

Sixteenth Meeting of the SBSTA Research Dialogue

The development of new nationally determined contributions

Jim Skea

Chair, Intergovernmental Panel on Climate Change

SB60, Bonn, Germany

4 June 2024

Two guiding questions; four topics

- 1. What research findings, particularly at regional level, can inform the development of ambitious NDCs?*
- 2. What are specific research needs, at global, regional and national level, and associated research capacity building needs, particularly for developing countries?*

1. Emission pathways/overshoot

3. Adaptation and resilience

2. Acceleration of effort

4. Synergies and trade-offs



A framework.....

	What we know	What we need to know
Emission pathways/ overshoot		
Acceleration of effort		
Adaptation and resilience		
Synergies and trade-offs		

Note: “what we know” approved text; “what we need to know” personal interpretation

Emission pathways/overshoot

What we know

- Nationally determined contributions (NDCs) announced by October 2021 make it likely that warming will exceed 1.5°C during the 21st century
- Limiting warming to 1.5°C would require overshoot and return
- Widespread, pervasive, and potentially irreversible impacts at global warming levels of $1.5\text{--}2^{\circ}\text{C}$ if exposure and vulnerability are high and adaptation is low

What we need to know

- How the Earth System, e.g. the biosphere, would respond to negative emissions
- Reversible and irreversible impacts, loss and damage
- Higher warming levels and the effectiveness of climate actions
- The consequences of deploying a range of carbon dioxide removal techniques

Acceleration of effort

What we know

- Acceleration of efforts would limit the extent and duration of any overshoot
- Many options available now in all sectors are estimated to offer substantial potential to reduce net emissions by 2030
- Demand-side mitigation can be achieved through changes in socio-cultural factors, infrastructure design and use, and end-use technology adoption

What we need to know

- How policy can enable accelerated action, especially on the demand side
- Resource use and consequences of “transitioning in” to new energy supplies
- The effectiveness and deployment of land-based measures such as peatland restoration

Adaptation and resilience

What we know

- Most observed adaptation is fragmented, small in scale, incremental, sector-specific, designed to respond to current impacts or near-term risks, and focused more on planning rather than implementation
- Overshooting 1.5° C will result in irreversible adverse impacts on certain ecosystems with low resilience such as polar, mountain, and coastal ecosystems
- Adaptation finance has come predominantly from public sources, and a small proportion of global tracked climate finance has been targeted to adaptation

What we need to know

- More regional and geographically specific projections
- Metrics and indicators for adaptation progress
- Better understanding of reversible and irreversible impacts
- Better understanding of limits to adaptation
- Means of directing public and private finance towards strengthening resilience

Synergies and trade-offs

What we know

- Near-term adaptation and mitigation actions have more synergies than trade-offs with the Sustainable Development Goals
- When implementing mitigation and adaptation together, and taking trade-offs into account, multiple co-benefits and synergies for human well-being as well as ecosystem and planetary health can be realised
- Context relevant design and implementation requires considering people's needs, biodiversity, and other sustainable development dimensions

What we need to know

- Locally and regionally specific insights into synergies and trade-offs
- Links with the other global challenges: biodiversity and ecosystems services; chemicals and waste ; resources
- Equity, justice and distributional impacts of climate action

THANK YOU

FOR YOUR ATTENTION

STAY IN TOUCH

 ipcc.ch

 ipcc-sec@wmo.int

 ipcc-media@wmo.int

STAY CONNECTED

 [ipcc_ch](#)

 [ipcc](#)

 [@ipcc](#)

 [ipcc](#)