

# ipcc

INTERGOVERNMENTAL PANEL ON climate change



**Regional Outreach Meeting on  
IPCC Special Report on Managing the Risks of Extreme Events and  
Disasters to Advance Climate Change Adaptation (SREX)**

*Beijing, China, 26 - 27 April 2012*

**FINAL REPORT**



# Collection of Participation



(Opening ceremony)



(Press conference)



## (Hard Talk)

### Summary of the IPCC SREX Regional Outreach Meeting

#### I. Overview of the IPCC SREX Regional Outreach Meeting

1.1 A Regional Outreach Meeting on the IPCC *Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (SREX) was held in the Science and Technology Building of the China Meteorological Administration (CMA) in Beijing on 26<sup>th</sup> and 27<sup>th</sup> April 2012. This meeting was organised by CMA in co-operation with IPCC, the Overseas Development Institute (ODI, UK), the Climate and Development Knowledge Network (CDKN, UK).

1.2 The agenda of this meeting can be found in Appendix I. The meeting was attended by 191 participants from government, NGOs, International Organizations, enterprises, research institutions, universities, private sectors, media, Lead Authors of the report, etc (see appendix II). Simultaneous Interpretation between Chinese and English was arranged, which ensured the in-depth discussion.

#### II. Opening Ceremony

2.1 Dr. ZHENG Guoguang, Administrator of CMA and Focal Point of China for the IPCC, Dr. QIN Dahe, Co-Chair of IPCC AR5 Working Group I, Professor SHAN Chunchang, Vice Chair of China's National Commission for Disaster Reduction, and Dr. Kristie L. Ebi, Head of IPCC Working Group II Technical Support Unit(TSU) delivered opening addresses at the opening ceremony. Mr. SHEN Xiaonong, Deputy Administrator of CMA chaired the opening ceremony.

2.2 Dr. QIN Dahe, Co-chair of IPCC WGI, expressed his warm welcome to the participants. He introduced the process in preparation and adoption of the SREX. He briefed the participants on some key findings of SREX. He sincerely wished that this report would contribute to the cooperation among Asian countries in managing the risks of extreme events and disasters.

2.3 Dr. Kristie L. Ebi expressed high appreciation to CMA and CDKN for hosting this event. She introduced the main conclusions of SREX and emphasized that SREX was the fruit of cooperation between the Working Group I and Working Group II. She particularly introduced the concepts of exposure and vulnerability. She mentioned that it was the first time to integrate climate science with socioeconomic science and comprehensively evaluate the situation of extreme disasters against the background of climate change and progress of management and adaption measures of disasters and risks, which offers evaluable information for each country to cope with the said problems.

2.4 Professor SHAN Chunchang emphasized the importance of enhancing China's capabilities to address crisis in disaster prevention and mitigation, and gave priority to following two issues. First, urban areas with high risks and rural areas without fortification coexist. Second, natural disasters, accidents, public health events and social security events are highly correlated, they influence and transform into each other, leading to secondary, derivative events or coupling of various events.

2.5 Dr. ZHENG Guoguang noted positive responses on the SREX from the international community, especially the UNFCCC and UNEP. He recalled that CMA also hosted a similar workshop on Extreme events in

2002, which was the first workshop hosted by IPCC WGI during the period of AR4. He mentioned that adaptation to climate change, especially active response to extreme events and disaster reduction, was an actual and urgent requirement in nowadays, especially in the developing countries, and it was also a strategic issue in ensuring the sustainable socio-economic development and safeguarding the lives and properties. He believed that the SREX as well as the meeting would help increase the understanding of relevant agencies in China on climate change adaptation and particularly on the importance of responding to extreme climate events and reducing disaster risks. He also introduced the remarkable achievements made in the regard by the Chinese government through continuous improvement of meteorological service. He committed to working with the international community to improve or establish the meteorological disaster monitoring and early warning systems for the developing countries.

### **III. Media arrangement**

3.1 A website was established for the meeting. Detail information on this meeting can be found on the following website of CMA: <http://www.cma.gov.cn/en/Special/2012Special/20120424/index.html>.

3.2 A press conference was hold immediately after the opening ceremony. Dr. CHAO Qingchen, Deputy Director-General of National Climate Centre of CMA moderated the press conference, with the presence of Dr. QIN Dahe, Dr. Kristie L. Ebi as well as Dr. Taikan Oki , Dr. WU Shaohong , Dr. Francis Zwiers, Ms. Soojeong Myeong, LAs' of the report.

3.3 Weather China made live broadcast of the opening ceremony and press conference and debate on special topics of SREX during the meeting. A dozen of media including China Meteorological News, Guangming Daily, Xinhua News Agency participated in the press release, on which Ms. Kris Ebi introduced key findings of SREX and answered the questions raised by journalists, along with co-authors of SREX and Dr. QIN Dahe. The questions included: what's the relationship between exposure and vulnerability and disasters? What experience can developing countries learn in terms of responding to extreme climate and disasters? What's the meaning of the cover photo of IPCC SREX special report? and how about the situation and influence of Chongqing drought and China's extreme events etc.

3.4 There were over 400 related news reports, publicity and links reports, giving wide coverage of this session. Among these, People's Daily published a special report titled *Increasing Economic Losses caused by Extreme Climate, China Responds Actively*, which was reprinted by various websites such as xinhuanet.com and gov.cn. With two-day profound discussion, the participants got better knowledge of the conclusions and newest concepts of SREX, and deepened understanding on disaster and risk management and transformation from different scopes and perspectives. Heated discussions on how to address future challenges was sparked, and suggestions on how IPCC conducts evaluation research were put forward in this session, marking complete success of the session. This briefing session featured a wide range of participating institutions, a great number of people and profound influence, showing great concern of all walks of life on climate change adaptation, particularly on how to respond to extreme events.

### **IV. Panel Discussion of Major Findings**

This session was chaired by Dr. LUO Yong, Deputy Director-General of National Climate Centre of CMA. Dr. Soojeong Myeong from Republic of Korea explained the concepts of exposure and vulnerability by giving some examples in several Asian countries. Prof. Francis Zwiers from Canada elaborated the finds on observation and prediction of extreme events. Dr. Wu Shaohong from the Institute of Geographic Sciences and Natural Resources Research, CAS, introduced the main conclusions of Chapter Four "Regional Impacts and Losses" in the report. Dr.

Taikan Oki from Japan made analysis on Chapter Eight “Measures on Managing Risks: Increment and Transformation”. Prof. Kristie L. Ebi introduced the risk management measures both incremental and transformative. Their informative introductions were highly appreciated by the audience.

## **V. Policy and Practice Forum**

This forum was chaired by Dr. CHAO Qingcheng, Deputy Director-General of National Climate Centre of CMA.

Dr. CHEN Zhenlin, Director-General of Department of Emergency Response, Disaster Mitigation and Public Services of CMA expounded China’s practice on managing meteorological disasters and risks from aspects of risk identification, risk reduction and risk transfer. The measures on risk identification includes the establishment of integrated meteorological observation system, continuous improvement of disaster forecasting capability, joint forecast of special disasters(such as weather forecast for geological disasters, forest fire risk level forecast, weather forecast for traffic, etc.), pre or post disaster assessment, disaster zoning, etc. The measures on risk reduction includes the development of meteorological early warning dissemination system, development of legal framework and mechanisms on disaster prevention and mitigation, improvement of public awareness, climate feasibility assessment for large projects, etc. The measures on risk transfer include the weather index for agricultural insurance and catastrophe disaster risk transfer. He also answered the questions on data sharing of meteorological observations and disasters, climate feasibility assessment, etc. He stressed that natural disaster risk management components should be comprehensive and be incorporated in the national development plans and strategies.

Dr. ZHANG Xiaoning, Chief of Disaster Reduction Office, Disaster Relief Department, Ministry of Civil Affairs of China, introduced China’s overall plans on disaster prevention and mitigation during the 12<sup>th</sup> Five-year period as well as their role in developing a sustainable and harmonized society in China. Those plans were prepared in response to the increasing impact of natural disasters, requirement for improving the governments’ public service, the need for an integrated national disaster prevention and mitigation system. He also mentioned the eight key projects in the plans.

Dr. LUO Yong, Deputy Director-General of National Climate Center of CMA introduced some recent scientific findings in the China’s Second National Assessment Report on Climate Change, which was officially published on 15 November 2011.

Prof. XU Feiqiong from Renmin University gave a detailed introduction to the catastrophe disaster risk transfer. She discussed with the participants on the important role of insurance in transferring the risks (especially in the field of agriculture for food security).

Other questions included the low coverage of marine disasters(such as red tides) and health issue related to extreme events in the SREX.

## **VI. SREX Hard Talk**

This section was moderated by Dr. CHAO Qingcheng and Dr. LUO Yong, with the following panel members, namely Prof. XU Feiqiong, Dr. WU Shaohong and Dr. LUO Yali. The Topics included:(i) Characteristics of disaster impacts in developing countries and challenges; (ii) Disaster risk reduction must be a cornerstone of national economic and social policy; and (iii) What does it mean for Asia (especially China) as we know there is an human imprint on some disasters? Live broadcast was arranged and the discussion content can be found on [http://www.cma.gov.cn/2011wmhd/2011wzbf/2011wzxzb/yixianrong\\_1\\_1\\_2\\_1\\_1\\_2\\_1/index.html](http://www.cma.gov.cn/2011wmhd/2011wzbf/2011wzxzb/yixianrong_1_1_2_1_1_2_1/index.html).

Dr. LUO Yali mentioned that the impact of extreme events does not only depend on the severity and time-length but also relates to the vulnerability and exposure to natural disasters as well as the recovery capability. That’s why

developing countries usually suffer more from the extreme events in terms of number of death, economic loss comparing to their GDP. Dr. WU Shaohong emphasized that preparatory measures should be done before a disaster happens. He also stressed that indirect losses such as mental impact, should also be included into the total loss comparing to GDP and believed that disaster prevention and mitigation are the cornerstones of sustainable development. Prof. XU Feiqiong agreed that a comprehensive disaster reduction mechanism should be established. Such mechanism should be led by the government with necessary participation of the community and general people. Experience on disaster prevention and preparedness in Japan was also introduced.

Mr. Yang Xusheng from China Red Cross believed that there is a human imprint on all disasters risks. The human beings should restrict their activities and behaviors that are not environment friendly. Prof. Wu Shaohong gave some examples on the human imprints, such as the flooding due to deforestation, food security due to increasing population, impact on the climate change by reduction of GHS emission, etc.

Dr. MA Shiming from Chinese Academy of Sciences emphasized that it is necessary to explain the useful key findings of SREC in common languages to the general public. The panel members agreed that further efforts should be made in promoting the key findings to the grassroots. In response to an expectation from Mr. YANG Fang from UNEP office in Beijing concerning IPCC's extended research on disaster reduction, Dr. CHAO Qingcheng mentioned that this goes beyond the mandate of IPCC. Dr. CHAO also answered a question on overall adaptation cost.

## **VII. Break-out Group Meetings**

Academician Ding Yihui from National Climate Center chaired the meetings on 27 April. The discussions were organized into break-out groups, focusing on actions at three levels, namely regional(break-out group I, BOG1) , country(BOG2) and community levels(BOG3).

Ms. Kris Ebi chaired the BOG 1 meeting with the assistance of Dr. Luo Yong and Dr. Zhou Botao. This meeting was attended by around 80 participants. Dr. LUO Yong reported the outcome of the discussion. BOG 1 agreed on the following three points: 1. Extreme events should receive high attention by regional bodies engaged in disaster reduction; 2. Regional cooperation should be enhanced to deal with the challenges and risks brought by the extreme events; 3. There are already regional mechanisms on disaster reduction and achievements have been made in this regard. However, coordination mechanisms among those regional mechanism and with other international organizations should be established in order to avoid duplicated investments and efforts in climate service. The effective implementation of the Global Framework for Climate Services was emphasized. Further outreach activities should be carried out.

BOG 2 was chaired by Dr. CHAO Qingchen with the support of Dr. HU Ting. The participants noticed the role of non-climate factors in disaster reduction. There were consensus that the governments should take a leading role with strong inter-agency coordination and broad community participation in disaster reduction. Each country should carry out disaster reduction activities according to its national situation. Learning the experience of other countries in dealing with the similar extreme events will be very helpful. In view of the uncertainties in the science, it was suggested that disaster reduction should not only rely on climate and weather prediction, but also relevant legal framework and mechanisms. Data sharing and effective communication of warning messages should be enhanced.

BOG 3 was chaired by Academician DING Yihui with the support of Dr. Liao Jun and Dr. Huang Lei. It was attended by around 40 participants. The discussion centered on four issues: how communities take measures to adapt to future extreme events and changes of exposure and vulnerability? What kind of reforms can communities make to mitigate negative impacts? How to make community actions more soundly-based? How to deal with uncertainty of prediction and forecast? Following suggestions were made: 1. improvement of public awareness of

disaster prevention and provision of education on necessary skills through more outreach activities at the community level; 2. enhance the existing infrastructure and disaster prevention standards in view of the severer extreme events in the future; 3. better availability of warning messages to the communities, especially the disadvantaged groups by taking advantage of modern communication tools; 4. pre-assessment of the exposure and vulnerability of community and formulation of emergency response plans against disasters. 5. enhance the better interaction with professional disaster prevention and mitigation authorities; 6. local governments should take an important role in disaster reduction at community level.

### **VIII. Poster Exhibition by Young Scientists**

A poster exhibition by young scientists was held during the meeting. Posters were offered by young scholars from various research institutions and universities, including National Meteorological Center, National Climate Center, Chinese Academy of Meteorological Sciences, Red Cross Society of China, Disasters Research Center PICC P&C, Lanzhou University and Nankai University. 15 posters were displayed:

1. Numerical forecast and distribution of sandstorm and haze;
2. Research on features of China's lightning disaster;
3. extended forecast of continuous precipitation process featured by low-frequency oscillation in the Yangtze and Huaihe river areas in summer;
4. Spatial pattern of extremely heavy precipitation trend in East China during warm seasons;
5. Socioeconomic situation of eight Asian countries (China, India, Japan, South Korea, Bangladesh, Philippines, Burma, Vietnam) and cases of typhoon-rainstorm disaster;
6. Result of remarkable warming in arid or semiarid regions;
7. Evaluation of extreme climate events' impact on China's coastal city agglomeration and responding mechanism;
8. Introduction of activities on responding to extreme climate and disaster prevention and mitigation held by Disasters Research Center PICC P&C;
9. Introduction of International Red Cross and Red Cross Society of China;
10. Introduction of Beijing Climate Center,
11. Red Cross Society of China;
12. Introduction of programs on disaster mitigation carried out by Red Cross in China;
13. Practical strategies on responding to climate disasters and risks (meteorological index insurance);
14. National drought trend in recent 50 years;
15. Features of China's rainstorm and flood.

### **IX. Closing Ceremony**

Ms. Kris Ebi congratulated the success of the outreach meeting. She believed that this meeting would help more people know the key findings of SREX. Academician DING Yihui expressed his high appreciation to the participants for their active participation and brilliant ideas and suggestions raised during the meeting. He pointed out that more efforts should be taken, especially at the community levels. Once again, he expressed gratitude to the sponsors of this event, including IPCC, UK Overseas Development Institute and Climate and Development

Knowledge Network.

The meeting was closed at 15:40, 27 April 2012.

## **Agenda of IPCC SREX Regional Outreach Meeting**

(Beijing, 26 -27 April 2012)

### **Agenda: 26<sup>th</sup> April**

**8:00 – 9:00 Registration**

**9:00 – 9:50 Opening Ceremony**

(Moderator: Mr. SHEN Xiaonong, Deputy Administrator of the China Meteorological Administration)

09:10-09:20 Dr. QIN Dahe, Co-Chair of IPCC Working Group I

09:20-09:30 Dr. Kristie L. Ebi, Head of IPCC Working Group II TSU

09:30-09:40 Dr. SHAN Chunchang, Vice Chair, National Commission for Disaster Reduction

09:40-09:50 Dr. ZHENG Guoguang, Administrator of CMA and Focal Point of China for IPCC

**9:50-10:00 Group Photo**

**10:00-10:30 Coffee Break**

**10:00-10:30 Press Conference**

(Moderator: Dr. CHAO Qingchen)

**10:40-12:10 Panel Discussion of Major Findings**

(Moderator: Dr. CHAO Qingchen)

10:40-10:55 Soojeong Myeong, Overall framing, discussion of exposure/vulnerability

10:55-11:10 Francis Zwiers, Regional observations and projections of extremes

11:10-11:25 WU Shaohong, Regional impacts, losses

11:25-11:40 Taikan Oki, Moving towards a sustainable and resilient future

11:40-11:55 Kristie L. Ebi, Risk management measures, both incremental and transformative

11:55-12:10 Questions and discussion

**12:30 – 14:00 Lunch**

**14:00 – 15:45 Policy and Practice Forum** (Moderator: Dr. CHAO Qingchen)

14:10-14:15 CHEN Zhenlin, meteorological disaster prevention and mitigation in China

14:15-14:30 ZHANG Xiaoning, China's national disaster reduction policies

14:30-14:45 LUO Yong, major science initiative

14:45-15:00 XU Feiqiong, catastrophe disaster risk transfer

15:00-15:45 Questions and discussion

**15:45 – 16:00 Coffee Break**

**16:00 – 17:30 SREX Hard Talk**(Moderators: Dr. CHAO Qingchen and Dr. LUO Yong)

(Panel members: XU Feiqiong, WU Shaohong, LUO Yali)

*Topic 1: Characteristics of disaster impacts in developing countries and challenges*

*Topic 2: Disaster risk reduction must be a cornerstone of national economic and social policy*

*Topic 3: What does it mean for Asia (especially China) as we know there is an human imprint on some disasters?*

**18.00-19:30 Reception**

## Agenda: 27<sup>th</sup> April

### 9:00 – 9:20 Recap on Day 1 and Introduction of Break-out Groups(BOGs)

Moderator: Dr. DING Yihui, Co-chair of IPCC WGI Third Assessment Report

### 9:20-12:00 Break-out Group Meetings

(Note: BOG1 will work in Chinese and English with simultaneous translation.

BOG 2 and 3 will work in Chinese with whisper interpretation service into English if it is necessary)

	<b>Break Out Group 1</b>	<b>Break Out Group 2</b>	<b>Break Out Group 3</b>
<b>Topic</b>	Regional Action: Responding to the SREX Report Findings	National Action: Responding to the SREX Report Findings	Community Action: Responding to the SREX Report Findings
<b>Chair</b>	Kristie L. Ebi	FAN Yida	DING Yihui
<b>Rapporteuses</b>	LUO Yong and ZHOU Botao	CHAO Qingchen and HU Ting	LIAO Jun and HUANG Lei
<b>Venue</b>	Auditorium	Meeting Room 9	Meeting Room 10
<b>Guiding Questions</b>	<p>Are regional institutions and policy frameworks adequate for dealing with the challenges set out in SREX?</p> <p>If not, what needs to change? Are these incremental or transformative?</p> <p>Is the use of science and social science in guiding policy and decision-making sufficient?</p> <p>How can action become more evidence based?</p> <p>How can uncertainty in projections be dealt with regionally?</p>	<p>Are national institutions and policy frameworks adequate for dealing with the challenges set out in SREX?</p> <p>If not, what needs to change? Are these incremental or transformative?</p> <p>Is the use of science and social science in guiding policy and decision-making sufficient?</p> <p>How can action become more evidence based?</p> <p>How can uncertainty in projections be dealt with regionally?</p>	<p>How suited are community-based approaches to future changes in extreme events, vulnerability and exposure?</p> <p>What changes are needed at community level to reduce impacts?</p> <p>How can action become more evidence based?</p> <p>How can uncertainty in projections be dealt with regionally?</p>

**12:00-14:00 Lunch**

**12:00-14:00 Poster Exhibition by Young Scientists**

**14:00 – 15:00 Report Back from Break Out groups(Moderator: Dr. DING Yihui)**

**15:00 – 15:30 Closing Ceremony**

## Appendix 2:List of Participants