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# Update

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**ANSO**  
Alliance of International  
Science Organizations



## 2022 INTERNATIONAL FORUM ON SOUTH-SOUTH COOPERATION AND TRADE IN SERVICES CONCLUDES IN BEIJING

The 2022 International Forum on South-South Cooperation and Trade in Services (the Forum) took place at the China National Convention Center in Beijing on 3 September 2022. Under the theme of “Shaping a Global Greener Future Through South-South Technical Cooperation”, the Forum sought to deepen understanding of the role and impact of technical cooperation in accelerating South-South and Triangular Cooperation (SSTrC), optimize the patterns and pathways of SSTrC, and scale up efforts to shape a global greener future under the principles of inclusivity and leaving no one behind.

The Forum included in its agenda Opening Remarks, Keynote Speeches, Panel Discussion, and a Promotion and Launch Event. The event was held in dual mode (online and offline) and was attended by more than 600 participants from 31 countries, including representatives from government agencies, foreign embassies in China, international organizations, research institutes, academia, civil society organizations, the business community, and private sector participants.

### Opening Remarks

The Opening Remarks session was attended by Mr. QIAN Keming, Vice Minister of the Ministry of Commerce of China; Prof. BAI Chunli, President of ANSO; Ms. Xiaojun Grace Wang, Trust Fund Director of the United Nations Office for South-South Cooperation (UNOSSC); Mr. Munir Akram, Ambassador and Permanent Representative of Pakistan to the United Nations and Chair of the Group 77; Mr. Siddharth Chatterjee, the UN Resident Coordinator in China; and Ms. CHEN Jun, Vice Chair of Beijing Municipal Committee of the Chinese People’s Political Consultative Conference. All of the VIPs shared their warm welcomes with other participants and offered sincere thanks to the organizers and sponsors of the event. Prof. BAI Chunli particularly emphasized that international science collaboration is the only way to cope with global challenges, such as the COVID-19 pandemic, climate change, natural disasters and environment degradation. ANSO has been active in addressing common challenges and promoting the UN SDGs through its work with developing countries support for South-South cooperation on science, technology, innovation and capacity building. Mr. ZHANG Yi, Deputy Director-General of the China International Center for Economic and Technical Exchanges (CICETE) chaired the opening session of the Forum.



## Keynote Speeches



The Keynote Speeches were launched by Ms. Beate Trankmann, Resident Representative of the United Nations Development Program (UNDP) China. In her remarks, Ms. Trankmann shared her appreciation for China's assistance and contribution to tackling shared development challenges. She noted that the combination of Chinese expertise and UNDP's experience is providing off-grid energy solutions to marginalized and excluded populations in partner countries. She commented that the UNDP stands ready to offer expertise to all development cooperation actors in China in support of South-South and Triangular partnerships.



Prof. ZHU Yongguan, Member of the Chinese Academy of Sciences (CAS), and Chair of the International Science Council (ISC) Urban Health Program, proposed the use of Nature-based solutions (NbS) to target the major challenges of climate change, disaster risk reduction, food and water security, biodiversity loss and human health in the rapidly growing cities of developing countries. Prof. ZHU also shared the experience of NbS implementation through the protection, sustainable management and restoration of natural and modified ecosystems that benefit biodiversity and human well-being.



Mr. Bishnu Pukar Shrestha, Ambassador Extraordinary and Plenipotentiary of the Embassy of Nepal in Beijing, shared his views on South-South cooperation and service trade. He attached great importance to technology and innovation in the digital economy. He noted in his speech that Nepal is willing to extend its cooperation with the e-commerce platforms of China to boost Nepal-China trade on Nepal's path to a digital economy. He also appealed for collaboration to address climate change and progress sustainable development.



Prof. LI Xiaoyun from China Agricultural University (CAU), presented bilateral cooperative projects on agricultural technologies which fulfill the basic needs of people in Tanzania and other parts of Africa: from "Simple Technology, Big Harvest" to "Small Bean and Big Nutrition".



Dr. Shamika N. Sirimanne, Director of the Division on Technology and Logistics, United Nations Conference on Trade and Development (UNCTAD) stressed the crucial role of South-South cooperation in knowledge sharing and technology transfer. She also highlighted the key initiative of the Commission on Science and Technology for Development (CSTD) called the "CropWatch Innovative Cooperation Program" and shared her perspective on South-South cooperation.

The Keynote Speeches were chaired by Prof. CAO Jinghua, Executive Director of the ANSO Secretariat.



## Panel Discussion

The main topics of the Panel Discussion concentrated on bridging the technology and innovation divide between North and South, while enhancing sustainable green development through South-South cooperation. The panelists who shared their opinions in the discussion were Dr. Stephen Bainous Kargbo, of the United Nations Industrial Development Organization (UNIDO) Representative and Head of Regional Office (China, DPR Korea, Mongolia); Prof. CAO Jinghua, Executive Director of ANSO Secretariat; Dr. HUANG Jing, Director General of the Administrative Center for China's Agenda 21 (ACCA21), the Ministry of Science and Technology of the People's Republic of China; Prof. YANG Min, Deputy Director of the Research Center for Eco-Environmental Sciences (RCEES) of CAS; and Dr. WANG Yong, Vice President of China-Africa Development Fund. The discussion concluded that the top priorities of South-South scientific and technological cooperation and green development are giving full play to infrastructure development, actively promoting technology transfer, enhancing economic development in the form of investment and funds, and effectively improving the livelihood and wellbeing of countries in the global South.



## Promotion and Launch Event

In the last session of the Promotion and Launch Event, the *ANSO SDG Report: Poverty Alleviation Supported by Science and Technology*, was released by the Institute of Geographic Sciences and Natural Resources Research of CAS; the report on *Drinking Water Safety and Security Technologies for Developing Countries*, was released by RCEES of CAS; the report on *Green Biomanufacturing & Sustainable Development—TIBCAS's Vision and Action*, was released by the Tianjin Institute of Industrial Biotechnology (TIB) of CAS. Three other achievements were showcased at the event.

The Forum featuring South-South cooperation was co-organized by UNOSSC, CICETE, and ANSO, and was held successfully during the China International Fair for Trade in Services (CIFTIS). It was supported by a number of organizations, including the United Nations Resident Coordinator's Office in China (UNRCO), UNDP, UNIDO, the United Nations World Food Programme (WFP), the College of International Development and Global Agriculture (CIDGA) and the China Institute for South-South Cooperation in Agriculture (CISSCA) of CAU, China South-South Cooperation Network, and Global South-South Development Center Project. Ms. TIAN Wei from China Global Television Network (CGTN) served as the moderator for the Forum.

# ANSO Workshop

## 2022 ANSO International Workshop on Cotton Research and Industry Successfully Held

Cotton is one of the most important cash crops in the world and the main raw material of the textile industry. To enhance international cooperation, ANSO, the Academy of Sciences of the Republic of Uzbekistan and the Institute of Microbiology of the Chinese Academy of Sciences (IMCAS) co-organized “2022 ANSO International Workshop on Cotton Research and Industry” on 19-20 August 2022. The workshop discussed a range of topics, including but not limited to cutting-edge advances, common challenges and opportunities in the cotton field. More than 20 top-level scientists and experts from China, Uzbekistan, Brazil, and Türkiye presented their scientific accomplishments. This event was also live-streamed online and attracted over 300 audience members from across the world.

In the opening session, Dr. Shukhrat E. Shermatov of the Center of Genomics and Bioinformatics, Academy of Sciences of the Republic of Uzbekistan, introduced the achievements made in Uzbekistan in cotton genomics. Prof. BAI Chunli, President of ANSO, stressed the need to rely on science and innovation and international cooperation to addressing various challenges for the development of cotton industry. Prof. BAI called for more international cooperation among the top cotton-producing countries. Prof. QIAN Wei, Director General of IMCAS, provided an overview of the insitute's efforts to study genomics and particularly mentioned key areas of progress in cotton-related research. All speakers extended a warm welcome and gratitude to all participants.

The keynote presentations covered the most recent advances in cotton research, and challenges and opportunities facing the cotton industry in different countries. Prof. Ibrokhim Y. Abdurakhmonov, Minister of Ministry of Innovative Development, Uzbekistan could not give his presentation in person due to his busy schedule and asked Dr. Shermatov to do so on his behalf. Dr. Shermatov shared the experience in Uzbekistan of cotton genomics research as well as related technologies and policies. Prof. LI Fuguang, Director of the Institute of Cotton Research (ICR), the Chinese Academy of Agricultural Sciences (CAAS), gave a brief history of cotton research and development in China, particularly the significant contributions that ICR, CAAS has made in using modern technologies in the introduction of new cotton varieties in China. Prof. CHEN Xiaoya from the Institute of Plant Physiology and Ecology of CAS emphasized recent progress in engineering the cotton plant's defense against insects. Prof. GUO Huishan from IMCAS focused on disease-resistance breeding and the development of RNAi-mediated specific pest control. Prof. Nelson Dias Suassuna from the Brazilian Agricultural Research Corporation briefed the participants on the challenges and possible solutions of cotton breeding in Brazil. He introduced the Cotton Breeding Program carried out by Brazilian scientists which had been improving fiber quality, disease resistance, biotech traits, nematode resistance, and yield stability. Prof. Mehmet Karaca of Akdeniz University reviewed the scientific research on cotton in Türkiye over the past 50 years and elaborated on some future directions. According to his speech, Türkiye has adopted a Genetically Modified Organism (GMO) free policy for cotton research but DNA-free genome editing techniques were permitted and are being explored.

A number of advanced technologies have been applied to improve cotton production. Dr. Abdusalom K. Makamov from the Academy of Sciences of the Republic of Uzbekistan delivered his presentation on the application of Marker Assisted Selection (MAS) for upland cotton improvement. Prof. ZHU Yuxian from the Institute for Advanced Studies, Wuhan University shared his research on how to use polymers to improve cotton fiber quality.

Prof. CHEN Xuegeng from Shihezi University presented on the development and prospects of the whole-process mechanization of cotton planting in Xinjiang.

On the second day of the workshop, seven experts from research institutions and universities in China were invited to deliver speeches on “Gene Editing and Application in Cotton”, the “Genomic Basis of Genetic Improvement of Cotton”, the “Occurrence and Control of Cotton Diseases and Insect Pests”, and the “Quantitative Detection and Biological Control of Main Cotton Pathogens”.

Both domestic and international experts called for more cooperation to promote the development of the cotton industry. In response, ANSO, as an international organization, affirmed its willingness to provide a sustainable international platform to promote cooperation among all countries.

Prof. CAO Jinghua, Executive Director of the ANSO Secretariat, Prof. XIANG Hua, Deputy Director-General of IMCAS, and Prof. GUO Huishan from IMCAS co-chaired the workshop.



## ANSO Networks

### » MOU WITH CAS AND TWAS/UNESCO

In May 2022, ANSO, Chinese Academy of Sciences (CAS), and the United Nations Educational, Scientific and Cultural Organization (UNESCO)-through The World Academy of Sciences (TWAS), Italy-signed a memorandum of understanding (MoU) on launching the ANSO-CAS-TWAS/UNESCO Scholarship Program.



### » UNESCO CONSULTATIVE STATUS

An official partnership with consultative status was established between ANSO and UNESCO in June 2022. This new relationship brings new statutory obligations and advantages to ANSO, as well as mutual engagement to cooperate and work together for the global good in fields of shared competence for both Organizations.



### » THE STATE POWER INVESTMENT CORPORATION

In response to the Aral Sea ecological crisis, the greatest challenge currently facing Central Asia, and in recognition of the urgent needs of Central Asian countries for the comprehensive management and innovative development of the Aral Sea region, ANSO decided to conduct a collaborative research project named “*Experiment and Demonstration of Photovoltaic Technology in Ecological Environment Management of the Aral Sea*”. A corporate agreement was signed in July 2022 by ANSO, the State Power Investment Corporation (SPIC), and the Xinjiang Institute of Ecology and Geography, CAS, on the “Aral Sea Demonstration Project”.



# ANSO Training

## The University of Macau's First Training Programme in Remote Sensing

A summer training programme titled 'Remote Sensing Information Processing and Its Application in the Urban Environment', was jointly launched online by the University of Macau (UM), the Aerospace Information Research Institute of the Chinese Academy of Sciences, and ANSO. The programme attracted 665 participants from 35 countries and regions, including China, the United States, the United Kingdom, Germany, Canada, Pakistan, Japan, South Korea, and Ethiopia. Among the participants, many scholars were from renowned universities, including the University of Pennsylvania, the University of Tokyo, the University of Bristol, the University of Illinois Urbana-Champaign, Tsinghua University, the Hong Kong University of Science and Technology, and Taiwan University. The programme is hosted by UM's State Key Laboratory of Internet of Things for Smart City.



Those who are interested can learn more about the training programme at

<https://skliotsc.um.edu.mo/event/um-skl-iotsc-holds-summer-school-remote-sensing-information-processing-and-its-application-in-the-urban-environment/>



# ANSO Project

## The Third Conference on Remote Sensing of Vegetation Pests and Diseases and the ANSO-CAS Joint Research Project Kick-off Meeting Successfully Held

The Third Conference on Remote Sensing of Vegetation Pests and Diseases, along with the initial meeting of the ANSO-CAS Joint Research Project entitled "Remote Sensing Monitoring and Forecasting of Global Epidemic and Migratory Agricultural Pests and Diseases" was successfully held online from 27 to 28 August 2022. The conference was jointly organized by more than 50 institutions including the Aerospace Information Research Institute of the Chinese Academy of Sciences (AIR-CAS), the Pakistan Academy of Sciences (PAS), PMAS Arid Agriculture University Rawalpindi (PMAS), CAB International (CABI), Manchester Metropolitan University (MMU), the China

Biodiversity Conservation and Green Development Foundation (CBCGDF), the Chinese Society of Agricultural Engineering (CSAE), the Institute of Zoology of Chinese Academy of Sciences (IZ-CAS). Prof. CAO Jinghua, Executive Director of the ANSO Secretariat, attended the conference and delivered some opening remarks.

Prof. CAO introduced the background, vision and networks of ANSO. He stated that ANSO has carried out extensive international cooperation in the field of food security, which is among the organization's priorities. As the scientific control of vegetation pests and diseases is of great importance to food security and ecological safety, he expressed his hope that the project team can work closely with international partners through the conference to promote data sharing and technological innovation. Other leaders who attended the meeting and delivered speeches included Mr. ZHANG Bing, Vice President of AIR-CAS, Mr. FANG Guofei, Deputy Director of the Center for Biological Disaster Prevention and Control, National Forestry and Grassland Administration, Mr. WANG Yingkuan, Executive Secretary of CSAE and Mr. ZHOU Jinfeng, Secretary of CBCGDF. They acknowledged the contribution food security and ecosystem stability of remote sensing monitoring and forecasting technologies for vegetation pests and diseases.

Experts and scholars from 35 institutions gave academic reports to the conference. Academician CHEN Jianping of Ningbo University analyzed the main problems of China's plant protection technology system, proposed an initiative to reshape the plant protection technology innovation system and pointed out the important role of information technology in the system. Academician LAN Yubin of the South China Agricultural University introduced the development and application status of precision agricultural aviation, and presented the idea of building an eco-unmanned farm and gave a perspective on the future development model. Other experts who also presented academic reports and discussed key topics such as vegetation pest and disease habitat monitoring and risk forecasting, and product service in agricultural systems, including Academician Iqar Ahmad Khan of PAS, Muhammad Naveed Tahir of PMAS, Deputy Director ZHU Jingquan of Pest Risk Analysis Center of National Agro-Tech Extension and Service Center, Director LIN Kejian of Institute of Grassland Research of CAAS, and Deputy Director QIAO Gexia of IZ-CAS. The conference launched a special issue of the journal "Remote Sensing" on the theme of "Monitoring, Early Warning, and Scientific Management of Vegetation Pests and Diseases".

Ms. DONG Yingying, associate researcher of AIR-CAS, presented on progress and milestones of the ANSO Project, with a view to promoting the application of remote sensing technologies in plant protection.



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