Summary

This report presents the outcome of the in-forum workshop on area (c) of the work programme on the impact of the implementation of response measures, “Assessment and analysis of impacts of response measures”, which was held on 6 June 2013 in Bonn, Germany. The workshop provided an opportunity for Parties and relevant organizations to exchange information, experiences, best practices and views in relation to the impact of the implementation of response measures. Such information, experiences and views will serve as input to the relevant discussions of and consideration by the subsidiary bodies, in particular when conducting the review of the work of the forum on the impact of the implementation of response measures at their thirty-ninth sessions, with a view to providing recommendations to the Conference of the Parties at its nineteenth session, as mandated by decision 8/CP.17.
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I. Introduction

A. Mandate

1. The Conference of the Parties (COP), by decision 8/CP.17, adopted a work programme on the impact of the implementation of response measures (hereinafter referred to as the work programme) and modalities for its operationalization, under the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI), with the objective of improving the understanding of the impact of the implementation of response measures in eight areas.\(^1\)

2. The COP, by the same decision, established a forum on the impact of the implementation of response measures (hereinafter referred to as the forum), to be convened by the Chairs of the subsidiary bodies, to implement the work programme.\(^2\)

3. At their thirty-sixth sessions, the SBSTA and the SBI requested the secretariat to support, under the guidance of the Chairs of the subsidiary bodies, the implementation of the work programme. In response to that request, an in-forum workshop on area (c) of the work programme, “Assessment and analysis of impacts of response measures”, was organized.

B. Possible action by the subsidiary bodies

4. The subsidiary bodies may wish to take note of the information contained in this report when conducting the review of the work of the forum, including the need for its continuation, at their thirty-ninth sessions, with a view to providing recommendations to COP 19, as mandated by decision 8/CP.17.

II. Proceedings

5. The in-forum workshop referred to in paragraph 3 above was held in Bonn, Germany, on 6 June 2013 and was co-chaired by Mr. Richard Muyungi, Chair of the SBSTA, and Mr. Tomasz Chruszczow, Chair of the SBI. It was attended by 45 participants, including representatives of Parties, international organizations and research institutions, and experts.

6. The workshop was divided into three parts, namely:

   (a) Information, experiences, best practices and views presented by Parties;

   (b) Information, experiences, best practices and views presented by organizations;

   (c) Concluding remarks made by workshop participants.

7. The in-forum workshop agenda and the presentations made are available on the UNFCCC website.\(^4\)

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\(^1\) Decision 8/CP.17, paragraph 1.
\(^2\) Decision 8/CP.17, paragraph 3.
\(^3\) FCCC/SBSTA/2012/2, paragraph 45 and FCCC/SBI/2012/15, paragraph 167.
\(^4\) <http://unfccc.int/7586>.
A. Information, experiences and views presented by Parties

8. On opening the workshop, the Chairs of the subsidiary bodies expressed their gratitude to the representatives of the International Trade Union Confederation (ITUC), the Women’s Environment & Development Organization and the International Labour Organization for their participation in and making informative presentations at the in-forum workshop on area (g) of the work programme, which had taken place on the previous day.

9. On behalf of the Group of 77 and China (G77 and China), a representative of Argentina noted that analysing and assessing the impact of the implementation of response measures is at the core of any discussion on response measures. She emphasized the need to take into consideration the broad context in which such work should take place, namely that:

(a) The assessment and analysis of the impacts of the implementation of response measures has to take into account the fact that developing country Parties are in a transition to achieving sustainable development, in accordance with their nationally defined priorities, needs and circumstances. Therefore, any assessment should be consistent with the principles and provisions of the Convention and its Kyoto Protocol (including Article 3, paragraphs 4 and 5, and Article 4, paragraphs 5, 7, 8 and 9, of the Convention and Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol) and the principle of common but differentiated responsibilities;

(b) The endorsement of the outcomes of the Rio Earth Summit by all countries needs to be noted, and those outcomes should be implemented as they are the overarching framework within which to deal with economic, social and environmental issues in an interdependent and balanced manner;

(c) As developed country Parties have an obligation to avoid and minimize any negative economic and social consequences of response measures, they should take the lead in assessing and analysing the economic, social and environmental consequences of their response measures, including unilateral ones, for developing countries;

(d) The assessment and analysis should take place both ex ante and ex post and be based on: science; effectiveness; consultations with affected Parties; and the quantitative and qualitative assessment of, inter alia, employment, income, economic growth rates and the living standards in developing countries.

10. In his presentation, the representative of Australia focused on the view that the benefits of climate action outweigh the costs of inaction. He noted that such a view is supported by studies, which indicate that well-designed mitigation measures are critical in relation to avoiding dangerous impacts of climate change. The cost of action has been quantified in financial terms compared with the costs of inaction. The Australian economy has continued to grow in parallel with the country’s work on reducing emissions: emission reduction in the electricity sector has decreased by 7.4 per cent and renewable energy generation has increased by 30 per cent, while annual growth in gross domestic product (GDP) is up by 2.5 per cent. A total of 150,000 new jobs have been created and inflation has been contained. Countries must be encouraged to diversify their economies in order to create new green jobs and accrue health benefits.

11. The Australian representative noted that reducing emissions can deliver benefits, particularly to vulnerable developing countries at risk from climate impacts. Therefore, all Parties should capture those benefits and build resilience. He also noted that many countries are considering policy actions to enhance mitigation ambition and should be encouraged in that endeavour in order to meet the 2 °C global temperature goal needed in the new agreement.
12. The representative informed the workshop participants about the international support that Australia provides for building the capacity of vulnerable developing countries to respond to climate change impacts, enhance economic resilience and prepare for a carbon-constrained future. Such support also facilitates those countries in their efforts to develop and deploy low-emission technologies and achieve sustainable development. He referred to Australia’s USD 599 million contribution to fast-start finance, most of which has been allocated to adaption activities and reducing emissions from deforestation and forest degradation in developing countries.

13. At the end of his presentation, the Australian representative reiterated his view on the scope of trade regimes, indicating his agreement that countries’ national circumstances must be taken into consideration in designing trade-related policies and measures.

14. The representative of Saudi Arabia shared with the workshop participants her views on how the assessment of the impacts of response measures should be undertaken. She emphasized that the assessment should be conducted in the context of achieving sustainable development in developing countries, taking into account those countries’ unique national circumstances and the direct and indirect impacts of response measures. It should provide information on the social, economic and environmental impacts of mitigation policies and on their comprehensivenes and ability to cover all affected activities, as well as a comparison between policies, in order to inform policymaking decisions. The output of the assessment and analysis should be quantitative and qualitative.

15. In order to accomplish the work within the assessment framework, the assessment should include:

   (a) Assessing the mitigation policies of and actions undertaken by developed countries. Ex ante assessment should examine the diverse areas of mitigation and the magnitude of the actions. Options which are less harmful to developing countries should be clearly identified and a reporting methodology must be developed;

   (b) Assessing the impact of those mitigation policies and actions on developing country Parties. Ex post assessments should cover issues such as negative impacts on trade, border carbon adjustment schemes, economic diversification, the shifting of production, export patterns, and the identification of the most negatively affected countries and possible actions to assist them;

   (c) Activities coordinated under the Convention, such as the creation of a platform for collecting data and information, the discussion of findings, the comparison of results, capacity-building and building resilience, and organizing meetings of relevant stakeholders;

   (d) Activities coordinated at the national level, such as learning and exchanging views on how to minimize impacts, and developing tools and methods to build national resilience and to identify technical and capacity-building needs;

   (e) Engaging all relevant stakeholders (e.g. the private sector, academia, etc.), in order to ensure the proper design and execution of the mitigation policies and measures.

16. The presentation made by the representative of the United States of America focused on the benefits of climate policies. He referred to a recent book entitled *The Climate Bonus* written by Alison Smith and elaborated on key information therein, which included the range of co-benefits of well-designed climate change policies and measures.

17. He informed the workshop participants that the range of co-benefits includes the improvement of air quality, sustainable agriculture, energy, job creation and health, among others. He referred to climate policies for reducing deforestation and also elaborated on others, such as those for protecting biodiversity, reducing floods and soil erosion and
safeguarding water supplies. He noted that investments in low-carbon infrastructure will be far outweighed by savings in fuel and resource costs and health benefits. Although not all climate policies have obvious co-benefits, policymakers need to make an effort to consider the broader context.

18. The representative of the United States also noted that, while the cost of action is immediate and significant, the benefits are long term and not well defined; for example, there is the possibility of reducing greenhouse gas emissions by half between 2005 and 2050 in the ‘business as usual’ scenario, which may result in the prevention of approximately 42 per cent of premature deaths (avoiding 5 million deaths per year by 2050). If an integrated policy combining climate change and air pollution were adopted, 67 per cent of premature deaths could be avoided, especially in developing countries with low levels of air pollution control. A total of 29 million premature deaths could be avoided in China and 44 million in India. In China, Europe and India, there could be EUR 6 trillion worth of additional health benefits per year.

19. Starting by referring to the outcome of COP 18, the representative of India lamented the adoption of unilateral measures by some countries. She quoted Article 3, paragraph 5, of the Convention and urged countries to refrain from resorting to unilateral measures for the following reasons:

   (a) The Convention and its Kyoto Protocol, and decisions of the COP and the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, are and must remain the principle forums for international climate policy;

   (b) Climate policies established nationally or regionally and imposed beyond borders may violate the principles of the Convention, especially the principle of common but differentiated responsibilities;

   (c) Compared with multilaterally agreed policies, unilateral measures that seek to govern actors beyond their borders raise serious legitimacy concerns;

   (d) Unilateral measures taken show a disregard for the multilaterally negotiated regime and, consequently, affect confidence-building in the multilateral climate negotiations.

20. Given those reasons, the representative of India expressed the view that Article 3, paragraph 5, of the Convention should be expanded and that Parties should agree to refrain from undertaking unilateral measures. She referred to the proposed measures under the European Union Emissions Trading System to curb emissions from international civil aviation. Many countries were wary of the scheme and, as a result, a temporary deferment of the enforcement of the obligations of aircraft operators in respect of incoming and outgoing flights has been agreed. Further discussion on the scheme needs to take place.

21. The last presentation by a Party was made by the representative of Sierra Leone. He felt that the assessment and analysis of the impacts of response measures should be weighted according to their financial, organizational and technological viability, in order to be specific in terms of the effect of the impacts on critical parameters, such as water resources, transportation, agriculture and energy. He elaborated on some of those parameters and concluded by referring to the outcome of the Rio+20 United Nations Conference on Sustainable Development, which recognizes poverty eradication, and changing unsustainable and promoting sustainable patterns of consumption, among others, as overarching objectives of and essential requirements for sustainable development.
B. Information, experiences and views presented by organizations

22. The representative of the Organization of the Petroleum Exporting Countries (OPEC) began his presentation with a short introduction to OPEC and noted that the member countries are developing countries with young and rapidly growing populations whose economies are highly dependent on oil export revenues.

23. He noted that assessing the costs of climate change policies requires the use of models, which can be broadly classified into the following three types: macroeconomic models, sectoral models and project assessment approaches. However, in order to appropriately assess the adverse impacts of response measures, a combination of energy sector models and computable general equilibrium models may be needed.

24. The representative briefly presented the outcomes of the mitigation scenarios from a study of various stabilization targets by 10 modelling groups under the Energy Modelling Forum (EMF 22) and the outlook for OPEC countries in terms of the impact of response measures. He noted that the lower the concentration of the stabilization targets the more challenging it is for the models to find satisfactory emission trajectories, especially if they are constrained. In addition, he provided details on how the general equilibrium global N\textsubscript{a}ERA model, developed by National Economic Research Associates Economic Consulting in Washington, was used to assess the adverse impacts of response measures. The model covers 10 non-energy sectors, six energy sectors and 12 regions of the world that interact with each other through the trading of goods and services. It utilized the global carbon dioxide (CO\textsubscript{2}) emission caps from the EMF 22 study emission trajectories consistent with 450 and 550 ppm CO\textsubscript{2} eq, with overshoot and under various policies. The outputs of the model include microeconomic (GDP, investment, etc.), energy demand and trade key variables.

25. Using the 450 ppm CO\textsubscript{2} eq stabilization scenario with carbon trade, the projected GDP in OPEC countries compared with the average global level shows a significant decrease in 2050 compared with the baseline. The study attributes the fall to the projected high trading price of a tonne of carbon, projected to be USD 1,000 by 2050. The model also shows that by 2050 under the 500 ppm scenario with off-oil policies OPEC countries will be severely affected compared with the global average. Although the inclusion of economic diversification policies helps to reduce the adverse impacts, that is a partial measure. According to the model, OPEC countries will face disproportionately large adverse impacts of response measures just like the other developing countries mentioned in Article 4, paragraph 8, of the Convention.

26. The representative of OPEC argued, therefore, that the full implementation of previously agreed decisions on the impact of response measures needs to be undertaken. Furthermore, he emphasized that it will be highly beneficial to establish appropriate methodologies, processes and institutions in order to share information, exchange views, report information and seek a better understanding of adaptation to the adverse impacts of response measures and the minimization of those impacts.

27. The second presentation by an organization was made by the representative of the South Centre. His presentation consisted of the following elements: the mandate for minimizing the impact of the implementation of response measures; sustainable development as the basis for the assessment of the impact of response measures; the topology of response measures; the variety of impacts of response measures; the necessary assessment checklist; and the need for reporting. He cited Article 3, paragraph 5, and Article 4, paragraphs 8 and 10, of the Convention, Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol, decision 1/CP.16, paragraph 88, and decision 1/CP.18,
paragraph 54, as the basic mandates for minimizing the impact of the implementation of response measures.

28. Since the basis of the assessment of the impact of response measures should be the sustainable development of countries, the representative noted some development asymmetries between countries, with developing countries experiencing vulnerability. Such countries have low levels of technology and income and small domestic markets, are dependent on exports of a few commodities and need sustained long-term investment for financing, technology transfer and capacity-building. All of those weaknesses prevent developing countries from adapting to the impact of response measures.

29. The representative mentioned that there are various types of response measures, such as standards and regulations, emissions trading schemes, tariffs and surcharges on goods and services, taxes and public investments. In order to assess and analyse the impacts of response measures, the process to be undertaken must be qualitative as well as quantitative.

30. He suggested the following assessment checklist:

(a) What, and how great, is the net global climate change impact of the measure (science basis)?

(b) What and how high are the adjustment costs for the affected countries?

(c) What are the trade impacts of the measure and are they consistent with multilateral rules?

(d) What is the impact of the measure on the fiscal and investment resources of developing countries?

(e) What is the impact of the measure on developing countries’ access to clean technologies?

31. The representative felt that, although response measures are already having an impact on developing countries, there is insufficient reporting in the national communications of Parties included in Annex I to the Convention (Annex I Parties) to indicate that they are minimizing the negative impacts of their response measures. He recommended assessing response measures during their design and before their deployment, in order to avoid and minimize negative economic and social consequences for developing countries. Response measures should be evaluated by a multilateral body and their assessment should be undertaken with the participation of all developing country Parties affected. An example of such a process is the current trade policy review under the World Trade Organization (WTO).

C. Concluding remarks made by workshop participants

32. In her concluding remarks, the representative of Argentina, on behalf of G77 and China, welcomed the active participation of representatives of developed country Parties in the workshop. However, she indicated her concerns regarding their presentations, which dwelt on the mitigation actions that they are undertaking instead of focusing on the specific needs and concerns of developing country Parties and how developed country Parties are striving to minimize the adverse effects of response measures on developing country Parties. Her view was later echoed by the representatives of China, Saudi Arabia and Venezuela (Bolivarian Republic of).

33. With similar concerns, the Venezuelan representative made the following remarks:
(a) Commenting on the notion that taking action will cost less than inaction, as emphasized by the developed country presenters, he reminded the workshop participants that the focus of the discussion in the forum is not to decide whether or not to take action to combat climate change, but to decide on what appropriate actions to take and to consider the adverse impacts of the actions taken and how to mitigate or adapt to those adverse impacts (his point was later echoed by the representatives of China and Saudi Arabia);

(b) He recalled previous requests of developed country Parties for concrete suggestions from developing country Parties, including concrete inputs to the assessment of response measures. In his view, that request has been responded to by developing country Parties. He cited the presentations made by the representatives of G77 and China and Saudi Arabia, which contained clear details of what is needed to undertake the assessment and analysis of the impacts of response measures. He suggested approaching the Intergovernmental Panel on Climate Change for help with the methodologies needed for that work;

(c) He reminded the workshop participants of the outstanding request from G77 and China to Annex I Parties to provide information on how they are fulfilling their obligation with regard to minimizing the impacts of their response measures on developing countries.

34. The representative of the United States briefly addressed the issue of reporting on the adverse impacts of response measures by developed countries. She pointed out that there are existing reporting requirements under the Kyoto Protocol, as well as new reporting requirements in the biennial reporting guidelines. She stressed that the primary objective should be taking mitigation actions, with a secondary focus on the negative impacts that those actions might entail. She urged developing country Parties to incorporate strategies into their development planning to reduce their vulnerability to the changing international economy.

35. Among others, the representative of the European Union explained that within the European Union, at both the European and the national level, before policies are implemented, thorough impact assessments are undertaken and stringent follow-up monitoring is put in place during implementation.

36. In addition, he addressed a number of issues emanating from the presentations, one of which resulted from the presentation made by the representative of OPEC. He noted with surprise the projected carbon price of USD 1,000 by 2050, since the current European Union projections are not even a quarter of that figure. He remarked that such a price projection was very ambitious and attributed it to the usage by OPEC researchers of one model instead of utilizing a range of models with various assumptions to obtain deeper insights. He expressed an interest in discussing modelling in more detail at the in-forum expert meeting scheduled to take place the next day. That interest in further discussing modelling issues was later echoed by the Australian representative.

37. Commenting on the presentation made by the representative of the South Centre, the representative of the European Union pointed out the need to consider the longer-term impacts of response measures instead of focusing only on the negative impacts in the short term.

38. The representative of OPEC responded by confirming that the high price of carbon for the 450 ppm CO₂ stabilization target was consistent with the results of the EMF 22 study for that target. However, he acknowledged that very few models were able to find a solution.

39. The representative of ITUC noted that climate change policies have domestic impacts in all countries, and informed the workshop participants that the high cost of
carbon in the United Kingdom of Great Britain and Northern Ireland presents a real danger that jobs will be lost to countries with no carbon pricing, which is a domestic negative effect of undertaking response measures. He felt that, in developing countries, dialogues that bring trade unions, governments, non-governmental organizations and businesses together would be very important for understanding domestic measures and their impacts. For example, he wished to know the impact of the clean development mechanism (CDM) on developing countries.

40. Responding to that query, the representative of Peru provided information obtained from the CDM Policy Dialogue survey conducted in 2012. The outcome of the analysis indicated that 99 per cent of those surveyed reported sustainable development benefits, 96 per cent mentioned economic benefits, 86 per cent mentioned social benefits and 74 per cent mentioned other non-carbon environmental benefits. Despite the positive benefits, he observed that unwelcome unilateral actions were allowed in the CDM process.

41. The view was shared among the workshop participants that the representatives of OPEC and the South Centre had made informative presentations on their analysis of the impacts of response measures and the models used for that analysis. Furthermore, in relation to the presentation made by the representative of the South Centre, it was pointed out that some of the longer-term impacts of response measures should be looked at, instead of focusing only on the negative impacts in the short term.

42. On the issue of unilateral measures, the following views were expressed by workshop participants:

(a) The Australian representative directed a question to the Indian representative regarding the need to expand Article 3, paragraph 5, of the Convention. In response, the Indian representative reiterated the concern regarding unilateral measures being real and having been discussed by different groups, including civil society. She argued that there is a need to fully implement Article 3, paragraph 5, of the Convention, but she could not confirm when the details of that expansion will be available. She noted that India’s concern relates to the unilateral measures which have negative economic and social consequences for developing countries. She informed the workshop participants that poverty eradication is the overriding priority of India, with less than one third of its population still below the poverty line. Access to energy is a prerequisite for achieving that goal, as 40 per cent of the Indian population still does not have access to energy. Indian per capita energy consumption is one fourth of the global average;

(b) While the representative of Singapore was in agreement that there is a need to respect multilateralism when addressing climate change, he re-emphasized that the UNFCCC process is not the appropriate forum for making trade rules. He emphasized the need to ensure that rules under the UNFCCC are consistent with obligations under other international organizations, such as WTO. He noted that one way of helping developing countries to respond to climate challenges is for all Parties to remove barriers such as tariffs and required standards on their exports. Barriers to environmental goods and services should also be removed, in order to encourage countries to respond to climate change and transition to low-carbon economies;

(c) On that note, the representative of Argentina, on behalf of G77 and China, reiterated her proposal in relation to holding a specific workshop to discuss issues on unilateral measures;

(d) The representative of the United States expressed her view that the UNFCCC is not the appropriate forum for negotiating trade rules or the issue of unilateral measures. She confirmed that the United States would never agree to prohibiting unilateral measures anywhere. She acknowledged that the United States frequently takes a number of unilateral measures, which are consistent with international law;
(e) The view of the European Union regarding unilateral measures was that they should be considered together with other areas of the work programme, since they are not defined under the Convention. He pointed out that some measures that the European Union is adopting and implementing unilaterally are to some extent inevitable because they have not been agreed within a multilateral framework.