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Subsidiary Body for Scientific and Technological Advice

Thirty-eighth session

Bonn, 3–14 June 2013

Item 8 of the provisional agenda

Impact of the implementation of response measures

Subsidiary Body for Implementation

Thirty-eighth session

Bonn, 3–14 June 2013

Item 14 of the provisional agenda

Impact of the implementation of response measures

**Views on the work programme on the impact of the
implementation of response measures**

Submissions from Parties and relevant organizations

1. The Conference of the Parties (COP), at its sixteenth session, decided to provide a forum on the impact of the implementation of response measures, and to that end requested the Chairs of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) to convene such a forum at the thirty-fourth and thirty-fifth sessions of these bodies, with the objective of developing a work programme under the subsidiary bodies to address these impacts, with a view to adopting, at the seventeenth session of the COP, modalities for the operationalization of the work programme and a possible forum on response measures.¹
2. The SBSTA and the SBI, at their thirty-sixth sessions, invited Parties and relevant organizations to submit to the secretariat, by 25 March 2013, their views for consideration by the SBSTA and the SBI at their thirty-eighth sessions.²
3. The secretariat has received three such submissions from Parties. In accordance with the procedure for miscellaneous documents, these submissions are attached and

¹ Decision 1/CP.16, paragraph 93.

² FCCC/SBSTA/2012/2, annex III, and FCCC/SBI/2012/15, annex I.

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reproduced* in the language in which they were received and without formal editing.³ In line with established practice, the three submissions received from non-governmental organizations have been posted on the UNFCCC website.⁴

* These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

³ Also available at <<http://unfccc.int/5902.php>>.

⁴ Available at <<http://unfccc.int/3689.php>>.

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* This submission is supported by Albania, Bosnia and Herzegovina, Croatia, Iceland, Serbia and the former Yugoslav Republic of Macedonia.

SUBMISSION BY IRELAND AND THE EUROPEAN COMMISSION ON BEHALF OF THE EUROPEAN UNION AND ITS MEMBER STATES

This submission is supported by Albania, Croatia, Bosnia and Herzegovina, Iceland, the Former Yugoslav Republic of Macedonia and Serbia.

Dublin, 19 March 2013

Subject: Forum and work programme on the impact of the implementation of response measures – submission on areas (c), (d), (e) and (g) of the work programme

Introduction

1. The Subsidiary Body for Implementation (SBI) and the Subsidiary Body for Technological Advice (SBSTA) at their thirty-sixth sessions invited Parties and relevant organisations to submit to the Secretariat, by 25 March 2013, views on areas (c), (d), (e) and (g) of the work programme on the impact of the implementation of response measures as contained in paragraph 1 of decision 8/CP.17.
2. The EU welcomes this opportunity to share its views on these four areas of the work programme. As provided for by footnote e in Annex I of document FCCC/SBI/2012/15 (and the identical Annex III of document FCCC/SBSTA/2012/2), the EU's views on the four areas will be jointly addressed in the present submission.

On area (c) – Assessment and analysis of impacts

3. The EU is of the view that assessment and analysis of impacts of policies and measures taken to address climate change should be undertaken at the national level.
4. As stated in a previous submission, for European legislative proposals, the European Commission assesses the potential economic, social and environmental consequences that these may have. This includes a proportionate assessment of the impacts on third countries, in particular developing countries, as well as an extensive stakeholder consultation. The impact assessment is a process that prepares evidence for political decision-makers on the advantages and disadvantages of possible policy options by assessing their potential impacts. This approach ensures that relevant expertise is drawn upon, including inputs from stakeholders. This system is both accountable and transparent. All EU impact assessments and all opinions of the Impact Assessment Board on their quality are published online once the European Commission has adopted the relevant proposal (see http://ec.europa.eu/governance/impact/index_en.htm for further information).

5. While the EU is making significant efforts to analyse, assess and address the impacts of the implementation of policies and measures to address climate change both inside the EU and vis-à-vis our partners, we would welcome more detailed and more structured information from other Parties, especially from developing country Parties, on what impacts they are experiencing “on the ground”. In addition to setting out how they are addressing impacts of the implementation of response measures (both response measures they are taking themselves, as well as response measures taken by other Parties in addressing climate change), this information should also point at the positive impacts of the implementation of those measures.

On areas (d) – Exchanging experience and discussion of opportunities for economic diversification and transformation and (e) – Economic modelling and socio-economic trends

6. We note at the outset that interlinkages exist between several topics in the forum’s work programme, including between the topics covered in areas (d), (e) and (g).
7. Economic diversification and socio-economic trends offer challenges and opportunities for all countries. These challenges and opportunities are of a broad and multi-faceted nature and often go beyond climate change and climate action.
8. That said, the EU believes that policies for economic diversification and in response to socio-economic trends can have significant co-benefits for addressing climate change. Conversely, policies and measures to address climate change can be a driver for economic diversification and have significant positive impacts on socio-economic trends – regardless of whether or not these trends are themselves caused by climate change.
9. Modelling tools developed at a national level and taking into account specific economic and social circumstances of countries can help in identifying policies and measures that maximise social, economic and environmental co-benefits.
10. As a part of its policy preparation, the EU uses a range of economic modelling tools to assess the possible impacts of policies to address climate change. These tools are used to examine the possible economic, environmental and social implications of possible policy options. Two sets of modelling tools can be distinguished: (1) Models that operate at a global level and (2) more detailed models that operate at an EU level including details for each EU Member State. The global models consist of long-term detailed energy models that examine the diffusion of clean energy technologies over time, such as renewable and energy efficiency and analyse the impacts of energy policies and carbon taxes and carbon trading schemes. In addition, there are economic models (general equilibrium and macroeconomic models) that estimate the impact of policies to reduce greenhouse gas emissions on GDP, employment, prices and other indicators such as export and imports.
11. At the EU level, a detailed energy model exists that can be used to assess the impact of energy efficiency measures, renewable policies and carbon/energy taxes and emission trading on energy demand and supply and on the costs of providing energy. This model is linked to models that provide detail on the options and costs to reduce non-CO₂ greenhouse emissions

for each EU country and projects the development of the net carbon emissions of land use, land use change and forestry.

On area (g) – Just transition of the workforce, and the creation of decent work and quality jobs

12. The EU is of the view that successfully combating climate change will also contribute to moving to a sustainable, low greenhouse gas emitting economy and create new quality jobs.
13. We acknowledge that enabling such a transition is a major challenge of labour market policy in times of globalisation and accelerated change in our economies and societies and that it requires an efficient system of organising professional and job transition.
14. The EU actively pursues policies and measures related to job and professional transition and looks forward to sharing its experiences with others. Drawing from the lessons learned in the course of previous sectoral crises, the EU has developed a range of pro-active measures and schemes of re-conversion and job transition which are connected to occupational reorientation, training and qualification as well as outplacement.
15. Despite a significant variety of country-specific backgrounds in individual Member States, we have identified three major groups of clusters of schemes applicable throughout – proactive mechanisms, mechanisms improving capacity for professional transition by training, and mechanisms improving the efficiency of systems and their institutions (see <http://ec.europa.eu/social/main.jsp?catId=782&langId=en>, including the report “Organising Transitions in response to restructuring” for further information). EU research has shown that practices related and systems in place are in a constant state of flux and no single path exists with regard to inventing, organising and funding employment and professional transition in response to restructuring. However, most of the schemes and programs would not exist or would not be able to run efficiently without active social partner involvement at all levels (see <http://ec.europa.eu/social/main.jsp?catId=115&langId=en>, including the EMCO thematic report “Towards a greener labour market – The employment dimension of tackling environmental challenges (2010)” for further information).
16. We believe that an active exchange of experience and information of actors directly involved in the schemes and mechanisms organising job and professional transition would enable all Parties to explore and define adequate, nationally appropriate solutions.

Conclusion

17. The EU looks forward to participating in the forum on the impact of the implementation of response measures to be held at the thirty-eighth sessions of the SBI and the SBSTA and hopes that it will be used to efficiently and effectively facilitate discussions on this important topic.

Submission by Saudi Arabia

Submission of Views on the Forum and Work Programme on the Impact of the
Implementation of Response Measures
Area (c) - Assessment and Analysis of Impacts

Saudi Arabia welcomes the opportunity to submit its views on thematic area (c) of the work program of the forum on the impacts of the implementation of response measures.

The forum has provided a great opportunity for substantial exchange of information in 2012; Saudi Arabia looks forward to continuing the collaboration effort that have started to facilitate the understanding of the impacts of response measures, with the view to avoid, or at least minimize, the adverse consequences of those measures on developing country Parties. It is our view that the forum will continue to serve as a catalyst for collaborative effort and joint action, which will guide the development of effective, comprehensive and enabling framework under the UNFCCC to address the adverse impacts of response measures on developing Countries.

Developing country Parties have experienced impacts of many response measure taken by developed country Parties. The effort to address those impacts have started in Articles 4.8 and 4.9 of the UNFCCC and articles 2.3 and 3.14 of the Kyoto Protocol which have provided the foundation for the basic obligations and commitments of Annex I Parties in relation to the impacts of their climate change response measures. A number of decisions followed to provide guidelines with respect to the actions, implementation, and reporting activities related to these commitments, e.g. Decisions 9/CP.7, 5/CP.7, 1/CP.10, 15/CMP.1, and 31/CMP.1. We expect the work program to examine elements in these decisions, which remain unimplemented, to make the distinction between actions that will be implemented at national level and those that will be carried out through Parties' partnership under the Convention.

Saudi Arabia believes that thematic area (c) on the **Assessment and analysis of impacts** of response measures should deploy a comprehensive approach in examining the different policies and measures taken to combat climate change and the potential adverse impacts they could introduce to developing country Parties. Assessment and analysis of those measures should not be conducted in isolation of well-established understanding of the climate change mitigation actions that warranted them to exist. It is only too late to wait and act in retrospect on the basis of the impact on the ground without adequately addressing the policies. Therefore, the discussion should explore potential methodologies to produce standardized reporting on the mitigation actions and policies that will improve the analysis, predictability and gauging the effectiveness of Annex I Parties' response measures.

Specific policy issues of concern, such as unilateral measures should be sufficiently and individually examined to identify different elements of reporting, measurement and analysis considering their

potential severe and adverse impact. It is our view that whilst unbiased and balanced actions that will ensure positive impact of response measures should be examined and underscored as alternatives, other actions that cause negative impact on developing countries such as unilateral trade measures against goods and services need to be examined in an all-embracing manner to examine the effect on supply chain of production, export, and procurement patterns from developing countries, and to assess the effects and costs of shifting production and export patterns on the economies of developing Countries.

It is expected that the work under this area will guide the development of methodologies and specify criteria or indicators to measure the impacts of the implemented and proposed response measures, the impacts of the alternative measures that might be implemented, and to assess the adequacy and effectiveness of funding, insurance and technology transfer arrangements to minimize these impacts.

Similarly, examining the impacts on developing country Parties will require an equal level of collective assessment. Saudi Arabia believes that this exercise of partnership will necessarily address the need to distinguish between actions that will be carried out at national capacity from those that will be accomplished under the Convention. Therefore, we expect the work to explore current relevant data and reporting methodologies, lessons learned, gaps and uncertainties in assessment approaches at different levels in addition to existing relevant work and literature that can be helpful to perform the analysis of the impact domestically. A comprehensive work plan will also examine approaches that could minimize the adverse effects of response measures on developing Countries. Deploying an all-encompassing approach would allow the consideration and sharing of experiences across different economic sectors and social groups. That will also ensure that development, in collaboration with international organizations, of methodologies to evaluate the impacts on developing Countries by policies already implemented by Annex I Parties will result in effective and sufficient outcome.

Submission by Saudi Arabia

Submission of Views on the Forum and Work Programme on the Impact of the
Implementation of Response Measures

Area (d) - Exchanging Experience and Discussion of Opportunities for Economic Diversification and Transformation

Saudi Arabia welcomes the opportunity to submit its views on thematic area (d) of the work program of the forum on the impacts of the implementation of response measures.

The interactive dialogue that took place in the forum has set an important milestone for the work on understanding of the impacts of response measures. Parties were able to engage in constructive discussion on the different experiences of developing country Parties which are caused by climate change mitigation actions. It was also emphasized that, Some mitigation actions and policies of concerns taken up by developed country Parties have wider and graver impact on certain vital sectors of economy or sometimes the single primary source of income for many developing country Parties such as trade, tourism, industry, agriculture. Engaging different stakeholders will continue to be essential in understanding and providing broad analysis of the different dimensions of the various response measures, which could have diverse impacts on the economies and societies of Non-Annex I Parties.

Saudi Arabia believes that thematic area (d) on **Exchanging experience and discussion of opportunities for economic diversification and transformation** will be very significant in addressing the need for approaches to avoid or at least minimize the adverse impacts of response measures in the context of building resilience as well as initiating adaptive measures in developing country Parties. Thus, a guiding principle of the work should be building resilience and capacity building with the aim to establish long-term resilience.

The work should pay close consideration to the diversity of economic activities and markets, through providing ample analysis of different scenarios based on developing country Parties' national priorities and circumstances. Impacts of response measures are exacerbated when developing country Parties economies are highly dependent on a single commodity or a service with limited opportunities for diversification. Such scenarios are expected to be highlighted in the work of this area as well as exploring solutions to provide an on-going process for assessment and evaluation to those varying scenarios.

On the international level, sharing experiences on the development and dissemination of measures, methodologies and tools aimed at increasing economic resilience will be the driving force behind the recommendation and findings to be derived from this area. For example, technology needed by non-Annex I Parties to make the economic transformation is a key area and the work is expected to include discussion on local institutional technology and technical needs through active exchange of lessons learned by different Parties. Other areas should

include encouraging direct investment and technology transfer from Annex-I Parties to assist in the economic diversification of developing country Parties, in addition to addressing the extent to which trade and export barriers affect economic diversification in developing country Parties.

Besides the arrangements identified to be coordinated under the Convention, we also expect the work to provide a platform for learning and exchanging views on how to develop infrastructure of developing country Parties. Presenting best-practices and lessons learned for activities that promote elements of economic resilience at the national level should be encouraged. For example, initiatives to promote private-public partnerships in various areas to support economic diversification developed and conducted domestically will provide further insights to build on such initiatives to create a similar plan of action based on different national priorities and circumstances.

It is important to highlight that discussion on long-term resilience also should not overshadow the examination of strategies to build short-term resilience; discussion is also expected to provide a perspective on short term adaptive measures such as insurance, risk insurance and financial risk management tools.

Submission by Saudi Arabia

Submission of Views on the Forum and Work Programme on the Impact of the Implementation of Response Measures

Area (e) - Economic Modeling and Socio-economic Trends

Saudi Arabia welcomes the opportunity to submit its views on thematic area (e) of the work program of the forum on the impacts of the implementation of response measures.

Saudi Arabia would like to acknowledge the significant work that was achieved last year under the forum. Serving as a catalyst for collaboration and joint action, it is our view that Parties will progress on their understanding of the impacts of response measures through dialogue and coordination. As a matter of fact, as climate change mitigation actions are being carried out, many of their impacts are occurring and are felt by many developing country Parties. Reporting, dialogue and active exchange of lessons and information, in addition to comparison of results will need to be conducted regularly as a part of an effective, comprehensive and enabling framework under the UNFCCC to address the adverse impacts of response measures on developing Countries.

It is our view that thematic area **(e) Economic modeling and socio-economic trends** will be crucial in providing accurate and insightful assessment of the observed impacts of response measures on all different distressed economic sectors such as trade, tourism, industry, agriculture, etc.

Saudi Arabia believes that this exercise of partnership will necessarily address the need to distinguish between modeling activities that will be performed at the national capacity of developing country Parties from those that will be organized through international collaboration. Accordingly, developing country Parties would be encouraged to foster initiatives and programs to develop and create modeling tools at national institutions. It is important to stress that the complexity level of response measures taken by Annex-I Parties is matched with the complexity level and variety of socio-economic structures in developing Countries and therefore, evaluation and analysis of different economic modeling should follow the best options for the distinct and different case scenarios for developing Countries' vulnerabilities. This will also require Parties to discuss and identify assumptions and methodologies to enable Non-Annex I Parties to assess their vulnerability to the adverse impact of response measures by taking into consideration their own unique combination of national circumstances.

On the other hand, activities performed on the international level will require dissemination of modeling tools to non-Annex I Parties, while ensuring increased collaboration on modeling developments on an ongoing basis. The product models should be able to take into consideration inter-linkages of socio-economic topics and facilitate their understanding such as the impact on higher living costs, lower living standards and unemployment.

The other integral portion of this work area is the modeling that provides assessment of policies and response measures themselves. We expect the work to address the need for an *ex ante* analysis of proposed policies and their expected implications as well as an *ex post* analysis of current policies in order to establish a thorough assessment of policies and mitigation measures by developed Countries. Through rigorous and reliable analysis of different scenarios, we expect the outcome tools from this area to highlight alternative climate policies that have larger associated benefits in terms of poverty reduction and social protection in developing country Parties.

Moreover, coordination with the intergovernmental scientific research institutions to improve the quality of models with a view to fully addressing this issue in the future work will also enhance the accuracy of results and ultimately the implantation of the outcomes. The Intergovernmental Panel on Climate Change (IPCC) could lead such future. As a matter of fact, specific policy issues of concern, such as unilateral measures should be adequately and distinctly examined to identify modeling elements for analysis considering their potential severe and adverse impacts. We believe that it's crucial at this stage to consider inviting specialized international entities to partake in this exercise in order to produce a special technical report, for example, by either the IPCC or an expert modeling group.

As part of the enabling framework, we expect a discussion on process to examine the availability of modeling tools and the potential to develop new effective models to be used, in addition to evaluating existing economic modeling tools. It is also expected that this review mechanism will aim to investigate whether uncertainties and risks are addressed adequately in the methodologies that are used to study the impacts of response measures and how those areas can be quantified and reflected. Another important expected outcome is the development of draft guidance documents on how to undertake socioeconomic assessments of the impact of response measures to be piloted in selected Countries as a basis for detailed and comprehensive guidance.

Submission by Saudi Arabia

Submission of Views on the Forum and Work Programme on the Impact of the Implementation of Response Measures Area (g) - Just Transition of the Workforce, and the Creation of Decent Work and Quality Job

Saudi Arabia welcomes the opportunity to submit its views on thematic area (g) of the work program of the forum on the impacts of the implementation of response measures.

Saudi Arabia was among the Parties who participated in the interactive and lively discussion of the forum, which is in our view, has opened a new venue for substantial exchange of information to facilitate the understanding of the impacts of response measures, with the view to minimize the adverse consequences of those measures on developing country Parties. It was a noteworthy experience of partnership to share views from a wide range of sectors. Moreover, the participation by key stakeholders was also notable and we continue to believe that this engagement will be essential in understanding and providing broad analysis of the different dimensions of the various response measures, which could have diverse impacts on the economies and societies of developing Countries.

We believe that thematic area **(g) - Just transition of the workforce, and the creation of decent work and quality job** must be organized in the context of the Convention's and its Protocol's acknowledgement of every Country's legitimate right to sustainable development, and that Annex I Parties have a responsibility to promote a supportive economic system leading to sustainable economic growth and development in developing country Parties, and to support their overriding priorities for economic and social development and poverty eradication.

As most developing country Parties are witnessing rapid growth of a young population and are faced with extensive demand for decent work and quality jobs, the workforce and job markets in Non-Annex I Parties are among the most vulnerable sectors that need to ensure constant growth and sustainable development. Ample research, modeling and assessments are important instruments to understand and evaluate the impacts on both production and service-related jobs in the affected sectors. It is imperative that employment and other socio-economic indicators are included in the assessment and evaluation of the impact of response measures on Non-annex I Parties.

The forum is expected to examine the response measures and policies on closely associated topics to employment such as income, health and education. It is in our view that capacity building in the context of human resources development and training supported by Annex I Parties' means of implantation will be another area to examine.

Holding further workshops and organizing special events with International organizations as well as key subject-matter experts and representatives from private and public sectors will greatly help in disseminating practical lessons and highlighting concerns. The challenges need to be better understood and anticipated in order to avoid shocks to the human power behind economic performance in developing Countries.

**Forum and Work Program on the Impact of the Implementation of Response Measures
Third Session/ 38th Meeting of the Subsidiary Bodies
Submission of the United States of America**

During the first meeting of the forum on the impact of the implementation of response measures at the 36th Session of the Subsidiary Bodies in Bonn, Germany, the Subsidiary Body for Scientific and Technological Assistance (SBSTA) and the Subsidiary Body for Implementation (SBI) agreed to implement the work program, as contained in an annex to FCCC/SBSTA/2012/L.18 and FCCC/SBI/2012/L.25. The aforementioned annex calls for submissions from Parties and relevant organizations with respect to the “areas” listed in the work program. It specifically calls for submissions in advance of the 38th session of the Subsidiary Bodies for the following four areas:

1. Area (c) In-forum workshop - Assessment and analysis of impacts;
2. Area (d) In-forum workshop - Exchanging experience and discussion of opportunities for economic diversification and transformation;
3. Area (e) In-forum expert meeting - Economic modeling and socio-economic trends; and
4. Area (g) In-forum workshop - Just transition of the workforce, and the creation of decent work and quality jobs.

The United States’ views with respect to the four areas listed above are contained in the remainder of this submission. Given the agreed modalities laid out by the COP, we have focused our comments on potential topics for discussion related to these areas as well as on potential speakers that we feel would contribute to an effective, balanced dialogue on these issues. We request that special attention be paid to ensure that sufficient time is set aside for discussion after the presentations.

Area (c) In-forum workshop - Assessment and analysis of impacts

Many research organizations, such as the Center for Climate and Energy Solutions, and multi-lateral organizations, including the World Bank and International Energy Agency, as well as numerous academics and national governments have undertaken detailed cost-benefit analyses and impact analyses related to taking action to respond to climate change, both from a high level and for specific policy actions. Representatives from these types of organizations, as well as the Intergovernmental Panel on Climate Change, would be well placed to share their insights with the Forum on area (c).

When inviting speakers, it will be imperative to ensure that presentations include a balance of information regarding assessment of the positive and negative impacts of the implementation of response measures to climate change. Assessing and analyzing the positive impacts is essential to putting any negative impacts in context, as the positive impacts show the economic, social and environmental benefits that result from taking action to address climate change.

Area (e) In-forum expert meeting - Economic modeling and socio-economic trends

The discussion of areas (c) and (e) would seem to complement each other, so the United States would suggest that discussion of the two areas be combined during the forum. Similar speakers would be appropriate for both areas.

Area (d) In-forum workshop - Exchanging experience and discussion of opportunities for economic diversification and transformation

Economic diversification is a challenging task that many developed and developing countries around the world face today. Economic diversification not only lessens the negative impacts of response measures to climate change, but also brings many other economic and often environmental and socio-economic benefits, including increasing economic resilience to climate change by reducing reliance on vulnerable economic sectors.

How each country tackles economic diversification is different and reflects its own specific conditions, especially resource constraints. Regardless of these differences, lessons learned and best practices can be culled from the experiences of others. The United States suggests that representatives from several countries present case studies on their own strategies for economic diversification, the challenges they have face, and successes that they have had. The case studies could be accompanied by one or more presentations from non-governmental experts from research organizations or multi-lateral development banks to provide a broader look at economic diversification, including its benefits and how it can help countries minimize the negative and maximize the positive impacts of the implementation of response measures to climate change.

Area (g) In-forum workshop - Just transition of the workforce, and the creation of decent work and quality jobs

Promoting a just transition of the workforce and the creation of decent work and quality jobs is a critical area for consideration within the forum, and the United States believes that the discussion of this area should focus on actions that states can take to minimize the negative and maximize the positive impacts of response measures on their workers. Areas of discussion could include the following:

- Helping workers share in the benefits of transition through opportunities to gain the necessary skills;
- Respecting the rights of workers when implementing new policies and investing in new and emerging sectors;
- Protecting the health and safety of workers in developing sectors; and
- Providing social safety nets to help those dislocated by the shift to more environmentally sound consumption and production.

Given the forum's limited time, we would suggest that the presentations focus in on examples of education and retraining in order to promote a just transition of the workforce.

The United States believes that enhancing science, technology, engineering and mathematics (STEM) education is critical to ensure that our next generation of workers is prepared for the shift to a lower carbon economy. The United States has not only enhanced attention on STEM in primary through high school curricula but we are supporting those efforts with a commitment to train 100,000 new science, technology, engineering and math teachers over 10 years and the establishment of new teacher training and research internship programs, including programs run by Department of Energy National Laboratories. We have also created educational recognition and awards programs, like the U.S. Department of Education's Green Ribbon Schools Program and the US Department of Energy's National Science Bowl and Solar Decathlon, to spur greater student interest in STEM, and we established the Advanced Research Projects Agency for Education (ARPA-ED) to drive further education innovations that may be required to facilitate the just transition of our workforce.

To make sure that all of these programs are enhanced by efforts from outside the government as well, the US Government has expanded private-public partnerships to improve training and inspire students – especially girls– to excel in math and science. Non-governmental STEM education coalitions are also being formed by representatives across the technological workforce to provide support to educators and parents as well as to provide policy input to legislators.

Worker training and retraining are also a focus of a large number of US Government projects and programs. US Department of Labor (DOL) programs provide employment assistance and job training to individuals transitioning into jobs associated with a more sustainable economy. In particular, DOL's Employment and Training Administration give grants to US states to support opportunities for workers to receive job training in green industry sectors and occupations. Many other DOL agencies, including the Women's Bureau and Bureau of Labor Statistics, also run targeted activities aimed at facilitating the transition to greener jobs. The Department of Energy's (DOE) "Better Buildings Initiative" focuses on job opportunities related to building sustainable commercial buildings, improving federal and local policies, and enhancing access to information, financing, and tax incentives for sustainable buildings. DOE is also developing the National Training & Education Resource (NTER), an open source platform that allows individuals transitioning to a new field to acquire new skills at the time, place and pace that is convenient to them.

Again, initiatives outside of the US Government are also taking place with the intention of making sure that workers can successfully transition to a lower carbon economy. The United Nation's International Labour Organization (ILO) as well as national labor organizations, like the American Federation of Labor- Congress of Industrial Organizations (AFL-CIO) are actively promoting worker training and retraining initiatives. These groups would have additional insight to add to the forum's discussion on this topic.

Conclusion

We hope that the Parties and the Secretariat find our comments useful in preparation for the third meeting of the forum on the impact of the implementation of response measures. The United

States looks forward to hearing the views of the presenters and other Parties and to engaging in a productive discussion.
