The International Capacity Building Workshop on Technology Transfer on Geographical Indications Environment & Sustainability (GIES) for OCOP Implementation in Asia and the Pacific

Co-organized by the Food and Agriculture Organization of the United Nations and the Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences

Workshop Report
14–23 August 2023
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Overview

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The ten-day "International Capacity Building Workshop on Technology Transfer on GIES for OCOP Implementation in Asia and the Pacific Region" was co-organized by the Food and Agriculture Organization of the United Nations (FAO) and the Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR/CAS).

Nearly twenty One Country One Priority product (OCOP) focal points representing governments, research institutions and FAO in five countries (Bangladesh, Bhutan, Cambodia, Nepal and Papua New Guinea), participated in the Workshop.

The Global Information Exchange System (GIES) was launched by IGSNRR/CAS and more than 40 other organizations in 2021. Developed by IGSNRR/CAS, GIES, is a methodology used to identify, assess and monitor environmental sustainability of special agricultural products (SAPs). It includes (a) geographical indication (GI) products and (b) geographically specific products (potential GI products), including special geographical products and geographically traditional products. The system uses a participatory approach that makes scientific data easily accessible so that GIES information can be utilized by all stakeholders, including consumers, academia and research experts, policymakers and the business community.

The OCOP initiative officially became operational in September 2021 with the objective to channel support from FAO to member countries in the transformation of their agricultural sectors to more efficient, inclusive, resilient and sustainable agrifood systems through the green development of SAPs. These products include all kinds of agricultural products that are recognized as having symbolic national or local agricultural value, but have not benefited from official support programmes to the same extent as commonly grown staple crops. GIES together with SAPs aims at balancing environmental protection and economic development.

This comprehensive Workshop was organized to build capacity and transfer technology to OCOP countries on GIES by applying open science technology, such as geographic information systems (GIS) and remote sensing, that connects producers and consumers through products from a distinct geographic origin with a traceable code.

The Workshop consisted of three parts: a high-level workshop in Huzhou, China, held on 15 and 16 August 2023, during which an overview of topics related to green agriculture and GIES/OCOP was presented, including a joint exhibition of 23 SAPs on GIES cases and OCOP products from participating countries, followed by a field visit to Feng county on 17 and 18 August.
2023, to witness first-hand experiences on GIES applications, and concluding with sessions from 19 – 22 August 2023 at IGSNRR/CAS headquarters in Beijing from which in-depth knowledge on theoretical and practical aspects of GIES for SAPs under OCOP was imparted. Visits to potential GIES case sites, such as a chestnut cooperative field, were made for participants to gain a better understanding of the availability of information required to qualify as a GIES case.

The high-level forum in Huzhou highlighted the importance of GIES for the OCOP initiative as a tool for sustainable development of the SAPs value chains and their contributions towards achieving the Sustainable Development Goals and objectives set in the FAO Strategic Framework 2022–31. By going beyond basic scientific research and focusing on ecological products through using open science, GIES can be a true game changer in bridging science and technology and removing innovation gaps.

The field visit to Feng county on 17 and 18 August 2023 enabled participants to witness GIES application in the field and observe a GIES data centre in action. The Workshop concluded on 22 August 2023 at the IGSNRR/CAS headquarters with a review of the lessons learned during the event and the identification of possible implementation approaches for technology transfer of GIES for OCOP implementation in the participating countries.
Key highlights
Part I: Workshop on China Green Low Carbon Innovation Conference (GLCC) and Exhibition, Huzhou, China

More than 100 participants, including representatives of Bangladesh, Bhutan, Cambodia, Nepal and Papua New Guinea, had gathered to attend the China Green Low Carbon Innovation Conference (GLCC)*, co-organized by the Chinese Association for Science and Technology, the Ministry of Housing and Urban-Rural Development, and the government of Zhejiang province, to learn about green agriculture, GIES and the OCOP initiative in China, and discuss their experiences.

LUO Hui, director-general of the International Cooperation Department of Chinese Science and Technology Association, JIN Kai, deputy mayor of Huzhou municipal people’s government, WANG Shenglin, deputy director of IGSNRR/CAS, ZHANG Guoyou, vice president and secretary general of the Geographical Society of China extended a warm welcome to the participants and expressed their wishes for active and fruitful working sessions, especially regarding the comparison of Chinese approaches with strategies applied in their own countries. The Workshop was opened by LIAO Xiaohan, professor at IGSNRR/CAS and team leader of GIES, and Xuan Li, FAO RAP, on behalf of the co-organizers of the Workshop.
Key highlights from the opening sessions

- Stressed the importance of environmentally friendly practices for sustainable production and the expansion of green agriculture for sustainable development.
- Emphasized the need to consider nature, culture and heritage when transforming land for sustainable development.
- Shared success stories in land development, including the positive impact of science and technology, with regard to, for example, white tea cultivation, and advanced agricultural techniques, such as crop rotation.
- Highlighted the Green Mountain and Clean Water Trans-Century Green Engineering Plan as a model for green development initiatives, especially in urban areas with a focus on agriculture.
- Suggested green agriculture as a solution to ensure food security, ecological well-being, decent employment and sustainable resource utilization. OCOP is a key FAO initiative to promote sustainable food value chains for SAPs.
- Recommended shifting to nutrition-rich and climate-resilient crops by using high-yielding varieties, identifying suitable farming areas and implementing integrated cropping systems.
- The OCOP initiative aims to develop sustainable and inclusive value chains for family farming and smallholders, align with the FAO Strategic Framework 2022−31, and contribute towards realizing the Sustainable Development Goals of the 2030 Agenda for Sustainable Development, particularly Goals 1 and 2.
- Discussed ecological civilization, low-carbon strategies, and the role of geographical and ecological sciences in regional sustainable development and environmental research, with a focus on the GIES initiative in cooperation with FAO under the OCOP initiative to promote sustainability and technology transfer.

Changchui He, former deputy director-general of FAO, in his keynote speech "Promoting smart and green agriculture and food system transformation in support of UN SDG", gave a comprehensive overview of the social, political and technological advances made in developing green agriculture in China.
**Key highlights from the presentation**

- Urged the acceleration of the promotion of smart, green agricultural, and food system transformation in support of efforts to realize the Sustainable Development Goals.
- Advocated the implementation of the philosophy of creating beautiful and liveable cities that promote cooperation, harmony and food security as a fundamental aspect of the Sustainable Development Goals.
- Emphasized the importance of global collaboration for achieving the Sustainable Development Goals, particularly in the context of global food security.
- Stressed the need for people-centred development, policy reforms and institutional development, and the crucial role of science and technology as driving forces for progress.

LIU Chuang, professor of IGSNRR/CAS and vice chair of the regional organizing group of FAO OCOP in Asia and the Pacific and an untiring promoter of unique agricultural products, expanded on the topic of GIES methodology and technology transfer for OCOP implementation.

Participants then exchanged their experiences: cases from China and from OCOP countries (Bangladesh/jackfruit, Bhutan/quinoa, Cambodia/mango, Nepal/large cardamom and Papua New Guinea/vanilla) were presented and discussed. Of special interest was a presentation by Han Yizhen, deputy mayor of Feng county, Zhejiang province, on developing horticulture and fruit orchards in his county, and how modern technology had helped to transform an ecologically vulnerable zone into a fruit basket.

The following day, Chinese GIES as well as OCOP presenters provided samples of their SAPs in

**A middle school student presents her thesis on the future of agriculture and ecology**

*Photo: ©FAO/Xuan Li*
The sessions continued with an introduction to conservation agriculture as a response to climate change by Kadambot Siddique, Hackett Professor of Agriculture Chair and Director and FAO Special Ambassador for the International Year of Pulses 2016, and concluded with a "Next Generation Session": middle school students (aged 11 to 16) presented their views on the future of agriculture and ecology.

The following day, Chinese GIES as well as OCOP presenters provided samples of their SAPs in Taihu Longemont Convention Center. The 17 GIES cases in China (dry grassland in Yanchitan; dry-hot valley Baoshan coffee, Xinzhai village; permanent basic farmland in Panshi Lanjia village; Burdock ancient Yellow River flooding area in Fengxian county; crested ibis habitat and black rice in Caoba village; splendid begonia in low mountains and hills of Baoshan, Panshi; fish fishing in summer and winter in Panshi Qiantang; subtropical low mountains and hills in Jiangpu, Lizhi, Conghua; Yellow River diversion irrigation area with wheat and grain twice ripe in Fangsi, Yucheng; yellow millet/danchuan millet in red clay area of Gaodu town, Zezhou; Panshi Rice Qiantang Case in permanent farmland; Suining Sweet Potato Qingfeng Village Case in subtropical hills; Korla fragrant pear in Kongque River Oasis; Fengxian crispy pear in ancient Yellow River flood-plain areas; Fengxian apple in Yellow River route; Lipu taro-rice crop rotation in permanent farmland) and five international cases (Bangladesh jackfruit; Bhutan quinoa; Cambodia mango; Nepal large cardamom; and Papua New Guinea vanilla) were presented in exhibitions that were surrounded by visitors.

Exhibition of OCOP from Bhutan Photos: ©FAO/Xuan Li

Exhibition of GIES products from China Photos: ©FAO/Xuan Li
Part II: Field visits to the Global Information Exchange System case site in Feng county

To enable participants to witness first hand GIES application in the field, the Workshop continued with a field visit to Feng county on 17 and 18 August 2023. The GIES cases had already been introduced by Deputy Mayor Han. The participant visited the vibrant production areas of NiuBang (burdock), apples and pears, and witnessed how GIES had helped to develop and promote the products. Participants also visited the Sub-Center of Global Change Research Data Publishing & Repository (GCdataPR), which focuses on data and knowledge applications for the Sustainable Development Goals and is tasked with enhancing e-commerce for GIES products.

The history of agriculture modernization in Fanlou village, which is in Suzhou city, Jiangsu province, is highly enriching; visits to the exhibition and data centre by the Workshop participants provided highlights of how GIES systems function in China and bring impacts. Traditional skills were blended with modern technology to mark the start of a transformative journey in 2014. In passing, participants also learned about the history of the Yellow River, its importance for the county and China in general, and how human effort had transformed a disaster-prone area into a fruit basket. In the evening, the participants were given the opportunity to exchange views with Fei Lu, mayor of Fengxian.

Fanlou village is renowned for its efforts to rehabilitate the Yellow River floodplains into a unique wetland park. Moreover, Fanlou...
has a sprawling 2,000 acre pear orchard, the largest in Xangzhou, making it an active agricultural county. Fengxian, a new city in the area, plays a vital role as an e-commerce hub, featuring the Fengxian Data Centre. This Centre hosts online exhibitions, showcases GIES cases, offers data on soil, water, and air conditions, and provides an e-market for GIES products. Local registration, scientific validation and online shops are offered free of charge. Government support and access to finance further boosts development, with the Chinese Academy of Sciences playing a crucial role, including zoning for ecological areas and data collection for smart-city development. Overall, the region focuses on sustainable agricultural practices, data management and ecological preservation under the concept of GIES-based agricultural development.
Part III: Training workshop on Geographical Indications Environment & Sustainability at the Institute of Geographic Scenes and Natural Resource Research, Chinese Academic of Sciences, Beijing

WANG Zhenbo, director of the GIES Planning Group and the Department of International Cooperation of the Chinese Academy of Sciences, welcomed the participants, and Xuan Li of FAO reiterated how GIES could become a useful vehicle for OCOP implementation. LIU Chuang of the Chinese Academy of Sciences then delivered comprehensive presentations on GIES methodology, its design and implementation as well as on GIES case standards and evaluation procedures. SHI Ruixiang expanded on data quality control and peer review procedures, LU Tingting discussed GIS and remote sensing applications, ZHU Yunqian covered data and knowledge publication, followed by presentations on, among other things, multi-stakeholder cooperation and hardware support. LIU Chuang stressed the importance of following a bottom-up approach by claiming that without the buy-in of local farmers and support from local administrations and other stakeholders, the success of GIES would be difficult.

The Workshop continued with technical sessions at IGSNRR/CAS headquarters in Beijing and visits that focused on agricultural product development and agricultural technology. Participants learned about how the Chinese Academy of Sciences had supported and guided GIES development in China, designed and implemented the GIES methodology, and how GIES standards are applied and GIES cases are reviewed and evaluated. In addition, technical issues related to GIES, such as GIS, remote sensing, big data technology, data quality control, data and knowledge retention and publication procedures were presented and discussed.

On impact, the GIES methodology and technology have become increasingly important in China, which boasts approximately 2,000 GI products and 6,300 green organic agricultural products. However, challenges have resulted caused by pollution in some GI areas and insufficient clarity about the environmental and socioeconomic sustainability of products.
these products. Ensuring that products are geo-located and tied to a unique geobiocultural ecosocial system is crucial, as many consumers are unaware of the origins and intellectual property of these products.

Balancing the economic viability and sustainability of agricultural products is another challenge. Variations in price, origin and product quality highlight the importance of knowing the product’s source. This knowledge adds value and fosters an understanding of geographic diversity, culture and economics. For example, consumers who understand the origin of a product, such as Cambodian mangoes, are more likely to make informed decisions.

Citing one example of GI products of China, it was noted that Lanjia village rice presents the need to maintain unique environments and meet consumer expectations. Achieving successful GI status often requires adherence to environmental standards and the use of science and technology for to advertise products and validate them.

Data play a central role in GIES, with principles, such as FAIR data (findable, accessible, interoperable, reusable) guiding its management and scientific assessment. Open data and knowledge are essential, supported by peer review and validation before publication. Traceability through global identifiers, registration, QR codes, logos and trademarks ensures product authenticity.

Collaboration with stakeholders at global, regional, and national levels is crucial for the success of GIES. Funding for GIES cases studies has usually been supported by the governments and research institutions in China, with each case involving different levels of partnerships and engagement. A GIES case costs approximately USD 45 000.

Overall, GIES is a complex but promising endeavor, relying on robust methodology, data quality and a commitment to environmental and social sustainability, and active engagement of partners.
GIES standards system for the development of a case

The GIES standards system for each case involves meticulous data collection and a rigorous evaluation process that balances environmental health and sustainability based on the original geographical and historical characteristics of the products. Scoring is conducted under the principle of 100 percent allocation, with cases not passing scientific assessment. The main components of the GIES standards system for a case are the following:

i. **Naming the case:** Each case is named using three parts: geolocation, product and ecosystem name, such as "tropical forest jackfruit".

ii. **Partners:** Three key partners are essential for the success of each case: government, research institutions and the private sector.

iii. **Role of the government:** The local government plays a pivotal role in the implementation of GIES, including engagement and leadership.

iv. **Area of boundary:** The digital case area boundary is defined using vector data (including X and Y coordinates).

v. **Team member personal quality:** Each case requires a team of experts, including a principal investigator (PI) with specific field expertise. PIs may be changed under certain circumstances.

vi. **Type of products:** Products can be classified as GI (geographical indicator), GS (geo-specific), or GT (geo-traditional) based on evidence provided.

vii. **Ecosystem environment:** The ecosystem zone and agriculture zone classifications are critical for understanding the geographical context.

viii. **Data system:** Various types of data, including climate, soil, socioeconomic, cultural and multimedia data are collected and published.

ix. **Data sustainability:** A mid-to-long-term monitoring system is established to ensure data sustainability.

x. **Article:** Data and case information are translated and presented in articles and publications to facilitate easy access and understanding.

xi. **Statement about the dataset:** Assurance that all data and information related to the case are safe, original and permitted for publication is provided.

xii. **Sample of products:** Samples of the case products are included for reference.

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**Geographical Indications Environment & Sustainability GIES case evaluation processes**

Each case undergoes a series of evaluation processes, including data publishing and repository infrastructures, peer-reviewed data publishing and repository access. The evaluation process also involves metadata requirements and quality control to ensure the accuracy and reliability of the data. The GIES case evaluation involves a series of evaluation processes, which are performed at least three times. Data publishing and repository infrastructures play a critical role in GIES, ensuring the availability of peer-reviewed data.

**Data review and peer review process**

Datasets are structured with metadata requirements, which are essential for global change research data publishing and repository. An example dataset called "cherry apple" is mentioned, which includes, among other items, boundary data, physical geographic data, C and N data. Data quality control and peer review involve checks for integrity and consistency.

**Common problems and solutions**

Among the common problems in the evaluation process are incomplete metadata, inconsistent datasets, issues with data papers and vector data concerns.
Brief overview of the application of remote-sensing and satellite technology

The discussion on remote sensing platforms and sensors highlights their capability to gather data from various electromagnetic spectrums. Satellites play a pivotal role in capturing environmental information encompassing vegetation health, water conditions and organic activities. Different satellite types, including optical and microwave, serve specific purposes, with spatial, temporal, radiometric and spectral resolutions explaining the variety in remote sensing capabilities. Key satellite data sources, such as MODIS, Landsat and Sentinel, are introduced. Chinese satellites, tailored for nature and disaster monitoring, are presented with varying resolutions and capabilities, encompassing earthquake detection and vegetation analysis.

Different types of satellite data, such as MODIS, are used for regional and global research with high temporal resolution, Landsat for various applications, and the versatile Sentinel series for comprehensive monitoring of land, oceans, atmosphere and other areas are briefly explained. Sentinel 4 and Sentinel 5 focus on atmosphere monitoring, while Sentinel 6 specializes in light data.

The application of satellite data is diverse, including the use of vegetation indices, such as NDVI\(^1\) for assessing vegetation health and flood monitoring through optical remote sensing, albeit challenged by persistent cloud cover. Ensuring the quality of remote-sensing products through validation is emphasized, verifying the reliability of data sources.

Field visit to Geographical Indications Environment & Sustainability GIES case potential sites: Pohai chestnut cooperatives

The Pohai chestnut cooperatives is recorded as an example of unwavering dedication to stringent standards in organic chestnut production in China. Spanning 25 000 hectares, 830 dedicated farmers are emphasizing organic certification for sustainability. Cooperatives own chestnuts processing plant that runs throughout the year. Collaborations with nearby hotels have created a thriving business ecosystem around chestnut production, marked by innovative diversification, including the immensely popular chestnut beer. Marketing strategies, such as use of a TikTok sales strategy, has generated an astonishing four million in sales in a single night at the time of promotion, and has helped to supply high prized chestnuts to bakeries in a continuous manner. Farmers receive a 20 percent premium for adhering to strict standards. Advanced technologies ensure quality, and their unique pest control system functions well in the area’s chestnut-friendly environment, with a high surveillance system in place. Thirty-three ancient chestnut trees significantly boost yield with rejuvenation works completed recently, while strategic spacing is optimizing their growth. The ancient

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1 The NDVI is a dimensionless index that describes the difference between visible and near-infrared reflectance of vegetation cover and can be used to estimate the density of green on an area of land
plantation was known to feed the labourers and soldiers involved in the construction of the Great Wall of China.

In conclusion, the Pohai chestnut cooperatives are a local treasure embodying sustainable agriculture and community development. The story behind them reflects diligence, precision and an unwavering commitment to quality, serving as an inspiring example for high-standard organic farming practices. Anticipation surrounds their future contributions and gratitude is extended for their remarkable journey, including the invaluable contributions of the heads of local cooperatives, who have initiated this drive for the local communities. Detail analysis of environmental conditions, soil, water and air are important to set up the data required to assess the GIES case for chestnuts from this geographical location.

**Discussion Sessions**

The following topics were discussed after the technical sessions. A draft memorandum of understanding between IGSNRR/CAS and FAO was also discussed with the participants and incorporated into the comments.

- Need to evaluate and improve the data repository system for enhanced functionality and accessibility.
- The process for redistributing unaccepted publication data and explore efficient data publication system management.
- Review data publication fee practices, with waivers for OCOP countries and free access for data published in China.
- The GIES application process, including have FAO serve as the application centre with a pathway through National OCOP Task Force to reach FAO Regional Office for Asia and the Pacific.
- Develop a rough timeline for GIES implementation, identify required support and specify needed team support.
- Consider Bangladesh as a case study for jackfruit production in GIES, involving policymakers and addressing financial aspects.
- The need to scale up initiatives in Papua New Guinea, emphasizing technology support, labelling, production and sensitization.
- Validation of satellite products, OCOP certification, GI and nutrient testing for the gradual approach to GIES implementation.
- Crop selection, stakeholder involvement, capacity development, data collection, standards and establishment of a data centre.
Summary of country cases

Each country has its own unique agricultural challenges, opportunities and strategies for implementing GIES: Bhutan focuses on quinoa; Papua New Guinea seeks to scale up and diversify its agriculture with a particular focus on coffee and vanilla; Nepal identifies ginger, timur, and other potential crops in addition to large cardamom for GIES; Cambodia aims to diversify mango products; and Bangladesh emphasizes the nutritional benefits of jackfruit.

The participating countries shared feedback on their OCOP experiences and opportunities to integrate GIES. They highlighted the importance of data management, capacity building, collaboration among stakeholders and attaining further support from FAO and the Chinese Academy of Sciences. The countries expressed their commitment to initiate and upscale GIES implementation and disseminate its impact.

Visit to the Agriculture Machinery Test Centre in Beijing

Participants of the Workshop visited Agriculture Machinery Test Centre in Beijing to learn about and exchange ideas regarding South-South value chain development of special agricultural products under OCOP.

During the visit, it was highlighted that disconnect between production, trade and consumption poses a significant challenge for the development of SAPs in countries of the global South. Although South-South trade grew from USD 2 trillion to approximately USD 5.3 trillion between 2006 and 2021, many agricultural producers in the region still depend on traditional markets in developed countries. It was made clear that South-South and Triangular Cooperation (SSTC) is as an important instrument to promote the South-South SAPs value chain within the framework of OCOP.

Marco Silvestri, a programme officer at the Centre for Sustainable Agricultural Mechanization of the Economic and Social Commission for Asia and the Pacific (ESCAP), proposed assigning one scientist per country by the Chinese Academy of Sciences, explore implementation approaches, and involve consumers and local stakeholders.

Emphasizing government engagement, community awareness, crop diversification and GI utilization, particularly in Bhutan. Highlight the role of the Chinese Academy of Sciences as a scientific authority in international organizations, ensuring data accessibility and addressing trade-related issues.

Addressing trade issues and the role the Chinese Academy of Sciences in certifying products for the Chinese markets, and its potential to resolve additional export requirements.

Suggestion of a 2-year validity for GIES certificates and data provision and waiting periods for certificate renewal in case of product characteristic changes.

Pacific (ESCAP), explained how the Centre’s agricultural machinery initiatives promoted regional trade in general. Business representatives demonstrated how sustainable and innovative solutions enhance the value chain for SAPs. The general manager of the Fourth International Trade and Engineering Department of Sinomach Hainan gave examples of how small-scale agricultural machinery can boost the productivity of SAPs and improve the livelihoods of smallholders. The general manager of Lucky Elephant Solar Water Pumps introduced decentralized solar water solutions designed to address water efficiency challenges in rural areas. A manager at Dayu Irrigation Co presented a successful public-private-partnership model that operates water-saving irrigation systems in Yuanmou county, Yunnan province. Through the partnership, more than 66 000 farmers have increased their incomes.

The Workshop participants expressed their strong interest in transferring the technology they had seen to their respective countries. They viewed continued access to the Chinese as well as the global market as a key for the success of SAPs and called for continuation of the technology exchange dialogue.

Closing session

The closing session included remarks from representatives of the Chinese Academy of Sciences, the Geographical Society of China and country participants. The representative of the Academy stressed the importance of international cooperation and knowledge translation, while the representative of the Geographical Society highlighted the institution’s support for technology transfer and capacity building. The country participants expressed their gratitude for the training and proposed mentorship programmes to drive forward GIES and OCOP initiatives.

Conclusion

The GIES standards system was perceived as a vital framework for promoting sustainable agriculture and economic development in Asia and the Pacific region. The successful implementation of GIES in various countries affirms its potential to address agricultural challenges, improve data management and foster collaboration among stakeholders. With ongoing support and collaboration, GIES can contribute towards achieving the Sustainable Development Goals and enhancing food security in the region.

The participants of the Workshop reflected on how GIES could be promoted in their countries by identifying the various stakeholders along the value chain and by weighing the economic, legal, administrative and social issues to be considered. Ideas concerning future collaboration among FAO, the Chinese Academy of Sciences and the OCOP countries were floated and outlined concerning potential implementation approaches to be considered for inclusion in the memoranda of understanding between IGSNR/CAS and FAO RAP.
Annex:
Concept note and agenda of the Workshop

International Capacity Building Workshop on Technology Transfer on Geographical Indications Environment & Sustainability (GIES) for One Country One Priority Product (OCOP) Initiative implementation in Asia and Pacific Region

Concept note

Background

To realize the Sustainable Development Goals, particularly Goal 1 (no poverty), Goal 2 (zero hunger), Goal 6 (clean water), Goal 8 (economic growth), Goal 10 (reduced inequalities), Goal 15 (ecosystem) and Goal 17 (partnerships), the Institute of Geographical Sciences and Natural Resources Research, the Chinese Academy of Sciences (IGSNRR/CAS) and the Geographical Society of China (coordinating more than 40 organizations) launched in 2021 the Decadal Program (2021–2030), an innovative programme on Geographical Indications Environment & Sustainability (GIES).

About the One Country One Product initiative

The Food and Agriculture Organization of the United Nations launched the Global Action on Green Development of Special Agro-Products, themed as “One Country One Priority Product” (OCOP) in September 2021, with the objective to support its member countries to make agriculture more productive with less resources through innovative, evidence-based solutions and sustainable approaches, and by considering the interlinked economic, social, and environmental dimensions of agrifood systems. The Theory of Change of the OCOP initiative describes the challenges (drivers for change) now facing global agrifood systems today, and how the OCOP initiative can tackle these by addressing a number of barriers to progress through targeted actions, leading to transformational outcomes and a paradigm shift contributing towards improved agrifood systems.

About the Geographical Indications Environment & Sustainability

The Geographical Indications Environment & Sustainability (hereafter, “GIES”) is a scientific and technological tool used to identify, assess and monitor environmental sustainability of geographical areas where SAPs are located. It aims at balancing environmental protection and economic development. SAPs and associated identified geographical areas that have passed the GIES scientific assessment are conferred as a GIES case with a traceable QR code that contains environmental parameters and data connecting consumers, producers and products in its geographic origin. The scope of the GIES application includes (a) geographical indications (GI) products; and (b) geographically specific products (potential GI products), including special...

The GIES technology was developed and is being initiated by the Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR/CAS), which uses the GIES methodology, a publicly available data monitoring mechanism, and knowledge infrastructure and management tools. The key scientific and technological tools for a GIES assessment, which includes the geographical information system (GIS), remote sensing and big data technology of physical geography, human geography, agriculture products standard management, together with Internet of things has made it possible to trace products and easy to access them using a cell phone. Up to May 2023, a total of 17 GIES good practices cases with SAPs originating from diverse geobio ecosocial environments were identified in 11 provinces of China. These practices were used by the Geographical Society of China and multi-stakeholders, and were demonstrated through a series of events, including a products expo, a forum, a new year festival, the Winter Fishing Festival, and training workshops.

About the International Capacity Building Workshop on Technology Transfer on Geographical Indications Environment & Sustainability (GIES) for OCOP implementation in Asia and the Pacific Region

The Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR-CAS) has offered to provide the GIES technology freely to the OCOP programme of FAO RAP through the joint international training workshop on GIES for OCOP. IGSNRR-CAS hosts the Global Change Research Data Publishing & Repository (GDataPR), a regular member of the World Data System (WDS) and the International Council of Sciences (ISC) and the award recipient of the World Summit of Information Society (WSIS) of the United Nations (2018, e-Science Champion). The GIES technology transfer includes not only the free provision of data and tools related to the geographically special products, but also the organization of capacity building for governments and related stakeholders, including decision makers, central and local governmental officials, scientists, members of academia, local farmers’ cooperatives, customer services operators, academic publishers, private sector representatives and the media.

The regional OCOP Initiative in Asia and Pacific builds on the rich experience of the “One Village One Product” (OVOP) movement of many Asian countries. FAO RAP is committed to support countries by providing policy, a technical package and other innovative solutions to strengthen production, post-harvest handling, processing, marketing and consumption of priority products to improve food security and nutrition and livelihoods of smallholder farmers. The expected outputs of the OCOP initiative are (1) innovative and technical packages for sustainable development of SAPs; (2) policy enablers for sustainable development of SAPs; (3) technical networks for innovation and transformation of sustainable development of SAPs; and (4) regional platforms to promote innovative approaches, best practices and knowledge-sharing of sustainable development of SAP.

Objectives

The objectives of the Workshop are to build capacity and provide free technology transfer to OCOP countries on GIES by applying open science technology (such as GIS and remote sensing) for SAPs that connect consumers, producers and products in its geographic origin with traceable code. The Workshop will provide (1) a dataset and knowledge related to the international, Chinese and European GI laws, policies and standards, particularly GI intellectual property protections; (2) GIES or OCOP case selection, team work structure and roles of each partner; (2) key points of successful cases; (3) applications of GIS, remote sensing and big data technology;
(4) Internet of things, network chains of the products; (5) data and knowledge publishing and application; (6) international market and trade; and (7) long-term cooperation among scientists, entrepreneurs, educators and decision makers for achieving the Sustainable Development Goals.

Co-organizers:

- FAO
- IGSNRR/CAS

Major Parts:

The joint International Capacity Building Workshop on Technology Transfer on Geographical Indications Environment & Sustainability (GIES) for One Country One Priority Initiative implementation in Asia and the Pacific Region is scheduled to take place from 14 to 23 August 2023, and includes three parts (for locations, see Figure 1):


2) Part II: Showcase and in-situ field visit, Feng County Case in Feng county, Jiangsu province of China, 17-18 August 2023.

3) Part III: Capacity building on technology transfer on GIES for OCOP implementation in RAP in IGSNRR/CAS, Beijing, 19-22 August 2023.
Part I: Green Agriculture Forum

on the occasion of the “China Green Low Carbon Innovation Conference (GLCC)” co-organized by the Chinese Association for Science and Technology, the Ministry of Housing and Urban-Rural Development and the government of Zhejiang province of China

Huzhou, Zhejiang province, 15-16 August 2023

Background

The China Association for Science and Technology, the Ministry of Housing and Urban-Rural Development and the government of Zhejiang province of China is co-organizing the China Green Low-Carbon Innovation Conference (GLCC) to be held in Hunzhou, Zhejiang on 15 and 6 August 2023. GIES has been invited to host the Green Agriculture Forum, one of the forums of the conference.

Objectives of part 1:

The objectives of the Green Agriculture Forum, part I of the joint International Capacity Building Workshop on Technology Transfer on Geographical Indications Environment & Sustainability (GIES) for One Country One Priority Initiative implementation in Asia and the Pacific Region are the following:

1) To demonstrate the cooperation mechanism between GIES and FAO OCOP;
2) To understand the multi-dimensional benefits of GIES for green agriculture in China;
3) To understand how the GIES technology can support FAO OCOP implementation in Asia and the Pacific; and
4) To showcase FAO OCOP and GIES products through at exhibition at the China Green Low-Carbon Innovation Conference.

Co-organizers and supporting organizations:

◆ IGSNRR/CAS
◆ FAO
◆ Geographical Society of China
◆ Zhejiang Association for Science and Technology
◆ Government of Huzhou city, Zhejiang province
### Agenda

**Registration Date:** 14 August 2023  
**Location:** Longemont Animal World Hotel  
**Address:** Taihu Lake Longemont Paradise, Huzhou, Zhejiang province  
**TEL:** (+86) 572 6666880

**15 August 2023**

**Session 1: Opening ceremony**

**Time:** 9.00-10.30  
**Location:** Luanfeng Hall C, Longemont Animal World Hotel  
**Chair:** LIAO Xiaohan, GIES team leader, IGSNRR/CAS

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Affiliation</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUO Hui</td>
<td>Director general of International Cooperation Department of China Association for Science and Technology</td>
<td>Welcome, opening and introductory remarks</td>
</tr>
<tr>
<td>WANG Shenglin</td>
<td>Deputy director of IGSNRR/CAS</td>
<td></td>
</tr>
<tr>
<td>Xuan Li</td>
<td>Senior policy officer, and regional OCOP coordinator, RAP, FAO</td>
<td></td>
</tr>
<tr>
<td>Nelson Simbiken</td>
<td>Acting secretary, National Department of Agriculture and Livestock, Papua New Guinea</td>
<td></td>
</tr>
<tr>
<td>ZHANG Guoyou</td>
<td>Vice president and secretary general of Geographical Society of China</td>
<td></td>
</tr>
<tr>
<td>Dr. Changcui He</td>
<td>GIES advisor, former FAO associate secretary general</td>
<td>Keynote speech: Promote the smart and green agriculture and food system transformation in support of the Sustainable Development Goals</td>
</tr>
</tbody>
</table>

**Tea break: 10:30-10:50**

**Session 2: Green agriculture: GIES and implementation of FAO OCOP in Asia and the Pacific**

**Time:** 10:50-12:00  
**Location:** Luanfeng Hall C, Longemont Animal World Hotel  
**Chair:** WANG Zhenbo, director of GIES Planning Group, director and professor of Department of International Cooperation of IGSNRR/CAS

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Affiliation</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xuan Li</td>
<td>Senior policy officer, and regional OCOP coordinator, RAP, FAO</td>
<td>FAO OCOP: objective, progress and implementation in Asia and the Pacific</td>
</tr>
<tr>
<td>Speaker</td>
<td>Affiliation</td>
<td>Topic</td>
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</tr>
<tr>
<td>GONG Ke</td>
<td>GIES adviser, executive chairman of China University Ecological Civilization Alliance, fellow of International Science Council</td>
<td>Higher education and green development practices</td>
</tr>
<tr>
<td>LIU Chuang</td>
<td>Principle investigator of GIES, Professor of IGSNRR/CAS, vice chair of Regional, Organizing Group of FAO OCOP in Asia and the Pacific</td>
<td>GIES methodology and technology transfer for implementation of FAO OCOP in Asia and the Pacific</td>
</tr>
<tr>
<td>Nelson Simbiken</td>
<td>Acting secretary, National Department of Agriculture and Livestock, Papua New Guinea</td>
<td>Vanilla: FAO OCOP in Papua New Guinea</td>
</tr>
<tr>
<td>Lazarus Dawa</td>
<td>National coordinator of FAO OCOP in Papua New Guinea, FAO representation in Papua New Guinea</td>
<td></td>
</tr>
<tr>
<td>Md. Jillur Rahman</td>
<td>Principal scientific officer, Bangladesh Agriculture Research Institute, Ministry of Agriculture</td>
<td>Jackfruit: FAO OCOP in Bangladesh</td>
</tr>
<tr>
<td>Md Abdul Kader</td>
<td>Senior lead agronomist FAO representation in Bangladesh</td>
<td></td>
</tr>
</tbody>
</table>

**Session 3: Solutions from cases**

**Time: 12:00-13:30 Break**

**Time: 13:30-15:00**

**Location: Luanfeng Hall C, Longemont Animal World Hotel**

**Chair: Xuan Li, senior policy officer, and regional OCOP coordinator, RAP, FAO**

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Affiliation</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>Kadambot H.M. Siddique</td>
<td>Chair and director, Institute of Agriculture, The University of Western Australia, fellow of Australia Academy of Sciences, FAO special ambassador on International Year of Pulses</td>
<td>Conservation agriculture for improved productivity and resilience to climate change</td>
</tr>
<tr>
<td>Sabnam Shivakoti</td>
<td>Joint secretary of the Ministry of Agriculture of Nepal, national coordinator and project leader on OCOP, Nepal;</td>
<td>Promoting large cardamom value chain in Nepal under OCOP framework</td>
</tr>
<tr>
<td>Rajan Pariyar</td>
<td>Soil scientist, Cardamom Development Center Illam, Nepal;</td>
<td></td>
</tr>
<tr>
<td>Shrawan Kumar Adhikary</td>
<td>Programme operation specialist, FAO representation in Nepal;</td>
<td></td>
</tr>
<tr>
<td>Dilli Ram Sharma</td>
<td>National capacity building specialist, National Technical Cooperation Project on OCOP, FAO Representation in Nepal</td>
<td></td>
</tr>
</tbody>
</table>
### Session 4: S&T support for decision making

**Time:** 15:10-16:00  
**Location:** Luanfeng Hall C, Longemont Animal World Hotel

**Group 1: S&T Support Decision Making Forum**

Chair: Kadambot H.M. Siddique, chair and director, Institute of Agriculture, professor at The University of Western Australia, fellow of Australia Academy of Sciences, FAO special ambassador on International Year of Pulses

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Affiliation</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taing Koungveng</td>
<td>Vice chief of office, Department of Plant Protection, Sanitary and Phytosanitary, General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries, Cambodia</td>
<td>Investing in mango value chain for sustainable livelihood and export promotion</td>
</tr>
<tr>
<td>Se Sokleap</td>
<td>Technical officer, Department of Agricultural Land Resources Management General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries, Cambodia</td>
<td></td>
</tr>
<tr>
<td>Leang Rethmana</td>
<td>Agricultural economist, FAO representation in Cambodia</td>
<td></td>
</tr>
<tr>
<td>ZHOU Lei</td>
<td>GIES adviser, deputy mayor of Yucheng City, Shandong province of China</td>
<td>S&amp;T Support Yucheng Case</td>
</tr>
<tr>
<td>Kuenzang Om</td>
<td>(OCOP Bhutan video)</td>
<td>OCOP in Bhutan: quinoa</td>
</tr>
<tr>
<td>Jamyang Lophya</td>
<td>Deputy chief economic development and marketing officer, Department of Agriculture Marketing and Cooperatives, Ministry of Agriculture and Livestock, Bhutan</td>
<td></td>
</tr>
<tr>
<td>Jigme Tenzin</td>
<td>National OCOP coordinator, FAO representation in Bhutan</td>
<td></td>
</tr>
</tbody>
</table>
CHEN Shengbo  | Member of GIES Expert Group, professor at Jilin University, Director of Remote Sensing Jilin Center  | Multiple data integration technology supports green agriculture

Time: 16:00-16:50

Group 2: Green Agriculture Prospects from Next Generation

Operator: DING Yirui, undergraduate student at Nankai University
Assistant. FU Jingying: IGSNRR/CAS

Comments and director: Kadambot H.M. Siddique, chair and director, Institute of Agriculture, The University of Western Australia, fellow of Australia Academy of Sciences, FAO special ambassador on International Year of Pulses

**Session 5: Summary**

Time: 16:50-17:00

Location: Luanfeng Hall C, Longemont Animal World Hotel

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Affiliation</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIU Chuang</td>
<td>Principle investigator of GIES, Professor at IGSNRR/CAS, Vice-Chair of FAO Regional Organizing Group of OCOP in Asia and the Pacific</td>
<td>Summary</td>
</tr>
<tr>
<td>Xuan Li</td>
<td>Senior Policy Officer, and Regional OCOP Coordinator, RAP FAO</td>
<td></td>
</tr>
</tbody>
</table>

17:00 Closing of the Forum

**Session 6: Exhibition on FAO OCOP and GIES products**

Time: 9:00 to 17:00 16 August 2023

Location: Taihu Longemont Convention Center

Cases exhibition:

1. Yanchi Tan Sheep Huamachi Township Case in dry grassland
2. Baoshan Coffee Xinzhai Village Case in Dry-Hot Valley
3. Panshi Rice Lanjia Village Case in permanent basic farmland
4. Fengxian Burdock (Arctium lappa) Fanlong Township Case in ancient Yellow River flooding area
5. Yang County Black Rice Caoba Village Case in crested ibis (Nipponia nippon) habitat
6. Panshi Chinese Cherry Apple Baoshan Township Case in low mountains and hills
7. Panshi Fishing Qiantang Case in reservoirs and fresh water bodies
8. Conghua Litchi Jiangpu Street Case in subtropical low hills
9. Yuchang Wheat-Maize Double Cropping Field Fangsi Township Case in Yellow River irrigation environment
10. Zezhou Millet (Danchuan Millet) Gaodu Township Case in red clay soil
<table>
<thead>
<tr>
<th></th>
<th>Case Study Description</th>
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<tbody>
<tr>
<td>11.</td>
<td>Panshi Large Corylus Futai Township in low mountain and hills</td>
</tr>
<tr>
<td>12.</td>
<td>Panshi Rice Qiantang Case in permanent farmland</td>
</tr>
<tr>
<td>13.</td>
<td>Suining Sweet Potato Qingfeng Village Case in subtropical hills</td>
</tr>
<tr>
<td>14.</td>
<td>Korla Fragrant Pear Kongque River Oasis Case in dryland</td>
</tr>
<tr>
<td>15.</td>
<td>Fengxian Pear Ancient Yellow River Floodplain Case</td>
</tr>
<tr>
<td>16.</td>
<td>Fengxian Apple in the Ancient Yellow River (Dashahe) Case</td>
</tr>
<tr>
<td>17.</td>
<td>Lipu Taro-Rice Rotation Permanent Farmland Case</td>
</tr>
<tr>
<td>18.</td>
<td>Midong Rice Yangmaogongzhen Case in oasis wetland</td>
</tr>
<tr>
<td>19.</td>
<td>Bangladesh Jackfruit Case</td>
</tr>
<tr>
<td>20.</td>
<td>Papua Nea Ginea Vanilla Case</td>
</tr>
<tr>
<td>21.</td>
<td>Nepal Large Cardamom Case</td>
</tr>
<tr>
<td>22.</td>
<td>Cambodia Mango Case</td>
</tr>
<tr>
<td>23.</td>
<td>Bhutan Quinoa Case</td>
</tr>
</tbody>
</table>
Part II: Showcase and *in-situ* field visit, Feng County Case in Feng county, Jiangsu province of China

17-18 August 2023

The objectives of part II:

Natural disasters occur in most areas of the world. Feng county happens to be in a large part the Ancient Yellow River flooding areas. Three GIES cases from Feng county are based on the ancient Yellow River flooding soil.

The objectives of the showcase and *in-situ* field visit, Feng County Case in Feng county, Jiangsu province, part II of the International Capacity Building Workshop on Technology Transfer on Geographical Indications Environment & Sustainability (GIES) for One Country One Priority Initiative implementation in Asia and the Pacific Region are, as follows:

1) To gain knowledge about the three GIES Cases in Feng County, especially how Feng county residents are changing the ancient disaster area to cultivate GIES product;

2) To understand how GIES technology is used to support environment protection and economic development in Feng county;

3) To witness how open science and digital data management can contribute to Feng county environment protection and socioeconomic development.

Co-organizers and supporting organizations:

- IGSNRR/CAS,
- FAO
- Geographical Society of China
- Government of Feng county, Jiangsu province
## Provisional agenda
17-18 August 2023

### 17 August 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Place</th>
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</thead>
<tbody>
<tr>
<td>10:30-12:00</td>
<td>Chengxiacheng (City Under the City) Museum of Xuzhou city</td>
<td>Xuzhou downtown</td>
</tr>
<tr>
<td></td>
<td>ZHANG Zhongqi, associate Dean of School of Geography, Jiangsu Normal University</td>
<td></td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>Lunch</td>
<td>Xuzhou</td>
</tr>
<tr>
<td>13:00-14:00</td>
<td>Travel from Xuzhou to Feng county</td>
<td>Highway</td>
</tr>
<tr>
<td>14:00-17:30</td>
<td>Visit GIES case 4: Qige Burdock town</td>
<td>Fan Lou town</td>
</tr>
<tr>
<td></td>
<td>LU Feng, acting county magistrate, Feng county, Jiangsu province</td>
<td></td>
</tr>
<tr>
<td>14:00-17:30</td>
<td>Visit GIES case 16: Fengxian apple trees ancient Yellow River course (Dashahe)</td>
<td>Liang Zhai town</td>
</tr>
<tr>
<td></td>
<td>LU Feng, acting county magistrate, Feng county, Jiangsu province</td>
<td></td>
</tr>
<tr>
<td>14:00-17:30</td>
<td>Visit Fengdashe National Wetland Park – the ancient Yellow River</td>
<td>Da sha he town</td>
</tr>
<tr>
<td></td>
<td>Mr. LU Feng, acting county magistrate, Feng county, Jiangsu province</td>
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</tr>
<tr>
<td>14:00-17:30</td>
<td>Visit GIES case 15: Fengxian pear trees ancient Yellow River flooding area</td>
<td>Big sha he town</td>
</tr>
<tr>
<td></td>
<td>Mr. LU Feng, acting county magistrate, Feng county, Jiangsu province</td>
<td></td>
</tr>
<tr>
<td>18:00-20:00</td>
<td>Dinner</td>
<td>Fengxian Hotel</td>
</tr>
</tbody>
</table>

### 18 August 2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-11:00</td>
<td>Visit the Feng County Museum</td>
<td>Wenbo Yuan</td>
</tr>
<tr>
<td></td>
<td>Mr. CHI Hanghang, executive director of GIES Data Application Center</td>
<td></td>
</tr>
<tr>
<td>11:30-13:00</td>
<td>Lunch</td>
<td>Fengxian hotel</td>
</tr>
<tr>
<td>13:00</td>
<td>Departure from Feng county</td>
<td>Train G2562</td>
</tr>
<tr>
<td></td>
<td>From Feng county to Xuzhou Dong station</td>
<td>14:43 (Xuzhou Dongle) – 18:08 (Beijing)</td>
</tr>
<tr>
<td></td>
<td>Take train G2562 from Xuzhou Dong station to Beijing</td>
<td></td>
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<tr>
<td></td>
<td>Arrive at Beijing at 18:08, then take bus</td>
<td></td>
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<tr>
<td></td>
<td>from Beijing train station (south) to National Convention Cener Hotel</td>
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</table>
Part III: Capacity Building on Technology Transfer on GIES for OCOP Implementation in Asia and the Pacific

IGSNRR/CAS, Beijing, 19-22 August 2023

Co-organizers:
- FAO
- IGSNRR/CAS

Agenda

<p>| Capacity Building on Technology Transfer on GIES for OCOP Implementation in RAP |
|----------------------------------|---------------------------------|------------------|
| <strong>10:00-12:00</strong> 19 August        | <strong>Topic 1: Introduction</strong>       | IGSNRR/CAS       |
|                                 | Challenges and issues in implementation of OCOP in 5 countries (Bhutan, Nepal, Bangladesh, Cambodia and Papua New Ginea) |                  |
|                                 | WANG Zhenbo, Introduction to IGSNRR/CAS Discussions |                  |
| <strong>13:30 -17:00</strong> 19 August       | <strong>Topic 2: Introduction to GIES methodology and technology</strong> | IGSNRR/CAS       |
|                                 | Xuan Li, Introduction to FAO-RAP OCOP LIU Chuang, GIES methodology- technology design and implementation |                  |
| <strong>9:00-12:00</strong> 20 August         | <strong>Topic 3: GIS, remote sensing and big data technology</strong> | IGSNRR/CAS       |
|                                 | LIU Chuang: GIES case standards and evaluation procedure |                  |
|                                 | SHI Ruixiang, Data quality control and peer review procedure |                  |
| <strong>13:30 -17:00</strong> 20 August       | <strong>Topic 4: Data and knowledge publishing</strong> | IGSNRR/CAS       |
|                                 | A. LV Tingting, GIS and remote sensing applications |                  |
|                                 | ZHU Yunqian, data and knowledge publication |                  |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Topic</th>
<th>Organizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 August</td>
<td>9:00-12:00</td>
<td><strong>Topic 5: World data system and global network</strong></td>
<td>IGSNRR/CAS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LIU Chuang: World data system, GCdataPR and network of things</td>
<td>IGSNRR/CAS</td>
</tr>
<tr>
<td>21 August</td>
<td>13:30 -17:00</td>
<td><strong>Topic 6: Multi-stakeholder cooperation and hardware support</strong></td>
<td>IGSNRR/CAS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WANG Zhenbo, Multi-stakeholder cooperation</td>
<td>IGSNRR/CAS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ZHU Xiaoguang, GIES in situ ecosystem monitoring equipment support</td>
<td>IGSNRR/CAS</td>
</tr>
<tr>
<td>22 August</td>
<td>9:00-12:00</td>
<td><strong>Special session: South–South cooperation</strong></td>
<td>Beijing Agricultural Machinery Institute</td>
</tr>
<tr>
<td>22 August</td>
<td>13:30 -17:00</td>
<td><strong>Closing ceremony</strong></td>
<td>IGSNRR/CAS</td>
</tr>
<tr>
<td>22 August</td>
<td></td>
<td>Chuang Liu and Xuan Li: Summary</td>
<td>IGSNRR/CAS</td>
</tr>
<tr>
<td>23 August</td>
<td></td>
<td>Departure</td>
<td></td>
</tr>
</tbody>
</table>
# Special session of part III:
Leveraging South–South value chains to promote special agriculture products

Morning, 22 August 2023  
Venue: Beijing Agri. Machinery Demonstration Centre,  
Changping district, Beijing

## Tentative agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Purpose</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field visit</td>
<td></td>
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</tr>
<tr>
<td>8:00-9:00</td>
<td>Travel to the</td>
<td>Departure from China National Convention Center and hotel to Beijing</td>
</tr>
<tr>
<td></td>
<td>field</td>
<td>Agriculture Machinery Demonstration Centre, Changping district</td>
</tr>
<tr>
<td>9:00-9:40</td>
<td>Field visit</td>
<td>Field visit in Beijing Agriculture Machinery Test Field</td>
</tr>
<tr>
<td>9:40-10:10</td>
<td>Tour explanation</td>
<td>Introduction about history and functions of the Beijing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agriculture Machinery Demonstration Centre</td>
</tr>
</tbody>
</table>

**Regional SSTC session:**  
Leveraging South–South value chains to promote special agriculture products

<table>
<thead>
<tr>
<th>Time</th>
<th>Purpose</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 10:20-10:30| Opening session              | Host: FAO RAP SSTC team  
Opening remark: Xuan Li, FAO RAP                                                                                                               |
| 10:30-10:40| SSTC presentation            | **Leveraging South–South value chains to promote special agriculture products**  
Speaker: Xi CAO, regional innovative finance specialist, FAO RAP SSTC team                                                                  |
| 10:40-11:00| Case Presentations (10 minutes/  
      case+5 minutes Q&A/session) | **Presentation 1:** Marco Silvestri, programmer officer, the Centre for Sustainable Agricultural Mechanization of the Economic and Social Commission for Asia and the Pacific (ESCAP) presentation: Sustainable agricultural mechanization for conservation agriculture among global South, ESCAP- Centre for Sustainable Agricultural Mechanization  
**Presentation 2:** Wangshuo, general manager of the fourth International Trade and Engineering Department of Sinomach Hainan, presentation: "Leveraging small-scale agricultural machinery to enhance SAPs productivity and livelihoods of smallholders"  
**Presentation 3:** XU Shaohai, General Manager, Lucky Elephant Solar Water Pumps, presentation: "Leveraging renewable energy to enhance SAPs productivity and green rural development" |
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<th>Time</th>
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<td>11:40-11:50</td>
<td>Closing</td>
<td>Final remark and wrap up</td>
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<td>Li Xuan, senior policy officer, FAO RAP</td>
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<td>Group photo</td>
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**Presentation 4:** Li Yao, manager, Dayu Irrigation  
Co-presentation: "Leveraging digital tools towards enhanced water-saving irrigation systems and improved early warning system for SAPs"
For further information please contact:
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Food and Agriculture Organization of the United Nations
Bangkok, Thailand