



## News &amp; Views

## China's participation in and contribution to IPCC

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In 1988, the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP) jointly launched the Intergovernmental Panel on Climate Change (IPCC) to bring together scientists recommended by governments to assess the impacts of global climate change based on published literature. Five assessment reports have been released so far. In 2018, it marks the 30th anniversary of IPCC. Its previous reports, which are a collection of the up-to-date findings in climate change science at global level, have undergone rigorous expert and government reviews, hence recognized as an important source of scientific input to the international community in its understanding the climate change issue and devising a mechanism in response to it. The findings on global warming in terms of authenticity, severity and urgency contained therein have contributed to the birth of such instruments as the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol (KP) and the Paris Agreement (PA). At the same time, they serve to justify climate change policies and decisions at national level as a clearing house. In 2007, IPCC won the Nobel Peace Prize for its contribution to climate change response.

China is an important participant and contributor to the IPCC assessment process. In November 2018, the Chinese government held a celebration of the 30th anniversary of China's accession in Beijing, reviewing what it has done for this endeavor.

The Chinese government is an active facilitator of and participant in the IPCC assessment process. China was one of the first countries to participate in the scientific assessment of climate change at the international level [1]. It was Mr. Jingmeng Zou, former Administrator of the China Meteorological Administration (CMA) and the then President of WMO (Fig. 1), that campaigned foresightedly for the inauguration of IPCC in 1988 and played an important role in its early days when rules were being made. Since then, the successive heads of CMA have all acted as a focal point of China with IPCC. The participation of the Chinese government in IPCC is primarily motivated by its desire to maintain the rights and interests of developing countries from a scientific perspective and ensure a scientific, comprehensive and objective assessment of its findings. Over the past 30 years, the Chinese government has actively participated in the process of institutional development and improvement for IPCC, taking into account the rights and interests of developing countries that are maintained with a sound

institutional arrangement while the transparency of assessments with a robust set of processes and procedures. It has contributed thousands of Chinese expert and government comments on IPCC's organization, management and assessments. In the IPCC Fifth Assessment Report (AR5) cycle alone, 16 reviews of such outputs as the AR5 Working Group Contributions, the Synthesis Report, the Special Reports and the Methodological Guidelines were launched by bringing together more than 2,400 participants from 18 sectors. In the case of an ongoing review process, China refrains from presupposing any conclusion [2]. Instead, it pays more attention to the balance and objectiveness of a core reported finding, and the accuracy of data and findings including that concerning China. Such a practice and behavior do contribute to the stable operation of IPCC and its production of a scientific, comprehensive and objective assessment.

The Chinese community of scientists is a participant in and contributor to the IPCC assessment. In the course from the first to sixth assessments of IPCC, the Chinese government has mobilized around one thousand scientists from various sectors to participate in these processes, of which 148 have ever sit in a writing team of an assessment report, who have acted as either a co-chair, a coordinated lead author, a lead author or a review editor, respectively. The number of participants in Work Group Reports of each assessments circle has risen from 3 (another 6 more were contributing authors) in the first assessment cycle (FAR) to 43 in the fifth assessment cycle (AR5), and 37 in the sixth assessments cycle (AR6) (Fig. 2). Including the authors of IPCC special reports and technical papers, the number of authors from China in AR6 cycle has increased to 60.

Since the third assessment of IPCC, Prof. Ding Yihui (Academician of Chinese Academy of Engineering), Prof. Qin Dahe (Academician of Chinese Academy of Sciences) and Prof. Zhai Panmao (Senior Researcher) from China have successively served as a co-chair of the IPCC Working Group I for four consecutive cycles. The participation of these scientists in the international scientific assessment in this connection has given rise to much attention of the Chinese scientific community to the cutting-edge scientific issue of climate change. In return, they have emerged as a core driving force for scientific research in, mechanism-based intervention to and popular awareness of climate change in China. Since 2007, China has implemented the Special Action of China for Science and Technology-based Climate Change Response, with two five-year national special plans for scientific and technological

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Fig. 1. Yihui Ding, Jingmeng Zou, Dahe Qin (from left to right), 12th Session of the IPCC, Mexico City, Mexico, 11–13 Sep. 1996.

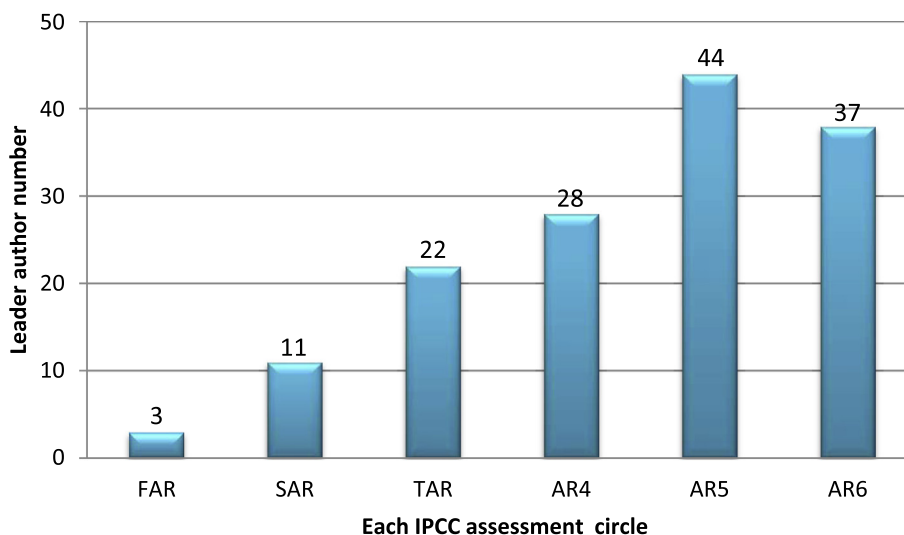


Fig. 2. Number of participants from China in Work Group Reports of each IPCC assessments circle has risen.

innovation-based climate change response released in 2012 and 2017 successively, to systematically support research in this field. According to the CMA Library, in the IPCC Fifth Assessment Report, the Chinese literature cited in the three areas of climate change science, impacts, adaptation and mitigation accounted for 2.8%, 1.7% and 1.6% of the total citations, a significant increase from the previous four assessments [3–5].

The Chinese government attaches great importance to the application of IPCC assessments. In 2007, China announced its National Climate Change Team headed by the Premier and composed of more than 20 ministers. Immediately after an IPCC report is released, all members of the Team are given an interpretation and analysis of the reported findings. In 1998, China began to bring together national scientists for the preparation and publication of scientific assessment reports by following the IPCC's processes and practices, such as the Evolving Climate and Environment in China. In time, it released the China National Assessment Report on Climate Change in three editions in 2006, 2011 and 2015 respectively. These outputs, together with the IPCC's assessed findings, serve as an important source of information and reference for China in its effort to develop a climate change governance; address extreme weather and climate events; keep secure food, water and high-profile projects; advance the energy revolution; and achieve industrial restructuring. When the fourth and fifth assessment

reports of IPCC were released, the Chinese government launched an outreach campaign respectively, including presentations to decision-makers, researchers, universities and the general public, which resulted in a highly raised awareness and understanding of climate change and its response in all walks of life in China.

The IPCC of 30 years, which is crowned with successes and honors, is faced with greater expectations and challenges in the future. The increasing consensus of the international community on climate change science and risk has allowed IPCC to refocus its assessment from the factual climate change science to an intervening and enabling mechanism, a shift that is increasingly reconciled with the UN Sustainable Development Goals. In view of the fact that some climate change related issues in the socio-economic field are highly policy-relevant and even involve value judgments, the acceptance by all parties of an assessed finding remains extremely challenging to the author team. A case in point is that with regard to the Special Report on Global Warming of 1.5 °C, which was deliberated and adopted by IPCC in Incheon, Korea in October 2018, isolated countries stated their consent to its adoption but with a reservation about one or two findings therein at the plenary session.

Some of the discussions on the future IPCC assessment suggest that IPCC should be more pegged with the Convention process, in particular its assessment cycle even with the global stock-take

under the Paris Agreement. According to the Chinese government, China believes that the primary responsibility of IPCC is to provide scientific information on climate change while being policy neutral. Only by respecting the inherent way of scientific assessment, maintaining the scientific independence of the IPCC assessment and staying clear of issues that should be negotiated and resolved by governments, can IPCC attract more outstanding scientists into its assessment process, a practice that ensures the quality of its scientific delivery.

### Conflict of interest

The author declares that she has no conflict of interest.

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