term target exceeds 50 (number of LT-LEDS) (Figure25).

- **GHG emission trajectories**

- Consistent approach with the NDC synthesis report: detail available in document “FCCC/PA/CMA/2021/8/Add.3” [https://unfccc.int/sites/default/files/resource/cma2021\\_08\\_a03.pdf](https://unfccc.int/sites/default/files/resource/cma2021_08_a03.pdf)

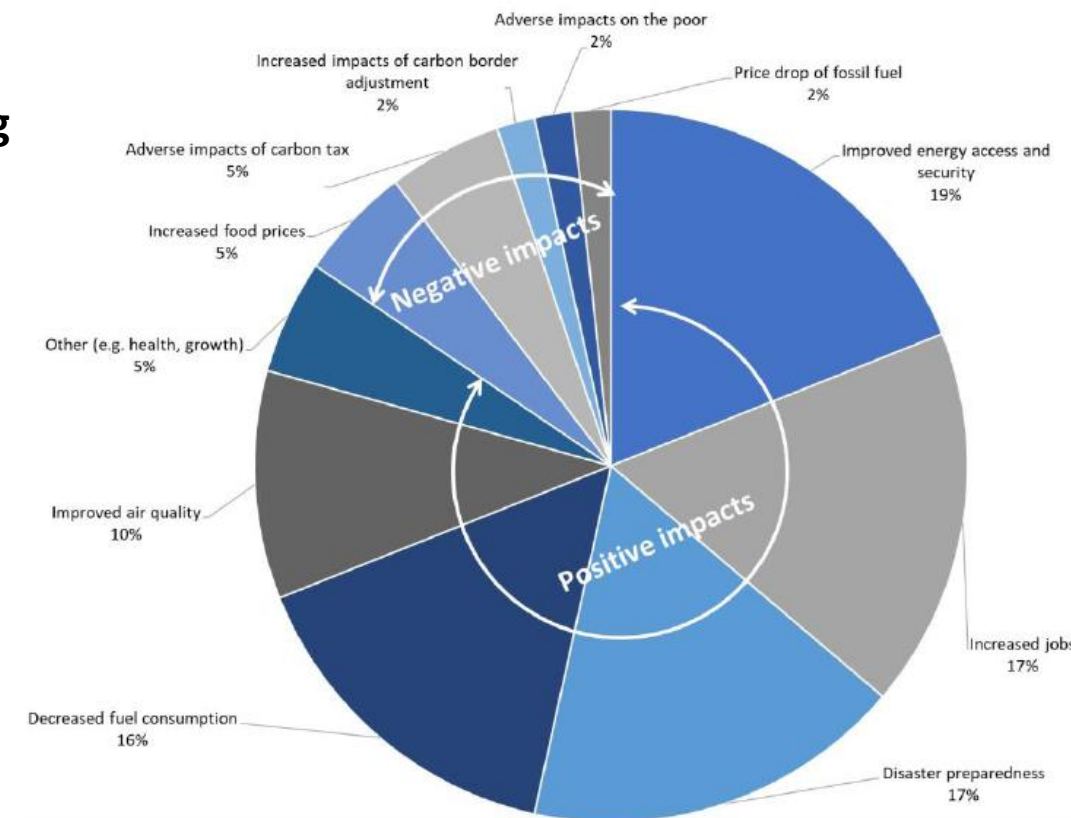


# Impacts of the implementation of response measures: key messages and information



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- **Internationally agreed methodology, human resource development programmes for pursuing economic diversification plans, and technical support for performing comprehensive modelling analysis and predictions** were mentioned by Parties as elements necessary for assessing and minimizing the impacts of the implementation of response measures, and **support is needed particularly by developing country Parties**.
- Only a few Parties provided **quantitative assessments** of the impacts of the implementation of response measures.
- Some Parties reported on **just transition of workforce** and **economic diversification** as means to minimize adverse impacts of response measures.
- A greater number of Parties (71% of developed countries) listed positive impacts of response measures than adverse impacts.



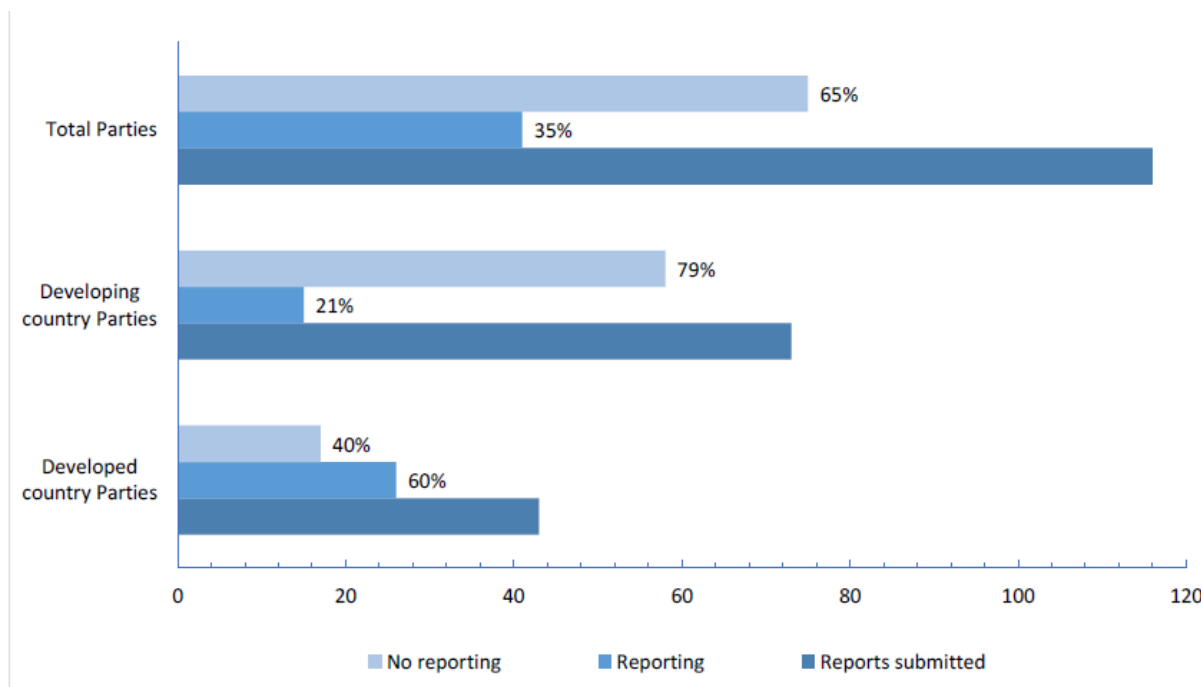
Shares of positive and negative impacts of the implementation of response measures reported in BRs and BURs (Figure 26, synthesis report on 23a)

# Impacts of the implementation of response measures: methodologies and assumptions



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- Source of information:
  - **BR4s** of developed country Parties;
  - **The latest BURs** of developing country Parties.
- A total of **41 Parties** (35% of Parties that submitted their BRs and BURs) reported information on the social and economic consequences of response measures, of which **15 were developing country Parties** (21% of developing country Parties that submitted their BURs) and **26 were developed country Parties** (60% of developed country Parties that submitted their BRs).



Number and share of Parties reporting on social and economic consequences of response measures in biennial reports and biennial update reports ((Figure 27, synthesis report on 23a))

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**The overall effect of  
Parties' nationally  
determined contributions  
and overall progress made  
by Parties towards the  
implementation of their  
nationally determined  
contributions, including the  
information referred to in  
Article 13, paragraph 7(b),  
of the Paris Agreement**



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- The synthesis report is prepared by the secretariat based on decision 19/CMA.1, paragraph 23(c)
- The aim of the report is to summarize the most recent information on the overall effect of NDCs and progress made by Parties towards the implementation of their NDCs, including the information referred to in Article 13, paragraph 7(b), of the Paris Agreement at a collective level
- The report covers information from the 166 latest NDCs available in the interim NDC registry as at 31 December 2021, including information from 131 updated/new NDCs submitted by 158 Parties

## I. Introduction

- A. Mandate
- B. Scope
- C. Approach

## II. Key information

## III. Synthesis of information contained in NDCs

- A. Overall effect of NDCs
- B. Overall progress made by Parties towards the implementation of their NDCs
- C. Adaptation
- D. Means of implementation

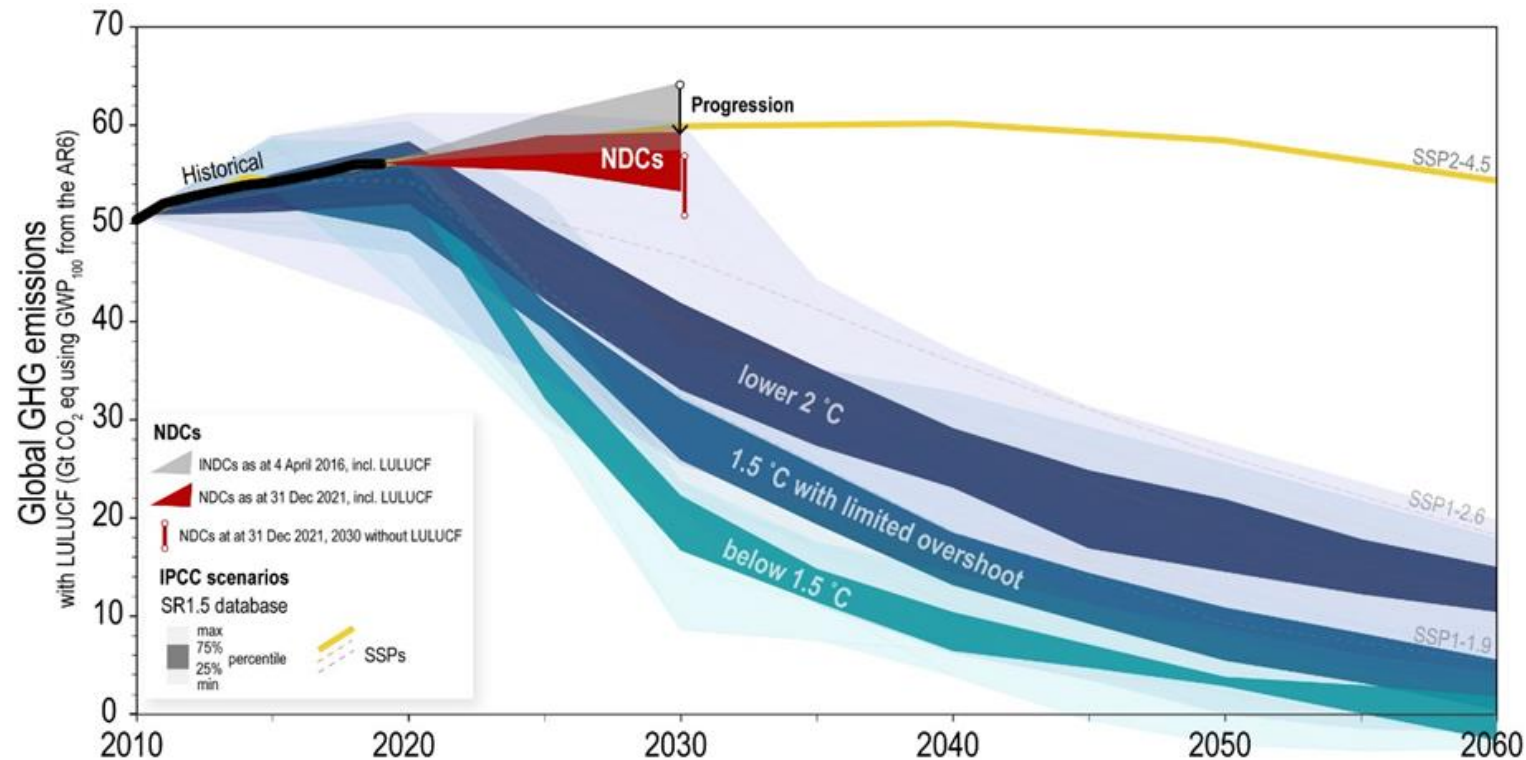
Annex: List of Parties with new or updated NDCs as recorded in the interim NDC registry as at 31 December 2021

# Overall effect of NDCs: key messages and information



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- Global GHG emissions in 2030 are projected to be 13.6 per cent higher compared to 2010 level
- Taking into account the full implementation of NDCs, total GHG emission levels are projected to be 10.0 per cent higher than the 2010 level, however, they represent a 0.9 per cent decrease compared with the 2019 level. This means that global GHG emissions could peak before 2030
- The implementation of long-term targets provided by 78 Parties can decrease total GHG emissions in 2050 by 69-78 per cent compared to 2019
- By 2030, projected total GHG emissions (including LULUCF), in line with NDCs excluding conditional elements, will be 26–32 Gt CO<sub>2</sub> eq higher than the 1.5°C pathway. This implies an urgent need for significantly increase the level of ambition of NDCs between now and 2030



Comparison of global emissions under scenarios assessed in the IPCC Special Report on Global Warming of 1.5 °C with total emissions according to NDCs (Figure 5, synthesis report on 23(c))



- Total global GHG emissions in 2019 were estimated by summing up the GHG emission data for individual Parties contained in their latest GHG inventories, NCs and BURs, complemented by other data from global data sets (e.g., PRIMAP-hist national historical emissions time series v2.3) to address any remaining data gaps
- Total GHG emission levels in 2025, 2030 and 2050 resulting from implementation of the latest NDCs were estimated by summing the expected levels of emissions for the same year communicated in each NDC
- Emission levels are expressed as average values and minimum–maximum ranges owing to the uncertainties underlying the aggregation and the ranges and conditions expressed in the NDCs
- Long-term strategies were quantified as stated in the latest NDCs or as stated in the long-term low emission development strategies officially reported by Parties

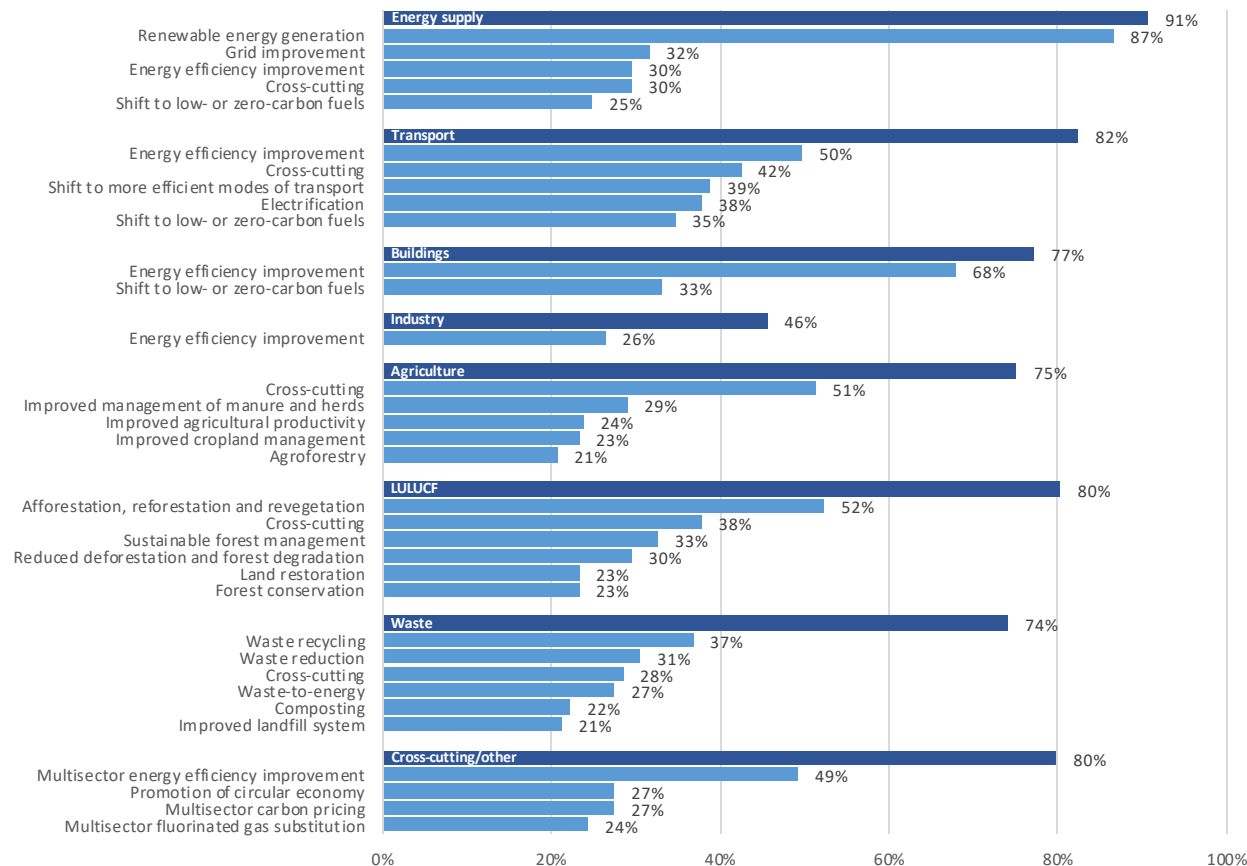


# Domestic mitigation measures and voluntary cooperation under Article 6: key messages and information



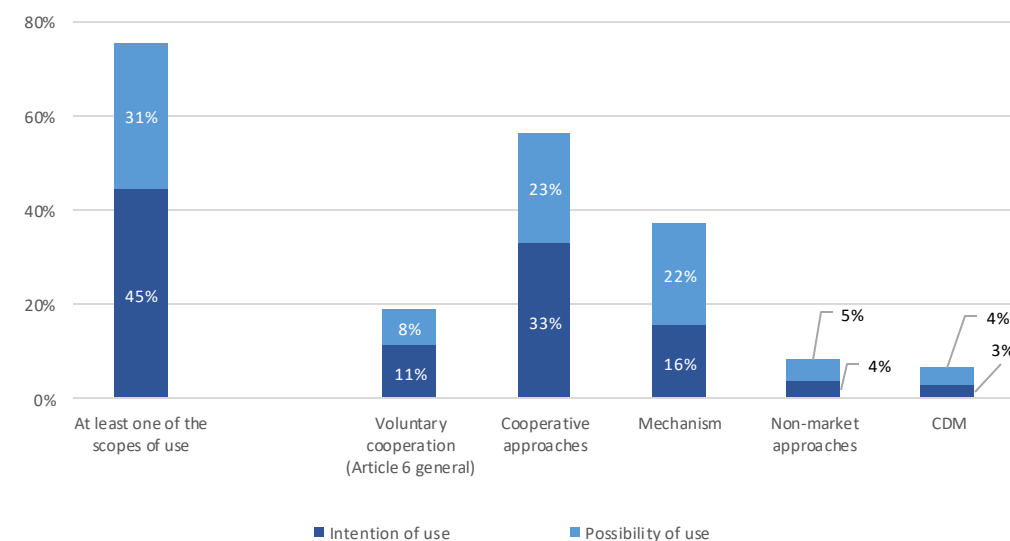
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## Share of Parties referring to specific priority areas and frequently indicated mitigation options under the priority areas in NDCs



- 3-15% of Parties communicated some of mitigation options called on by the Glasgow Climate Pact and mitigation options considered relevant to aligning global emissions trajectories with 1.5 °C pathways in the SR1.5

## Share of Parties indicating in NDCs intention to use or possibility of using specific scopes of voluntary cooperation under Article 6 of the Paris Agreement



- In the new or updated NDCs, share of Parties that plan to or will possibly use at least one type of voluntary cooperation increased from 46% in the previous NDCs to 83%

# Domestic mitigation measures and voluntary cooperation under Article 6: methodologies and assumptions



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## Domestic mitigation measures

### Scope of priority areas

Identified 8 priority areas frequently indicated in NDCs. “Industry” covers measures targeting emissions from fuel combustion in industry, industrial process emissions and emissions from product use.

### Identification of mitigation options

Mitigation options were identified by analyzing the trend in the measures set out in NDCs and by referring to those identified including in the previous NDC synthesis reports and relevant IPCC reports.

### Counting Parties referring to priority areas or mitigation options

If a Party communicated more than one measure for a specific priority areas or mitigation option, it was counted as one Party communicating measures for that priority areas or option.

## Voluntary cooperation

### Scopes of voluntary cooperation

Identified 5 scopes of voluntary cooperation frequently referred to in the NDCs: general use of voluntary cooperation under Article 6; use of cooperative approaches under Article 6.2; use of the mechanism under Article 6.4; use of non-market approaches under Article 6.8; and use of the CDM.

# Mitigation co-benefits of economic diversification plans and/or adaptation actions: key messages and information



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## Mitigation co-benefits of economic diversification (ED)

- **36%** considered mitigation co-benefits of economic diversification plans and/or adaptation actions in their NDCs,
- among which **52%** explained how social and economic consequences of response measures were considered in preparing their NDCs.

## Social and economic consequence without link to mitigation co-benefits

- **26%** of Parties considered social and economic consequences of response measures **but did not link such actions to mitigation co-benefits**.

## Just transition

- **Unequal impacts on different groups in society or the workforce** were highlighted
  - 29% of Parties plan to address such impacts by introducing the concept of just transition in the overall NDC implementation;
  - 3% of Parties paid particular attention to addressing the impacts of response measures on vulnerable groups and communities in relation to poverty, job opportunities and inequality.

## Economic diversification without link to mitigation co-benefits

- 23% considered ED in national development plans and climate policies for boosting national resilience to climate change and the impacts of response measures.
- 3% linked such plans to an existing poorly diversified economy and the impact of response measures on sectors of high economic importance, such as extraction of fossil fuels.

## Sectoral perspective

- **Three per cent** of Parties presented their **sectoral mitigation and adaptation plans** in the agriculture, energy, forestry, tourism and transport sectors as transition or diversification plans.



- The section on response measures summarizes information from 166 NDCs, representing 193 Parties to the Paris Agreement as at 31 December 2021.
- Information is summarized for Parties which
  - Specifically mentioned consideration of mitigation co-benefits resulting from their adaptation actions and/or economic diversification plans
  - Considered positive and/or negative economic and social consequences of response measures without linking them to mitigation co-benefits.



**Questions on the methodologies and assumptions used to aggregate the inputs for the synthesis report on GHG emissions and mitigation efforts (23 a), and the mitigation section for the synthesis report on NDCs (23 c)**

20 min

Please submit any additional questions by scanning the **QR code**, or by entering **www.menti.com** and using the **code 4040 0953**.



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**The state of adaptation efforts, support, experience and priorities (23 (b)), including the information referred to in Article 7, paragraphs 2, 10, 11 and 14, of the Paris Agreement, and the reports referred to in Article 13, paragraph 8, of the Paris Agreement**



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- Key messages
- Overview of structure and content
- Linkages with other adaptation-related synthesis reports
- Mandate and approach
- Considering the collective state of adaptation efforts
- Addressing specific issues of the mandate
- Source materials

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- Consideration of adaptation in the 23 (c) report (NDCs)

- **Global goal on adaptation:** orients, in particular through temperature links; more convergence needed on understandings of the goal and linking national efforts with it; work programme is an opportunity
- **Global risks vs. national assumptions and responses:**
  - Overall assumptions by Parties (about e.g. temperature, SLR and other impacts) correspond generally to science (tend towards higher ends / based on RCP8.5); extent to which assumptions guide adaptation efforts requires further analysis
  - Major uncertainties about projections on several risks (e.g. heavy precipitation, flooding, drought, and non-linear impacts), as well as about socio-economic factors that influence vulnerability
  - Types of adaptation efforts identified by Parties are generally consistent with scientific recommendations
  - Adaptation efforts tend to be defined for sectors => less targeted towards specific risks; synergistic approaches to cross-cutting risks (e.g. water-related or ocean-related impacts) are less pronounced.
- **Recognition of efforts:** national reports: diverse understandings of recognition; limited/heterogeneous information about domestic investments and “unconditional actions”
- **Adequacy and effectiveness:** conceptual and methodological challenges; information on barriers and gaps can provide a “proxy”



## I. Introduction

- Mandate; adaptation-specific aims of GST; guiding questions; approach

## II. Key messages

- Key messages of the report

## III. GGA and collective perspectives on adaptation at various spatial scales

- GGA and dimensions of adaptation in PA; work on GGA (e.g. WP); adaptation as global challenge; mitigation ambition – adaptation link

## IV. Global climate impacts and associated adaptation efforts, experiences and priorities

- Observations and projections on 10 risks and related adaptation options identified by IPCC / sci. literature; assumptions and prioritized efforts in national reports; observations about information, including gaps

## V. Adaptation efforts of developing country Parties (for their recognition)

- FCCC work on recognition; recognition in national reports; domestic adaptation investments of developing countries; adaptation independent of international support; South-South cooperation

## VI. Adequacy and effectiveness of adaptation and support, and status of adaptation support needs

- Existing work; information from national reports and IPCC on progress, results, challenges, barriers, maladaptation and limits to adaptation; information on support needs from national and CB reports (SCF); complementary information on needs separated by sector and means of implementation

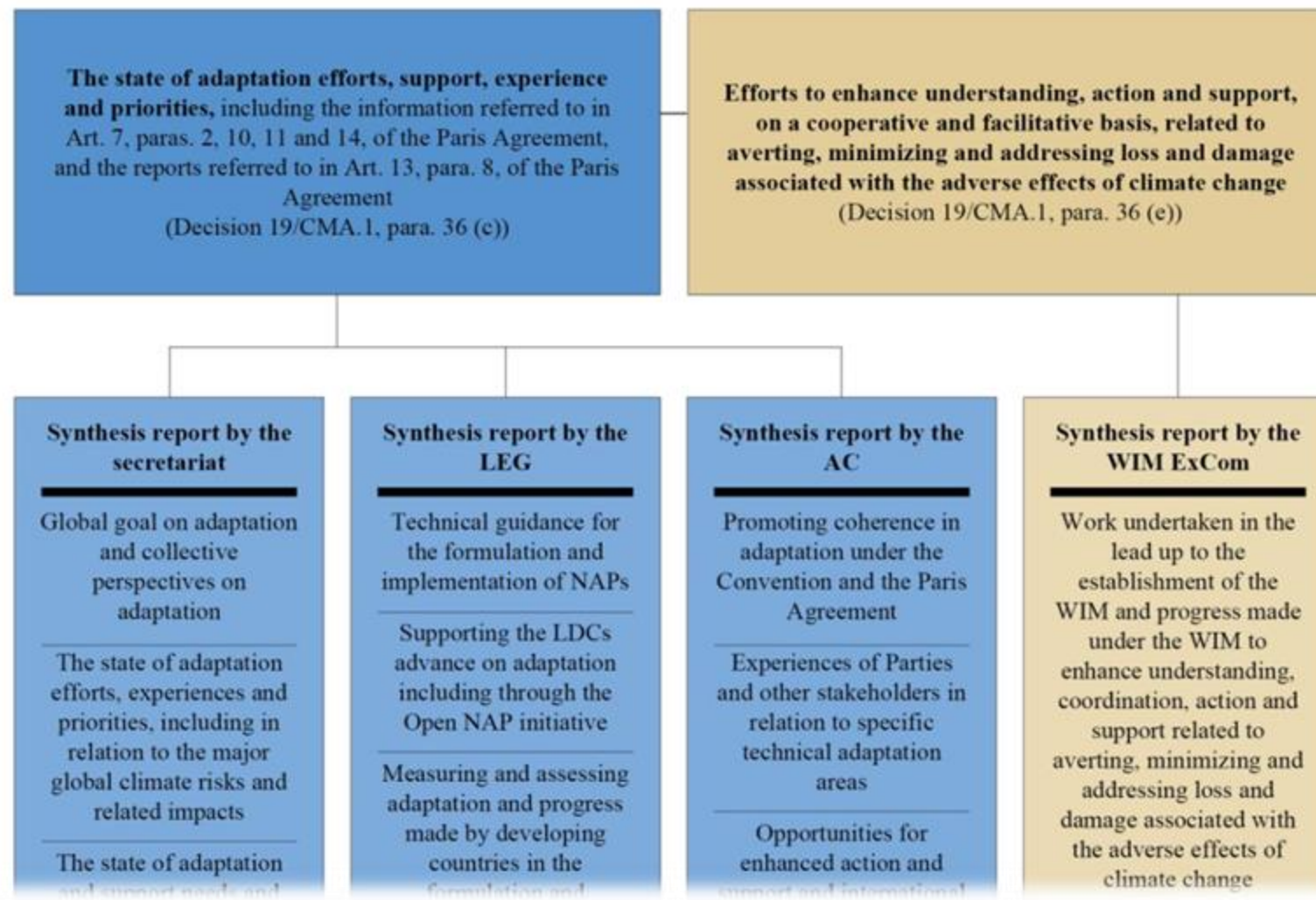
## VII. Equity, fairness and ambition

- Equity, fairness and ambition; understanding adaptation ambition in national reports (e.g. determinant, articulations, and enhancement)

## Annex: GST Guiding Questions

- Guiding questions presented by the SB Chairs

## Overview of adaptation-related synthesis reports prepared for the global stocktake

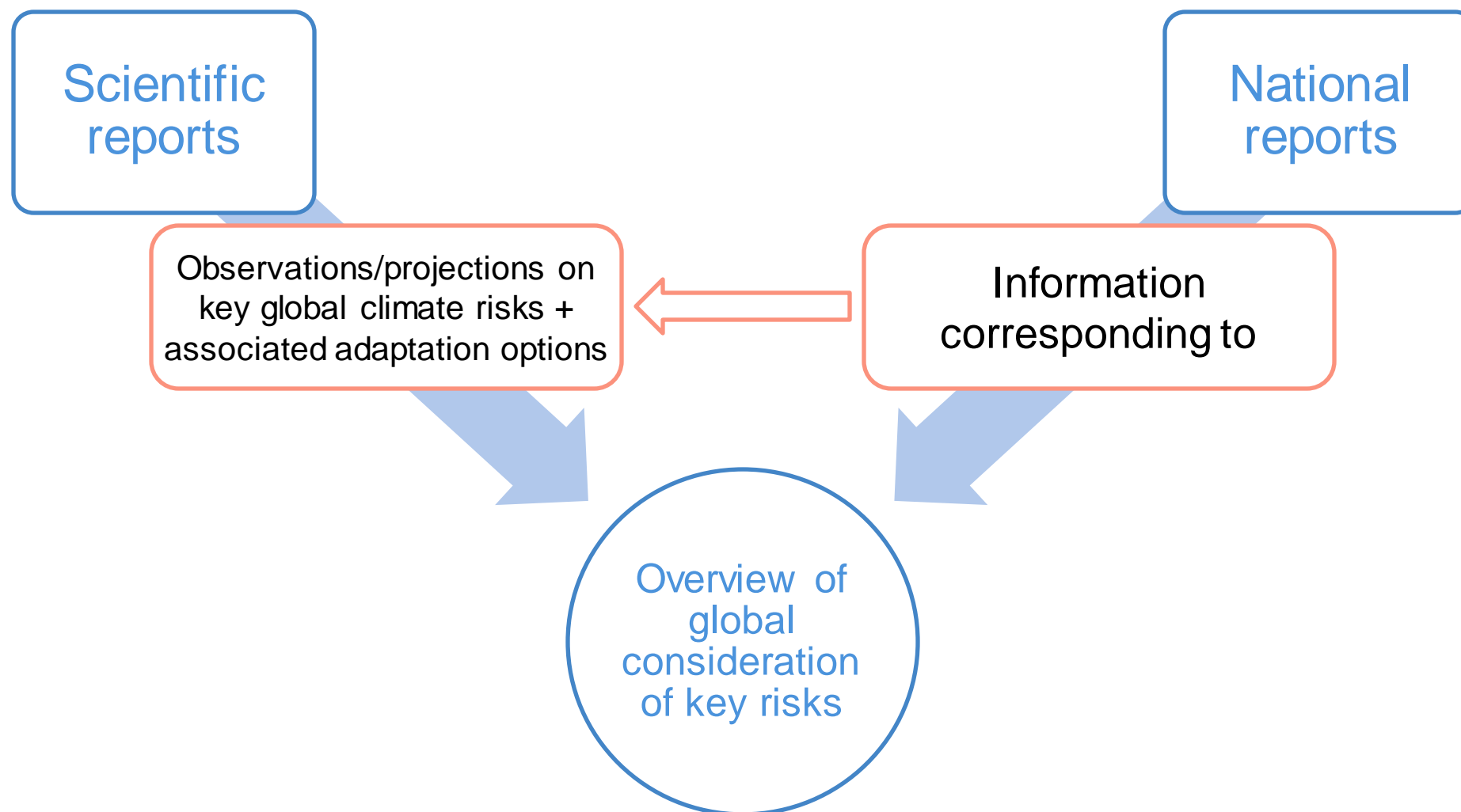


Key aspects of the mandate		General response to mandate
19/CMA.1	<b>23 (b):</b> state of adaptation efforts, experiences and priorities, summarize most recent information	<ul style="list-style-type: none"> <li>➤ Consider collective status of adaptation efforts</li> <li>➤ Address specific topics encompassed by the mandate (global goal on adaptation, recognition of efforts, adequacy and effectiveness, support needs) without duplicating or prejudging ongoing work</li> </ul>
	<b>36 (c):</b> consider information at a collective level on state of adaptation efforts, support, experiences, priorities (Art. 7.2, 7.10, 7.11, 7.14, 13.8)	
11/CMA.1	<b>9:</b> Information on adaptation by developing country Parties to facilitate recognition of their efforts	
	<b>31:</b> Assessment of the support needs for adaptation of developing country	

# Considering the collective state of adaptation efforts



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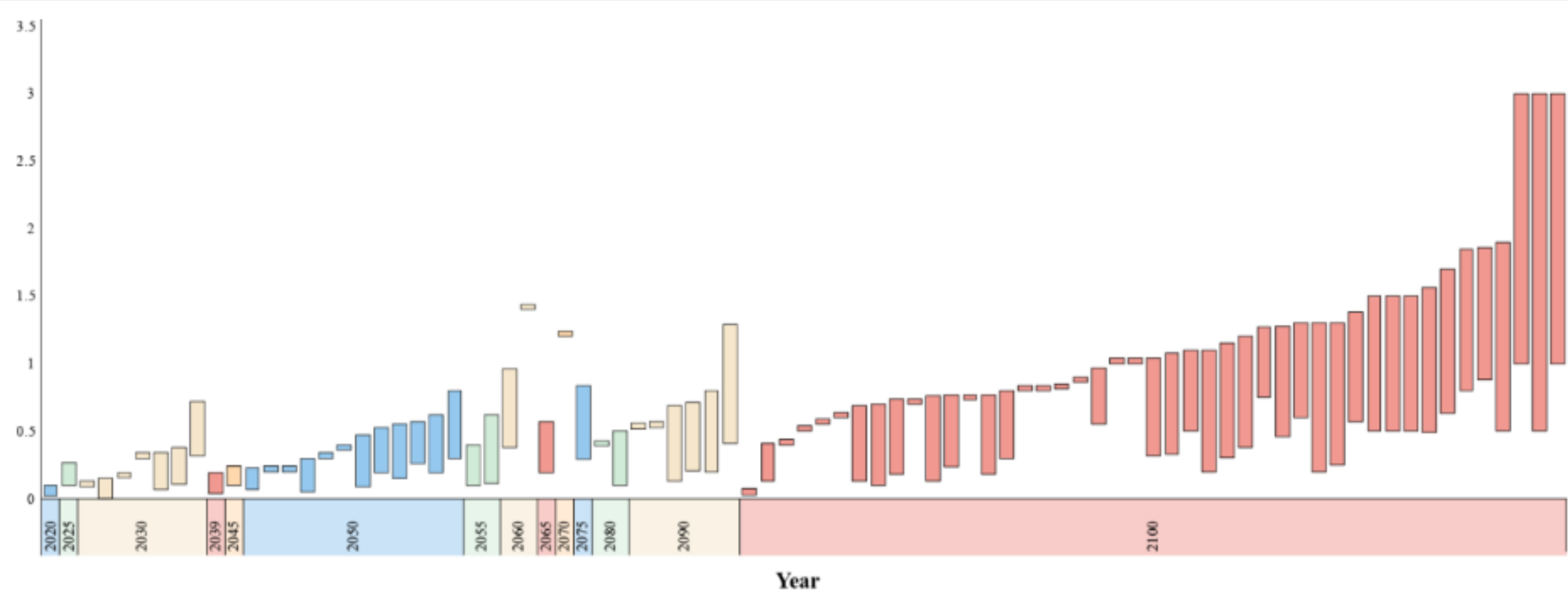
# Considering the collective state of adaptation efforts: sea level rise



## Projections

Scientific reports      Global mean sea level is projected to rise by 0.26–0.77 m by 2100 relative to 1986–2005 level for +1.5 °C warming, and by an additional 0.04–0.16 m for +2 °C. SLR will continue beyond 2100 even if warming is limited to 1.5 °C (IPCC, 2018a).

## National reports



# Considering the collective state of adaptation efforts: sea level rise

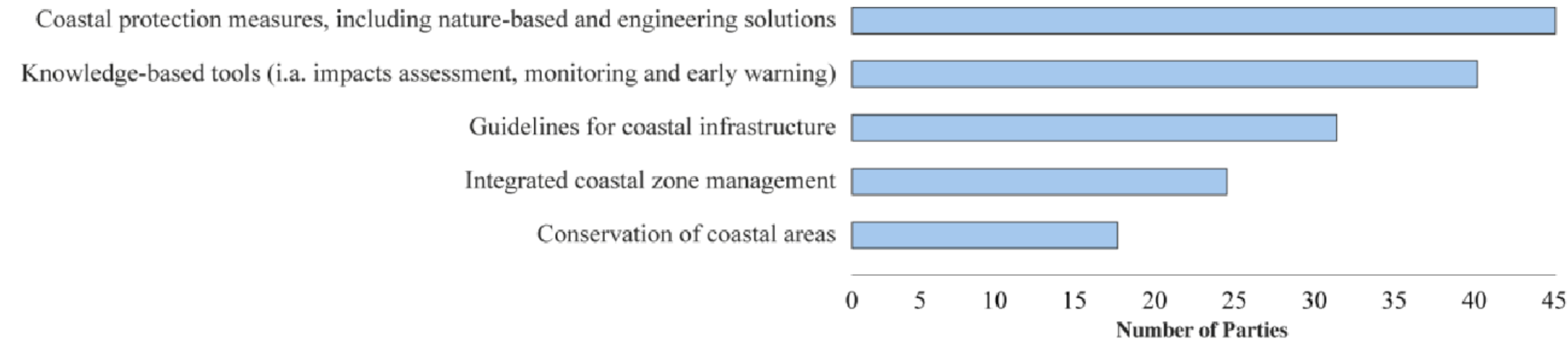


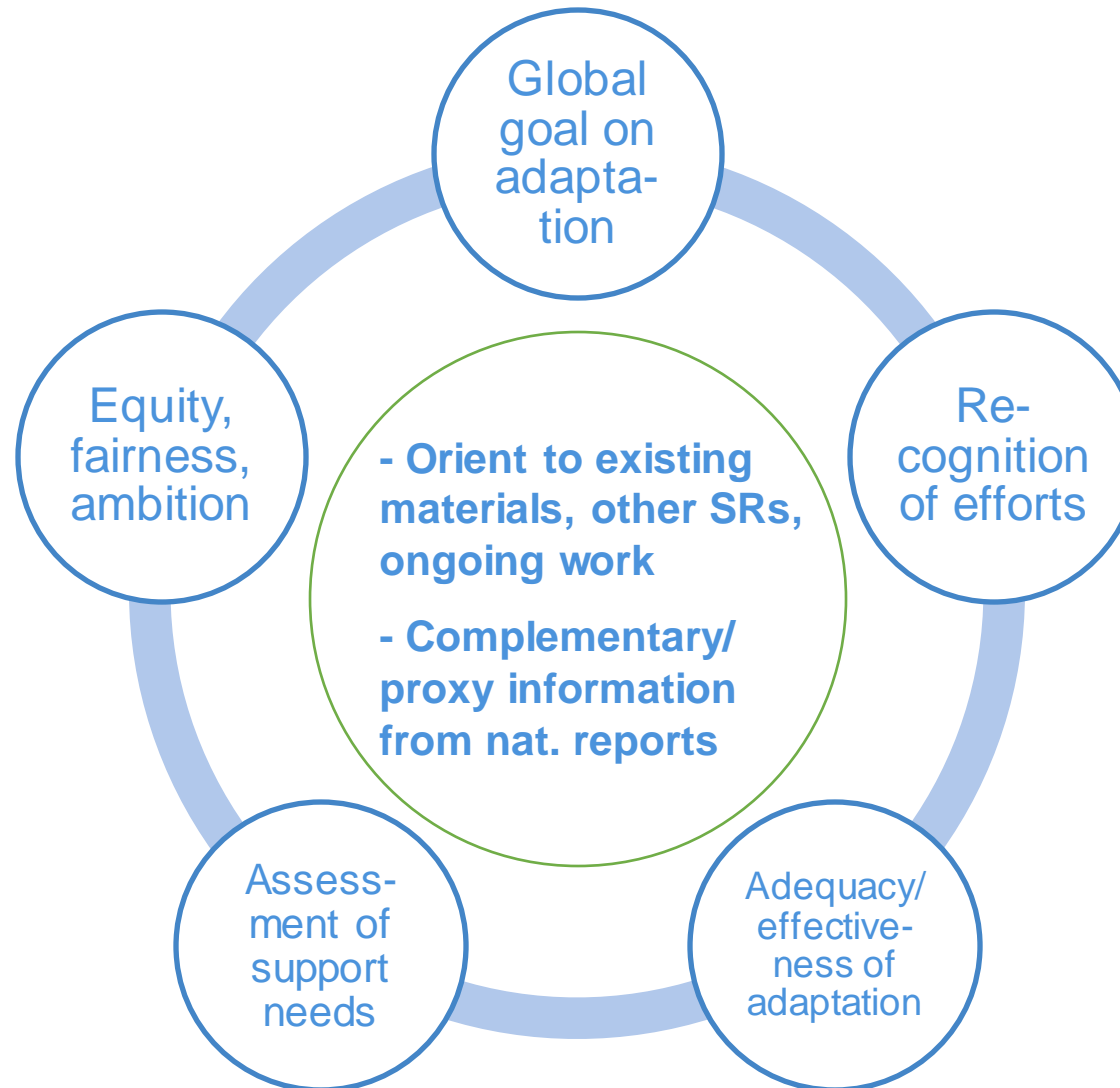
## Types of adaptation actions

- Scientific reports
- Recommended adaptation actions:
- Ecosystem restoration and management
  - Integrated coastal zone management
  - Coastal reinforcement
  - Livelihood and food source diversification

National reports

Adaptation efforts prioritized by Parties:





# Addressing specific issues of the mandate: recognition of efforts



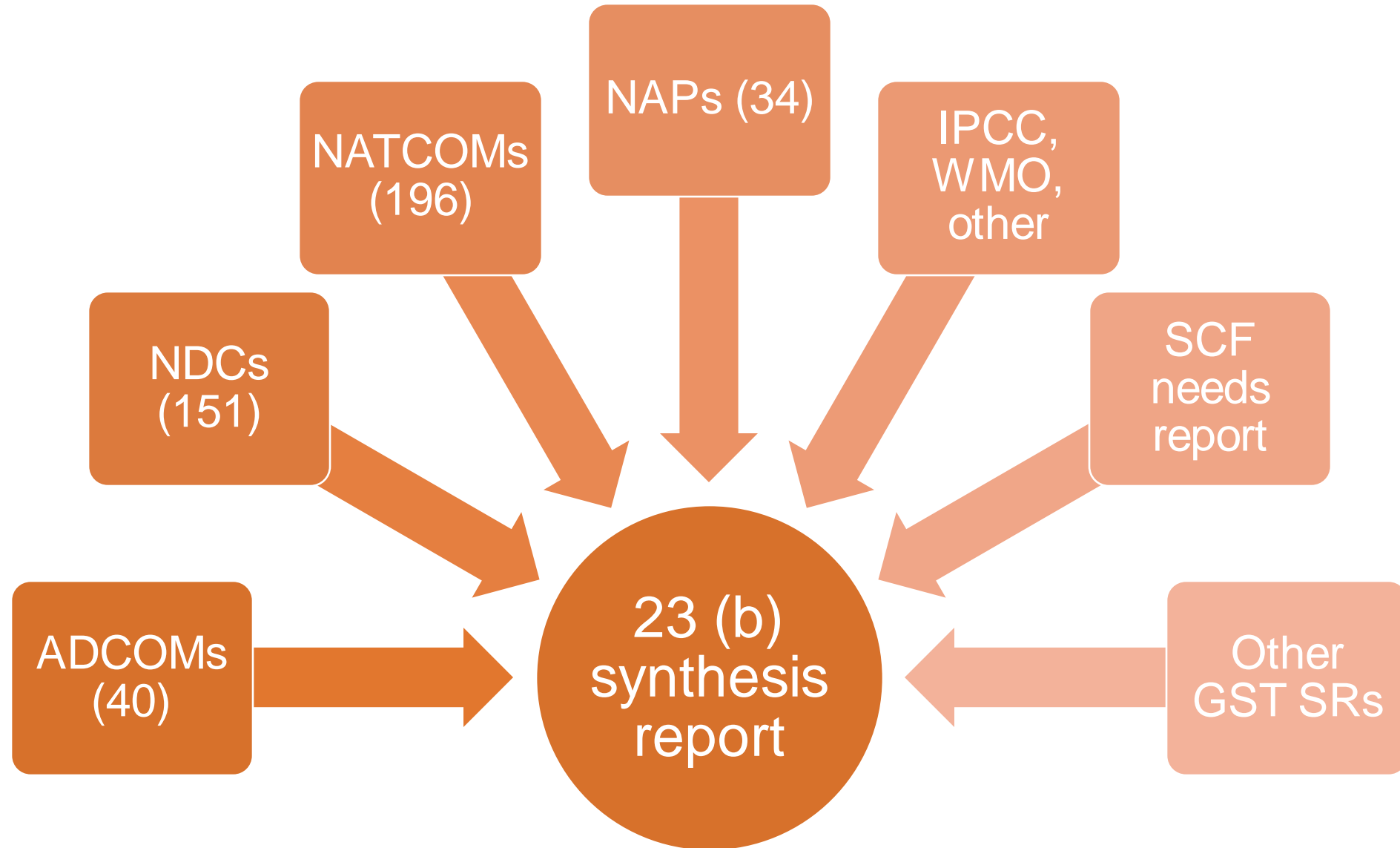
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Existing  
mandates, work  
and materials

- Mandates relevant to recognition of efforts
- Work by AC and LEG on recognition of efforts
- Provisions of 11/CMA.1 on modalities of recognition

Complementary  
information in  
national reports

- How Parties frame recognition of efforts
- Domestic adaptation investments highlighted
- Unconditional efforts
- South-south cooperation







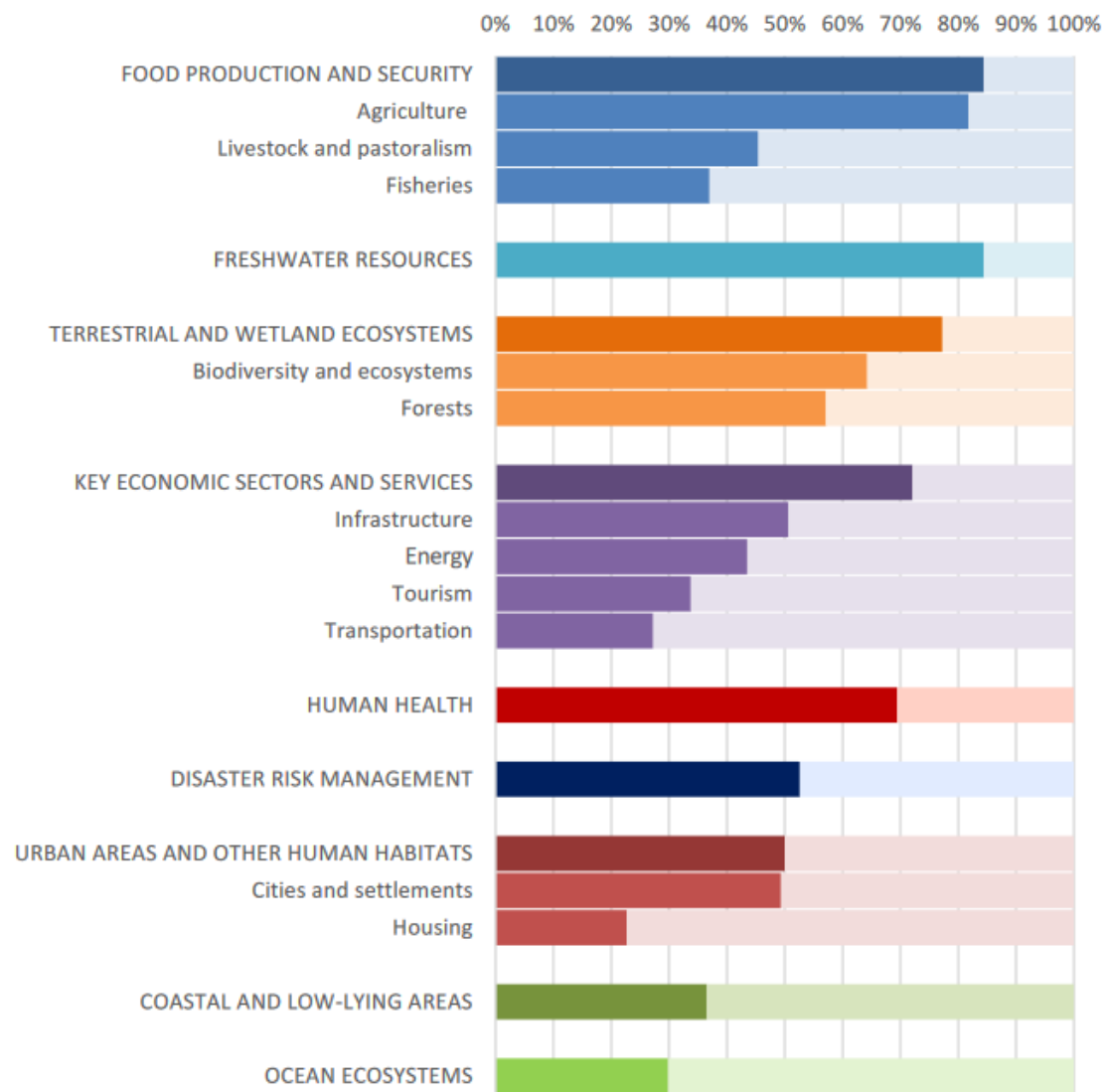
- **Purpose:** synthesis of information on adaptation priorities identified in NDCs
- **Key messages:**
  - 80 per cent of NDCs included adaptation information (2015: 72 per cent)
  - NDCs contain information on research, vulnerabilities, adaptation actions, priority sectors, NAPs, contingency measures, mitigation-adaptation synergies, SDG links and monitoring and evaluation
  - 60 per cent described the status of their NAPs (2015: 42 per cent)
  - More integrated and comprehensive national frameworks for adaptation
  - Increased number of specific targets and assessment frameworks for adaptation

# Consideration of adaptation in the 23 (c) report (NDCs)



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PRIORITY AREAS IDENTIFIED IN ADAPTATION COMPONENTS OF NDCS



## **Questions on the methodologies and assumptions used to aggregate the inputs for the synthesis report on adaptation (23 (b)), and the adaptation section for the synthesis report on NDCs (23 (c))**

20 min

Please submit any additional questions by scanning the **QR code**, or by entering **[www.menti.com](https://www.menti.com)** and using the **code 4040 0953**.



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**The finance flows, including the information referred to in Article 2, paragraph 1(c), and means of implementation and support and mobilization and provision of support, including the information referred to in Article 9, paragraphs 4 and 6, Article 10, paragraph 6, Article 11, paragraph 3, and Article 13, in particular paragraphs 9 and 10, of the Paris Agreement.**



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### Decision 19/CMA .1 para 36(d):

The finance flows, including the information referred to in Article 2, paragraph 1(c), and means of implementation and support and mobilization and provision of support, including the information referred to in Article 9, paragraphs 4 and 6, Article 10, paragraph 6, Article 11, paragraph 3, and Article 13, in particular paragraphs 9 and 10, of the Paris Agreement.

Information related to finance flows pursuant to Article 2, paragraph 1(c) of the Paris Agreement

Information on provision of means of implementation and mobilization of support

- Finance
- Technology development and transfer
- Capacity-building





## **Finance flows pursuant to Article 2, paragraph 1 (c):**

- Global climate finance and consistency of financial flows
- Information on ongoing efforts of public and private sector financial institutions to make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development.

## **Provision of means of implementation and mobilization of support – finance**

- Climate finance flows from developed to developing countries
- Thematic, and geographical distribution
- Country-driven priorities and needs of developing country Parties
- Information on projected levels of finance in accordance with Article 9.5
- Challenges and barriers

## **Sources of information**

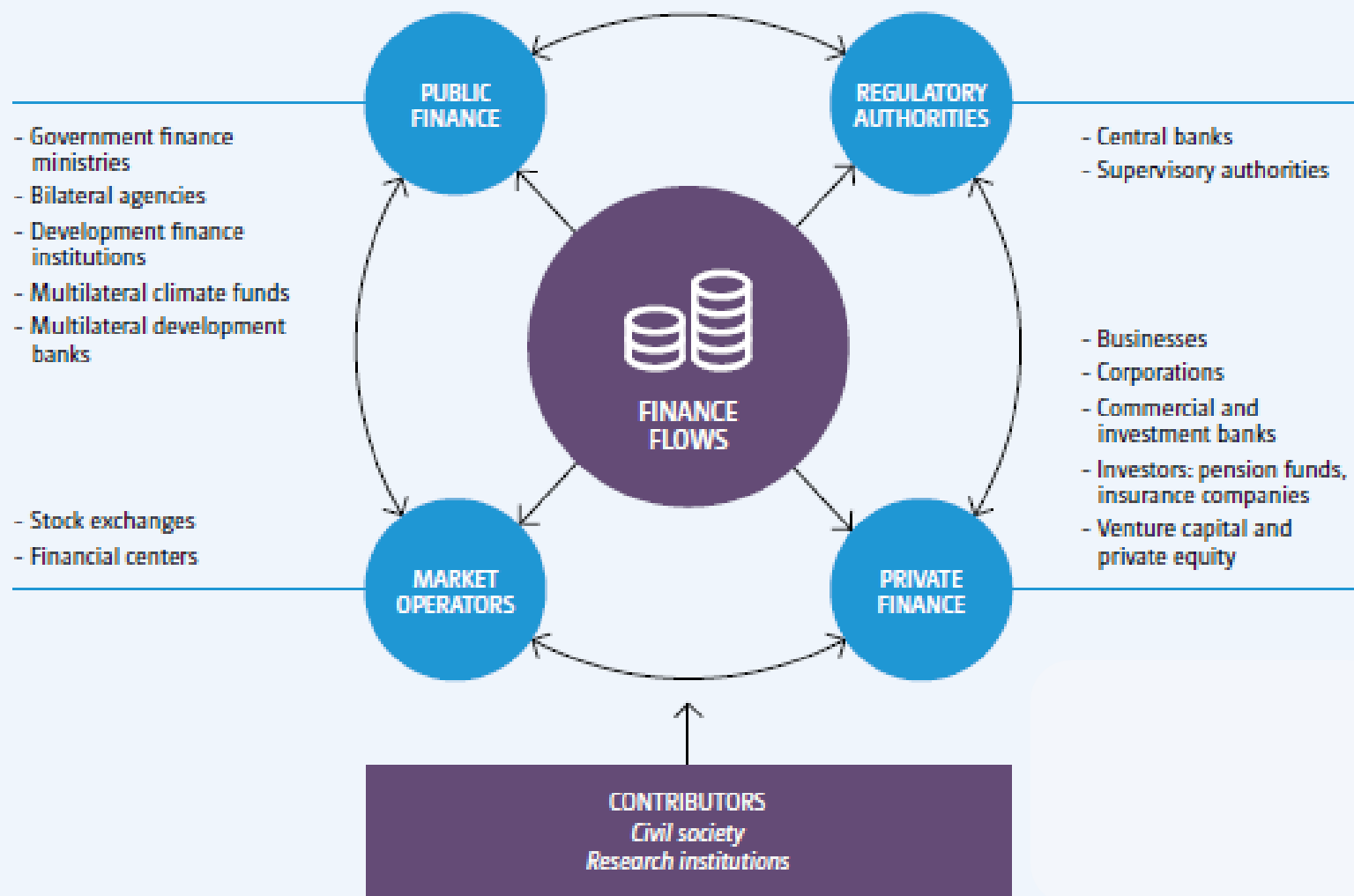
- a) National reports – e.g. NDCs NCs, BRs and BURs, Biennial communications provided by Parties in line with Art. 9 para 5
- b) Aggregate reports – e.g. the fourth BA of the SCF; the first NDR of the SCF; Compilation and synthesis of national reports, MDBs joint reports, etc .

# MOI - Finance: Information related to finance flows pursuant to Article 2, paragraph 1 (c) of the Paris Agreement



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## Actor-specific landscape on mapping information relevant to Article 2.1.c



## Time period

Information related to Art. 2, para 1(c) up to 2020-2021

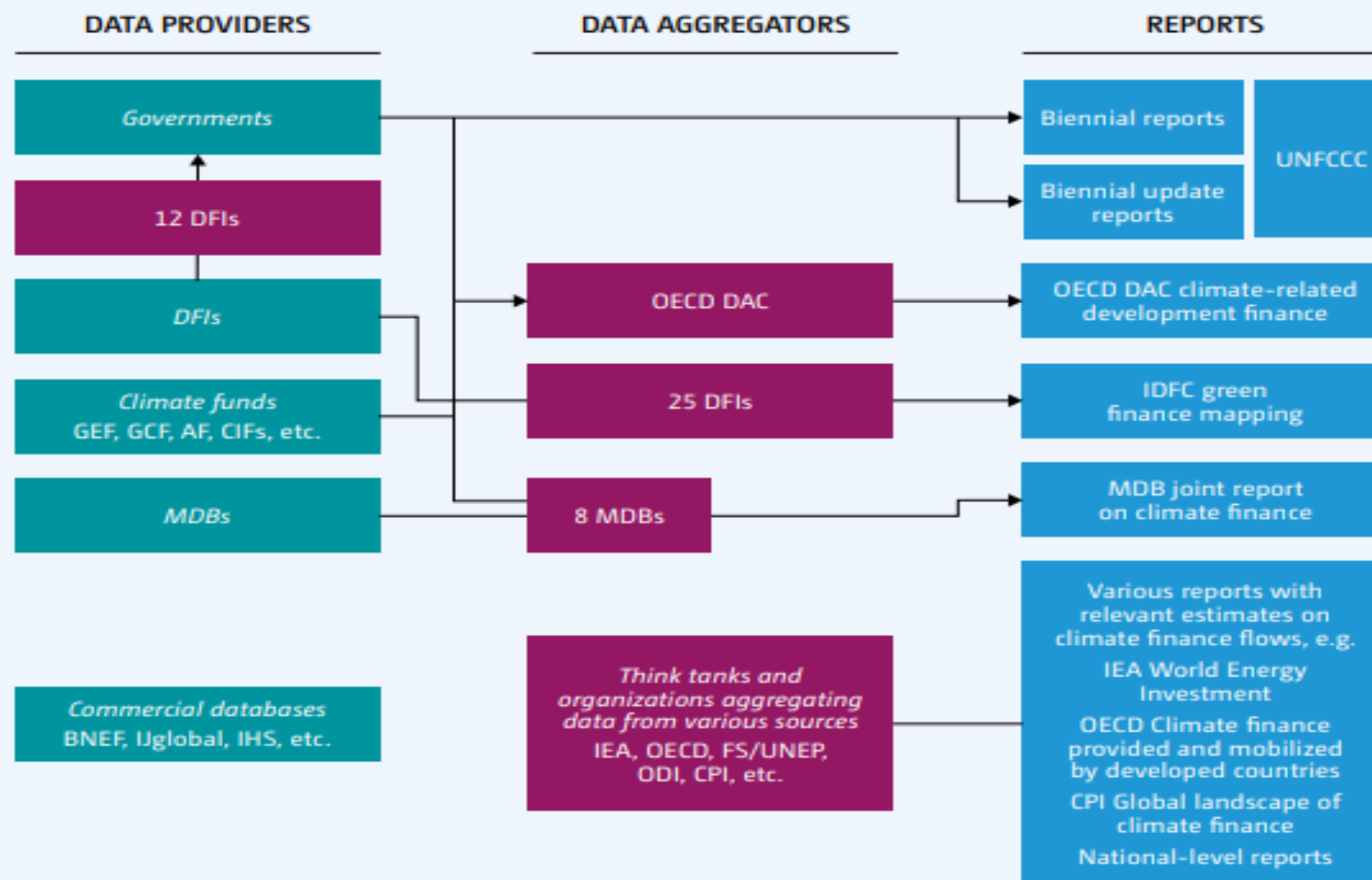
Absence of any agreed tracking framework for Art. 2. paragraph 1(c), but significant growth of public and private sector initiatives developing relevant approaches

# MOI - Finance: Information on provision of means of implementation and mobilisation of support (Art. 9)



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## Data providers, aggregators and reporters of climate-related finance estimates



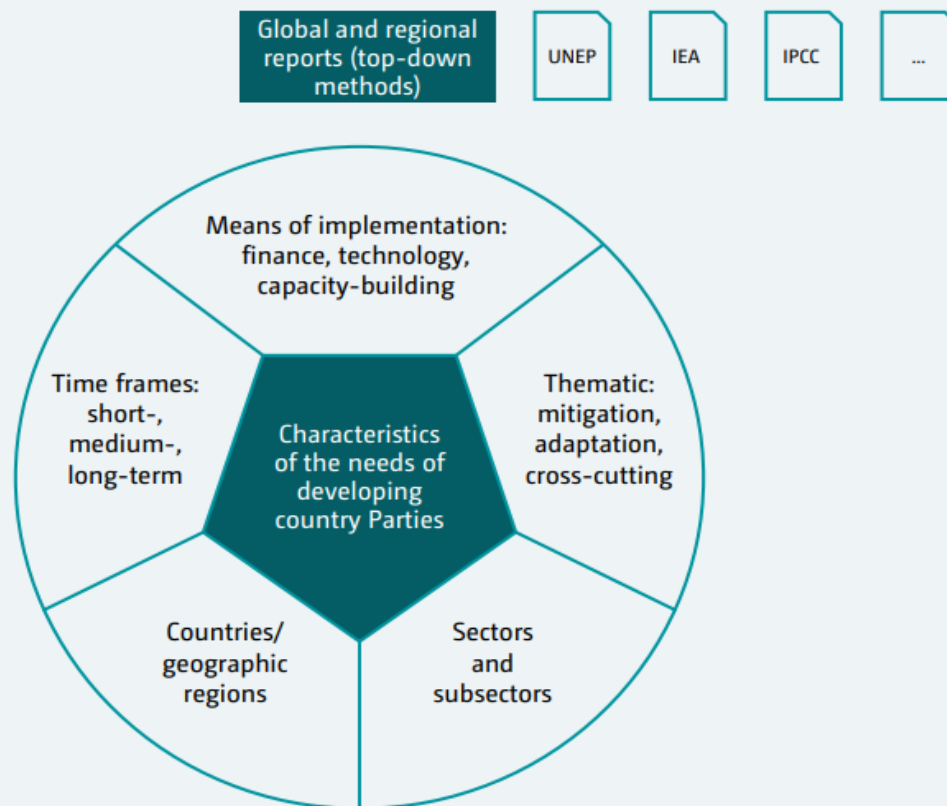
**Notes:** Dashed arrows indicate formal reporting processes, for example through the UNFCCC, OECD DAC or joint reporting by MDBs and IDFC. Some DFIs report data to governments to be included in reporting to the UNFCCC or OECD DAC.

## Time period

Climate finance flows in the period up to 2017-2018 are reported in sources of information

**Collecting, aggregating and analysing data and information from diverse sources** complicates unified assessment of global, developed-to-developing, and other climate finance subflows; Available information from national reports is not standardized; Definitional challenges related to climate finance;

## Approach taken in organizing information and data by source

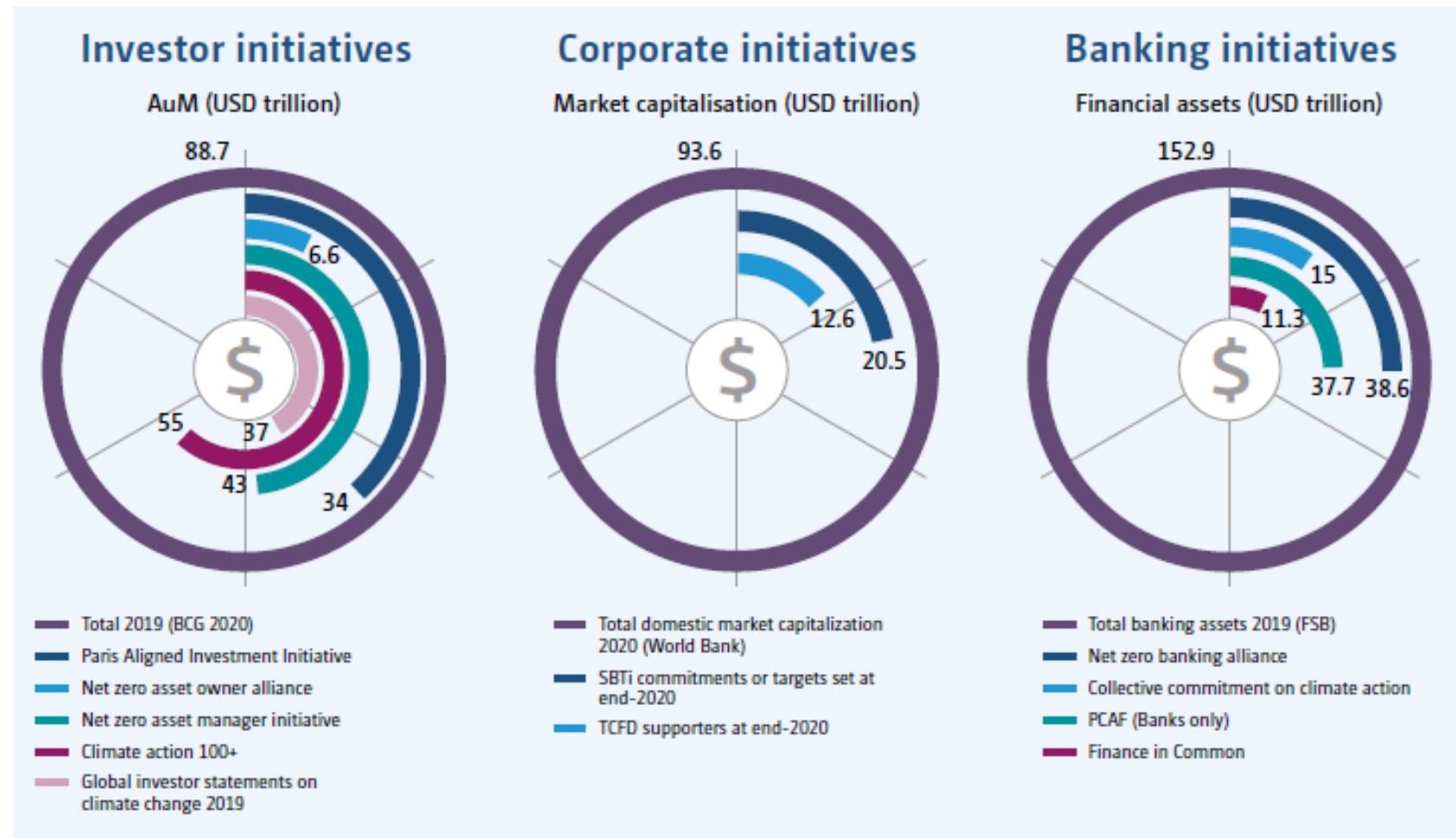


## Time period

Information on needs and priorities up to May 2021

Available studies estimating the overall scale of climate finance and MOIs needed to achieve PA vary;

- Global climate finance flows +16% to USD 775bn per year on average in 2017/2018 vs flows in high-GHG emission activities remain concerningly high at USD 977bn per year
- Significant growth in financial sector initiatives relevant to article 2.1c since the Paris Agreement was adopted
- Assessing the **real-economy impact** and the **risk of greenwashing** remains a challenge





- Climate-specific financial support in 2017/2018 **+8% to USD 37.8bn per year.**
- **+39%** in project approvals from multilateral climate funds but drop in replenishments, +50% climate finance from MDBs
- Estimates on climate finance received remains limited
- Support for mitigation remains greater than for adaptation across channels
- Grants continue to be a key instrument particularly for adaptation finance, Mitigation finance remains less concessional in nature
- Needs ranged USD 5.8–5.9 trillion up until 2030 as identified across 78 NDCs, to USD 8.8–8.9 trillion as identified across 46 NCs and USD 11.5 trillion as identified across 24 BURs.  
Qualitative needs range from 4274 needs identified across 153 NDCs to 6900 identified needs across 149 NCs and 2044 needs identified across 62 BURs.

### Ongoing mandates from COP26 of the SCF for future consideration to GST

- 1) **Fifth biennial assessment** and overview of climate finance flows
- 2) **USD 100 billion goal:** Progress report for consideration by COP 27
- 3) **Article 2.1(c):** Synthesis of submissions including options for approaches and guidelines for implementation, and mapping of available information for consideration by CMA4 and COP 27)
- 4) **Work on definitions of climate finance** for consideration by COP 27

1. Developed an outline for the technology development and transfer section, based on the elements of Article 10 of the Paris Agreement (long-term vision, cooperative action and support) and the guiding questions of the SB Chairs
2. Reviewed, analyzed, compiled and synthesized information identified in decision 19/CMA.1 para. 36 from pre-identified information sources in line with decision 19/CMA.1, para. 37:
  - Compilation and synthesis of **BR 3 (2018) & BR 4 (2020)** of Annex I Parties (22 Annex II Parties)
  - Revised **synthesis report on NDCs** (Oct 2021) (192 Parties)
  - 4<sup>th</sup> **synthesis report of technology needs** identified by NAI Parties (April 2020) (53 NAI Parties)
3. Aligned approaches and presentation of information with sections on Finance and Capacity-building of the synthesis report

## **1. Progress made in strengthening cooperative action on technology development and transfer for mitigation and adaptation and support provided**

(a) Scale and channels of support; (b) Targeted areas, sectors and technologies; (c) Support provided to developing country Parties for strengthening cooperative action on technology development and transfer at different stages of the technology cycle; (d) Endogenous capacities and technologies; (e) Geographical distribution

## **2. Technology needs to achieve the long-term vision on fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions**

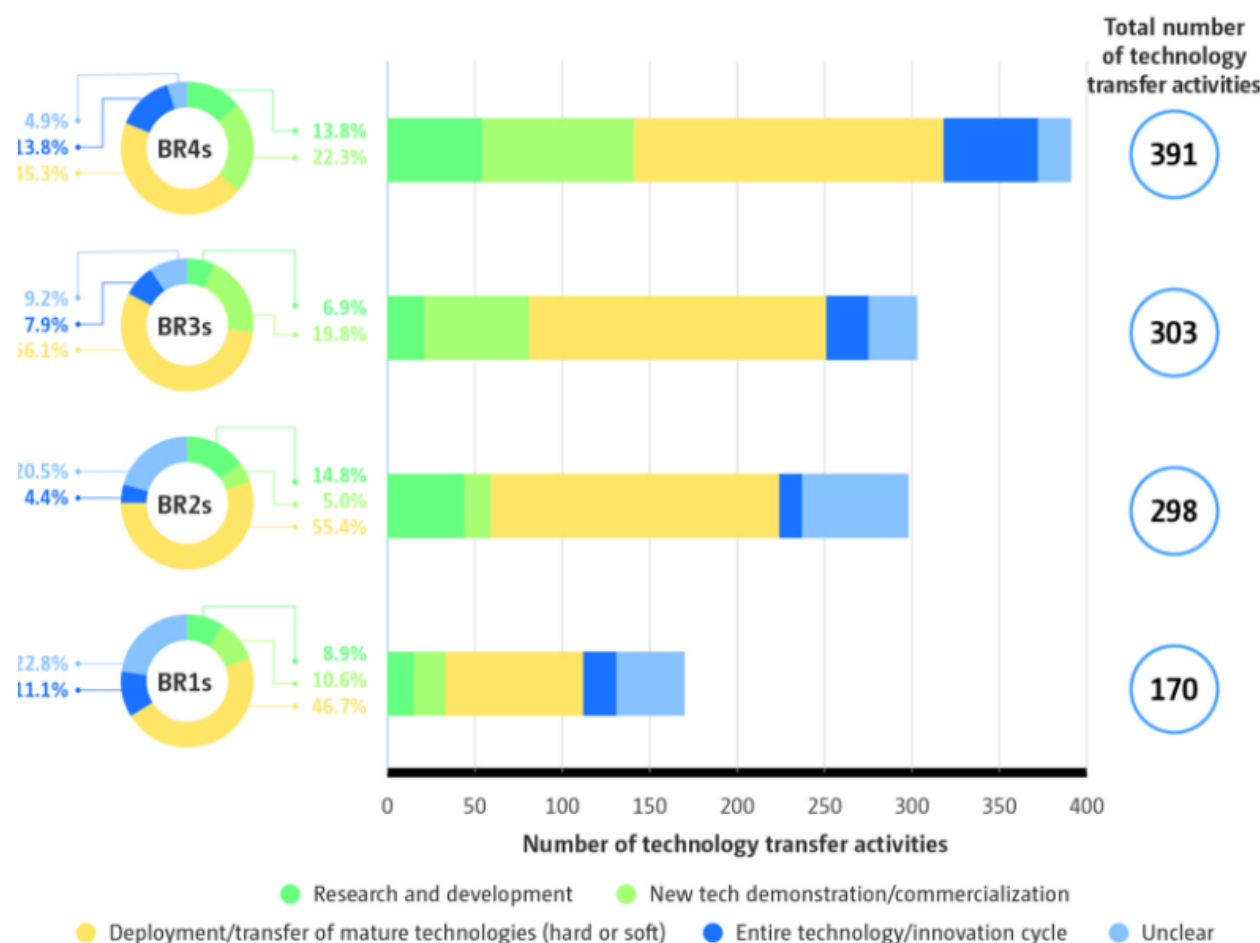
(a) Technology development and transfer for NDC implementation; (b) Technology needs of developing country Parties (targeted sectors and technologies for mitigation and adaptation; budgets estimated in technology action plans)

## **3. Gaps and challenges for cooperative action on technology development and transfer and support provided**

(a) Barriers to and enablers of mitigation technologies; (b) Barriers to and enablers of adaptation technologies

## 1. Progress made by Parties in strengthening cooperative action on technology development and transfer for mitigation and adaptation and support provided to developing country Parties

- Provision of support for technology development and transfer has increased significantly (developed country Parties have more than doubled their support for technology transfer activities since 2012–2013).
- The technology transfer activities reported by Parties are predominantly related to the latter stages of the technology cycle (deployment of mature technologies).
- However, support for early stages of the technology cycle (R&D and demonstration of new technologies) has increased.



### **2. Technology needs to achieve the long-term vision on fully realizing technology development and transfer in order to improve resilience to climate change and to reduce GHG emissions**

- Technology needs mentioned by Parties in their NDCs were mainly in the areas of energy, agriculture, water, waste, transport, climate observation and early warning.
- With regard to technology innovation, research and development, some Parties included information on promoting collaboration between countries and promoting institutions, mechanisms, tools and business models that foster progress in this area.
- Actions on policy, regulatory and legal aspects commonly referred to by Parties included developing or updating policies and strategies to promote technology innovation, promoting use of renewable energy and accelerating adoption and transfer of climate technologies.

### **3. Despite the progress made in strengthening cooperative action on technology development and transfer for the implementation of mitigation and adaptation actions and increased support for developing countries for technology development and transfer, gaps and challenges remain in achieving the long-term vision referred to in Article 10 of the Paris Agreement**



In line with decision 19/CMA.1, para. 37, in particular:

- Annual synthesis reports on the **implementation of the framework for capacity-building in developing countries** (2017-2021)
- Annual compilation and synthesis reports on the **capacity-building work of bodies established under the Convention** and its Kyoto Protocol (2017-2021)
- Annual reports on the **Durban Forum on Capacity-building** (2016-2021)
- **BURs and NCs** of Parties not included in Annex I of the Convention (2017-2021)
- Compilation and synthesis of **BR 3 (2018) & BR 4 (2020)** of Parties included in Annex I of the Convention
- **Comprehensive reviews of the implementation of the framework for capacity-building** in developing countries (2019) and in countries with economies in transition (2017)
- Revised **synthesis report on NDCs** (Oct 2021) and **NDCs** (Oct-Dec 2021)

## **1. Progress made on enhancing the capacity of developing country Parties**

a. Mitigation and adaptation; b. Technology development, dissemination and deployment; c. Access to finance; d. Education, training and public awareness; and e. Transparent, timely and accurate communication of information

## **2. Enhancing support from developed country Parties and international cooperation for capacity-building in developing country Parties**

- a. Enhanced support provided by developed country Parties
- b. Sharing of experiences and good practices among developing country Parties
- c. Capacity-building enhanced through institutional arrangements under the Convention
- d. Communication on support for enhancing capacity of developing country Parties

## **3. Capacity gaps and needs of developing country Parties**

a. Mitigation and adaptation; b. Technology development, dissemination and deployment; c. Access to finance; d. Education, training and public awareness; and e. Transparent, timely and accurate communication of information



### Key Points

- Progress made, but urgent capacity gaps & needs remain
- Different reporting approaches and overall limited data
- No information on effectiveness
- Institutional arrangements under the Paris Agreement remain limited

## Overall Information:

- **74%** of Parties identified capacity-building as a prerequisite for NDC implementation.
- Capacity-building needs were identified **for formulating policies, integrating mitigation and adaptation** into sectoral planning processes, accessing finance and providing the necessary information for ensuring clarity, transparency and understanding of NDCs.

Capacity-building needs were assessed in three ways: by **thematic area**, by **sector** and by **category**.

- Regarding **thematic areas**, **54%** of Parties provided information on **cross-cutting** capacity-building needs, whereas **42%** expressed capacity-building needs for **adaptation** and **34%** for **mitigation**. In addition, **3%** of Parties indicated capacity-building needs for addressing **loss and damage**.
- **63%** identified their efforts or needs in relation to **sectoral** capacity-building. In total, **62%** of Parties identified capacity-building needs that were **multisectoral**, followed by **15%** of that identified needs relating to other subsectors, namely **buildings and infrastructure, energy and/or health**.
- Regarding **capacity-building categories**, **66%** of Parties referred to **cross-cutting** capacity-building needs, mainly for facilitation of **training, education, peer-to-peer learning and awareness-raising**. **27%** of Parties emphasized the importance of capacity-building to **support institutional strengthening** in order to ensure the **sustainability and retention of capacities at the national level**.

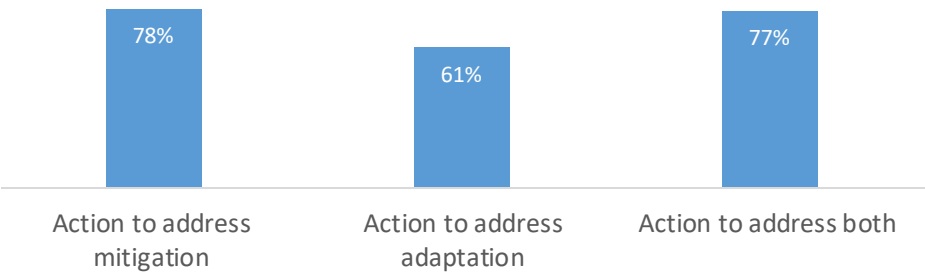


- Synthesized information account capacity-building needs and gaps information from the **187** latest available nationally determined contributions communicated by the **192** Parties to the Paris Agreement and recorded in the interim registry of nationally determined contributions as of 31<sup>st</sup> December 2021.
- A total of **142 Parties (74 %** of Parties that submitted their NDCs) reported information on capacity-building needs and gaps.
- **77 parties (40%** of Parties that submitted their NDCs) had a dedicated section of Capacity-building needs and gaps.

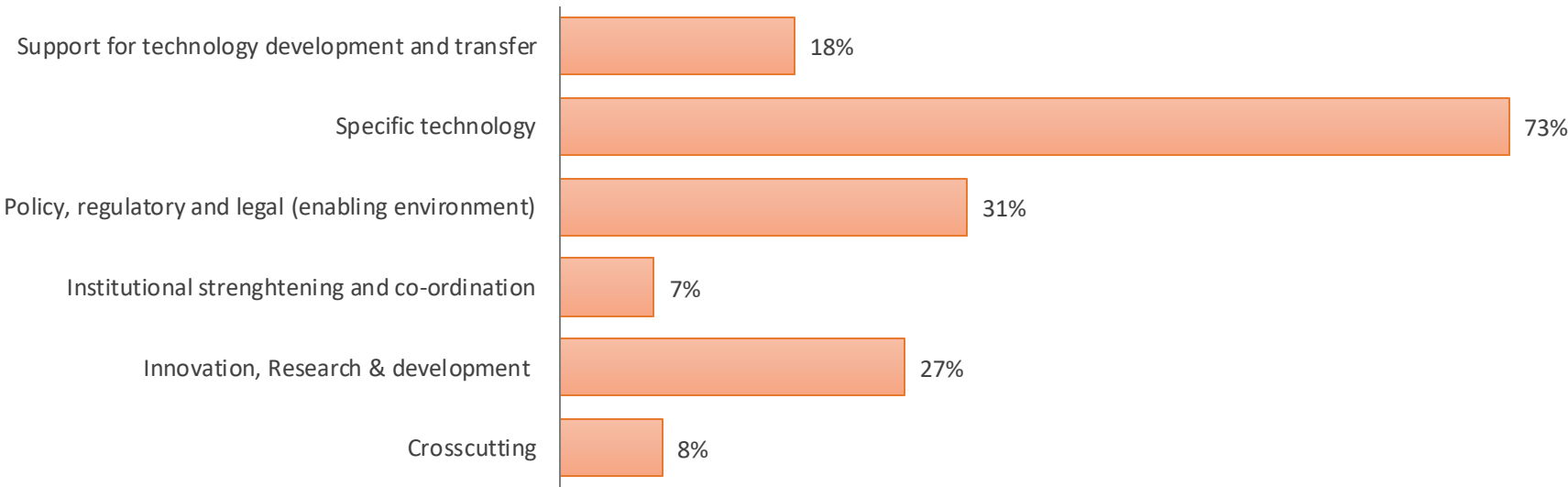
# Information by Parties on technology needs, development and transfer



Technology development and transfer on mitigation and adaptation action



Information provided by the Parties on technology related matters





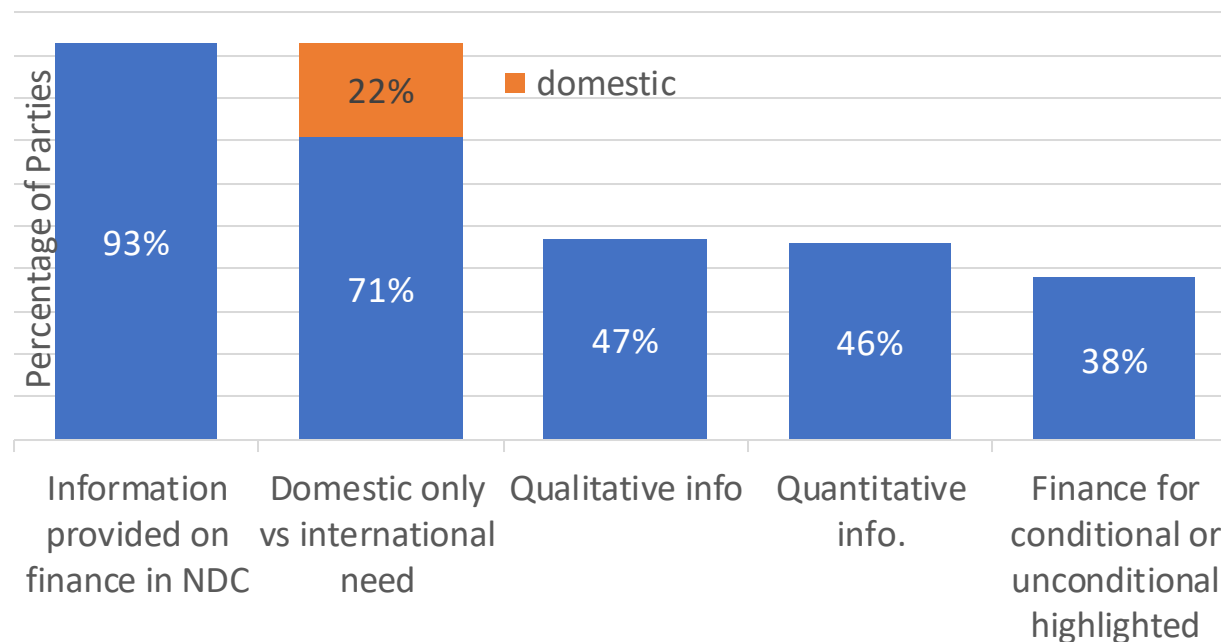
- **10% of Parties** referenced **technology needs assessments** and **technology action plans** in identifying priority technology needs
- **7% of Parties** included specific information on their intended **provision of support** to developing country Parties including through **South-South cooperation**
- **18% of Parties** indicated **the support needed** for the development and deployment of clean technologies
- Technology needs identified by the Parties were mainly in the areas of **energy, agriculture, water, waste, transport, coastal zones, climate observation and early warning**
- The most frequently identified specific technologies were **energy-efficient appliances and processes, enhanced utilization of renewable energy technologies** including **clean hydrogen, waste to energy technologies** and **climate-smart agriculture**
- Actions on policy, regulatory and legal aspects referred by Parties include
  - Developing or updating policies and strategies to promote technology innovation
  - Establishing fund for technology innovation
  - Promoting the use of renewable energy
  - Accelerating adoption and transfer of climate technologies.

## NDCs synthesis findings on finance



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- 93% of Parties provided information on finance in their NDC
- 22% related to finance for domestic implementation only, 71% including information on international support needs
- Quantitative estimates often reported over timeframe of NDC, most Parties with quantitative data differentiated between conditional and unconditional support
- 38% provided estimates by theme – mitigation or adaptation, or sectors
- Finance is needed across renewable energy, efficiency, transport and forestry for mitigation; water, agriculture and coast protection for adaptation finance.



**Questions on the methodologies and assumptions used to aggregate the inputs for the synthesis report on means of implementation and support (MOI) (23 d), and the MOI section for the synthesis report on NDCs (23 c)**

20 min

Please submit any additional questions by scanning the **QR code**, or by entering **www.menti.com** and using the **code 4040 0953**.



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# Closing remarks



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# Thank you for your attention!

For additional questions, please scan the **QR code**, or go to **www.menti.com** and use the **code 4040 0953**. For any other enquiries please contact [gst@unfccc.int](mailto:gst@unfccc.int)

