



**Subsidiary Body for Scientific and
Technological Advice**

Fifty-seventh session

Sharm el-Sheikh, 6–12 November 2022

Item 12 of the provisional agenda

**Matters relating to the forum on the impact of the
implementation of response measures serving the
Convention, the Kyoto Protocol and the Paris
Agreement**

**Subsidiary Body for Implementation
Fifty-seventh session**

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Item 20 of the provisional agenda

**Matters relating to the forum on the impact of the
implementation of response measures serving the
Convention, the Kyoto Protocol and the Paris
Agreement**

**Annual report of the Katowice Committee of Experts on the
Impacts of the Implementation of Response Measures for
2021 and 2022**

Summary

This report covers the activities and performance of the Katowice Committee of Experts on the Impacts of the Implementation of Response Measures (KCI) at its 5th, 6th and 7th meetings. It also contains information on the meetings of the KCI and possible recommendations for consideration by the forum with a view to the forum recommending actions to the Conference of the Parties at its twenty-seventh session, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its seventeenth session and the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement at its fourth session, as well as information on the strategy to organize the implementation of the KCI workplan on the basis of the workplan of the forum on the impact of the implementation of response measures and its KCI.



Abbreviations and acronyms

CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CMP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
COP	Conference of the Parties
KCI	Katowice Committee of Experts on the Impacts of the Implementation of Response Measures
SB	sessions of the subsidiary bodies
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice

I. Background

A. Mandate

1. CMA 1 decided to establish the KCI to support the work of the forum on the impact of the implementation of response measures to implement its work programme.¹ COP 24, CMP 14 and CMA 1.3 acknowledged the forum will cover the work of the COP, the CMP and the CMA on all matters relating to the impact of the implementation of response measures² and adopted the modalities, work programme and functions of the forum in relation to their respective work.³

2. Members of the KCI are to prepare an annual report for the forum to consider with a view to making recommendations to the COP, the CMP and the CMA.⁴

B. Scope of the report

3. This annual report covers the outcomes of the 5th, 6th and 7th meetings and the intersessional work of the KCI, lessons learned in implementing its mandates (see chap. II.C below), forum considerations (see chap. II.D below) and possible recommendations for consideration by the forum with a view to the forum recommending actions to COP 27, CMP 17 and CMA 4 (see chap. III below).

C. Possible action by the forum on the impact of the implementation of response measures

4. The forum may wish to consider this report with a view to the subsidiary bodies recommending a draft decision(s) for consideration and adoption at COP 27, CMP 17 and CMA 4.

II. Report on the activities of the Katowice Committee on Impacts in 2021–2022

A. Organizational matters

5. The KCI held its 5th meeting from 11 to 13⁵ and 28 to 30 October 2021, its 6th meeting on 2 and 3 June 2022 and its 7th meeting on 2 and 3 November 2022.

6. Peter Govindasamy (Singapore) and Annela Anger-Kraavi (Estonia) co-chaired the 5th meeting.

7. Between the 5th and 6th meetings, the KCI re-appointed Peter Govindasamy (small island developing States) as Co-Chair and appointed Catherine Ann Goldberg (Western European and other States) as Co-Chair, replacing Annela Anger-Kraavi (Eastern European States). The KCI thanked Annela Anger-Kraavi for her leadership, which had enabled the KCI to carry out its work so effectively during her tenure.

8. A list of KCI members, all of whom were nominated by their regional group, and the length of their term of office is available on the UNFCCC website.⁶

9. The meetings of the KCI were webcast live and were attended both in person and virtually by observers, including representatives of Parties and observer organizations. The

¹ Decision 7/CMA.1.

² Decisions 7/CP.24, 3/CMP.14 and 7/CMA.1, respectively.

³ Contained in the annex to decision 7/CMA.1.

⁴ See decision 7/CMA.1, annex, para. 4(j).

⁵ This part of the meeting was convened in a virtual format.

⁶ <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/katowice-committee/membership>.

observers engaged in addressing the issues under consideration. All meeting documents, presentations, webcasts, lists of participants and reports are available on the UNFCCC website.⁷

B. Implementation of the workplan

10. COP 25, CMP 15 and CMA 2 adopted the workplan of the forum and its KCI.⁸ The KCI continued the implementation of its workplan activities for 2021–2022, and its intersessional work virtually through an open-ended working group, with the support of the secretariat. Information on the composition of the working group is available on the UNFCCC website.⁹

11. The KCI wishes to express its appreciation for the active participation of observer organizations and other stakeholders in the work of the KCI, including organizations that contributed by answering to the call for input.

1. Strategies for implementing activities in the workplan of the Katowice Committee on Impacts

12. The KCI prepared strategies¹⁰ for implementing workplan activities 2, 5, 7, 8 and 9, to be delivered in 2022–2023, to ensure delivery of the work in line with Parties' expectations. These activities include establishing an open-ended working group to develop technical papers; appointing leads for each activity from the open-ended working group; requesting inputs from experts, practitioners and relevant organizations, including for technical papers and at meetings; and adopting KCI meeting reports, which include possible recommendations or key findings of workplan activities, as applicable, in advance of forum meetings for consideration by the forum.

2. Identifying country-driven strategies and best practices on just transition of the workforce and creation of decent work and quality jobs and on economic diversification and transformation focusing on challenges and opportunities from the implementation of low greenhouse gas emission policies and strategies towards the achievement of sustainable development (activity 2)

13. The KCI prepared a compilation of concrete examples, as the output of workplan activity 2, of country-driven strategies and best practices on just transition of the workforce and creation of decent work and quality jobs and on economic diversification and transformation focusing on challenges and opportunities from the implementation of low greenhouse gas emission policies and strategies towards the achievement of sustainable development.

14. On the basis of the compilation and work undertaken related to workplan activity 2, the KCI proposed possible recommendations to the forum with a view to the forum recommending actions to COP 27, CMP 17 and CMA 4 (see para. 34 below).

15. To implement the activity, the KCI began to prepare a report with concrete examples from country case studies and experience of implementing strategies and best practices on just transition of the workforce and creation of decent work and quality jobs and on economic diversification and transformation with a view to finalizing it at its meeting in conjunction with SB 58 (June 2023).

⁷ <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/KCI/meetings-KCI>.

⁸ Decisions 4/CP.25, 4/CMP.15 and 4/CMA.2.

⁹ <https://unfccc.int/process-and-meetings/bodies/constituted-bodies/katowice-committe/membership>.

¹⁰ See KCI documents KCI/2021/5/10, annex V, and KCI/2022/6/10, annex VI.

3. Facilitating the development, enhancement, customization and use of tools and methodologies for modelling and assessing the impacts of the implementation of response measures, including identifying and reviewing existing tools and approaches in data-poor environments, in consultation with technical experts, practitioners and other relevant stakeholders (activity 3)

16. The KCI prepared a technical paper, produced as the output of workplan activity 3 on facilitating the development, enhancement, customization and use of tools and methodologies for modelling and assessing the impacts of the implementation of response measures, including identifying and reviewing existing tools and approaches in data-poor environments, in consultation with technical experts, practitioners and other relevant stakeholders.¹¹

17. On the basis of the technical paper and work undertaken related to workplan activity 3, the KCI proposed possible recommendations to the forum for consideration with a view to the forum recommending actions to COP 27, CMP 17 and CMA 4 (see para. para. 35 below).

4. Enhancing the capacity and understanding of Parties, through collaboration and input from stakeholders, on the assessment and analysis of the impacts of the implementation of response measures to facilitate the undertaking of economic diversification and transformation and just transition (activity 4)

18. The KCI prepared a technical paper and a database of tools and methodologies to be used for assessing impacts of the response measures, produced as the output of workplan activity 4 on enhancing the capacity and understanding of Parties, through collaboration and input from stakeholders, on the assessment and analysis of the impacts of the implementation of response measures to facilitate the undertaking of economic diversification and transformation and just transition.¹²

19. On the basis of the technical paper and work undertaken related to workplan activity 4, the KCI proposed possible recommendations to the forum for consideration with a view to the forum recommending actions to COP 27, CMP 17 and CMA 4 (see para. para. 36 below).

5. Building awareness and understanding of Parties and other stakeholders to assess the economic impacts of potential new industries and businesses resulting from the implementation of response measures with a view to maximizing the positive and minimizing the negative impacts of the implementation of response measures (activity 5)

20. The KCI prepared a technical paper on assessing the impacts of potential new industries resulting from the implementation of response measures and prepared possible recommendations to the forum for consideration with a view to the forum recommending actions to COP 27, CMP 17 and CMA 4 (see para. 37 below).

¹¹ KCI. 2022. *Facilitating development, enhancement, customization and use of tools and methodologies for modelling and assessing the impacts of the implementation of response measures, including identifying and reviewing existing tools and approaches in data-poor environments, in consultation with technical experts, practitioners and other relevant stakeholders: Technical paper by the Katowice Committee on Impacts*. Bonn: UNFCCC. Available at <https://unfccc.int/documents/614632>.

¹² KCI. 2022. *Enhancing the capacity and understanding of Parties, through collaboration and input from stakeholders, on the assessment and analysis of the impacts of the implementation of response measures to facilitate the undertaking of economic diversification and transformation and just transition: Technical paper by the Katowice Committee on Impacts*. Bonn: UNFCCC. Available at <https://unfccc.int/documents/614633>.

6. Facilitating the development and exchange of regional, country- and/or sector-specific case studies and approaches on (1) economic diversification and transformation and just transition of the workforce and creation of decent work and quality jobs, and (2) assessment and analysis of the impacts of the implementation of response measures with a view to understanding the positive and negative impacts (activity 7)

21. The KCI began to prepare a concept note in preparation for implementing activity 7 that identifies areas for which a case study will be developed. The concept note, which is expected to be finalized after the KCI meeting held in conjunction with SB 57, includes options for case study development, an outline of the case studies, activities and a time frame for delivery of work.

7. Identifying and exchanging experience and best practices in engaging the private sector, including small and medium-sized enterprises and public-private partnerships, to facilitate the creation of decent work and quality jobs in low greenhouse gas emission sectors (activity 8)

22. The KCI initiated preparation of the technical paper, the output of workplan activity 8, on engaging the private sector to facilitate the creation of decent work and quality jobs in low greenhouse gas emission sectors. The technical paper is expected to be finalized at the KCI meeting held in conjunction with SB 59.

8. Identifying and assessing the impacts of the implementation of response measures taking into account intergenerational equity, gender considerations and the needs of local communities, indigenous peoples, youth and other people in vulnerable situations (activity 9)

23. The KCI began to prepare a technical paper, the output of workplan activity 9, on identifying and assessing the impacts of the implementation of response measures taking into account intergenerational equity, gender considerations and the needs of local communities, indigenous peoples, youth and other people in vulnerable situations. The technical paper is expected to be finalized at the KCI meeting held in conjunction with SB 62.

9. Facilitating, exchanging and sharing experience and best practices in the assessment of the environmental, social and economic co-benefits of climate change policies and actions informed by the best available science, including the use of existing tools and methodologies (activity 11)

24. The KCI shared experience and best practices in the assessment of the environmental, social and economic co-benefits of climate change policies and actions informed by the best available science, including the use of existing tools and methodologies, under activity 11 of the workplan, taking into account the inputs submitted by experts, practitioners and organizations.

25. On the basis of work undertaken related to workplan activity 11, the KCI proposed possible recommendations to the forum for consideration with a view to the forum recommending actions to COP 27, CMP 17 and CMA 4 (see para. 38 below).

10. Potential impacts of the Glasgow Climate Pact to the work of the Katowice Committee on Impacts

26. The KCI held a discussion on the work undertaken by its open-ended working group and requested the open-ended working group to update the background note identifying the potential impacts of all relevant outcomes of the Glasgow and Sharm El-Sheikh United Nations Climate Change Conferences to the work of the KCI with a view to considering it at its 8th meeting and agreed to consider the outcomes of the United Nations climate change conferences each year.

11. Integrating gender considerations into the work of the Katowice Committee on Impacts

27. The KCI adopted approaches for integrating gender in its work¹³ and agreed to continue monitoring progress in mainstreaming gender considerations into its work, to open a call for expressions of interest from organizations and experts to be part of an informal network of experts for response measures, to publish the names of those organizations and experts on the KCI web pages, and to strive for both gender and regional balance when selecting experts, speakers and consultants for its work.¹⁴

12. Input to the technical assessment component of the first global stocktake

28. The KCI prepared a synthesis report,¹⁵ and an update to that report,¹⁶ in 2022 as inputs to the technical assessment component of the first global stocktake. The synthesis report was prepared in line with the mandate from CMA 3 to submit by February 2022 a synthesis report reflecting the relevant work of both the forum and its KCI.¹⁷ The report was updated in October 2022 and submitted in response to a mandate from SB 56.¹⁸

13. Communication and outreach strategy of the Katowice Committee on Impacts

29. The KCI adopted a communication and outreach strategy for 2022–2023¹⁹ and initiated its implementation in 2022, including organizing events during SB 56 and Africa Climate Week 2022 in Gabon and participating as speakers at various events,²⁰ where it introduced its work and promoted its technical papers.

C. Lessons learned

30. Recognizing the importance of considering the work of other organizations and the best available science in its work, the KCI benefited from having experts from the Germany Agency for International Cooperation at its 7th meeting.

31. Having considered the responses received to the calls for input, the KCI noted a need to provide more guidance in its calls for input to receive more focused responses from stakeholders.

D. Forum considerations

32. The KCI invited the forum to consider the following issues expressed by some KCI members, including while conducting the midterm review of the six-year workplan of the forum and its KCI:

- (a) Conduct regional workshops in developing countries to address gaps in developing tools and methodologies to assess and address the impacts of response measures;
- (b) Develop case studies focusing on different regions, countries and sectors to assess and address the impacts of response measures;
- (c) Conduct hands-on training for experts in developing countries to address gaps and challenges related to assessing and addressing the impacts of response measures;

¹³ See KCI document KCI/2021/5/10, paras. 19–20.

¹⁴ See KCI document KCI/2022/6/10, paras. 25–28.

¹⁵ Document KCI/2022/6/1.

¹⁶ Document KCI/2022/7/10.

¹⁷ See decision 23/CMA.3, para. 13.

¹⁸ See document FCCC/SBSTA/2022/6, para. 75 and document FCCC/SBI/2022/10, para. 130.

¹⁹ See KCI document KCI/2022/6/10, paras. 29–30.

²⁰ More information available at <https://unfccc.int/topics/mitigation/workstreams/response-measures/workshops-and-events>.

(d) Expand the number of days allocated for KCI meetings to at least four, understanding the time constraints faced in carrying out the work of and mandates to the KCI and the developments in climate change discussions and to address the high level of ambition;

(e) Conduct intersessional KCI meetings with understanding of the capacity constraints and challenges facing experts from developing countries when meetings are conducted in conjunction with meetings of the subsidiary bodies and governing bodies.

III. Possible recommendations for consideration by the forum with a view to making recommendations to the Conference of the Parties, Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol and Conference of the Parties serving as the meeting of the Parties to the Paris Agreement

33. On the basis of the implementation of its workplan activities, the KCI prepared possible recommendations for consideration by the forum with a view to the forum recommending actions to COP 27, CMP 17 and CMA 4.

34. With regard to workplan activity 2, identifying country-driven strategies and best which practices on just transition of the workforce and creation of decent work and quality jobs and on economic diversification and transformation focusing on challenges and opportunities from the implementation of low greenhouse gas emission policies and strategies towards the achievement of sustainable development, the KCI recommends to the forum that the COP, the CMP and the CMA:

(a) Encourage Parties to invest in the early planning of just transition policies that are inclusive and based on stakeholder engagement;

(b) Encourage countries at very low levels of economic development to focus on establishing strong economic foundations before attempting to undertake economic diversification;

(c) Request the secretariat, while noting that national circumstances differ, to conduct peer-to-peer learning, where possible, to facilitate planning and implementation of effective policies.

35. With regard to workplan activity 3, facilitating the development, enhancement, customization and use of tools and methodologies for modelling and assessing the impacts of the implementation of response measures, including identifying and reviewing existing tools and approaches in data-poor environments, in consultation with technical experts, practitioners and other relevant stakeholders, the KCI recommends to the forum that the COP, the CMP and the CMA:

(a) Request the forum and its KCI to facilitate the enhancement of the capacity of Parties, in particular developing country Parties, to develop and use impact assessment methodologies and tools for conducting their own assessments and analyses of the impacts of response measures, including on decent work and quality jobs, and economic, social, environmental, domestic, cross-border, positive and negative impacts. This includes facilitating the development of case studies as appropriate and the organization of targeted regional hands-on training workshops;

(b) Request the secretariat to regularly update the existing database of tools and methodologies suitable for assessing the impacts of the implementation of response measures, as needed and as appropriate;

(c) Request the forum and its KCI to develop and maintain a web-based user interface for selecting tools and methodologies and promote its use among Parties and stakeholders, as appropriate. A user manual for the interface could also be developed;

(d) Encourage Parties to consider the availability of country-level expertise, training, support and consultancy services when selecting a tool or methodology for assessing the impacts of the implementation of response measures;

(e) Encourage Parties to invest in data collection in line with national and international standards (for example, the United Nations System of National Accounts or the System of Environmental-Economic Accounting);

(f) Encourage Parties to establish capacity-building partnerships and networks for increasing the representation of developing countries in the use and development of impact assessment tools and methods for assessing the impacts of the implementation of response measures;

(g) Encourage Parties to consider both qualitative and quantitative methods for assessing the impact of the implementation of response measures.

36. With regard to workplan activity 4, enhancing the capacity and understanding of Parties, through collaboration and input from stakeholders, on the assessment and analysis of the impacts of the implementation of response measures to facilitate the undertaking of economic diversification and transformation and just transition, the KCI recommends to the forum that the COP, the CMP and the CMA:

(a) Encourage Parties to foster international cooperation to identify and share best practices and experience of countries that have successfully diversified their economies;

(b) Encourage Parties to identify barriers, domestic and non-domestic alike, as well as ways in which the international community could facilitate the sustainable economic development of all Parties;

(c) Request prioritization of the developing and sharing of case studies by Parties and experts, in particular on developing country Parties, on both just transition and economic diversification and transformation in order to understand the opportunities and challenges faced in their planning and implementation;

(d) Request facilitation of the development of robust assessment tools and methodologies that can capture a range of multidimensional impacts of the implementation of response measures;

(e) Encourage relevant agencies, financial institutions and UNFCCC constituted bodies to enhance support for addressing issues related to the assessment and analysis of the impacts of the implementation of mitigation actions, policies and programmes, including nationally determined contributions and long-term low-emission development strategies, with a view to addressing the adverse impacts and maximizing opportunities;

(f) Encourage relevant agencies to enhance and develop their existing training frameworks and modules on assessment and analysis so that they can be used for country-level training programmes and for developing impact assessment tools and methods.

37. With regard to workplan activity 5, building awareness and understanding of Parties and other stakeholders to assess the economic impacts of potential new industries and businesses resulting from the implementation of response measures with a view to maximizing the positive and minimizing the negative impacts of the implementation of response measures, the KCI recommends to the forum that the COP, the CMP and the CMA:

(a) Encourage Parties, observer organizations and other relevant stakeholders to engage the private sector, including small and medium-sized enterprises, to facilitate the identification and exchange of experience and best practices to promote the creation of decent work and quality jobs in new industries and businesses;

(b) Encourage Parties to promote partnerships in research and development, including identifying risks and opportunities, and peer-to-peer learning involving relevant national and international stakeholders from public and private sectors, as well as civil society, local communities and indigenous peoples, youth, workers and research and academia in new industries and businesses;

(c) Encourage Parties to promote inter- and intracountry exchange of experience, best practices, research outcomes and learning on new industries and businesses, including by identifying relevant skills, making best use of existing knowledge and capabilities, and developing new skills through targeted training, retooling, retraining and reskilling;

(d) Encourage Parties and stakeholders to foster collaboration, undertake joint pilot activities and programmes, and share knowledge, lessons learned and best practices, including from governments, business communities, research and academia, artificial intelligence experts and civil society groups;

(e) Encourage Parties to explore new technologies, carbon capture, utilization and storage, hydrogen and artificial intelligence tools to maximize the positive and minimize the negative impacts of the implementation of response measures;

(f) Encourage Parties to develop regulatory frameworks, as appropriate, for carbon capture, transport, utilization and storage, and hydrogen production, infrastructure and transport at the national, regional or global level, to explore the possibility of standardizing the design and application, as appropriate, while ensuring high safety standards;

(g) Encourage Parties to remove barriers and strengthen policy support for carbon capture, utilization and storage to drive innovation and deployment to the scale-up, ensuring specific policy incentives critical to expanding the market frontier worldwide;

(h) Encourage Parties to collaborate on methodologies for calculating life cycle greenhouse gas emissions from hydrogen production, as needed, and developing comprehensive and science-based terminology and relevant standards for hydrogen deployment to promote widespread adoption of the hydrogen economy, while also removing barriers;

(i) Encourage relevant stakeholders to undertake economic and financial analyses, including assessment of the diversification of investments and business models, for investment in the hydrogen economy, and to undertake scientific assessments to understand the national resource endowment potential for sustainable hydrogen production.

38. With regard to workplan activity 11, facilitating, exchanging and sharing experience and best practices in the assessment of the environmental, social and economic co-benefits of climate change policies and actions informed by the best available science, including the use of existing tools and methodologies, the KCI recommends to the forum that the COP, the CMP and the CMA:

(a) Encourage Parties to undertake more in-depth analysis on the impacts of response measures, quantifying the co-benefits for the response measures, categorizing where the co-benefits come from and who the beneficiaries of the co-benefits are, with a view to informing integrated climate actions;

(b) Invite the KCI to enhance the capacity of Parties, in particular developing country Parties, to develop and use country-specific tools and methodologies for assessing the environmental, social and economic co-benefits of climate change policies and actions.
