







Expert Consultation and Meeting on Enhancing Geospatial Information Management
Arrangements and Accelerating the Implementation of the Sustainable Development Goals
together with the Sub-regional Workshop on United Nations Integrated Geospatial
Information Framework for the Pacific Island Countries and Territories; and the 2024
Plenary meeting of the Pacific Geospatial and Surveying Council

'Identifying Problems, Finding Solutions' SPC Pasifika Conference Room, Suva, Fiji

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# SUMMARY NOTES

#### Introduction

The week-long event brought together Pacific Island Countries and Territories (PICTs), regional organizations, international partners, and geospatial experts to strengthen geospatial information management in the sub-region. The program combined the PGSC 2024 plenary meeting, the sub-regional UN-IGIF workshop, and consultations aligned with the Antigua and Barbuda Agenda for SIDS (ABAS) and the Sustainable Development Goals (SDGs). The meeting theme, "Identifying Problems, Finding Solutions", guided discussions on accelerating SDG implementation through improved geospatial governance, partnerships, and integrated national action plans.

### **Opening Session**

Opening remarks from PGSC, SPC and the Government of Fiji emphasized:

- The central role of accurate, accessible geospatial information in climate resilience, environmental management, and SDG achievement
- The need for robust governance structures, collaboration, and partnerships to support Pacific SIDS
- Persistent challenges including climate vulnerability, uneven capacity, and gaps in national geospatial infrastructure
- The transformative potential of the UN-IGIF and integrated geospatial information management to support land management, ocean governance, disaster preparedness, and resource allocation.

### **Setting the Scene: Regional Context and ABAS**

Speakers outlined the regional policy environment, including the Antigua and Barbuda Agenda for SIDS (ABAS) and its alignment with the PGSC Strategy and UN-IGIF. Key issues highlighted:

- Varying geospatial capacity among Pacific countries require flexible, country-specific approaches.
- Digital transformation and e-governance are essential to strengthen geospatial ecosystems.
- Youth pathways, early-career development, and digital literacy are fundamental to future geospatial capacity.

# Strengthening National Geospatial Information Management Arrangements: Country Status Updates

All PICTs participating in the event provided national reports, revealing common themes:

Policy, Governance & Data-Sharing

- Need for national geospatial policies, data-sharing agreements, and central geospatial coordination mechanisms.
- Countries such as Samoa, Niue, and Vanuatu are advancing national data policies and GIS user groups.

# Capacity Gaps

- Acute shortage of geospatial professionals including licensed surveyors and skilled geospatial technicians
- Limited access to geospatial technologies (GNSS, CORS, software) and challenges with staff retention.

# *Infrastructure and Technology*

- Progress in developing national platforms such as Cook Island GeoPortal, VanuaGIS/VanuaView (Fiji), VanuaGIS User Group (Vanuatu), Tonga SDG Data Hub
- Priorities include modernizing reference frames and datums, upgrading CORS networks, and enhancing hydrographic data collection.

# Legislative Updates

• Several countries are reforming outdated legislations (Tonga, Vanuatu) and planning new geospatial policies.

# Strengthening National Geospatial Information Management Arrangements: Regional and Partner Perspectives

Regional organization and partners including SPC, IHO, SPREP, Geoscience Australia, USP, FNU, the SDG Data Alliance, UN-GGKIC, and the UN-GGIM Secretariat shared their ongoing support programs and contributions to strengthening geospatial information management in the Pacific:

- IHO: Highlighted the transition to S-100 standards and ongoing global and regional ocean-mapping initiatives.
- SPREP: Outlined expanded GIS training opportunities beyond environment ministries to broaden national geospatial capacity.
- Geoscience Australia: Shared insights from the development of Australia's Digital Atlas and the challenges of integrating diverse datasets across government agencies.
- USP and FNU: Noted persistent human-resource constraints while signaling opportunities for enhanced collaboration on geospatial education and training.
- Pvblic Foundation / SDG Data Alliance: Presented the launch of the SIDS Centre of Excellence and the Global Data Hub to support interoperable data sharing and digital innovation across SIDS.
- UN-GGKIC: Explained its mandate and activities, outlined opportunities for PICTs in its activities, affirmed the need for tailored regional approaches to capacity development and commitment to working with SPC, PGSC, the SDG Data Alliance, and the UN-GGIM Secretariat to support IGIF implementation in the Pacific.
- UN-GGIM Secretariat: Underscored the importance of strong partnerships with SPC and PGSC, emphasized leveraging the nine UN-IGIF strategic pathways to strengthen national geospatial information management, and highlighted the essential role of regional coordination, particularly SPC, in supporting PICTs to operationalize the UN-IGIF and develop their Country Action Plans.

Across partners, recurring messages stressed the importance of collaboration, coordinated capacity development, and sustainable funding mechanisms to advance geospatial information management in the Pacific.

## Country-Led Approaches to Implementing the UN-IGIF

Fiji, Kiribati, Tonga, Tuvalu, were among those who shared the UN-IGIF implementation progress. Common experiences:

- Countries are at different stages of implementation, from early exploration to draft Country Action Plans (CAPs).
- Leadership changes and limited capacity slow progress; strong high-level political support is essential.

Countries highlighted the need for:

- Guidance in drafting and reviewing CAPs
- Awareness sessions for senior officials
- Regional coordination and support through SPC and PGSC

### Thematic Deep Dives: Geospatial Technology, Platforms and Data Hubs

Several digital platforms were demonstrated by SPC:

- Pacific Data Hub (PDH) supports integration, visibility, and standardized access to diverse datasets. Discussions addressed: data sensitivity, permission-based access, need for geospatial data governance policies
- Maritime Boundaries Dashboard enhances monitoring, analysis, and governance of maritime zones, critical for resource management, climate adaptation, and legal clarity.
- Pacific Ocean Portal and Digital Earth Pacific provide environmental monitoring, oceanographic data, remote sensing analytics, and climate trend visualization. Help countries make evidence-based decisions on coastal protection, disaster risk, and natural resource use.

National examples demonstrated include Fiji's VanuaGIS, Tonga's SDG Data Hub and Tuvalu's Coastal Adaptation Programme for climate resilience.

#### **PGSC Working Groups and Strategic Review**

Countries reaffirmed the value of the three PGSC Working Groups (Positioning; Geospatial Data and Policy; Capacity Building). Key outcomes from discussions are -

- Working groups will continue with renewed Terms of Reference.
- SPC's Partnership Desk will coordinate outreach and participation.
- Countries committed to assigning representatives.
- The PGSC Strategy (2017–2027) review has begun, with calls for clear workplans and timelines.

## Means of Implementation – Leveraging the UN-IGIF

Countries mapped their national priorities across the nine UN-IGIF pathways. Common priorities included:

- Development of Country Action Plans
- Strengthening policy and legal frameworks
- Strengthening data governance and custodianship
- Developing capacity and education systems
- Modernizing geodetic infrastructure

• Improving communication and stakeholder engagement

Countries emphasized the urgent need for:

- In-country UN-IGIF awareness workshops
- Regional technical missions let by SPC and supported by partners
- Shared services and a Pacific regional data hub to ease national burdens

#### **Conclusions**

Across the week, several cross-cutting themes emerged:

- Stronger governance and sound policy countries require geospatial legislation, national policies, and coordinated data-sharing mechanisms.
- Capacity and education growing and retaining local geospatial professionals remains one of the Pacific's highest priorities.
- Partnerships Collaboration with SPC, PGSC, and relevant regional partners and universities is essential to overcome resource constraints.
- Integrated data hubs interoperable, secure national and regional data hubs are foundational to SDG monitoring and decision-making.
- Tailored solutions for PICTS Pacific-specific approaches are needed due to small populations, resource limitations, and unique climate vulnerabilities.

### Key action items discussed included -

#### For Countries

- Develop or finalize UN-IGIF Country Action Plans
- Establish or strengthen geospatial policies, data governance, and datums and reference frameworks.
- Participate and nominate representatives to PGSC Working Groups.
- Develop national geospatial capacity and enhance technical infrastructure.
- Engage in regional and global initiatives.

## For SPC/PGSC

- Support UN-IGIF implementation through targeted missions and training.
- Support awareness raising and stakeholder engagement
- Provide technical support for datum modernization, maritime boundaries, and geodetic frameworks.
- Strengthen the PGSC Partnership Desk and working group coordination.

#### For Partners

- Continue providing training, scholarships, funding opportunities, and technical support.
- Support the development of interoperable data hubs and digitalization of national datasets.
- Enhance collaboration and support recognizing national circumstances.

#### Key Lessons Learned

- Governance and policy gaps remain the primary barrier
  Most PICTs lack updated geospatial legislation, clear policy frameworks, and national
  coordination mechanisms. Without these, data-sharing is fragmented, investment is inconsistent,
  and the value of geospatial information remains under-recognized at the political level.
- Capacity constraints are acute and common
   A critical shortage of trained and qualified professionals and technicians persists region-wide.
   Retention remains difficult, and many countries have insufficient access to GNSS infrastructure, updated equipment, or software. Education and early-career pathways require alignment with national demand.

- Data exists but governance, custodianship and accessibility are challenges
   Countries produce or hold important datasets, yet issues include duplicated efforts, missing
   custodianship arrangements, limited metadata and standards, unclear permissioning for sensitive
   data, siloed platforms, and inconsistent updates. Regional initiatives and platforms require
   coherent policies and national alignment.
- UN-IGIF works best when it is country-led, politically backed and regional supported (especially by SPC)
   Countries that progressed furthest (e.g., Fiji, Tonga, Kiribati) demonstrated clear leadership structures, whole-of-government engagement, and strong support from SPC and partners. Where leadership changes occurred or capacity is "thin", implementation slowed.
- Partnerships are the Pacific's strength
   Especially from SPC and PGSC, and to IHO, SPREP, GA, and UN-GGIM Secretariat, SDG Data
   Alliance, partners bring complementary capabilities. The most successful initiatives (e.g.,
   maritime boundaries, user groups, portals, and hydrographic upgrades) emerged from
   coordinated, multi-partner approaches.

The week-long event reaffirmed the PICTs' collective commitment to strengthening geospatial information management as a foundation for climate resilience, ocean governance, sustainable development, and evidence-based decision-making. PICTs recognized that shared challenges require coordinated regional solutions, supported by strong partnerships and the practical implementation of the UN-IGIF. By strengthening governance, developing and sharing capacity, and fostering country-led implementation, Pacific SIDS are well-positioned to accelerate progress toward ABAS, the SDGs, and a more resilient Blue Pacific future. UN-GGIM Secretariat emphasized the importance of strengthening partnerships with and working through SPC and PGSC, and leveraging indigenous capacities and the nine strategic pathways of the UN-IGIF to enhance national geospatial information management across the Pacific.