



ANSO ANNUAL REPORT 2020

Alliance of International Science Organizations



Photographer: Shi Cai



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LETTER FROM ANSO PRESIDENT



2020 was an unforgettable year for all of us. The COVID-19 pandemic brought unprecedented impact to our lives and works. It also affected the normal ways of international scientific exchange and cooperation and caused the cancellation and postponement of many scheduled activities.

Yet, despite of the huge challenges and setbacks we faced, ANSO managed to stride forward in both the institutional development and in accomplishing our basic strategic tasks set in accordance to the ANSO vision and mission. To a certain extent, the pandemic allowed ANSO a chance to further consolidate its institutional build-up and enhance its impact and outreach in China and abroad.

As president of the organization, I am very proud to see the strong solidarity, unity and cooperation of the ANSO family demonstrated in the global fight against the pandemic, through which our sense of belonging, cooperation and partnership got further strengthened. Here, I want to wholeheartedly thank all the ANSO member institutions, other cooperative partners and individuals for their support and assistance to the Chinese fight against the pandemic at the outset of the COVID-19 in early 2020, which inspired ANSO and its Secretariat to take quick actions after the rapid global outbreaks. The ANSO efforts in the global battling of the disease ranged from the communicating of the best practices in the containment of the pandemic to the sharing of the Chinese genomics data of the virus, from donating masks and testing kits to launching the COVID-19 emergent collaborative initiative for the support of international cooperation research, and from organizing international workshops on the recent scientific progress to the webinars specifically focused on conducting the phase III clinical trials of a Chinese recombinant protein vaccine with ANSO members' countries and partners. It was by the hard efforts of ANSO on carrying out international cooperation that this recombinant protein vaccine became a global public product in battling the pandemic.

ANSO also made significant progress in accomplishing its designed annual objectives, including the international recruitment of 200 masters and 300 PhDs to study in China from over 4,000 applications by the ANSO Scholarship for Young Talents, the funding of a few dozen international research including the kick-off support of eight international called cooperative projects (within the ANSO members) and the accomplishing of a few science-based advisory studies such as the Classification-Coordination-Collaboration Approach for promoting the UN SDGs, and a number of international trainings including the Crop-Watch International Innovative Program in partnership with UNCSTD. Though affected by the pandemic seriously, we still received almost 10 new applications to join ANSO in 2020. Of course, much remained to be done due to the pandemic.

2020 was also a year that recorded a number of historical highs in extreme weathers and climate-caused disasters. Several recent events are also record-breaking such as the sudden mass glacial burst in the Indian Himalaya region, and the catastrophic winter storm that hit the central and southern parts of the United States. All these extreme events have caused both huge human lives and property losses, plus the ongoing COVID-19 pandemic. It is clear enough that only with unity, partnerships and global unified actions can we humankind more effectively cope and address these common challenges.

ANSO, as an international science organization with the vision to advance green and sustainable development, is committed to playing a due role in mitigating and tackling these common challenges. I am so pleased to say that most of the ANSO programs and activities center on these global challenges, public health, eco-environment and sustainable development.

2020 was also the year I retired from the CAS Presidency for which I served for 10 years. Prof. Jianguo Hou, a distinguished scientist and an old acquaintance of mine became my successor. With his acknowledgement and support, I continue to work in ANSO as a representative of CAS. Please rest assured, as President of ANSO, I will be able to dedicate more time and effort to ensure the future development of ANSO.

Looking forward to 2021 and beyond, we will continue to put COVID-19 and public health at the top of our action agenda to help the global community recover from the pandemic. We will continue to support joint activities initiated by ANSO members, partners and other international organizations to address the most urgent and critical regional challenges, and contribute to a more resilient and sustainable world.

In the following chapters, we will briefly review the progress made in the past year. We always welcome your suggestions and wisdom!

Chunli Bai
ANSO President
April 2021



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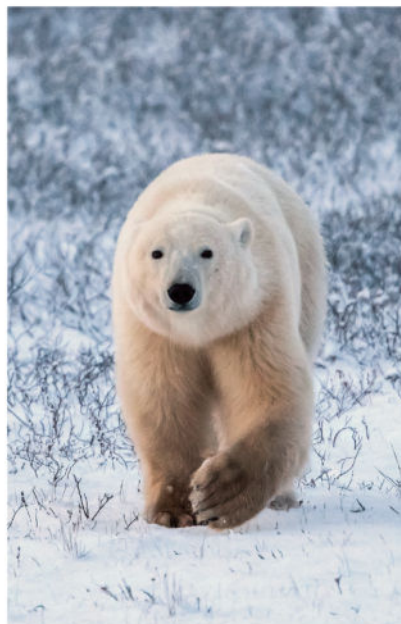
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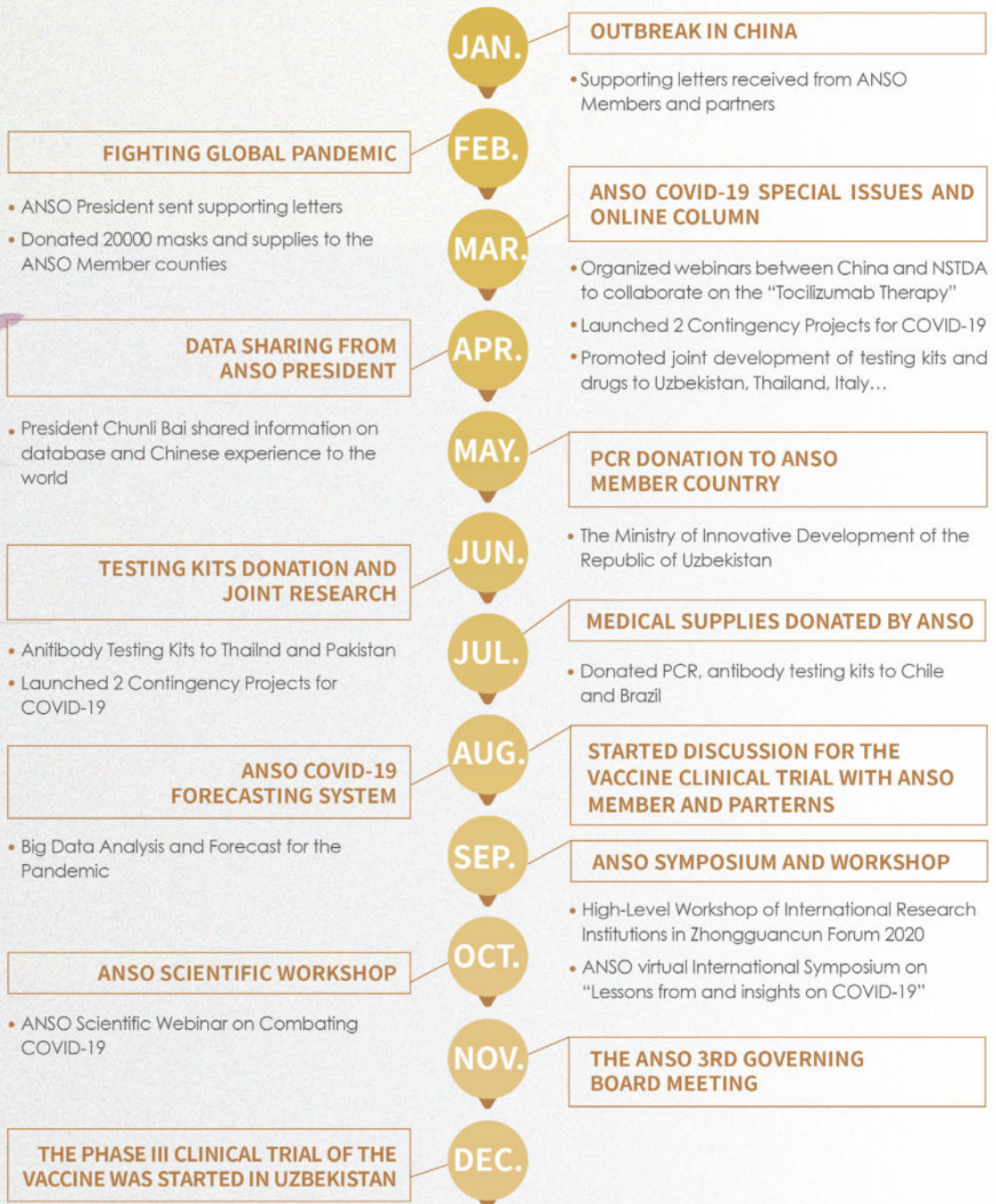
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1

EFFORTS TO COMBAT THE PANDEMIC

When the onslaught of the COVID-19 pandemic started to shock the world, ANSO promptly responded with members and partners. To overcome the panic and chaos caused by the pandemic, timely and accurate scientific information was urgently needed, the dissemination of this information and follow up actions needed to be swift and transparent. By utilizing the many resources of ANSO member organizations and partners, the ANSO Secretariat was able to quickly set up the online COVID-19 Information Platform to share knowledge on the prevention and control of the virus. To help ANSO Member countries severely affected by COVID-19, the ANSO Secretariat arranged the donation of medical supplies with the full support of Chinese Academy of Sciences Headquarters (CAS HQ) and institutes. Meanwhile, a suite of COVID-19 Emergency Projects, clinical trials for COVID-19 vaccines and a set of international workshops were designed, coordinated and implemented by ANSO.

TIMELINE OF ANSO'S ACTIVITY AGAINST COVID-19



1.1 ANSO Information Platform on COVID-19

The ANSO Information Platform on COVID-19 is committed to ensuring that prevention manuals, treatment measures and scientific databases are in the right place to improve understanding the virus as rapidly as possible. The ANSO Secretariat carried out intensive work to share timely and high-quality information to enhance global exchange and connection necessary for cooperatively tackling the virus.

ANSO President, Prof. Chunli Bai shared two CAS COVID-19 Genomic Databases and an online Information platform with ANSO Member soon after the outbreak of the global pandemic. "The 2019 Novel Coronavirus Resource" developed by the Beijing Institute of Genomics, and "the Novel Coronavirus National Science Technology Resource Service System" developed by the Institute of Microbiology.



China National Center for Bioinformation
2019 Novel Coronavirus Resource (2019nCoVRI)



国家微生物科学数据中心
National Microbiology Data Center



Novel Coronavirus National Science and Technology Resource Service System

Two COVID-19 Special Issue communications co-authored by experts from CAS institutes were released in May 2020.

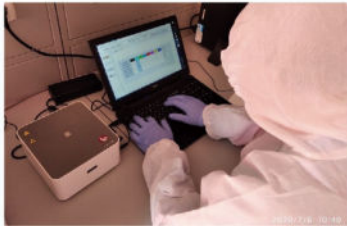


A special COVID-19 Column was established on the ANSO website to facilitate online sharing of scientific information and new achievements, including reports from ANSO Members, research updates, COVID-19 Databases, knowledge for the public and new applications of research results.



1.2 Donations to ANSO Members

ANSO actively participated in the global fight against COVID-19, and has further strengthened cooperation and unity among ANSO members. With the strong support of CAS, the ANSO Secretariat donated a large number of masks, testing kits, and medical supplies to members and countries in the midst of the pandemic.



1.3 Vaccines Development

Since the pandemic has deeply affected our society and all industries, ANSO has dedicated itself to building confidence by promoting international cooperation on vaccine development, specifically, the Phase III clinical trial of a recombinant vaccine developed by scientists from the Institute of Microbiology, CAS.



Since August, ANSO has been actively reaching out to members and partners across the globe. With bridging support from the ANSO Secretariat, more than 20 webinars were

held between Chinese researchers and producers and their counterparts in Chile, the Philippines, Uzbekistan, Brazil, South Africa, Ghana, Senegal and Pakistan. The team from China has now started a Phase III clinical trial in Uzbekistan in collaboration with local partners. More than 7,000 subjects have participated in that trial to date.

On 2 March, 2021, the Ministry of Innovative Development of Uzbekistan has certified a COVID-19 vaccine (registered as "ZF-UZ-VAC2001") has been registered for emergency use and marketing authorization in Uzbekistan. ANSO will continue to push such collaborations forward with other countries, for the benefit of all.

1.4 COVID-19 Emergency Projects

- 1 Origins and Interspecies/Spillover Mechanism of Novel Coronavirus SARS-CoV-2
- 2 Mapping Diagnostic Epitopes in COVID-19 for the Generation of a High-performance Immunological Reagent to Detect Acutely Infected Individuals
- 3 Rutan, a Potential Drug for Treating COVID-19
- 4 China-Uzbekistan Joint Program on Emergency Drug Development Against SARS-CoV-2 Virus
- 5 Joint Study of Epidemiological Surveillance System for Human Coronavirus Infections in the Republic of Kazakhstan



1.5 ANSO Workshops on COVID-19

ANSO Webinar on Big Data Analysis and Forecast for Pandemic

31 August

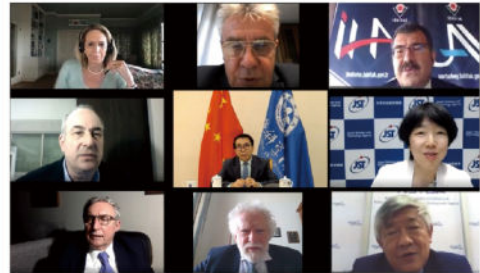
Host by ANSO Secretariat



High-Level Workshop of International Research Institutions in Zhongguancun Forum 2020

18 September

Host by Beijing Municipal Government/
CAS/ANSO



Lessons from and Insights on COVID-19

28 September

Host by ANSO Secretariat



ANSO Scientific Webinar on Combating COVID-19

9 October

Host by ANSO Secretariat



2

RESEARCH
PROGRAM

The ANSO Research Program aims to support scientific cooperation among ANSO members and partner institutions by focusing on topics of high scientific significance and common challenges for human wellbeing, such as climate change, natural disasters, water resources and water security, environmental pollution, urbanization, desertification control, ecosystem and biodiversity conservation, energy security, emerging technologies (big data, artificial intelligence, robotics), science-based policy making and sustainable development. This year, eight China-initiated called joint projects and eight int'l-called collaborative projects were funded by ANSO.

2.1 List of ANSO China-Called Joint Projects 2020

	Project Title	Leading PI and Leading Organization
1	New green chemical products and technologies of anti-epidemic and disinfection	Prof. Chunshan Li Institute of Process Engineering, CAS, China
2	Popularization and application of low-cost intelligent water purification technology in Central Asia	Prof. Yaoming Li Xinjiang Institute of Ecology And Geography, CAS, China
3	Advanced methodology development of BDS global precise positioning for Intelligent Driving (ABDS-ID) and its demonstration over B&R	Prof. Zishen Li Aerospace Information Research Institute, CAS, China
4	Developing the techniques for air pollution control in Chiang Mai areas and the demonstrated application	Prof. Jing Sun Shanghai Institute of Ceramics, CAS, China
5	Application and demonstration of new carbohydrate agricultural formulations in the Belt and Road countries	Prof. Heng Yin Dalian Institute of Chemical Physics, CAS, China
6	Research on rapid acquisition of remote sensing image and its application technology in commercial aerospace	Prof. Zuofeng Zhou Xi'an Institute of Optics and Precision Mechanics ,CAS, China
7	Research collaboration on Thailand new synchrotron light source facility (SPS-II)	Prof. Zhentang Zhao Shanghai Advanced Research Institute,CAS, China
8	Preparation and industrialization of low-cost thermal insulating coatings for tropical industrial plant	Prof. Xun Cao Shanghai Institute of Ceramics, CAS, China

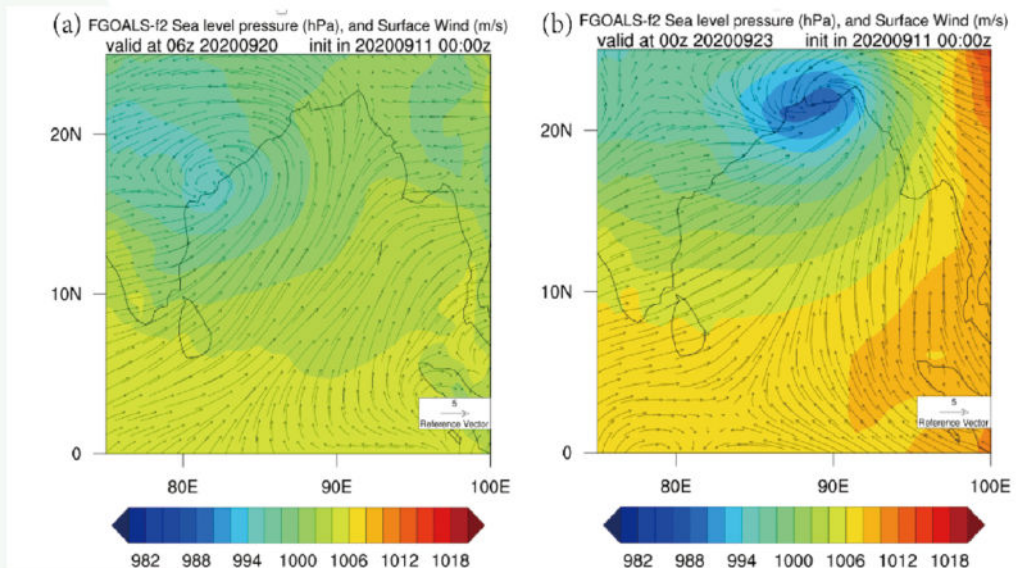
2.2 List of ANSO Int'l-Called Collaborative Research Projects 2020

	Project Title	Leading PIs and Leading Organization
1	Understanding of neuronal plasticity and computation in mice and monkeys by novel, fast, 3D acousto-optic two-photon microscopy in large scanning volumes	Prof. Balázs Rózsa Laboratory of 3D Functional Network and Dendritic Imaging; Institute of Experimental Medicine of Hungarian Academy of Science, Hungary
2	The relationship of air microbiome and ambient aerosol in the mega-city's subway network	Dr. Supawadee Ingsriswang Thailand Bioresource Research Center, National Center for Genetic Engineering and Biotechnology, Thailand
3	Hybrid modalities based control of assistive ankle foot orthosis robot for stroke rehabilitation	Prof. Raymond K. Y. Tong Department of Biomedical Engineering, The Chinese University of Hong Kong, China
4	Promotion of grapevine diversity conservation and mobilization of adaptive traits	Prof. Zhenchang Liang Institute of Process Engineering, CAS
		Prof. Kristine Margaryan Institute of Molecular Biology, NAS RA
		Prof. Nathalie Ollat Grape Ecophysiology and Functional Genomics, Institute of Grape and Wine Sciences (ISVV), Bordeaux, France
5	Mosquitome of flying syringes-aedes aegypti and aedes albopictus & their fitness vis a vis their competency to transmit infection with changing climate	Prof. Habib Bokhari COMSATS University, Islamabad, Pakistan
6	A first step valorization of waste atmospheric carbon dioxide via its sustainable capture	Dr. Bassem Al-Maythalony Royal Scientific Society, Jordan
7	Energy and raw material recovery from treatment sludge as a conceptual of zero waste	Dr. Özgür Doğan TUBITAK Marmara Research Center/Environment and Cleaner Production Institute, Turkey
8	Climate variability, extreme events & the hidden geo-hazards in the Rohingya refugee camps of tenkaf, COX' SBAZAR, Bangladesh for sustainable development	Prof. ATM Shakhawat Hossain Engineering & Geo-hazards Group, Dept. of Geological Sciences, Jahangirnagar University, Bangladesh

MISSPAD

The Multi-model-Integrated Sub-seasonal-to-Seasonal Prediction and Application in Disaster Risk Reduction (MISSPAD)

MISSPAD is an ANSO research project that applies weather and climate forecasts for the B&R regions to improve the capacity for natural disaster prevention and preparation. MISSPAD successfully supported the rescue of an oil tanker that caught fire at about 38 km off the East coast of Sri Lanka. The team launched the forecast for the emergency, shared prediction results and suggestions immediately with relevant institutions and rescue organizations in Sri Lanka after the accident.

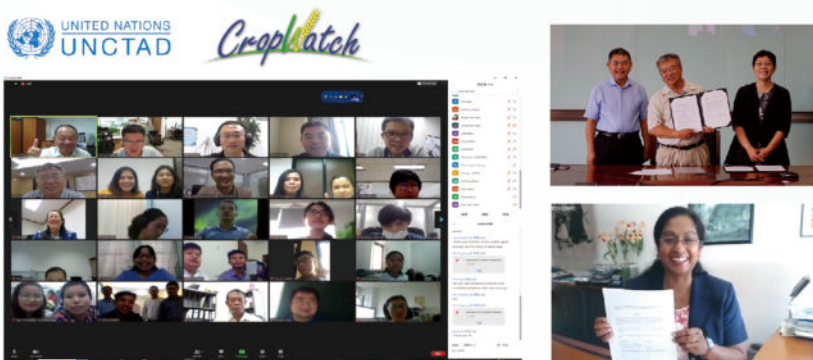


CropWatch-ICP**CropWatch Innovative Cooperation Programme for Agricultural Monitoring (CropWatch-ICP)**

ANSO initiated CropWatch-ICP to facilitate and stimulate agricultural monitoring in the B&R countries for the advancement of the United Nations Sustainable Development Goals (UN SDGs) of zero hunger. The programme proceeded from the agricultural conditions, resource endowments and real demands of the related countries to effectively improve their capabilities to ensure the availability of food security information and indigenous innovation for achieving food security.

The online Training Workshop on Geospatial Information Applications for Agricultural Monitoring in the Lower Mekong Basin Countries which was hosted by Crop Watch-ICP was held from 5-26 August, with the aim of building resilient agricultural practices by integrating geospatial information for agricultural monitoring in the Lower Mekong Basin through providing technical support for utilizing the cloud platform for monitoring crop condition, crop stress, and production at national at sub-national levels for the Lower Mekong countries.

On 23 July, a Memorandum of Understanding (MoU) was signed between ANSO and the United Nations Conference on Trade and Development (UNCTAD) to enhance the collaboration on science, technology and innovation (STI) related capacity building for developing countries all over the world.



CMRC Project

Research on Ecological Security Assessment and Countermeasures along the China-Mongolia-Russia Corridor in the Belt and Road Region (CMRC Project)

The CMRC Project will carry out ecological monitoring and biosafety assessment research along the China-Mongolia-Russia Corridor in northern Eurasia. Major activities include conducting surveys and international workshops, establishing information databases for analyzing ecological risks, proposing countermeasures and recommendations, and developing ecological monitoring and assessment systems.

The 2020 Annual Meeting of the International Alliance of Protected Areas (IAPA) was held in the Changbaishan National Nature Reserve in Jilin, China on 19-21 September. More than 190 managers and experts from protected areas joined the meeting at the site with another 100 online participants, to discuss the history and future of protected areas, education and eco-security assessment in the Belt and Road (B&R) countries.



3

CAPACITY BUILDING



Capacity building is ANSO's main priority for promoting exchange, knowledge and resources sharing between scientists, scholars and researchers within the ANSO network and beyond. Despite the huge challenge posed by the pandemic in 2020, ANSO still managed to push forward its capacity building programs, especially the ANSO Scholarship for Young Talents and ANSO Training.



3.1 ANSO Scholarship for Young Talents

The ANSO Scholarship for Young Talents was officially launched in 2019. The ANSO Secretariat worked closely with the CAS HQ, the University of Science and Technology of China (USTC) and the University of the Chinese Academy of Sciences (UCAS), to design, coordinate and implement the program. Despite the influence of the pandemic, over 4,000 applicants from more than 100 countries applied for the ANSO Scholarship. 300 PhD awardees and 200 Master's awardees are selected following merit-based reviewing processes. By the end of November 2020, the new 2021 Call for Applicants was released, expecting a high number of applications from all over the world. (<http://www.anso.org.cn/programmes/talent/scholarship/>).



3.2 ANSO Training

Due to the pandemic, planned onsite training workshops had to be postponed to 2021. Instead, a series of online training exercises were organized in the fields of green technology, agricultural monitoring, leadership enhancement, disaster risk reduction and big data.

25-27 March
Online Training Workshop on Green Technology

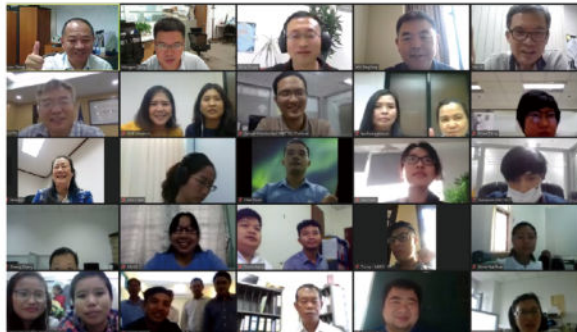
-Organized by ANSO Association of International Green Technology Association (IGTA)

500+ trainees from more than 30 countries, including Pakistan, India, Nigeria, Thailand, Iran, Nepal, etc.


5-26 August
Online Training Workshop on Geospatial Information Applications for Agricultural Monitoring in Lower Mekong Basin Countries

-Organized by ANSO CropWatch-ICP

47 trainees from Thailand, Cambodia, Vietnam and Myanmar


From 28 October, Every Wednesday (14 Weeks)
Online Training on Sustainable Development and Leadership Enhancement

-Organized by University of Chinese Academy of Sciences

100+ trainees mainly from the National Science and Technology Development Agency (NSTDA), Thailand, COMSATS (international organization), the Scientific and Technological Research Council of Turkey (TUBITAK) and University of Donja Gorica (UDG), Montenegro.



9-11 November**International Training Workshop on Disaster Risk Reduction
Knowledge Service in the China-Pakistan Economic Corridor**

-Organized by the Institute of Geographic Sciences and Natural Resources Research,
Chinese Academy of Sciences

179 trainees from 11 countries, including Pakistan, Nepal, Sri Lanka, Mongolia, Bangladesh, Ethiopia, Nigeria, etc.

**30 November-
5 December****The B&R Training Course for Sustainable Development
and Environmental Health**

-Organized by the Belt and Road Alliance of Urban Environmental Health and the Institute of
Urban Environment, CAS

Around 300 trainees from more than 10 countries, including Thailand, Malaysia, Indonesia, Nepal and Ghana.



4

SCIENCE- BASED ADVISORY PROGRAM

The ANSO Strategic Advisory program aims to function as a high-level international think tank by organizing scientific review and strategic consultation to promote regional and global socio-economic development, and build a community for a shared future for mankind. This program provides scientific support for national decision-making, propose initiatives to the international community, and discuss cooperation with other international think tanks to enhance global governance.



List of ANSO Science-based Advisory Projects in 2020

	Project Title	Leading PIs and Leading Organization
1	Forecasting and monitoring of COVID-19 in countries along "Belt and Road" and related economic impacts	Prof. Shouyang Wang Academy of Mathematics and Systems Science, CAS
2	Consultation on COVID-19 prediction and analysis	Prof. Jun Li Computer Network Information Center, CAS
3	Prediction of epidemic situation of COVID-19 in ANSO member's countries	Prof. Jian Lu City University of Hong Kong
4	International COVID-19 data assimilation real-time prediction system	Prof. Xin Li; Dr. Feng Liu Northwest Institute of Eco-Environment and Resources, CAS
5	The role of Hong Kong in One Belt and One Road and the Greater Bay Area	Prof. Yi Liu Institute of Geographic Sciences and Natural Resources Research, CAS
6	Analysis of the impact of the COVID-19 on social and economic development in the economic corridors of the Belt and Road	Prof. Juanle Wang Institute of Geographic Sciences and Natural Resources Research, CAS
7	Technology helps countries along the "Belt and Road" fight against the new crown epidemic	Prof. Fapeng Liu Institute of International Technology Economy, Development Research Center of the State Council
8	Enhance China's engagement in the agricultural development in Africa through the partnership with CGIAR	Prof. Feng Feng University of Chinese Academy of Sciences (UCAS)
9	Forecasting and monitoring of COVID-19 in countries along "Belt and Road" and related economic impacts	Prof. Shouyang Wang Academy of Mathematics and Systems Science, CAS
10	ANSO pandemic forecast information platform	Dr. Feng Liu; Prof. Xin Li Northwest Institute of Eco-Environment and Resources, CAS
11	Annual report of innovation & development for the "Belt and Road" (2020)	Prof. Shouyang Wang; Prof. Zhuoying Zhang UCAS

ANSO B&R Innovation Development Reports

With the goal of realizing the UN SDGs and building human society with a shared future, a report focusing on "people's life and health", gathers expert resources from ANSO to build the innovation and development report into a branded product with academic recognition. According to the compilation plan, various research teams have been contacted to solicit contributions, and relevant issues have been discussed with the publisher.



Big Data Analysis and Forecast for Pandemic

To support science-based decision-making in combating the COVID-19 pandemic, the first trial of the ANSO Pandemic Forecast Information Platform (ANSO-PFIP) was developed through the great efforts of the scientists from institutes of the Chinese Academy of Sciences and the City University of Hong Kong on August 31, 2020. The mission for this system is to provide a short- and long-term forecast for

about 50 countries seriously influenced by COVID-19, and a visualizable user-friendly platform for policy makers and the public. More research groups and scientists will join this activity in the future.





TECHNOLOGY TRANSFER

The ANSO Technology Transfer program aims to actively transform advanced research and technology to products, services, processes, businesses and demonstrated applications through multiple channels, especially cooperation with ANSO members and B&R countries. The purpose of this program is to establish an efficient tech-transfer platform or mechanism by integrating resources from industries, academies, governments, finance and capital.

Rice & Wheat Variety Technology Innovation and Transfer (ANSO-RWIT)

In order to respond to global food security challenges, ANSO-RWIT with more than 30 units from B&R countries, aims to establish a technology exchange platform to further develop agricultural technology in nations alongside the B&R.

ANSO-RWIT submitted a proposal which summarized the practices of international agricultural science and technology cooperation in the B&R countries for more than 20 years.



On October 14, 2020, Chengdu Institute of Biology, Chinese Academy of Sciences (CIB, CAS) and Charoen Pokphand Produce Co., Ltd. (CPP) of Charoen Pokphand Group (CP Group) held an online international conference and signed the The Agreement for Cooperation on Rice Variety Technology Innovation and Transfer. According to the agreement, CIB, CAS will grant the right to use this variety to CPP for extensive use in Southeast and South Asia B&R countries.

R&D of Non-contact Sign Monitoring Technology

In order to measure the daily vital signs of millions of people and patients' during the COVID-19 pandemic, scientists from CAS, NSTDA of Thailand and the Uzbekistan Academy of Sciences cooperated on a multi-parameter monitoring system with



real-time monitoring of heart rates and respiratory rates. The system effectively reduces the operations of medical staff for clinical applications and improves the accuracy of screening for virus carriers.

The project objectives include

- ① Developing non-contact sign monitoring system for promotion in at least 3 countries;
- ② Developing a multi-parameter non-contact sign screening system, established an early warning model based on sign information, and promoted it in customs ports in at least 2 countries.
- ③ Applying for 2 invention patents.

New Green Chemical Products and Technologies of Anti-epidemic and Disinfection

This project is focusing on the development of anti-epidemic and sterilization technology, such as the artemisinin wax oil wash-free disinfection gel (containing alcohol and alcohol free), and supporting local production in related countries. The International Symposium on "Green Upgrading of Chemical

Products for Anti-epidemic and Sterilization: Opportunities and Challenges" was successfully held on 28-29 May. With the support of ANSO, the organizing committee presented a new type of cleaning gel which was developed by the Zhengzhou Institute of Emerging Industrial Technology to more than 10 countries including Thailand, Mongolia, Pakistan, Egypt, Denmark, and Malaysia, etc.



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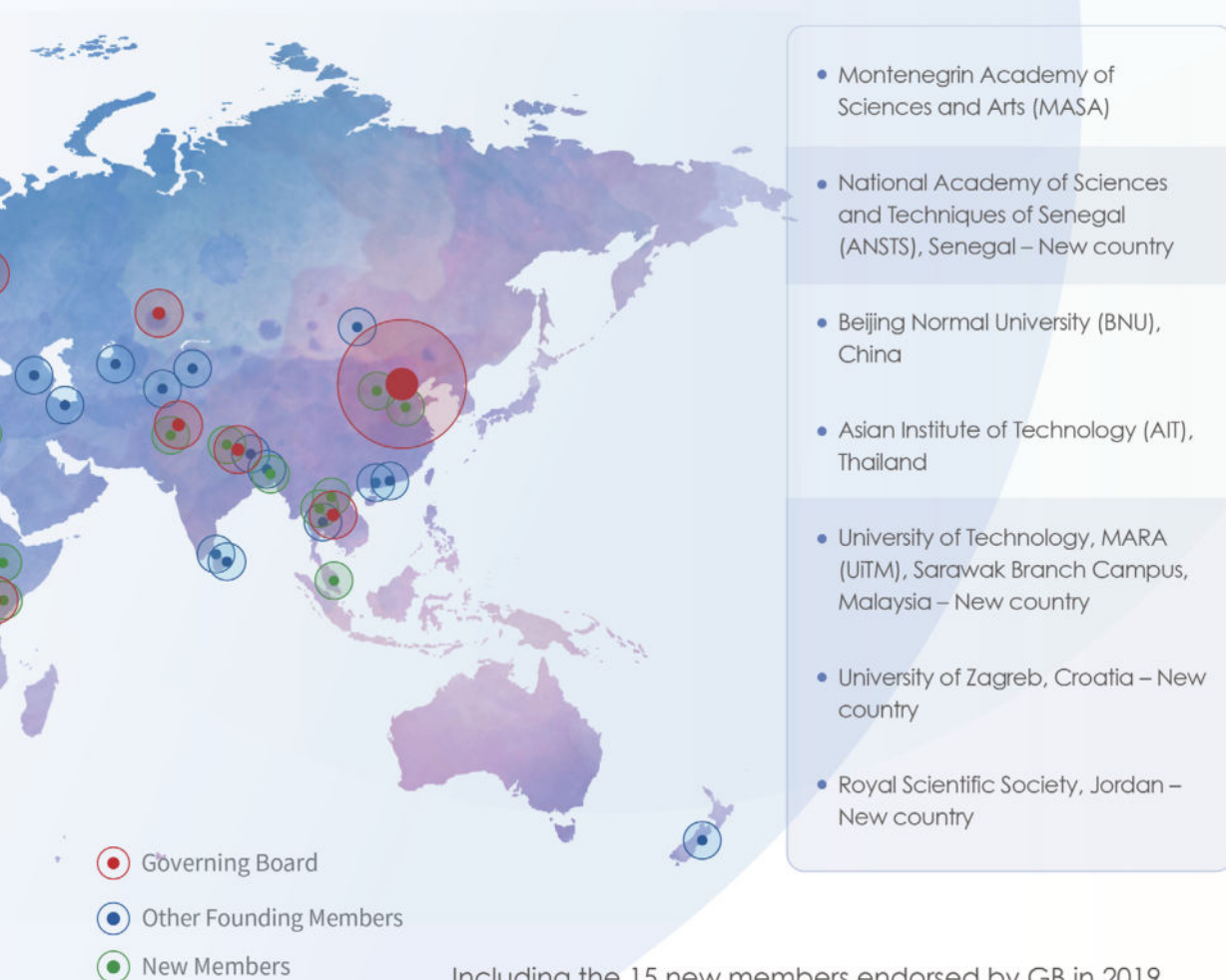
NETWORKS



Although the pandemic has brought many difficulties, we still worked hard in 2020 to expand ANSO networks. A number of organizations have expressed their interest to joining ANSO, of which seven were endorsed during the 3rd ANSO Governing Board (GB) Meeting. Meanwhile, by the end of 2020, the number of ANSO scientific associations reached 19, and we have also been seeking collaboration with more and more international partners. We kept releasing ANSO publications on a regular basis to distribute the latest news to members, partners and scholars around the world. The 3rd ANSO GB Meeting and a series of scientific webinars were organized by ANSO in conjunction with members and partners in 2020.

6.1 New Members

Seven organizations were endorsed to be new members by the ANSO GB in November, 2020, and four of them are from new countries:



Including the 15 new members endorsed by GB in 2019 (ahead of final approval at the next General Assembly postponed until 2021), the total number of ANSO members is 59 at the end of 2020.

6.2 ANSO Associations

ANSO scientific associations are committed to incubation of cross-boundary collaborations and function as the operating arms of ANSO. By 2020, 19 associations have been established covering fields of basic sciences, climate change, food security, public health, green technology, technology transformation, etc.

List of ANSO Associations

	Project Title	Leading PI and Leading Organization
1	ANSO Association for Disaster Risk Reduction (ANSO-DRR)	Academician Peng Cui Institute of Mountain Hazards and Environment, CAS
2	ANSO Association for Trans-Eurasia Exchange and Silk-Road Civilization Development (ATES)	Academician. Fahu Chen Institute of Tibetan Plateau Research, CAS
3	Pan-Balkan Alliance of Natural Products and Drug Discovery Associations (PANDA)	Prof. Yang Ye Shanghai Institute of Materia Medica, CAS
4	Alliance for Clinical Medical Transformation of Infectious Diseases	Prof. Hong Tang Institut Pasteur of Shanghai, CAS
5	The Belt and Road Industry Alliance, Chinese Academy of Sciences (BRIACAS)	Prof. Ge Wang OSIC Holding Group Co., LTD
6	International Scientists Union for the Belt and Road	Prof. Suocheng Dong Institute of Geographic Sciences and Natural Resources Research, CAS
7	Global Biodiversity and Health Big Data (BHBD) Alliance	Prof. Yiming Bao Beijing Institute of Genomics, CAS
8	International Green Technology Association (IGTA)	Academician Suojiang Zhang Institute of Process Engineering, CAS
9	ANSO Association for Rice & Wheat Variety Technology Innovation and Transfer (ANSO-RWIT)	Prof. Shengbin Tu Chengdu Institute of Biology, CAS

	Project Title	Leading PI and Leading Organization
10	Mapping Asia Plants Plus (MAP+)	Prof. Keping Ma Institute of Botany, CAS
11	Silk Road Mathematics Center	Prof. Fuzhou Gong Academy of Mathematics and Systems Science, CAS
12	World Mollisols Association (WMA)	Prof. Xiaobing Liu Northeast Institute of Geography and Agroecology, CAS
13A	ANSO Botanical Gardens Union ANSO-BGU (A)	Prof. Jin Chen Xishuangbanna Tropical Botanical Garden, CAS
13B	ANSO Botanical Gardens Union ANSO-BGU (B)	Prof. Hongwen Huang; Prof. Hai Ren South China Botanical Garden, CAS
14	International Wetlands Research League	Prof. Xingyuan He Northeast Institute of Geography and Agroecology, CAS
15	Association for Combating Desertification (ACD)	Prof. Jiaqiang Lei Xinjiang Institute of Ecology and Geography, CAS
16	Alliance of Poverty Reduction and Development (APRAD)	Prof. Yansui Liu Institute of Geographic Sciences and Natural Resources Research, CAS
17	B&R Environmental Technology and Industry Alliance	Prof. Min Yang Research Center for Eco-Environmental Sciences (RCEES), CAS
18	The Belt and Road Alliance of Urban Environmental Health	Academician Yongguan Zhu Institute of Urban Environment, CAS
19	B&R International Innovation Development Institute Network	Prof. Desheng Wu The Research Institute of the Belt and Road of the University of Chinese Academy of Sciences

APRD**The Alliance of Poverty Reduction and Development (APRD)**

The APRD currently consists of 14 founding members from 10 countries and regions. As one of the most remarkable associations of ANSO, the APRD aims to carry out international cooperation on research and technology development by sharing experience and models, conducting scientific and technological exchanges and providing training on poverty alleviation in developing countries.

On 16-18 November, 2020. The APRD held its Inauguration Ceremony and the International Conference of Global Poverty Reduction and Sustainable Development. More than 200 representatives from over 20 countries and regions participated in the conference online and on site. Interdisciplinary experts centered on the APRD's prospects and significant role in the future of poverty reduction in developing countries and the promotion of global common development.

**BHBD**

 China National Center for Bioinformation
2019 Novel Coronavirus Resource (2019nCoVRR)

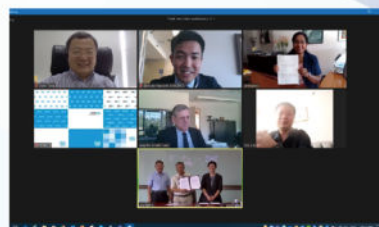
Global Biodiversity and Health Big Data Alliance (BHBD)

The BHBD has made big efforts on "The 2019 Novel Coronavirus Resource" since the spread of the global pandemic. The database features comprehensive integration of genomic and proteomic sequences as well as metadata from the Global Initiative on Sharing All Influenza Data, it also incorporates a wide range of relevant resources of coronavirus sequences, genome variations, clinical records, AI diagnosis, etc. It provides basic metadata, virus distribution maps, phylogenetic relationships of all published 2019-nCoV genomes, quality evaluation information of each genome sequence and variant site, and comprehensive analysis results of all genomic variants including basic statistics, detailed annotation and spatio-temporal frequency dynamics.

6.3 Collaboration with International Partners

The United Nations Conference on Trade and Development

On 23 July, ANSO signed a MoU with the UNCTAD to provide a general framework of cooperation and facilitate and strengthen collaboration in areas of common interest. Both parties aim to cooperate and augment each other's activities in policy formulation and human capital in STI-related capacity building fields for developing countries through offering training and assessment programmes so as to contribute to the achievement of the UN SDGs.



The Center for China and Globalization

On 30 October, ANSO signed a MoU with the CCG for promoting the development of scientific and technological innovation, carrying out major S&T cooperation, and realizing the mobility of technology and talent. ANSO and the CCG have reached preliminary cooperation intentions in a coworking mechanism, co-organizing international events and forums, establishing a network for a think tank, co-organizing the Forum of Young Global Leaders, broadening the sources of policy recommendations, and sharing experience on the operations of international organizations. Both parties are willing to establish substantive cooperation.



6.4 ANSO Publicity

ANSO Publications (Update, Video, WeChat, etc.)



ANSO Meetings

The 3rd ANSO GB Meeting

🕒 9 November 2020

To ensure the smooth work of ANSO during the unpredictable period of the global pandemic, the 3rd ANSO GB meeting was held online with the participation of representatives of nine GB organizations. A number of important issues were discussed by the GB, reaching consensus on the following:



- ★ Endorsed the postponement of the 2nd GA to May, 2021 in Moscow and suggested that communication and discussion should be conducted between the ANSO Secretariat and the RAS on the possibility.
- ★ Endorsed the function and representation of the current GB until the next GA in 2021.
- ★ Reached consensus on the amendment suggestions to the ANSO Statutes by the ANSO Secretariat. These suggestions are to be approved by the GA according to the ANSO Statutes.
- ★ Organize a series of topic focused ANSO online workshops in 2020 by making global health the top priority.



List of ANSO Meetings 2020

	Meeting	Major Participant
1 25-27 Mar.	Training Workshop Green Technology	ANSO Association of the IGTA
2 28-29 May	Forum on Green Upgrading of Chemical Products for Anti-epidemic and Sterilization	ANSO Association of the IGTA
3 18 May	ANSO-DRR Webinar	ANSO Alliance of International Science Organizations on Disaster Risk Reduction (ANSO-DRR)
4 30 May	"Culture Evolution and Environmental changes along the Ancient Silk Road" Seminar	ANSO Association for Trans-Eurasia Exchange and Silk-Road Civilization
5 6 Jun.	Seminar on the CMRC Project	ANSO Collaborative Research of Research on the CMRC Project
6 11 Jun.	ANSO President Prof. Bai attend the Video Conference of 23 rd UNCSTD Annual Session	The United Nations Commission on Science and Technology for Development (UNCSTD)
7 16. Jun.	ANSO CMRC Project Seminar	CMRC Project; IAPA
8 6 Jul.	Online Workshop on "How to Integrate the ANSO-ACD's Activities with the Framework of the United Nations Convention to Combat Desertification (UNCCD)	ANSO Association for Combating Desertification (ACD); United Nations Convention to Combat Desertification;
9 21 Jul.	2020 Annual Meeting of BHBD	BHBD; Quaid-e-Azam University (QAU, Pakistan); National Laboratory for Scientific Computing (Brazil)
10 23 Jul.	UNCTAD&ANSO Sign the MoU	UNCTAD; ANSO CropWatch-ICP
11 5-26 Aug.	Online Training Workshop on Geospatial Information Applications for Agricultural Monitoring in Lower Mekong Basin Countries	ANSO CropWatch-ICP; the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP); Group of Earth Observation Global Agriculture Monitoring Flagship (GEOGLAM)

	Meeting	Major Participant
12 10 Aug.	The Kickoff Meeting & 1 st Workshop of ANSO-MISSPAD Project	MISSPAD; University of Gothenburg
13 31 Aug.	ANSO Webinar on Big Data Analysis and Forecast for Pandemic	City University of Hong Kong (CityU); the International Center for Integrated Mountain Development (ICIMOD); Harvard university
14 3 Sep.	1 st Meeting of the Belt and Road Alliance of Urban Environmental Health	ANSO Association for the Belt and Road Alliance of Urban Environmental Health; International Science Council – Urban Health and Wellbeing Programme (UHWB); Malaysia Biomass Industries Confederation (MBIC); Kasetsart University
15 18 Sep.	High-Level Workshop of International Research Institution in Zhongguan-cun Forum 2020	CAS; the Russian Academy of Sciences; FIOCRUZ, Brazil; NSTDA, Thailand; Austrian Academy of Sciences; University of Chile; TUBITAK, Turkey; Japan Science and Technology Agency (JST)
16 19-21 Sep.	2020 IAPA Annual Meeting	China Wildlife Conservation Association (CWCA-NPPA); International Alliance of Protected Areas
17 28 Sep.	ANSO Virtual International Symposium on “Lessons from and Insights on COVID-19”	Chinese Center for Disease Control and Prevention; Erasmus Universitair Medisch; Institut Pasteur, France & Senegal; Fiocruz, Brazil; Mount Sinai (US)
18 9 Oct.	ANSO Scientific Webinar on Combating COVID-19	ANSO GB Members
19 14 Oct.	The Agreement for Cooperation on Rice Variety Technology Innovation and Transfer Online Signed	CAS; Charoen Pokphand Group
20 16-18 Oct.	The Virtual 3 rd World Conference on Sheep	Food and Agriculture Organization of the United Nations (FAO); U.N. Economic and Social Commission for Asia and the Pacific (UN ESCAP)

	Meeting	Major Participant
21 23 Oct.	Pujiang 2020 Innovation Forum-The 1st Global Health and Development Summit	Bill & Melinda Gates Foundation; Tsinghua University; WHO Advisory Committee
22 30 Oct.	The CCG & ANSO Sign the MoU	The CCG & ANSO
23 9 Nov.	The 3 rd ANSO GB Meeting	ANSO Members
24 17 Nov.	Inaugural Conference of ANSO Alliance of Poverty Reduction and Development, ANSO	UNCTAD; TWAS; IGU
25 20-22 Nov.	Understanding China Conference 2020	Prime Minister of Singapore; Former President of Indonesia; Former U.S. Secretary of State; Former Prime Minister of UK; The Association for the Promotion of International Trade, Japan
26 24-25 Nov.	International Symposium on Ecological Restoration and Management of the Aral Sea	Innovative Development of Uzbekistan; First Deputy Prime Minister of Karakalpakstan Republic of Uzbekistan; Chinese Ambassador to Uzbekistan; National University of Uzbekistan; UNCCD
27 30 Nov.-5 Dec.	The B&R Training Course of Sustainable Development and Environmental Health	Institute of Urban Environment, CAS
28	ANSO 2020 Workshop on the Strategic Advisory of Innovation & Development for the Belt and Road	Group of ANSO Associations and Strategic Advisory
29 4 Dec.	ANSO-BHBD Webinar on COVID-19	BHBD; QAU
30 20 Dec.	the 5 th anniversary of the pilot demonstration of "APEC global accreditation institution	Peking University; APEC



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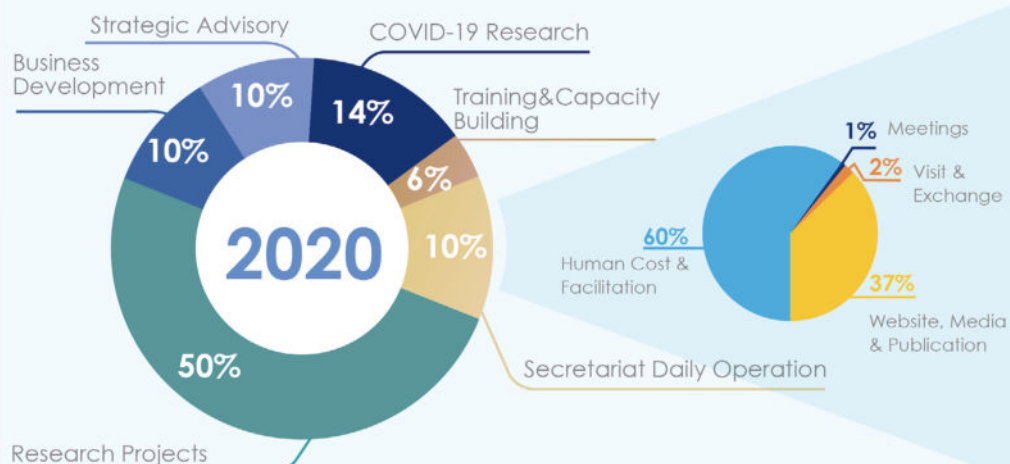
FINANCIAL REPORT

2020



2020 Annual Expenditure

CNY 40 Million



Budget for ANSO 2021

CNY 70 Million



*Funding for ANSO Scholarships not included

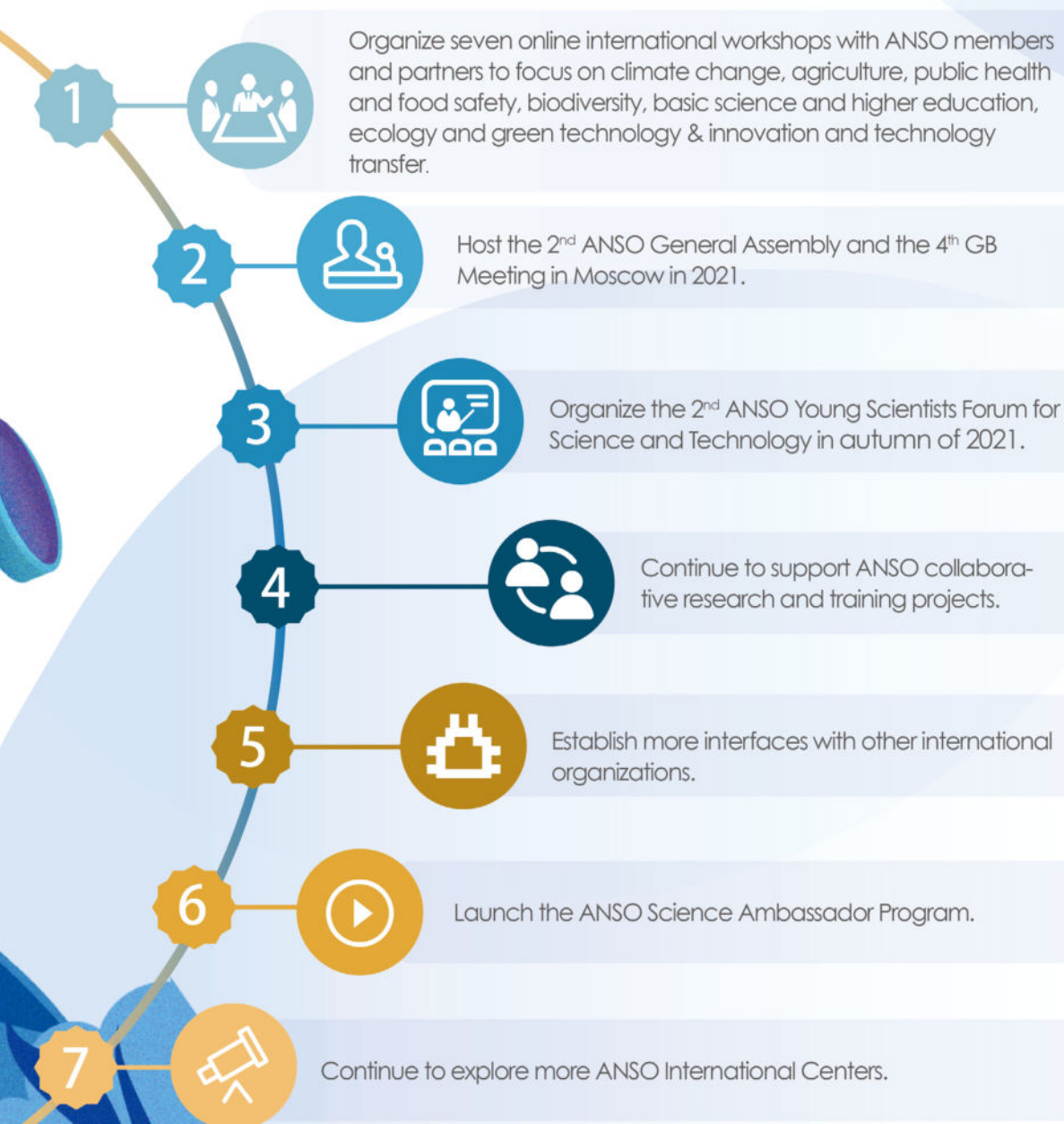
New Source of Funding: STIC Endowment Investment Revenues of the fund will be donated to ANSO.
Initial capital: RMB 50 million In collaboration with OVERSEAS CHINESE CHARITY FOUNDATION OF CHINA.

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WORK PLAN 2021

In 2021, ANSO will continue to support the global battle against COVID-19, especially work on vaccine clinical trials, local production and dissemination. Meanwhile, ANSO will concentrate on strengthening STIC cooperation for the post-pandemic world by focusing on the key challenges of the SDGs.









Photographer: Shi Cai

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