

Activity 12 of the workplan 2026–2030

Agenda Item 5(g)

14th meeting of the KCI
4–5 June 2026
Bonn, Germany



United Nations Climate Change
Katowice Committee on Impacts



Background information

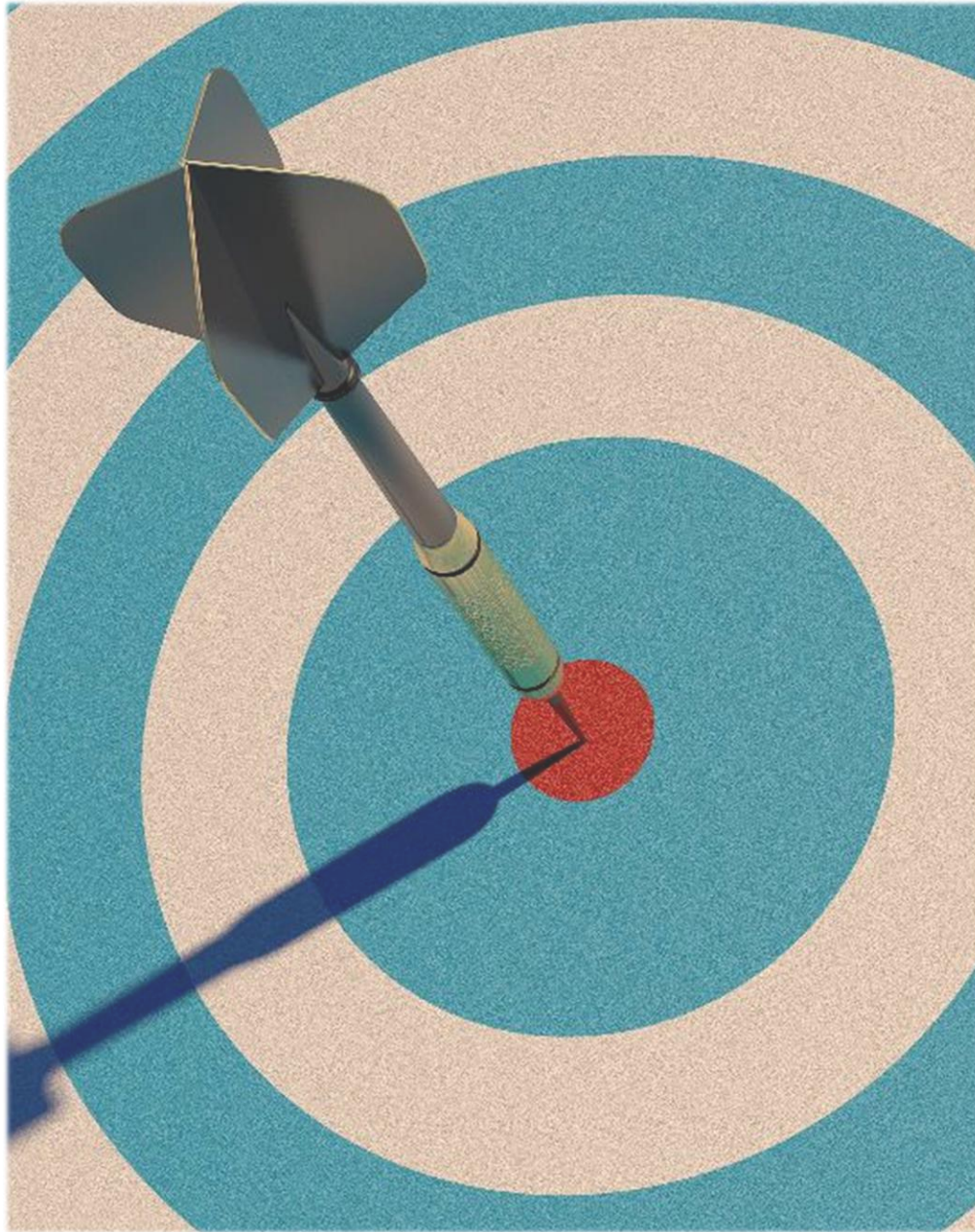
Activity 12

Develop case studies to identify and analyse the social and economic impacts of economy-wide nationally determined contributions, covering all greenhouse gases, sectors and categories.

- The term “economy-wide” appears in the Paris Agreement in the context of emission reduction targets (“*economy-wide absolute emission reduction targets*” and “*economy-wide emission reduction or limitation targets*”).
- Therefore, “economy-wide NDCs”: Those that cover emissions reduction efforts in all five sectors under the IPCC and all GHG gases.
- There are NDCs self-proclaiming as economy-wide NDCs.



Understanding the activity



Generate evidence on NDC impacts (policies of the NDC)

Activity 12 focuses on social and economic impacts from economy-wide NDC implementation

Policy interaction across sectors

The activity examines how climate policies interact across sectors

Synergies and trade-offs

It aims to find synergies and trade-offs between climate policies to optimize outcomes and avoid unintended effects

Support policy design and implementation

Outputs help policymakers create more integrated policies within the NDCs (coherent policy packages and whole-of-economy planning)



Core policy questions

Primary

What are the cross-sectoral economic and social impacts of implementing policies across different sectors of economy-wide NDCs, and how do interactions between these policies influence overall outcomes, coherence, and trade-offs?

Secondary

- **Cross-sectoral dynamics:** *Through which channels? Which policies tending to generate synergies and trade-offs?*
- **Design and sequencing:** *How sequencing and implementation timing affecting impacts?*
- **Coherence and effectiveness:** *To what extent policies reinforcing or undermining each other? What policy combinations resulting in balanced outcomes? eate more integrated policies within the NDCs*



Indicative analytical approach

Analysis of cross-sectoral interactions:

- Input-output and value-chain linkages
- Resource competition and complementarities
- Mapping of policy interaction
- Temporal sequencing



NDC(s) to be considered – Options

1

Assess two widely reported policies per sector (selected countries)

- **Energy supply:** Solar energy, and wind energy
- **Transport:** Electric light-duty vehicles; Electric heavy-duty vehicles
- **Buildings:** On-site renewable production and use, Efficient lighting, appliances and equipment
- **Industry:** Fuel switching including electrification; Energy efficiency improvement
- **AFOLU:** Afforestation and reforestation; Reduction of CH₄ and N₂O emissions in agriculture
- **Waste:** Reduction of CH₄ emissions from solid waste; Reduction of CH₄ emissions from wastewater

2

Assess NDC of a selected country(ies) covering all policies in the NDC



Option 1 – Assess two widely reported policies per sector

Analytical approach

- Literature review to understand how specific policies affect other sectors. This will also identify potential synergies and trade-offs
- Developing matrices showing what policy affects which sector(s) and through what mechanism
- Categorizing the information (e.g. policy type, sector, country context) to identify recurring patterns
- Analysis to provide elaboration on how cross-sectoral impacts take place and insights on recurring patterns
- Modelling can be undertaken in order to assess the magnitude of specific impacts

Key considerations

- Focus on a limited number of widely used policies → manageable and realistic
- Risk of fragmentation. Analysing individual policies may miss interactions within an NDC
- Less emphasis on policy coherence
- Not fully capturing how packages of measures interact at economy wide level;
- Existing and other studies on specific policies strengthen the assessment



Option 2 – Assess NDC of a selected country(ies) covering all policies

Analytical approach

- NDC policy mapping to develop policy portfolios
- A modelling exercise to assess the impacts of the policies
- An analysis to interpret the modelling results (e.g. to identify interaction mechanisms, synergies and trade-offs)
- A qualitative analysis to complement the modelling to assess feasibility of implementing the policy portfolios in the NDC and to identify governance and coordination challenges
- Potential inclusion of scenario comparison to exploring alternative policy pathways within the NDC

Key considerations

- Assessing the full package → capture interaction and coherence among policies and reveal impacts beyond the sum of individual policies
- Insights into challenges of economy wide ambition, but requiring multiple analytical methods, large data inputs and significant time and resources, among others
- Different tools and methods to analyse different sectors and impacts → Risk in results that are uneven in depth, rigor and comparability.
- To build on existing work (e.g. Ghana case study) → to include the complete policy package



Discussion

