

# MoU between FAO and IGSNRR-CAS on GIES Supporting OCOP

Li, X.<sup>1</sup> Liu, C.<sup>2\*</sup>

1. FAO Aisa and Pacific Office, Bangkok 10200, Thailand;

2. Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing 100101

**Abstract:** A Memorandum of Understanding (MoU) on Geographical Indications Environment & Sustainability (GIES) supporting One Country One Priority Product (OCOP) Initiative was signed between the Food and Agriculture Organization of the United Nations (FAO) and the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR-CAS) in February 2024. FAO launched OCOP flagship of the Special Agricultural Products (SAP) initiative in 2021 for contribution to the transformation to more efficient, inclusive, resilient and sustainable agrifood systems for better production, better nutrition, a better environment, and a better life, leaving no one behind. IGSNRR-CAS launched GIES in 2021 and developed GIES methodology and technology integrating science, data, internet of things, engineering, standards and geographical culture. 17 successful GIES cases from 11 provinces of China were demonstrated. The cooperation partnership will benefit not only the countries where OCOP is implemented, but also the farmers.

**Keywords:** GIES; OCOP; MoU; FAO; IGSNRR-CAS

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## 1 Introduction

A Memorandum of Understanding (MoU) on Geographical Indications Environment & Sustainability (GIES) supporting One Country One Priority Product (OCOP) Initiative was signed between the Food and Agriculture Organization of the United Nations (FAO) and the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR-CAS) on the sidelines of the 37th FAO Regional Conference for Asia and the Pacific. Professor Wang, Shenglin, Deputy Director General of IGSNRR-CAS, and Dr. Jong-Jin Kim, Assistant Director-General and FAO Regional Representative for Asia and the Pacific, were the co-signatory of the MoU. The agreement will leverage the innovative GIES methodology developed by IGSNRR-CAS to “energize implementation” of the FAO flagship OCOP initiative in the Asia and Pacific region (FAO report on 19 February 2024 in Colombo, Sri Lanka).

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\***Corresponding Author:** Liu, C., Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, lchuang@igsnr.ac.cn

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The MoU signature ceremony on cooperation was presided over by Dr. Li, Xuan, Senior Policy Officer of FAO in Asia and Pacific Region (Figure 1). More than 30 FAO officials and experts, and scholars from the IGSNRR-CAS, the Chinese Embassy in Sri Lanka, and representatives of countries in Asia and the Pacific Region participated in the signing ceremony. Mr. Younten Phuntsho, Minister of Agriculture and Livestock of Bhutan, Mr. Brown Konabe, Minister of Agriculture and Livestock of Papua New Guinea, Mrs. Beth Bechdol, Assistant Director General of FAO, Mr. Zhu, Yanwei, Acting Charge Affairs of the Chinese Embassy in Sri Lanka, and Dr. Liu, Chuang, Professor of IGSNRR-CAS, Chief Scientist of the GIES Program, and Vice Chairman of the OCOP Organizing Group in Asia and Pacific Region for the FAO OCOP initiative attended the signing ceremony and supervised the signing procedure. Dr. Jong-Jin Kim, Assistant Director-General and FAO Regional Representative for Asia and the Pacific and Professor Wang, Shenglin, Deputy Director General of IGSNRR-CAS are the co-signatory of the MoU (Figure 2), the cooperation partnership between the FAO and IGSNRR-CAS was established (Figure 3).



**Figure 1** Dr. Li, Xuan presided over the MoU signature ceremony (FAO, Feb. 9, 2014, Colombo, Sri Lanka)



**Figure 2** Dr. Jong-Jin Kim and Professor Wang, Shenglin co-signed the MoU (FAO, Feb. 9, 2014, Colombo, Sri Lanka)

## 2 FAO One Country One Priority Product (OCOP) Initiative

The Global Action on Green Development of Special Agricultural Products: One Country One Priority Product (OCOP) launched by FAO to promote at global, regional and national levels the Special Agricultural Products (SAP) with unique qualities and special characteristics that can contribute to the transformation to more efficient, inclusive, resilient and sustainable agrifood systems for better production, better nutrition, a better environment, and a better life, leaving no one behind<sup>[1]</sup>. Since the launch of the OCOP in September 2021, over 53 SAPs from over 83 countries have joined the initiative from all five FAO regions, including Africa, Asia and the Pacific, Europe and Central Asia, Latin America and the Caribbean and Near East and North Africa (Figure 4).

In Asia and Pacific region, the OCOP implementation follows two track action lines, they are the national level projects line and the regional knowledge sharing line. FAO collaborates with partners to coordinate knowledge sharing and practical experience exchange in the process and outcomes of OCOP implementation at the national and regional levels. The IGSNRR-CAS is one of the four core members of the Asia Pacific regional organization working group established by FAO. The working group is responsible for coordinating the OCOP implementation in the region, and supporting the global OCOP steering committee at FAO headquarters and the OCOP working group at the national level. The signing of the cooperation memorandum will ensure the development of innovative methods and technologies based on geographic resources and promote the implementation of the FAO flagship program—the “One Country One Priority Product” initiative in Asia and the Pacific.

The OCOP initiative proposed by FAO aims to help build sustainable value chains for special agricultural products in member countries. Featured agricultural products are crops with unique qualities related to specific regions, farming methods, and cultural heritage. Special agricultural products have unique flavors and high nutritional value, but their potential has not yet been fully realized in the fields of planting and sales. The consensus in the



**Figure 3** FAO and IGSNRR-CAS established the cooperation partnership



**Figure 4** Map of OCOP products (FAO, 2021)

memorandum of understanding is that the IGSNRR-CAS will provide free technology transfer of the innovative methods and technologies, and near real-time monitoring data on the environmental parameters, which will greatly help to enhance the green transformation capability of the agrifood system.

### 3 The GIES Program Led by IGSNRR-CAS

In 2021, IGSNRR-CAS, in collaboration with the Geographical Society of China (GSC) and 40 other related organizations, launched the “Decade Initiative on Geographical Indications Environment & Sustainability 2021–2030”, aiming to provide a science-supported solution in reaching the SDGs of the United Nations in balancing environment and development<sup>[2]</sup>.

GIES was developed based on the integration of open science principles, geographic data, Internet of Things technology and hierarchical standards, as well as cultural heritage, to form a multi-stakeholder cooperation mechanism. It is a toolkit that integrates science, technology, engineering, management, and culture, proposing principles and norms of high-quality, geographical products, environmental protection in the place of origin, and sustainable development as keywords. It proposes to establish a value chain among the production, storage, processing, market, and terminal consumption of special agriculture products from their origin to the end consumers. It provides a valuable innovative solution for the implementation of OCOP<sup>[3–11]</sup>.

GIES system was operated by the Global Change Research Data Publishing & Repository (GCdataPR), a regular member of the World Data System of the International Science Council. The GCdataPR was awarded the WSIS (World Summit on Information Society) Prize in 2018 and 2021 (*e-Science, Champion*). 17 cases from 11 provinces of China were identified, including lamb, coffee, rice, black rice, burdock, lychee, wheat flour, millet, pear, sweet potato, fish, cobnuts, apple, taro, etc. (Figure 5). All of these cases benefit local farmers and consumers in diverse ways.



**Figure 5** Products from 17 GIES cases in 11 provinces of China

The first GIES workshop hosted by FAO and IGSNRR-CAS was held as a side event of the International Green and Low Carbon Innovation Conference in August 2023 in Huzhou, Zhejiang Province of China, and then the activities of case investigation in Feng County of Jiangsu Province and the GIES capacity building in Beijing helped participants from Bangladesh, Bhutan, Cambodia, Nepal and Papua New Guinea. The workshop informed partic-

ipants on how IGSNRR-CAS has developed GIES framework, designed and implemented the GIES methodology and technology for wide range of SAPs in different agro-ecological zones, and about how GIES specifications are applied and GIES cases reviewed and evaluated in China. All of the participates expressed their urge to transfer the innovative and practical technological solutions to OCOF countries.

#### 4 Both Parties Were Confident in the Cooperation

At the signature ceremony, Dr. Beth Bechdol (Figure 6), FAO Deputy Director-General indicated that “at FAO, we believe that science, technology and innovation are central to transforming agrifood systems. So, today’s signing expresses our continued commitment to leveraging science and innovation. This agreement between FAO and IGSNRR-CAS will benefit not only the countries where we are working in, but most importantly, it will benefit farmers themselves.” She highly evaluated the cooperation, noting that the institute has already been supporting the OCOF initiative, and she believes that the Institute “will add value to the special agricultural products by establishing both geographical and environmental traceability.”

Dr. Jong-Jin Kim indicated that the GIES methodology, pioneered by IGSNRR-CAS, uses open science technology to trace the geographical origin of a specific special agricultural product by assessing and monitoring the quality of the local environment where the product grows (Figure 7). It connects the specific SAP, the local productive environment, the local SAP producer groups, and consumers with open data access. The institute has made great progress in realizing the positive socioeconomic potential of several special agricultural products in China while ensuring production is environmentally sustainable. He remarked that the signing of the MoU marked “a very important milestone” in OCOF implementation in the region. “We are coming together as partners together to support our Member states.”

Professor Wang, Shenglin (Figure 8), Deputy Director General of IGSNRR-CAS indicated that this MoU was a new milestone for the institute. He said that on behalf of IGSNRR-CAS to make the commitment to working with FAO on leveraging GIES for OCOF implementation and the institute will move “from commitment to action with technology transfer, knowledge sharing and capacity building”.



**Figure 6** Dr. Beth Bechdol highly evaluated the cooperation at the MoU signature ceremony (FAO, Feb. 9, 2014, Colombo, Sri Lanka)



**Figure 7** Dr. Jong-Jin Kim delivered his speech at the MoU signature ceremony (FAO, Feb.9, 2014, Colombo, Sri Lanka)



**Figure 8** Professor Wang, Shenglin delivered his speech at the MoU signature ceremony (FAO, Feb. 9, 2014, Colombo, Sri Lanka)



**Figure 9** Group photo at the MoU signature ceremony (FAO, Feb. 9, 2014, Colombo, Sri Lanka)

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