

# **Submission by China on 2<sup>nd</sup> Structured Expert Dialogue**

## **I. General comments**

1. The SED should serve as a platform for exchange of views and information between experts and parties. Through responding to the questions raised and recommended by the Parties, the SED can provide support for the review activities of parties.
2. The review process should be in full accordance with the principles and provisions of the UNFCCC, and the previous COP decisions. It should be conducted in a holistic and balanced approach. The balance between two themes, the balance among various literatures and the balance of the participation by developed and developing countries should be maintained throughout the whole process of SED.
3. The following are some questions raised by parties in SED1 which should be addressed in the SED:

### Theme 1:

- What are the impacts of 2/1.5 degree temperature increase on eco-system, environment, social and economic aspects at global, regional and national level?
- What is the dangerous climate intervene level and the scientific uncertainty?
- What is the mitigation cost associated with 2/1.5 degree temperature targets?
- What is the adaptation cost associated with these impacts?

### Theme 2:

- Adequacy and effectiveness of the binding and ambitious emission reduction commitments of Parties included in Annex I to the Convention?
- Adequacy and effectiveness of the commitments of Parties included in Annex II to the Convention for the provision of financial resources and the transfer of technology and capacity-building to developing countries and its implementation?
- Gap of overall progress made towards achieving the long-term global goal in light of the ultimate objective of the Convention, including a consideration of the implementation of the commitments under the Convention and its reason;

- The technology, financial and capacity building needs of developing countries to address climate change and whether/how these needs could be met?
- What are the social and economic impacts of the implementation of mitigation measures on developing countries?

## **II. Organization of the SED2**

Before substantive discussion on two themes, SED2 should start with a scene setting session, giving a overview of latest progress on climate change research to enlighten parties to consider the policy implications of these findings. Experts of IPCC AR5 could be invited to brief on their research and findings in the context of Review.

### **Theme 1:**

SED2 should assess the adequacy of the long-term global goal based on contribution of Working Group I to the IPCC AR5 and other relevant literatures.

#### ● Suggested guiding questions:

1. What are the latest observed and projected changes of the climate system that are related to anthropogenic climate change based on the findings of WGI report? How this relates to the adequacy of the long-term global goal?
2. The limitation of existing understating towards climate system? What uncertainties still exist? e.g. The limitation of Climate Models, uncertainties in climate sensitivities and uncertainties of future projections?
3. What are the resulting impacts and adaptation options both at regional and global level?

#### ● Inputs:

- For question 1 and 2: IPCC AR5 WG1 is a key input of SED2. In particular, chapter 2-4 on observed changes, chapter 9 on evaluation of climate models and chapter 12 on Long-term Climate Change Projections.
- For question 3: for consideration, SREX report and experts from WG2 or from regional centres to introduce the resulting impacts and adaptation options.

#### ● Experts:

- For question 1 and 2: Qin Dahe (co-chair WGI), Dennis L. Hartmann (CLA cha 2), Monika Rhein (CLA Cha 3), Jiawen REN (LA Cha 4), Gregory M. Flato (CLA, Cha 9) and Xuejie GAO (LA, Cha 12)
- Also for question 2: Prof. Dong Wenjie (LA on chapter 14, model group participating CMIP5) from Beijing Normal University of China, evaluation of climate models based on the CMIP5 results.
- For question 3: Vicente Barros (Co chair WG2, SREX), Saleemul Huq (CLA on adaption needs and options), Fatima Denton (CLA on Climate-resilient pathways: adaptation, mitigation, and sustainable development)

## **Theme 2:**

SED2 should assess overall progress made so far towards the long-term global goal, the adequacy of existing progress, and the adequacy and effectiveness of support provided.

### ● Suggested guiding questions:

1. The existing trends of global GHG and relationship between global emissions and global temperature rise? What are the uncertainties and the risks associated with specific pathways and how to address them in the context of decision-making?
2. Evaluation of current mitigation commitment and actions of parties, in particular Annex I parties? What are the best practices/lessons learnt in mitigating climate change?
3. Adequacy and effectiveness of supports in technology, finance, and capacity building? The future technology, financial and capacity building needs of developing countries to address climate change? What are the best practices/lessons learnt in supporting?

### ● Inputs:

- For Question 1: IPCC AR5 WG1, in particular chapters on ‘Understanding the Climate System and its Recent Changes’ that looks at carbon cycles, uncertainties and climate sensitivities; and ‘Future Global and Regional Climate Change’ (SPM D1 Evaluation of climate models, D2 Quantification of Climate System Responses, E1 Temperature, E6 Sea Level, E7 Carbon Cycles, E8 Climate Stabilisation and Irreversibility)

- For Question 2: National reports, report on ICA/IAR and other Research reports/literatures (see Annex)
- For Question 3: TEC/Standing committee on finance reports; Technology needs assessment reports and other report/literatures (see Annex)

- Experts:

- For Question 1: relevant IPCC WGI Authors from mentioned chapters
- For Question 2: Sivan Kartha from Stockholm Environment Institute or Harald Winkler from University of Cape Town or Teng Fei from Tsinghua University of China
- For question 3: Vicente Paolo Yu III from South Centre and Representatives from Standing Committee on finance/TEC

## **Annex:**

### **Specific information sources suggested for consideration for question 2 and 3 under Theme 2<sup>1</sup>**

- For Question 2 under theme 2:

Kartha S., and P. Erickson (2011). Comparison of Annex 1 and non-Annex 1 pledges under the Cancun Agreements. Stockholm Environment Institute. Available at: <http://www.oxfam.org.nz/resources/onlinereports/SEI-Comparison-of-pledges-Jun2011.pdf>.

Winkler H., A. Marquard, and T. Letete (2009). Analysis of possible quantified emission reduction commitments by individual Annex I Parties. Energy Research Centre, University of Cape Town. Available at: <http://gdrights.org/wp-content/uploads/2009/06/09winkler-et-al-possible-reduction-commitments.pdf>.

Ha Y., and F. Teng (2013). Midway toward the 2 degree target: Adequacy and fairness of the Cancun pledges. Applied Energy. (DOI: 10.1016/j.apenergy.2013.05.021). Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0306261913004224>.

Peters G.P., J.C. Minx, C.L. Weber, and O. Edenhofer (2011). Growth in emission transfers via international trade from 1990 to 2008. Proceedings of the National Academy of Sciences 108, 8903–8908.

- For Question 3 under theme 2:

Vicente Paolo Yu III, South Centre research paper 25(2009), The Gap between Commitments and Implementation: Assessing the Compliance by Annex I Parties with their Commitments under the UNFCCC and its Kyoto Protocol. ( updated recently)

Brown J., N. Bird, and L. Schalatek (2010). Climate finance additionality: emerging definitions and their implications. Heinrich Böll Foundation North America. Available at: <http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/6032.pdf>.

Stadelmann M., J.T. Roberts, and A. Michaelowa (2011). New and additional to what? Options for baselines to assess “new and additional” climate finance. Climate and Development 3, 175–192.

IEA, Energy technology perspectives 2010/2012, World energy outlook 2011/2012 on future financial and technology needs.

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<sup>1</sup> This is an initial list of information sources, but not limited to the literatures listed.

Zou Ji, Wang Ke, Fu Sha, et al. China Human Development Report 2009/10: China and a Sustainable Future, towards a Low Carbon Economy&Society. Commissioned by UNDP China. Beijing: China Translation & Publishing Corporation, 2010.