



United Nations Global Geospatial Knowledge and Innovation Centre

Report

July 2024

The present report is prepared by the United Nations Global Geospatial Knowledge and Innovation Centre (UN-GGKIC, also referred to as “the Centre”) and by its International Advisory Committee (IAC) on the establishment and operationalization of the Centre for information and consideration by the Committee of Experts on Global Geospatial Information Management at its fourteenth session.

I. Background

In making [decision 9/101](#) at its ninth session in August 2019, the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) “welcomed the efforts of the United Nations and the Government of China in developing a proposal to jointly advance the establishment, led by the United Nations, of a Global Geospatial Knowledge and Innovation Centre in Deqing, China, providing opportunities to build global geospatial capacity and capability and to improve and strengthen expertise on how to prepare for national geospatial information management arrangements in countries, especially developing countries.” Decision 10/101 of the tenth session of UN-GGIM in September 2020 emphasized these same efforts.

At its ninth session, the Committee of Experts also “noted with appreciation the convening of the first United Nations World Geospatial Information Congress, held in Deqing, China, in November 2018, and the [Moganshan Declaration](#), issued at the conclusion of the Congress,” the Declaration supported “the establishment of Global Centres of Excellence on Geospatial Knowledge, including in Deqing, to promote and build global geospatial capacity and capability, develop collaborative knowledge and innovation hubs for harnessing contemporary methods, technologies and analytics in geospatial information, facilitate access to regional and global information and data sources including Earth observations, and to improve and strengthen national geospatial information management to assist developing countries to implement the SDGs.”

A series of collaborative and productive consultations between the United Nations Department of Economic and Social Affairs (DESA) and its Statistics Division, as the UN-GGIM Secretariat, and the Government of China through the Ministry of Natural Resources were convened from 2019 to 2022. These consultations and negotiations resulted in an Agreement for the establishment of the UN-GGKIC in Deqing, Zhejiang Province, China and a Memorandum of Understanding on the operationalization of the UN-GGKIC. The Agreement and the Memorandum were signed by the United Nations Under-Secretary-General for Economic and Social Affairs and China’s Minister for Natural Resources in a virtual ceremony on 20 May 2022.

In adopting [resolution 2022/24](#) entitled ‘Enhancing global geospatial information management arrangements’ on 22 July 2022, the Economic and Social Council of the United Nations (ECOSOC) recognized “the sustained efforts of UN-GGIM to establish the United Nations Global Geospatial Knowledge and Innovation Centre (UN-GGKIC) in Deqing, China [...] in an open, inclusive, participatory and transparent manner, provide opportunities to develop and expand global geospatial capacity, competence and capability, and to strengthen geospatial information management arrangements in countries, especially developing countries.” Further,

ECOSOC reiterated “the importance of strengthening and enhancing the effectiveness of the Committee of Experts, particularly for the achievement of its operations focused on the Sustainable Development Goals and the Integrated Geospatial Information Framework, to strengthen and ensure its continued effectiveness and benefits to all Member States.”

In making [decision 13/101](#) at its Thirteenth Session in August 2023, the Committee of Experts “noted the progress and efforts made to finalize the modalities for the establishment of the United Nations Global Geospatial Knowledge and Innovation Centre in Deqing and the United Nations Global Geodetic Centre of Excellence in Bonn, as tangible means to develop and expand global geospatial capacity and capability and to strengthen geospatial information management arrangements in countries, especially developing countries, and looked forward to ongoing updates on the operations of the Centres at future sessions of the Committee of Experts.”

The Centre’s overarching goal is to work towards the ambitions of implementation of the United Nations Integrated Geospatial Information Framework (UN-IGIF) set by Member States, to develop capacity, promote and support the required innovation, leadership, coordination, and standards to develop, strengthen, integrate and deliver national geospatial information policy, data, systems, tools, services and capabilities into their national government development policies, strategies and arrangements. The objective is to strengthen and advance the geospatial information management capacity development capabilities of Member States, especially developing countries, and to strengthen knowledge sharing and innovative cooperation.

II. Institutional arrangements

On 16 October 2023, the Head of the Centre and a Senior Programme Management Officer officially assumed their functions, marking the start of the operations of the Centre. In November 2023, the Centre held a cooperative discussion with Wuhan University and Deqing County to discuss international talent training cooperation in the field of geospatial information. Since its establishment, the Centre aimed to strengthen its connections with local and international institutions.

In January 2024, the Head of the Centre and his Senior Programme Management Officer visited the United Nations Headquarters in New York, USA to meet with the Statistics Division (UNSD), the Capacity Development Programme Office (CDPMO) and the Under-Secretary-General of the Department for Economic and Social Affairs, to report for duties and discuss the current status and operationalization of the Centre, personnel arrangements, strategic plan and work program for 2024/2025. The Head of the Centre and his Senior Programme Management Officer also visited relevant Divisions of DESA and the United Nations Development Programme when in New York.

In February 2024, the Head of the Centre and his Senior Programme Management Officer visited the Department of Protocol, the Department of Treaty and Law and the Department of International Economic Affairs of the Ministry of Foreign Affairs of the People’s Republic of China, discussing the work of the Centre since its establishment, the special exemptions for its operations in China, and issues related to international networks. The Head of the Centre visited the China Geological Survey, the Land Satellite Remote Sensing Application Center of the

Ministry of Natural Resources of the P. R. China, the National Satellite Ocean Application Service, the National Geomatics Centre of China, and the Chinese Academy of Surveying and Mapping, as well as the Moganshan Geospatial Laboratory, promoting the long-term cooperation and development with international and local institutions.

The Head of the Centre outlined the positioning of the Centre on various occasions, seeking more attention and support for the Centre, inviting experts in international laws, intellectual property, satellite remote sensing, and artificial intelligence to participate in capacity building and technical support.

III. Operationalization of the UN-GGKIC

In accordance with the Agreement between the United Nations, represented by the Department of Economic and Social Affairs (DESA), and the Government of China through the Ministry of Natural Resources (MNR) on the Operationalization of the UN-GGKIC, a Steering Committee (SC) and an International Advisory Committee (IAC) were established to provide the required governance and oversight for the Centre. Comprising representatives designated by DESA and MNR, the Steering Committee provides strategic advice on the annual plan of work and overall implementation of the agreed Framework plan of the UN-GGKIC. The IAC is comprised of twenty-three international geospatial experts, with balanced geographical representation and diversity from UN-GGIM at the highest executive leadership level including experts experienced in the implementation of the UN-IGIF. The Head of the Centre is an ex-officio member of the IAC. The overarching aim of the IAC is to provide the required guidance and advice on the development, implementation, and review of the substantive annual programme of work of the Centre, in consultation with the Head of the Centre. In accordance with [decision 12/101](#) of the Committee of Experts, the IAC shall regularly share progress with UN-GGIM as the Centre operationalizes its activities.

On 17-19 April 2024, the meetings of the IAC and the Steering Committee were held back-to-back at the Centre in Deqing, Zhejiang Province, China, effectively launching the substantive operations of the Centre.

On 17-18 April 2024, the meeting of the IAC of the UN-GGKIC was held at the Centre in Deqing, Zhejiang Province, China. With its inaugural composition appointed until April 2026 (in Annex), the IAC adopted its [Terms of Reference](#) and selected Ms. Maroale Chauke from South Africa (Ministry of Agriculture, Land Reform and Rural Development) and Mr. Antonius Wijanarto from Indonesia (Geospatial Information Agency) as co-Chairs. The IAC discussed, reviewed and guided the development of the Centre's Strategic plan and annual programme of work with the Head of the Centre. The IAC provided recommendations on the initial strategic plan prepared by the Head of the Centre, with an agreement to discuss further online and adopt the strategic plan early in July 2024 and to inform the Committee of Experts at its fourteenth session.

On 19 April 2024, the meeting of the Steering Committee was attended by representatives of the United Nations from DESA, CDPMO and UNSD, and of representatives of the Government of China from MNR to provide strategic advice on the annual plan of work and overall implementation of the agreed Framework plan.

On 16 May 2024, the online meeting of the IAC was held to review the revised strategic plan. The IAC expressed its satisfaction and provided further recommendations. On 3 July 2024, another online meeting of the IAC was held where the IAC adopted the final version of the strategic plan which will guide the activities of the Centre.

IV. Strategic plan

The Strategic plan was adopted by the IAC on 3 July 2024 with:

Motto

Geospatial ideas benefiting our world.

Overarching Goal

The overarching goal of the Centre is to work towards the ambitions of implementation of the United Nations Integrated Geospatial Information Framework (UN-IGIF) set by Member States, and for countries to develop capacity, promote and support the required innovation, leadership, coordination, and standards to develop, strengthen, integrate and deliver national geospatial information policy, data, systems, tools, services and capabilities into national government development policies, strategies and arrangements.

This strategic plan sets the directions to work towards these ambitions, which include ensuring countries can work towards the achievement of sustainable social, economic and environmental development.

Vision

Countries have strengthened and enhanced national geospatial capacities, knowledge, and innovation to accelerate the achievement of national development priorities and the Sustainable Development Goals (SDGs).

Mission

To develop, strengthen and promote the required knowledge, innovation, and leadership to ensure the sustained adoption of geospatial information capabilities and implementation of the UN-IGIF supports national development priorities and the SDGs; providing countries with the ability to integrate and deliver national geospatial information policy, systems and services into national government development policies, strategies, and arrangements.

Three strategic priorities

- Empowering Member States
- Implementing the UN-IGIF
- Promoting Knowledge and Innovation

Five principles

Summarized as **I.D.E.A.S** recalled from the motto of the Centre:

Innovation, **D**igital Inclusivity, **E**quity, **A**ccessibility, and **S**takeholder Engagement.

Five Goals

Developing Leadership and Collaboration: Support countries in advancing, integrating, managing, and using geospatial information resources, leveraging the UN-IGIF for social, economic, and environmental benefits.

Addressing National Priorities: Accelerate the achievement of national to global development goals by developing strategies, policies, and national geospatial information capacity in countries through the implementation and knowledge-sharing of the UN-IGIF.

Progressing Geospatial Knowledge: Enhance the country-level implementation of the UN-IGIF, including resources and stakeholder relationships, for efficient and effective collaboration with partners, and to maximize impacts for countries.

Enabling Innovation and Technological Advancement: Deploy country-led and integrated data hubs to assist countries in developing geospatial resources and innovative capacities for subnational, national, regional, and global monitoring and reporting on national priorities and the SDGs within reliable, secure, and scalable platforms.

Enhancing Communication and Awareness: Promote the value and usefulness of geospatial information and share geospatial knowledge and innovation for the benefit of society, the economy, and the environment.

The strategic plan adopted by the IAC on 3 July 2024 is attached to this report.

V. Activities

Parallel to the operationalization of the Centre, the Head of the Centre has participated or organized several activities to operationalize the Centre, to engage the wider UN-GGIM community on UN-IGIF, to promote the role and upcoming activities of the Centre, understand opportunities and challenges in the implementation of the UN-IGIF, and contribute to the overall programme of the Committee of Experts. These activities included:

- Expert consultations on enhancing national geospatial information management arrangements and accelerating the achievement of the Sustainable Development Goals in Africa, held in Addis Ababa, Ethiopia, on 23-28 October 2023, to listen, discuss, and understand key elements of their national efforts in Africa towards enhancing their geospatial information management arrangements, resources and capacities and to implement the UN-IGIF.
- [Expert Consultation and Meetings](#) on enhancing geospatial information management arrangements and accelerating the implementation of the SDGs, held in Aguascalientes, Mexico, on 22-26 January 2024, to address and set strategic directions and priorities for the High-level Group on the United Nations Integrated Geospatial Information Framework (HLG-IGIF) and substantive work items under the Committee, to discuss considerations related to the contributions of the United Nations Global Geospatial Centres of Excellence and the need for coordination and coherence, the implementation of the UN-IGIF at the country-level, including in partnership with the SDG Data

Alliance.

- The [2024 Meeting of the International Advisory Committee of the UN-GGKIC](#), held in Deqing, China, on 17-18 April 2024, previously mentioned in the report.
- Fourth International Conference on Small Island Developing States side event: [Geospatial Technology for Sustainable Development of SIDS](#), held in St. John's, Antigua and Barbuda, on 28 May 2024, to explore data, platforms, frameworks and experiences for the benefits of countries including SIDS and how geospatial information and technologies contribute to addressing national development priorities and sustainable development toward resilient prosperity.

In addition, the Centre has had an active engagement in the geospatial events and related activities as follows:

- Active participation and demonstration of geospatial information technology:
 - o In November 2023, participation in the [2nd Global Digital Trade Expo](#) in Hangzhou, China, and successfully demonstrated geospatial information technology applications, SDGs, and the future of Digital Earth, enhancing its international influence and promoting broad applications of geospatial information technology.
 - o In May 2024, participation in the [World Geospatial Developers Conference](#) in Beijing, China, delivered a keynote presentation on “Governance and Innovation of Global Geospatial Information”.
 - o In June 2024, participation in the [Geospatial Intelligence Software Technology Conference](#) in Beijing, China, delivered an opening remark on “Collaborated Innovation of Geospatial Intelligence for Global Sustainable Development.”
 - o In July 2024, attendance at the [World Artificial Intelligence Conference](#) in Shanghai, China, and delivered a presentation entitled “Global Geospatial Intelligence Ecosystem Innovation” to explore and exchange ideas on constructing a geospatial intelligence ecosystem.
- Strengthening exchanges and cooperation with international organizations:
 - o Visits to the United Nations Resident Coordinator's Office (RCO), the United Nations Development Programme (UNDP), the Asian Infrastructure Investment Bank (AIIB), and Wuhan University to discuss applications of geospatial technologies, enhance the organizational settings and construction of the Centre, promote applications of geospatial information technologies, and accelerate the implementation of the 2030 Agenda.
 - o Attendance to the “Building Institutional Capacity for the Use of Integrated Spatio-Temporal Data in Local SDGs Monitoring and Decision Making” workshop held by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) in June 2024 and presentation on the UN-IGIF and SDG Data Alliance.

VI. Human Resources

The Centre is a project office of the United Nations Department of Economic and Social Affairs away from headquarters. The Centre will have nine staff members: a Head of Centre (grade D-1), a Senior Geospatial Information Office (grade P-5), a Senior Programme Management

Office (grade P-5), two Geospatial Information Officers (grade P-4), two Geospatial Information Officers (grade P-3), and two general service staff. As of October 2023, the Head of the Centre (grade D-1) and a Senior Programme Management Officer (grade P-5) have taken up their positions in Deqing. Additional Secretariat staff resource is provided under the Agreement for the operationalization of the UN-GGKIC in the Statistics Division comprising of a Geospatial Information Officer (grade P-4), a Geospatial Information Officer (grade P-3) and a general service staff. All these staff members were recruited and onboarded. The Centre is actively working on the recruitment of the remaining staff positions working towards having its entire staff team in Deqing soon after the fourteenth session.

In addition to the Centre's international staff, to better fulfill its overarching goals and objectives, and enhance knowledge sharing and innovation cooperation, the Centre is also actively seeking other types of support personnel, including seconded personnel through negotiations with respective countries, the Junior Professional Officer Program, United Nations Volunteers, and Interns, to better support the realization of the Centre's three priorities. Furthermore, local government, through support institutions, local working group, and interns, among others, provides essential operational support for the Centre.

VII. Funding and working environment

The Chinese government has provided funds for the first and second years of operation for the Centre, supporting its full operation and activities. The local government further improved the office environment of the Centre and organized a dedicated county-level service team to coordinate various departments to provide full-time support for the daily operation and maintenance of the Centre. The local government also offers standalone building facilities, enhanced supporting facilities, office equipment, and property services.

VIII. Future key focus areas

- ✓ **Talent team development.** According to the staffing and positions outlined in the MOU, establishing and training a team with talent and strong professional skills, high personnel quality, and reasonable personnel structure is critical in implementing the plan of the Centre and driving high-quality support to empowering Member States, implementing the UN-IGIF and promoting knowledge and innovation.
- ✓ **Accelerated implementation of work plans.** Guided by the strategic plan of the Centre, considering prior planned activities and with the advice of the IAC, the Centre will draft its work programs (Work Program 2024/2025). The Centre will also be conducting special seminars and high-level exchanges on user views of geospatial knowledge and think tank research as Moganshan Talks to enhance the implementation of UN-IGIF and applications to SDGs.
- ✓ **Active support to UN-GGIM affairs.** The Centre will assist in addressing challenges proposed by the expert groups, regional committees, and HLG-IGIF regarding capability development programs, participation in annual meetings, and enhancing regional and global technical efforts, aiming to support the objectives of Member States for global geospatial information management and enable the Centre to play a

proactive role.

- ✓ **Website of the Centre.** Published on the UN Statistics Division website will be further improved and integrated into the UN-GGIM website and content management system.

ANNEX

Members of the International Advisory Committee

Name, Organization, Country

1. Ingrid Vanden Berghe, National Geographic Institute, Belgium
2. Fernand Isseri, National Institute of Cartography, Cameroon
3. Sofia Nilo Crisóstomo, National Territorial Information System, Chile
4. Paul Becker, Federal Agency for Cartography and Geodesy, Germany
5. Antonius B. Wijanarto, Geospatial Information Agency, Indonesia
6. Shoichi Oki, Geospatial Information Authority of Japan, Japan
7. Paloma Merodio Gómez, Instituto Nacional de Estadística y Geografía, Mexico
8. Kamal Outghouliast, National Agency of Land Conservation, Land Registry and Mapping, Morocco
9. Mohammed Alsayel, General Authority for Survey and Geospatial Information, Saudi Arabia
10. Tomaz Petek, Surveying and Mapping Authority, Ministry of Environment and Spatial Planning, Slovenia
11. Maroale Chauke, National Spatial Information Framework, Ministry of Agriculture Rural Development and Land Reform, South Africa
12. David Henderson, Ordnance Survey, United Kingdom
13. Deirdre Dalpiaz Bishop, Census Bureau, United States of America
14. Chen Jun, National Geomatics Center of China, China
15. Guo Huadong, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, China
16. Guo Renzhong, Institute of Smart City, Shenzhen University, China
17. Jack Dangermond, Esri
18. Tulu Besha Bedada, Advisor, GIZ and Assistant Professor of Geodesy Ethiopian Space Science and Technology Institute
19. Sanjay Kumar, Geospatial World
20. Stephen Keppel, PVBLIC Foundation
21. Abbas Rajabifard, Centre for SDIs and Land Administration, University of Melbourne
22. John Kedar, Global Geospatial Advisor
23. Tim Trainor, Global Geospatial Advisor