

FIG Asia Pacific Capacity Development Network Report

FIG Working Week 2025

The FIG Asia Pacific Capacity Development Network (AP CDN) assembled its largest work program for the FIG Working Week (WW) held in sunny Brisbane, Australia, 6-10 April 2025. The WW attracted close to 1400 delegates, and was convened at the Brisbane Convention and Conference Centre, adjacent to the south bank of the Brisbane River.

The successful AP CDN program provided public and private agencies, supporting partners and industry professionals, from the Asia and Pacific region, as well as Small Island Developing States (SIDS) a global platform. It enabled the exchange of experiences and knowledge on the capacity and capability (CC) initiatives employed to modernise Geospatial Survey Infrastructures (GSIs) and address the present and emerging geospatial and survey challenges. The Network worked collaboratively with FIG Commissions, Task Forces, and the Pacific Geospatial Survey Council (PGSC) to organised 6 technical sessions and 2 Talanoa meetings for the 3-day technical program. The sessions and meetings involved over 40 inciteful presentations from 20 countries, states or territories, and were titled -

- Geodesy Positioning Nations for the Future; a joint session with Commission 5 Positioning & Measurement
- Proactive Capability for Disaster & Resilience; a joint session with Climate Compass Task Force
- Geospatial Information Management & Infrastructure Development; a joint session with Commission 3 Spatial Information
- Growing the Capacity of Land Surveying & Administration Profession; a joint session with Commission 7 Land Administration
- SIDS Meeting & Talanoa 1 and 2 Regional Capacity Development Asia-Pacific / Americas SIDS
- Surveying & Geospatial Opportunities with First Nation Peoples Joint Session with Commission 7
- Strengthening Capacity and Capability of Young Surveyors for a Better Future Joint Session Young Surveyors Network.

The presentations in each technical (and relevant plenary) session, were of high quality. The priority CC challenges and needs for nations in Asia and the Pacific, including SIDS, were decisively articulated and consequently recognised, as well as the notable progress to modernise GSIs, especially in the Pacific region. The key messages identified by the AP CDN, and acknowledged by the WW participants in attendance were –

- Improving and focusing CC building through an active connection of “people, planet, partnership, governance & communication”
- Recognising a growing digital data divide; what resources and core competencies are required to (a) facilitate mechanisms such as - data sharing, data hubs, data access, data agreements; (b) “build a bridge”; and (c) enable and translate data challenges to tangible outcomes?

- Building “global digital infrastructures” is a pathway however what CCs do countries need to build so as to contribution / support these foundations?
- Identification of core skills / competencies for geospatial and survey data – planning / management; collection; sourcing; processing / verification / cleansing; integration; interoperability; visualisation; storage; accessibility and dissemination.
- Recognition of data industry partners who can assist with establishment of an integrated land information system (ILIS), data portals, and data observation hubs, as well as the production or aggregation or preparation of datasets for specific purposes.
- Re-affirmation that ILISs are essential for effective land administration / management / governance, as well as evidence based or informed decision making.
- Re-affirmation of the need for geospatial data standards, practices and guides, including a “standards network / framework” administered by a local or regional authority, which is aligned with the International Organization for Standardization (ISO) model
- Building CC frameworks to modernise land administration / management / governance infrastructure and systems are integral to the overall development of the Pacific Island Countries and Territories (PICTs) and SIDS.
- CC development and land tenure projects are needed to facilitate recognition of land rights, to better manage people relocation or migration, greater trust in the judicial system, and the impacts of climate change.
- For some countries the identified pathway to improve an organisation’s workforce in organisations land tenure / cadastral system is partner up with donor organisations / agencies, target the young professionals and to use technology to achieve fit for purpose outcomes.
- The success of maritime boundary projects has been based on partnerships and support from more wealthy / developed countries. It has also involved perseverance, effective communication / engagement, knowledge sharing, and the political willingness / motivation to build the relevant CCs and GSIs.
- Legislation reform and subsequent policy changes are essential to facilitate land tenure projects that support economic land development, the transition of cadastres from traditional forms to digital 3D /4D systems, and recognition of land rights from an individual to either a group or multiple communities.
- For many countries, implementation and / or enforcement legislative /policy changes is challenging. Nations are seeking advice on what are the circuit breakers to sustain such change and what CCs / GSIs do they need to implement change?
- It is recognised that legal frameworks for good land governance / administration / management, must be underpinned by standards / practice and geodetic/cadastral frameworks.
- International collaboration, donor / development partners, and academic / scientific support are important for sustainable CC and GSI development.

- It was re-affirmed that keys to developing CC successfully are “a supporting environment”, “favourable operating environments” and “partnerships”, as well as the political will.
- Participants agreed that the private / commercial sector needs to be included in the “how” component of GSI and CC development; and furthermore, it was necessary to identify “what is in it for them?”. Ideally, a shared or connected outcome would be the solution.
- It was confirmed that building / enhancing / maintaining a CC program and GSIs needs a strong why, supported by an influential decision maker or political champion(s).
- It was recognised that persistence, articulation of strong a why (driver, reasons, justification), along with real outcomes that resonant with decision makers are essential for ongoing resourcing GSIs and CC.
- Multiple presenters stated that connection of geospatial survey information / geography to measure / monitor / achieve Sustainable Development Goals as well country objectives is a pathway for achieving outcomes.
- GSI / CC building planning is an important ingredient for a nation to successfully achieve objectives; this includes strategies for modernising underpinning or fundamental infrastructures and data, sustainable data supply, and resourcing both financial and people.
- The ability to effectively engage and communicate with influence are essential skillsets for CC and GSI development.
- Building a sustainable work force to be resilient can be achieved through diversity and inclusion.
- It was highlighted that developing knowledge, applying innovation, and better understanding the issue with facts helps to fill in the gaps of a problem, and then allowing for better decisions regarding land use.
- Fit for purpose and sustainable solutions must be to link to government objectives / agendas.
- Acknowledging, the positive progress of PICTs in relation to their journey and development of numerous CC / GSI initiatives, it was re-affirmed that (a) awareness of the value of geospatial and survey information by decision makers must be ongoing and be canvassed more broadly; (b) the role Secretariat of the Pacific Community as a co-ordination body is integral CC / GSI development; and (c) using local methods to communicate, and develop connections are keys to a scalable it for purpose approaches.

Two Talanoa meetings were arranged to examine the key messages and CC priorities identified in the technical sessions. More specifically, the purpose of the Talanoas was to encourage open discussion amongst interested stakeholders, explore pathways or opportunities to enhance CCs and GSIs, and to highlight what partner organisations (such as FIG) can do to collaboratively achieve these needs. To entice and prompt discussions, the Talanoas comprised of presentations to emphasise the important messages from the WW, including a

panel of experts expressing their perspectives on how and what can be achieved in the next 12 months, with respect to CC and GSI advancement. The panellists were -

- Mr Vaipo Mataora, Cook Islands (PGSC Chair)
- Dr Charisse Griffith-Charles, Trinidad & Tobago
- Mr Josefa Vuniamatana, Fiji
- Dr Greg Scott, Australia
- Ms Dolores Leneuoti, Tuvalu
- Mr Viliami Folau, Tonga

A summary of the Talanoa conversations, comments and action statements that were deliberated by the participants were -

- The CC and GSI challenges being experienced by PICTs / SIDS were reaffirmed and recognised; and that the issues are similar, and at varying levels, throughout SIDS, Asia, and the Pacific.
- Participants agreed that more forums, at events like the FIG WW, should occur over the next 12 months; as they facilitate the opportunity to - engage and network with industry and stakeholders with respect to challenges, review technology and equipment, receive technical assistance, and lobby for resourcing.
- Participants agreed to organise or identify opportunities that will allow the sharing of experiences and knowledge on modernising (a) geodetic reference frame, (b) land tenure recording and registration systems, (c) land administration / management information systems, and (d) land survey / geospatial governance, legislation, policies, standards and practices.
- Participants agreed that more regional events such as FIG workshops are needed to examine issues and solutions in matters relating to fit for purpose land administration, land administration domain models, frameworks for effective land administration / management and governance.
- Participants decided that PICTs / SIDS are requiring more sustainable technical assistance with fundamental and complex operational survey, geodetic, cadastral, and geospatial techniques and processes; and would to explore how this can be achieved locally / regionally.
- There was agreement that “data” was integral to CC / GSI development in PICTs/ SIDS, as a consequence participants recognised the outcomes from the 4th International Conference on Small Island Developing States in Antigua and Barbuda (May 2024) such as the establishment of a SIDS Global Data Hub, and that the SIDS are the platform.
- It was suggested that PICTs / SIDS need to undertake a need analysis and / or audit of their geospatial survey data in relation to building a resilient economy / future, managing disasters, as well as CC and GSI development. Noting, “data” should also involve information in relation to the sea / water/ maritime boundaries and engage with relevant bodies, such as the International Hydrographic Office.
- Participants agreed that more awareness of the value or benefits of geospatial survey professionals and their role, as well as the information or services they can provide, to

the schools, broader community, and decision makers / politicians. That is, elevate and advocate the profile.

- PICTs / SIDS should consider developing a cost benefit analysis of the value / benefits of geospatial survey information with respect to the economy, social and associated sectors relevant to PICTs / SIDS agenda, objectives and needs.
- It was recognised that although there has been improvement, there needs to be more opportunities for diversity and inclusion of women in the geospatial survey environment, as well as land ownership or tenure rights.
- It was acknowledged that Young Surveyors' Network in PICTs / SIDS are integral to the industry today, are significant a foundation to a sustainable workforce, and that support must be ongoing.
- Participants endorsed the importance of collaborating with development partners / agencies to provide the strategic / tactical messaging to decision makers, that is work with organisations that can build the bridge or connection, as well as advocate, between the people at the operational level and the decision makers / politicians.
- Participants reaffirmed that successful CC and GSI outcomes are often associated with a supporting environment of partners, a culture of sharing, open communications, and common objectives.
- Participants decided that to elevate CC improvement more open communication and sharing of data / information / case studies between agencies within PICTs / SIDS at the regional, national, and local levels is necessary.
- PICTs / SIDS participants requested support and assistance to deliver initiatives that will attract students to study / learn surveying or geospatial information management at universities / tertiary institutes.
- It was recognised that a more collaborative framework with existing universities in the region needs to be established so as to set up / standardised curriculum to reflect the needs for now and the future, exchanging of students, scholarships, and recognition of qualifications.
- In relation to accessing skilled people, it was recognised that PICTs / SIDS need to consider international or regional exchange or volunteer persons programs, as well as how to overcome or streamline the administrative processes or logistics.
- It was acknowledged that the PICTs / SIDS need to undertake another or update current skills gap analysis, as well as define how and where these skills can be obtained.
- It was reaffirmed that Integrated Geospatial Information Framework (IGIF) country action and implementation plans to support funding proposals are integral to building CC and GSIs, as a consequence PICTs / SIDS should be assisting and sharing information with each other to develop such plans.
- PICTs / SIDS have identified that land use plans and structure plans (or spatial planning / development schemes) are necessary to support country objectives, land /marine development and informed decision making. This pathway to building CC / GSI, and

resilience, is critical to nations who are exposed to natural disasters, sea level rise, flooding due to cyclones, tsunamis and earthquakes.

In summary, FIG AP CDN hold the view, that the WW highlighted real life journeys that enabled delegates to more aware of the CC / GSI status and issues in the PICTSs/SIDS. The significant points, and matters raised for PICTs / SIDS, FIG and likeminded organisations were -

1. Perfect storm for action – now is the time! Thus, PICTs / SIDS must continue to advocate and justify WHY they are doing what they do. They need to be bold and seek the HOW from FIG members, its Commissions, Task Forces, Networks and Corporates, as they can hasten development and progress via shared experience / knowledge, and established networks.
2. Focus on the ingredients to build tangible CC / GSIs outcomes – by developing people; understanding, monitoring and measuring your environment (place); strive for good land / marine governance; increase effective / influential communication; and form many partnerships as collaboration harvests success.
3. PICTs / SIDS are establishing “underpinning geospatial infrastructures (such as the geodetic framework), however for a sustainable future, this outcome needs to be connected to other national GSIs, foundational datasets, political and social objectives, and policy drivers or goals. Achieving this will assist with prioritisation, and a network of outputs / actions to common outcomes.
4. Data sovereignty is important, but requires PICTs / SIDS to - improve core data CCs, data standards / practices / guides; effectively engage, internally and externally on data needs and gaps; and to coordinate the open sharing of data, including transparency of information.
5. Establishing maritime boundaries for PICTs / SIDS is imperative and has been successful. This achievement was based on partnerships, perseverance, communication, and knowledge sharing. It is a good model for effective collaboration.
6. PICTs / SIDS realise the importance and consequences of effective land administration, management and governance, and that security of land tenure and fit for purpose (but scalable) land / marine infrastructures and systems to support these concepts is vital.
7. PICTs / SIDS are calling for assistance with disaster resilience and management programs. The needs are focussed on establishing operational frameworks to administer disasters before they occur, during and after the event.
8. Impacts of climate change are real for PICTs / SIDS as it is changing their well-being and existence.
9. PICTs / SIDS and FIG acknowledge the huge benefit for participants / attendees at FIG WWs, or like events, to be visible and heard during conference, and not just present.
10. Noticeable growing representation and roles of women in PICTs / SIDS, however ongoing support and inclusion will be needed to sustain progress and the workforce in general. Similarly, assistance to the young professional must also be ongoing.

As consequence, FIG AP CDNs plausible actions and pathways moving forward in the next 12 months -

- Development of an FIG AP-CDN position paper or policy statement on Capacity and Capability Development with respect to Geospatial Survey Infrastructures.
- More engagement and connection with Asian geospatial information and survey associations, professionals and organisations
- Involvement in future events are planned to ensure achievement of AP CDN objectives and done in collaboration with stakeholders. For example -
 - Online sessions with PGSC (PICTs) to priorities “needs” and workout WHY, HOW, and WHEN
 - Future sessions in partnership with UN-GGCE, and UN GGIM Asia Pacific / Americas
- Monitor other regions, and liaise with partners on geospatial survey data matters or programs – such as SIDS Global Data Hub, PLACE, Digital Earth, Digital Atlas, GEO (Group on Earth Observations) etc.
- 2-day SIDS Asia Pacific Forum that could also include SIDS.

Lastly on behalf of the FIG APCDN we also like to thank the Geospatial Council Australia, Local Organising Committee, FIG Office, Members and Corporate sponsors for the efforts on making this event a success.



Warmest regards, (L to R) Chair - Rob Sarib, Vice Chairs - Andrick Lal and Kate Fairlie