KOICA–ESCAP Joint Capacity-Building Training Programme 2025

Brisbane, Australia
20-30 August

ESCAP
Economic and Social Commission for Asia and the Pacific

ICT and Disaster Risk Reduction Division

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Summary

Brisbane, Australia
20-30 August 2025

1. Purpose

This report summarizes the key outcomes and proceedings of the "KOICA–ESCAP Joint Capacity-Building Training Programme on Digital Technologies for Addressing Climate Change in the Pacific", which was held in Brisbane, Australia, on 20–30 August 2025. It also illustrates why this programme matters for Small Island Developing States (Fiji, Tonga, Samoa and Solomon Islands), what lessons were delivered, and how partners and each island country will translate learning into an implementable action plan in line with KOICA's mandates and goals, and ESCAP's commitments, through the regional cooperative platform such as the Asia-Pacific Information Superhighway.

- Dates and venue: 20–30 August 2025, Pullman King George Square, Brisbane, Australia
- Organizers and partners: KOICA & ESCAP with substantive support from Jeju National University and the APNIC Foundation.
- Participants: Government officials from Fiji, Samoa, Solomon Islands and Tonga; technical experts and lecturers from partner organizations
- Main objective: Strengthen capacity-building of government officials from Small Island Developing States to use digital technology and data, including geospatial data and AI tools for building resilient connectivity for climate adaptation and disaster risk reduction

2. Objectives and Alignment with KOICA-ESCAP Mandates

- Equip public officials of the Pacific Island countries with practical digital skills to apply AI/geoAI and geospatial platforms for risk analysis, preparedness and adaptation planning
- Identify country-specific bottlenecks (connectivity, data governance, institutional roles) and co-design feasible, interoperable solutions which can be funded
- Draft action plans with time-bound milestones, actions and monitoring indicators.
- Advance regional agendas: inclusive, affordable connectivity; risk knowledge and preparedness; and digital innovation for development

3. Programme Highlights

The programme included expert lectures, hands-on demonstrations, structured group discussions, and field study visits. Sessions covered built-environment adaptation; marine monitoring and renewable options; geoAI/LLM applications for Earth-observation; data governance; the state of connectivity in the Pacific; and the distributed IXP concept for resilience and affordability.

- Country diagnostics: country status presentations and shared bottleneck mapping informed the design of Action Plans
- Technical sessions: climate-resilient built environments; living shorelines and hybrid defenses; digital illustration for policy communication; marine monitoring and sediment microbial fuel cells; SatGPT (LLM + Google Earth Engine) for rapid hazard analytics; UN Disaster Risk Reduction approaches to loss data and CAP-enabled warnings; connectivity overview and IXP rationale for the Pacific
- Field study tour: arranged a site visit to PowerWells with the support from APNIC Foundation (local partner)
- Facilitated drafting: multi-day group work produced action plan outlines

4. Country Insights — National Reports (Key Points)

- Tonga: very high exposure to cyclones/tsunamis/volcanic hazards; priorities include SMS/IVR-based multi-hazard alerts, resilient connectivity for outer islands, and digital skills. Assistance requested spans ICT infrastructure extension and AI-enabled forecasting/monitoring
- Fiji: extreme cyclones, floods and accelerated sea-level rise threaten communities and infrastructure; national digital strategy and MHEWS/portal initiatives exist but require last-mile integration and sustained financing for inclusive, reliable service delivery

- Samoa: coastal concentration of population/infrastructure heightens risk; advancing digital government (cybersecurity, broadband, One Government) and remote-sensing applications; needs include maintenance, skills and energy/e-waste management
- Solomon Islands: inclusive digital economy expanding (mobile money, Coral Sea Cable); meteorological upgrades and EO training under way; priority is an app-based early-warning and marine-services platform integrated with NDMO and telecom partners

5. Technical Session Highlights — Key Takeaways

- Renewables for islands: pair utility-scale marine options with micro-power (e.g., sediment microbial fuel cells) to run sensors for monitoring and early warning
- Sendai-aligned Disaster Risk Reduction data: institutionalize validated loss data dissemination; embed AI/ML ethically in data-to-action chains
- Built-environment adaptation: favor hybrid gray-green coastal protection and climate-responsive architecture with measurable performance indicators
- Communicating adaptation: use digital illustration and AI-assisted visualization to build consensus on design trade-offs and co-benefits
- SatGPT/geoAI: leverage LLM + Earth-observation for rapid flood mapping and exposure analytics; integrate outputs with national systems
- Distributed IXP: localize traffic across sub-regional nodes to lower latency/costs and improve resilience to cable outages
- ICT + GIS for an inclusive digital society: establish integration hubs (standards/APIs) to power AI-ready services across sectors
- Connectivity status in PICs: competition and technology-neutral regulation matter; LEO satellites are expanding access but require careful integration

6. National Action Plans — Summary of Draft Country Action Plans

- Tonga: Weather Forecast SMS Dissemination System: nationwide SMS/IVR alerts; 24-month phased rollout; risks managed via redundancy, subsidies and inclusion measures
- Samoa: Smart Alert System (mobile app & IoT sirens/sensors): national alarming framework, unified platform and solar siren network; 2026–2028 phasing with drills and multilingual content
- Solomon Islands: App-based Weather/Climate/Ocean Services: push alerts and marine maps with offline caching and population reach target; integration with NDMO/telecoms
- Fiji: Marine Debris Tracking System (Suva Harbor): litter database, citizen science, GPS drifters; policy links to EPR/CDS; phased pilot-to-scale roadmap

7. Considerations

- Inclusion and accessibility: multi-channel dissemination (SMS, IVR, sirens, apps) and plain-language, impact-based messaging
- Data governance and interoperability: open standards, metadata and APIs; alignment with national ICT/DRR policies and privacy-by-design
- Connectivity and affordability: promote competition, IXPs and last-mile solutions to sustain digital public services in SIDS
- Responsible AI: transparent methods, reproducibility and participatory design for geoAI/SatGPT deployments

8. Monitoring, Evaluation and Learning

- Outputs: systems established (gateways, sirens, apps) and national staff trained
- Outcomes: alert reach, delivery time, comprehension, drill performance and incident-outcome trends
- Data sources: system logs, telecom analytics, drills, surveys and incident databases
- Learning loops: after-action reviews; quarterly Action Plan reviews; regional community of practice convened by UN ESCAP and its partners

9. Recommendations and Next Steps

- Finalize and resource for country action plans in the upcoming months through consultations with KOICA-ESCAP as well as the APNIC Foundation.
- Strengthen foundational connectivity and traffic localization (e.g., Pacific IXP) to support affordable, low-latency risk services in the framework of the Asia-Pacific Information Superhighway Platform.
- Operationalize risk-information platforms (UN ESCAP portals, SatGPT/geoAI) with training-of-trainers and agency SOPs

- Institutionalize multi-channel early warning with inclusive design and regular drills; maintain MEL and knowledge-sharing networks

Outline

Dates: 20–30 August 2025

Venue: Pullman King George Square, Brisbane / Mode: In-person / Language: English

Organisers: Korea International Cooperation Agency (KOICA) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)

Supporting partners: Jeju National University (Republic of Korea) and the APNIC Foundation (Australia)

Participants: Government officials from Fiji, Samoa, Solomon Islands, Tonga, and experts from Korea and other countries (Including Prof. Byung-Gul Lee, Dr. Tae Hyung Kim, Dr. Siope Vakataki ‘Ofa and Ms. Tarnkamon Chantarawat)

Executive Summary

From 20 to 30 August 2025, KOICA and ESCAP convened senior officials and technical specialists from Fiji, Samoa, Solomon Islands, and Tonga in Brisbane to hold capacity building program on digital technologies for climate adaptation and disaster risk reduction. The ten-day programme combined expert lectures, demonstrations, structured group work, field visits, and drafting National Action Plans from each island country.

The training responds to regional priorities on digital inclusion and transformation, advances the Asia-Pacific Information Superhighway agenda, and supports practical implementation of Disaster Risk Reduction and Early Warnings for All. Participants engaged substantively on geospatial analytics, AI/geoAI applications, risk information systems, and internet infrastructure for resilient, affordable connectivity in Pacific Islands.

Key 2025 Outcomes

- Strengthened knowledge of AI tools and risk platforms for climate and disaster decision-making
- Country-led articulation of draft National Action Plans with time-bound actions, partnership pathways, and initial monitoring frameworks
- Expanded partnerships among KOICA, ESCAP, Jeju National University, APNIC Foundation, and island countries’ representatives for follow-up action plans

Background

Pacific Island Countries contribute least to global emissions yet face intensifying climate impacts—coastal inundation, salinization, ocean warming and acidification, tropical cyclones, severe floods and droughts—compounded by data, capacity and connectivity constraints. Affordable, resilient digital infrastructure and actionable risk information are critical enablers of adaptation in Small Island Developing States contexts.

The 2025 KOICA–ESCAP programme addressed these needs by

- Improving policy and technical capacity to use digital technologies for climate action
- Facilitating peer learning on workable solutions
- Supporting country-level planning towards scalable, interoperable and inclusive systems

Objectives

- Equip officials with practical skills to apply AI/geoAI, geospatial analytics and digital platforms to climate risk analysis, preparedness, and adaptation
- Map country-specific bottlenecks in connectivity, data governance and institutional arrangements; identify feasible solutions and partners
- Co-develop draft National Action Plans detailing priority use-cases, milestones and resourcing pathways and advances regional commitments under Asia-Pacific Information Superhighway on inclusive connectivity and open, interoperable digital public goods
- Support priorities (risk understanding, governance, investment, preparedness /Build Back Better) and the Early Warnings for All initiative
- Complement strategies for digital innovation and resilience (e.g., Blue Pacific, national Disaster Risk Reduction policies)

Programme

19 Aug (Tue): Arrivals & Preparation	
Arrivals; organizers' preparation meeting (ESCAP & Jeju National University)	
Day 1 — 20 Aug (Wed): Orientation & Country Reports	
09:00–09:20	Opening & welcome (KOICA, ESCAP, APNIC Foundation)
09:20–12:00	Orientation: programme overview and expectations (ESCAP/Jeju National University)
14:00–17:00	Country presentations (Fiji, Samoa, Solomon Islands, Tonga)
18:00–20:00	Welcome dinner
Lead moderators: Prof. Byung Gul Lee; Dr. Tae Hyung Kim	
Day 2 — 21 Aug (Thu): AI & Climate-Resilient Built Environments	
09:00–12:00	Lecture 1: Climate Change Impacts on Built Environments – Adaptation Strategies for Island Coasts (Prof. Won-Bae Na, Pukyong National University)
14:00–17:00	Lecture 2: Sustainable Built Environments – Digital-Based Illustrations (Prof. In-Cheol Lee, Pukyong National University)
Lead moderators: Prof. Byung Gul Lee; Dr. Tae Hyung Kim	
Day 3 — 22 Aug (Fri): Ocean Data, Fisheries & Renewable Options	
09:00–12:00	Analysis of Marine Environment & Fish Catch using Marine Monitoring Data (Prof. Kyeong Hoi Kim, Pukyong National University)
14:00–17:00	Utilization of Coastal Sediment Microbial Fuel Cells for Climate Change Adaptation (Prof. Kyeong Hoi Kim, Pukyong National University)
Lead moderators: Prof. Byung Gul Lee; Dr. Tae Hyung Kim	

Day 4 — 23 Aug (Sat): Field Trip	
09:00–12:00	Brisbane City Council; Gallery of Modern Art; CityCats boat; University of Queensland
Lead moderators: Prof. Byung Gul Lee; Asst. Jake Lee	
24 Aug (Sun): Free Day	
Free Day	
Day 5 — 25 Aug (Mon): APNIC Foundation & National Action Plan Framing	
09:00–12:00	APNIC Foundation: Digital connectivity—key policy issues for Pacific Island Countries
14:00–17:00	Group work: National Action Plan outlines
Lead moderators: Omar Ansari; Prof. Byung Gul Lee	
Day 6 — 26 Aug (Tue): Technologies for Climate Action — Opportunities & Challenges	
09:00–12:00	ESCAP Risk and Resilience Portal (Daisuke Maruichi) SatGPT: leveraging LLMs with EO data for flood mapping (Dr. Sheryl Rose Reyes, ESCAP) Disaster resilience technologies (Mr. Amin Shamseddini, UNDRR Pacific) GeoAI for equitable future (Mr. Hamid Mehmood, OOSA)
14:00–17:00	Are we connected? Connectivity in Pacific Island Countries (Dr. Amanda Watson, ANU) Broadband challenges & opportunities (Mr. Omar Ansari, APNIC Foundation) Efficient internet traffic management & Pacific IXP concept (Dr. Siope Vakataki ʻOfa, ESCAP)
Lead moderators: Dr. Siope Vakataki ʻOfa; Prof. Byung Gul Lee	
Day 7 — 27 Aug (Wed): Field Visit — APNIC & Powerwells	
10:00–12:00	APNIC: internet ecosystem and capacity programmes
14:00–17:00	Powerwells: Site visit
Leads: Ellisha Heppner; Prof. Byung Gul Lee; Dr. Siope Vakataki ʻOfa	
Day 8 — 28 Aug (Thu): National Action Plan Drafting	
09:00–12:00	National Action Plan structure & drafting, facilitated working groups
14:00–17:00	Drafting continued
Lead moderators: Dr. Siope Vakataki ʻOfa; Prof. Byung Gul Lee	
Day 9 — 29 Aug (Fri): Pacific Strategic Discussion & NAP Presentations	
09:00–12:00	Country strategic discussion on National Action Plans
14:00–17:00	Country presentations: draft National Action Plans (Fiji, Samoa, Solomon Islands, Tonga)
Lead moderators: Dr. Siope Vakataki ʻOfa; Prof. Byung Gul Lee	
Day 10 — 30 Aug (Sat): Field Trip & Closing	
09:00–12:00	City tour activity
14:00–17:00	Closing session
Leads: Dr. Siope Vakataki ʻOfa; Prof. Byung Gul Lee	
31 Aug (Sun): Departures	
Departures	

National Reports

4.1 Tonga

Overview

Tonga is a Polynesian constitutional monarchy comprising 171 islands (36 inhabited) with a tropical wet (November to April) and dry (May to October) climate. The population is ~106,000, concentrated on Tongatapu. The economy relies on agriculture, fisheries, remittances, and tourism. Exposure to cyclones, tsunamis, and volcanic eruptions is very high; recent events include Cyclone Gita (2018) and the Hunga Tonga–Hunga Haʻapai eruption (2022). Climate risks span stronger cyclones, floods, droughts, sea-level rise (erosion, saltwater intrusion, displacement), ocean acidification (reef damage), and repeated disaster impacts on infrastructure and livelihoods.

Role of digital technology

Tonga applies early warning systems (SMS, radio) and remote sensing (satellite, drones) for coastal monitoring and GIS for climate-resilient infrastructure planning. A Digital Government Transformation Program advances digital governance, while mobile platforms support preparedness and community outreach.

Constraints & capacity needs

Challenges include limited outer-island connectivity, high ICT costs, skills shortages, energy demand for ICT systems, and urban–rural digital divides. Priorities are to strengthen resilient ICT infrastructure, scale training and digital education, integrate climate/disaster data platforms, and deepen regional cooperation to empower government, communities, and youth. Therefore, assistance is requested from the Republic of Korea. Support is sought to extend ICT infrastructure to remote islands; deploy AI-driven forecasting, remote sensing, and big-data analytics; build cyber-resilient disaster platforms; provide capacity building and training; and pursue partnerships in renewables, agriculture, and fisheries.

1.2 Fiji

Overview

Fiji is an archipelago of 330+ islands (~18,300 km²) with a tropical maritime climate (wet Nov–Apr, dry May–Oct). The population is ~900,000 (2024 est.), largely on Viti Levu and Vanua Levu. The economy depends on tourism, sugar, fisheries, and remittances, all of which are climate sensitive. Hazards include Category 4–5 cyclones, floods/landslides in heavy-rain seasons, and drought during El Niño. Severe TC Winston (2016) caused damages ≈20% of GDP. Sea-level rise (~6 mm/yr)—twice the global average in some areas—has driven coastal relocations, threatening infrastructure, water, and cultural heritage. Ocean acidification endangers coral reefs, fisheries, tourism, and coastal protection.

Digital transformation for climate action

The Fiji National Digital Strategy 2025–2030 targets improved digital infrastructure and cybersecurity, universal digital access and literacy, SME digital transformation, and advanced solutions for public services. Flagship initiatives include digital FIJI (e-government via the MyFiji@Gov portal), a Fiji Climate Change Portal (centralized knowledge for resilience and adaptation planning), and a national Multi-Hazard Early Warning System (MHEWS) operated by NDRMO, FMS, and MRD.

Outstanding issues

The report highlights continued vulnerability of rural communities, sectoral dependence on climate-sensitive livelihoods, and the need to operationalize and integrate digital systems nationwide (infrastructure, skills, financing) to ensure last-mile inclusion and service reliability.

4.3 Samoa

Overview

Samoa comprises volcanic islands (Upolu and Savaiʻi) totaling ~2,680 km², with hot/wet (Nov–Apr) and cool/dry (May–Oct) seasons. The population is ~218,000, with ~70% of people and critical infrastructure in low-lying coastal areas. The economy is based on subsistence and exports (agriculture, fishery, forestry), with tourism growing; foreign aid remains important. Hazards include tropical cyclones, storm surge/coastal flooding, extreme rainfall/drought (ENSO-linked), and earthquake/tsunami events. Sea-level rise (~4 mm/yr since 1993) and ocean acidification threaten reefs, fisheries, land loss, and displacement.

Digital transformation

Samoa is advancing digital government through a Digital Transformation & Innovation Division, SamCERT (cybersecurity), and the World Bank–backed Digital Samoa Project (broadband, government systems, online public services). National e-commerce and financial inclusion plans aim to expand digital access and literacy, while a growing tech ecosystem (fintech, e-commerce, aggrotech) aspires to an Innovation Technology Park. Operationally, remote sensing and monitoring underpin coastal asset management (MNRE), census mapping (SBS), and forest-impact prediction (MNRE). MCIT steers cybersecurity, digital connectivity, and One Government policy.

Outstanding issues

Gaps include infrastructure maintenance & security, skills shortages and continuous training needs, energy consumption and e-waste management. The capacity-building goal is to equip officials and communities with digital

tools for adaptation, including needs assessments and integration with education curricula. Assistance requested from the Republic of Korea centers on strengthening infrastructure and leveraging advanced technology and expertise to manage climate risks.

4.4 Solomon Islands

Overview

The Solomon Islands, in Melanesia and the Coral Triangle, span atolls, mountains, and lagoons with exceptional marine biodiversity. The population was ~686,878 (2020); GDP per capita ~USD 2,258. The economy depends on agriculture, forestry, and fishing, with logging-driven deforestation being a major concern. Temperatures are relatively constant year-round, with wet (Nov–Apr) and dry (May–Oct) seasons; rainfall is highly variable (ENSO-influenced). Climate hazards include floods/cyclones, drought, sea-level rise (heightened frequency of extreme sea-level events), heatwaves, and earthquake/tsunami risk along the Ring of Fire.

Digital transformation

Progress includes an inclusive digital economy: mobile money platform M-SELEN onboarding ~20,000 users; a regulatory sandbox (2022) and Digital Innovation Unit (MCA) promoting fintech; UNDP partnerships for bulk payments/digital savings ("Digital Jam Jar"). Mobile connections reach ~71.8% of the population (early 2024), with improved backbone via Coral Sea Cable and expanded domestic connectivity. Meteorology upgrades are underway (rehabilitation of 8 surface and construction of 3 upper-air stations), plus geospatial/remote-sensing training (MACBLUE via SPC's Digital Earth Pacific). KOICA-supported equipment (laser imaging, undersea drones, tablets, laptops) enhances vulnerability assessments.

SIMS Action Plan

SIMS Action Plan refers to the assistance requested to develop a multi-hazard early warning app to disseminate cyclone/strong wind/rain/tsunami warnings and receive impact verification photos from users. Steps include capturing stakeholder needs, expert recruitment/funding, iterative development with feedback, and training SIMS officers as administrators and trainers.

4.5 Review of the National Reports

Country Findings

Tonga: A high-exposure, multi-hazard context (cyclones, tsunamis, volcanic activity) underscores the urgency of reliable last-mile dissemination. Existing tools—SMS/radio alerts, satellite/drone monitoring and GIS—are constrained by outer-island connectivity gaps, high ICT costs and skills shortages. Priorities include resilient telecom infrastructure, AI-assisted forecasting and cyber-resilient platforms. Targeted assistance is requested to extend coverage and institutionalize digital education and training.

Fiji: Exposure to Category 4–5 cyclones, flooding and accelerated sea-level rise is reshaping settlement patterns and service delivery. Flagship initiatives (digitalFIJI, Climate Change Portal, national MHEWS) demonstrate strong policy direction. However, full operationalization requires system interoperability, last-mile inclusion and sustainable financing to ensure continuity and reliability during crises.
Samoa: With population and critical assets concentrated in low-lying coastal zones, Samoa is advancing digital government (broadband, cybersecurity, innovation) and operational geospatial use (coastal asset management, census mapping, forest monitoring). Binding constraints—maintenance, specialist skills and e-waste management—risk undermining gains. Support is sought for capacity building, infrastructure resilience and integration of digital tools across education and community programmes.

Solomon Islands: Digital-economy initiatives (mobile money, regulatory sandbox) and connectivity upgrades (Coral Sea Cable) are improving access. Meteorological network rehabilitation and KOICA-supported equipment strengthen observations. A priority initiative is a multi-hazard early-warning and marine-services app requiring financing, technical development and administrator training to reach ≥80% of the population rapidly and reliably.

Priorities and Risks

- Resilient, affordable connectivity (including subregional IXPs and redundancy) to support early warnings, e-government and data exchange

- Interoperable, standards-based data governance to integrate EO/geoAI outputs, sector systems and telecom analytics with privacy-by-design
- Human capacity: training-of-trainers, digital literacy and institutional SOPs for operations, maintenance and cyber-security
- Inclusive last-mile delivery: multi-channel alerts (SMS/app/IVR/sirens), multilingual/plain-language messaging and routine drills
- Sustainability: O&M budgeting, vendor-neutral procurement, energy efficiency and responsible e-waste management

Recommendations

- Finalize and fund National Action Plans with clear indicators (population reach, alert latency, message delivery success, comprehension) and conduct quarterly reviews
- Establish or join sub-regional Internet Exchange Point arrangements and publish resilience key performance indicators (latency, availability) for regulatory oversight
- Operationalize risk-information workflows via national portals; adopt the Common Alerting Protocol for structured, multi-channel alerting
- Deliver targeted Training of Trainers cohorts for staff in Information and Communication Technology, meteorology, and the National Disaster Management Office; embed cyber-security and data-protection procedures in standard operating procedures
- Pilot last-mile solutions in underserved islands (for example, Short Message Service/Interactive Voice Response for Tonga; app-based services for the Solomon Islands), with Monitoring, Evaluation and Learning built in from inception

Presentations

5.1 Renewable Energy for Islands - Marine Options & Sediment Microbial Fuel Cells

Prof. Kyeong **Hoi Kim, Pukyong National University**

Purpose

This lecture examines practical renewable-energy pathways tailored to Small Island Developing States (SIDS), where exposure to climate hazards, geographic dispersion, and small load profiles demand solutions that combine resilience, affordability, and environmental stewardship. It compares offshore wind, tidal stream and range, and wave energy in terms of resource predictability, capacity factors, setting constraints, environmental safeguards, and operation and maintenance requirements. A special focus is placed on sediment microbial fuel cells as ultra-low-power supply for distributed sensors supporting early warning and coastal management.

Key messages

- A diversified portfolio—seek efficiency by facilitating marine renewables (offshore wind, tidal stream/range, waves) and distributed micro-power, therefore supporting resilience and energy security
- Sediment microbial fuel cells (MFCs) can power remote coastal sensors/IoT continuously, enabling persistent monitoring and early warnings
- Careful setting and environmental safeguards balance resource potential with ecosystem integrity

Technical scope

The session outlines resource assessment methods, micro-siting principles around bathymetry and sensitive habitats, grid interconnection options for small systems, and the use of modular platforms that can be staged in step with demand growth. For MFCs, it explains electrochemical fundamentals, electrode materials, biofouling dynamics, and power-management circuits enabling intermittent telemetry.

Recommended actions

- Pilot MFC-powered sensor arrays linked to risk portals; undertake prefeasibility for marine renewables at priority sites

- Develop regional standards/guidelines; build island-specific capacity for operations, data and safety

5.2 Analysis of Marine Environment and Fish Catch Using Marine Monitoring Data

Prof. Kim Kyeong Hoi, Pukyong National University

Purpose

This lecture connects ocean observing with fisheries management and coastal resilience. It begins by cataloguing pressures on coastal ecosystems—coral bleaching driven by warming and acidification, harmful algal blooms/red tides associated with eutrophication and stratification, seasonal hypoxia, and pervasive marine debris and microplastics—and then links these stressors to impacts on aquaculture and wild catches. A structured monitoring toolkit is introduced: hydrodynamics (Acoustic Doppler Current Profiler, tide gauges), bathymetry and shoreline change (multi-beam, unmanned aerial vehicle surveys), and water/sediment quality sampling, all feeding into a unified analysis workflow.

Key messages

The session presents a case study from a semi-enclosed bay with intensive aquaculture and urbanization where successive measures—sewage-treatment upgrades, dredging of polluted sediments, and legal caps on chemical oxygen demand—reduced organic loading and lowered a trophic state index. Yet fish catches lagged recovery, underscoring the need for habitat restoration (intertidal flats, seaweed beds) and remediation of organic-rich seabed alongside water-quality improvements. The practical message is that fisheries outcomes track ecosystem function, not single metrics.

Recommended actions

The application pathway is operational: design evidence-based advisories for fishers (favorable fishing zones, safety warnings) delivered via maps and mobile channels; integrate monitoring with early-warning systems; and protect privacy where fisher track data are used. Monitoring, evaluation and learning focus on data completeness, sensor uptime, advisory uptake, safety incidents and catch-per-unit-effort trends—allowing agencies to adaptively manage both environment and fisheries performance.

5.3 Climate Change Impacts on Built Environments: Adaptation Strategies for Coastal Areas of Islands

Prof. Won Bae Na, Pukyong National University

Purpose

Island built environments—settlements, utilities, transport, and public spaces—are at the frontline of climate impacts. The lecture presents a structured approach to coastal adaptation that balances protection, cost, maintainability, social acceptability, and ecological health.

Key messages

- Hybrid protection measures, combining grey and green infrastructure, achieves risk reduction and ecosystem co-benefits
- Living shorelines deliver wave attenuation, sediment capture, habitat and carbon benefits; hard edges alone can degrade socio-ecologies
- Adaptation must align with planning/zoning, heritage, and circular, low-carbon construction

Technical scope

Coastal defense typologies; criteria for hybrids; climate-responsive architecture (elevated platforms, ventilated envelopes, flexible frames); monitoring indicators

Recommended actions

- Prepare country design guides for hybrid coastal protection; embed nature-based criteria in public investment appraisals
- Create a regional design review panel to give advice on coastal projects and share performance evidence

- Context-appropriate protection; use multi-criteria decision analysis; embed circularity and inclusive design; and monitor outcomes beyond hazard metrics to capture social and ecological gains

5.4 Sustainable Built Environments Responding to Climate Change Risks: Digitally Based Illustrations

Prof. Incheol Lee, Pukyong National University

Purpose

Translate complex adaptation concepts into clear visual narratives for policy and public engagement, demonstrate how the integration of GIS and ICT can support inclusive, AI-ready public services across environmental, infrastructure and social domains.

Key messages

- Visuals accelerate consensus on trade-offs, phasing and co-benefits; AI-assisted illustration can rapidly prototype scenarios with local validation
- Community-grounded visuals (culture, materials, costs) improve feasibility and ownership
- An AI society requires ubiquitous, integrated data systems; GIS is the spatial backbone for policy and operations

Technical scope

The workflow progresses from defining the scope, to sketching, to layering and annotation, and finally to producing versions tailored for policy briefs, technical briefs and outreach materials. Templates for coastal adaptation – covering plans, sections and perspectives – are applied throughout.

Relevance to ESCAP mandates

Supports capacity-building and inclusive governance across Member States

Recommended actions

- Produce a visual toolkit (styles, templates, accessibility guidance) for island adaptation; run regional train-the-trainer cohorts
- Tie visual outputs to participatory planning and feedback cycles (drills, consultations)
- Treat visuals as governance tools, not decoration: ensure data traceability, audience-appropriate versions, accessibility, and feedback loops that improve both design and legitimacy

5.5 Technologies for disaster risk reduction – ESCAP Risk and Resilience Portal

Mr. Daisuke Maruichi, Economic Affairs Officer, Disaster Reduction Section, ICT and Disaster Risk Reduction Division, United Nations ESCAP

Purpose

The ESCAP Risk and Resilience Portal is presented as a regional public good that consolidates hazard, exposure, and vulnerability information into decision-ready products aligned with the Sendai Framework for Disaster Risk Reduction and the Early Warnings for All initiative. It addresses fragmentation of data systems and variable analytic capacity across the Pacific.

Key messages

- Validated, interoperable data systems are foundational—‘we cannot manage what we cannot measure’
- DesInventar Sendai provides harmonized loss data/analytics for subnational reporting and SDG/Sendai monitoring
- AI/ML enhances forecasting, real-time processing and inclusive alerts when embedded in an ethical, user-centred chain from data to action

Technical scope

Loss accounting (DesInventar), data standards, CAP, and AI/ML applications across preparedness and response

Recommended actions

- Adopt national loss-data governance and integrate DesInventar; align ICT upgrades with EW4All components
- Co-design AI-enabled pilots with human-in-the-loop validation and last-mile engagement
- Adopt open standards; formalize data-sharing and quality-control procedures; design for low-bandwidth inclusion; measure use and value; and integrate the portal into routine preparedness, exercises, and real events

5.6 Leveraging Large Language Models for Advanced Geospatial Decision Support: The Case of SatGPT

Dr. Sheryl Rose Reyes, Space Applications Section, ICT and Disaster Risk Reduction Division, ESCAP
Purpose

The session introduces SatGPT—an approach that couples large language models with cloud-based Earth-observation platforms to accelerate hazard analytics and translate remote-sensing products into plain-language decision support for preparedness, response, and recovery.

Key messages

- Flood extents and hotspot analyses can be produced within minutes for preparedness, response and recovery
- Impact improves with ground validation, sector data and standardized outputs integrated into national systems
- Ethical, participatory design (user prompts, explainability, and training) is essential for trust and uptake

Technical scope

Natural-language EO queries; scripted time-series workflows; interoperable exports; extensible to fires, coastal ecosystems, crops and urban risk

Relevance to ESCAP mandates

Advances risk knowledge and digital innovation, directly serving EW4All and SFDRR monitoring

Recommended actions

- Scale country deployments with capacity-building and curated national EO datasets; link outputs to ESCAP risk portals
- Establish youth/academic challenges to localize SatGPT use cases with peer-reviewed methods
- Start small; standardize outputs; embed explainability and review; integrate with national systems; and invest in people so tools remain useful beyond pilots

5.7 Strengthening Efficient Internet Traffic Management for Climate Action

Mr. Siope Vakataki ‘Ofa, Economic Affairs Officer, ICT and Development Section, ICT and Disaster Risk Reduction Division, United Nations ESCAP

Purpose

Reduce latency/costs, improve resilience and localize traffic in Pacific Small Island Developing States via a distributed IXP model

Key messages

- Pacific networks face hairpin routing, single-cable vulnerabilities and fragmented coordination, increasing costs and latency
- A distributed IXP interconnecting Fiji, New Zealand and Samoa can improve latency, retain local traffic and support affordability and resilience
- Sustained coordination requires a dedicated entity, governance and route-coordination Standard Operating

Procedures

Evidence & scope

Concept, indicative latency improvements and lessons from cable outages; steps include consultations, feasibility, constitution and stakeholder mapping

Recommended actions

Resource equipment/training for core sites; formalize SOPs; expand membership; embed latency/availability KPIs in monitoring

5.8 Digital Connectivity in Pacific Island Countries- Are We Connected?

Dr. Amanda H.A. Watson-The Australian National University

Purpose

Assess access and uptake of telecommunications across the Pacific and implications for closing persistent digital divides

Key messages

- Competition catalyzed improvements and monopolies sustain high prices and constraints
- Affordability and performance vary widely; speeds and cable diversity are uneven across and within countries
- LEO satellite services are expanding access in some jurisdictions; regulatory integration varies by country

Evidence & scope

Synthesis of access/uptake, price/speed variability, subsea infrastructure and evolving satellite roles across multiple PICs

Recommended actions

Advance pro-competition regulation, targeted universal-service investments, transparent price/quality monitoring and technology-neutral satellite integration frameworks

5.9 GeoAI for an Equitable Future: Localizing Foundational Models, Agentic Tools, and the Imperative for Openness

Mr. Hamid Mehmood, Scientific Affairs Officer, United Nations Office for Outer Space Affairs

Purpose

The lecture frames geospatial artificial intelligence (GeoAI) as an accelerator for hazard intelligence and climate services—on the condition that models are localized to island realities and deployed with safeguards. Foundational models pre-trained on global imagery and text can be adapted to detect floods, landslides, shoreline change and critical-asset exposure, while agentic tools automate repetitive workflows such as data ingestion, tiling, inference and publishing to national portals.

Key messages

A practical deployment pattern is presented: (i) establish a secure data pipeline and catalog; (ii) adapt a baseline model with local samples; (iii) define review checkpoints and uncertainty thresholds; (iv) integrate outputs with existing decision systems (e.g., risk portals, early warning dashboards); and (v) monitor performance using accuracy, timeliness and user-adoption metrics. Governance covers ethics, privacy, model cards with provenance, and procurement language that prioritizes open standards and portability.

Recommended actions

The resulting GeoAI ‘sandbox’ allows national teams to experiment safely, publish auditable results, and scale what

works. Training-of-trainers cohorts build durable capacity; shared MLOps practices—versioning, evaluation, roll-back—ensure models remain trustworthy as conditions and data evolve.

5.10 Challenges and Opportunities of Broadband Infrastructure Deployment in Pacific Island Countries
Mr. Omar Ansari, APNIC Foundation

Purpose

This talk synthesizes the infrastructure, policy and skills constraints that shape broadband in the Pacific, and translates them into near-term actions for policymakers. The starting point is geographic dispersion—small, remote populations spread over an ocean area comparable to a continent—which raises per-user costs and complicates maintenance. Many economies remain dependent on a single subsea cable and rely on satellites in outer islands; power reliability, spares and skilled technicians are persistent bottlenecks. Market structures with limited competition contribute to high retail prices and affordability gaps.

Key Messages

The policy agenda stresses: opening markets to competition, using Universal Service Funds for rural build-outs, and creating transparent reporting on prices, performance and outages. Technical strategies include diversified international paths, resilient inter-island backhaul, and pragmatic last-mile mixes (fiber in dense, microwave/Fixed Wireless Access in less dense areas, and satellite in remote communities). Capacity building for operators and regulators—routing and peering, Domain Name System hygiene, IPv6 transition, security best practice—is presented as foundational to sustainability and safety of growth.

Recommended actions

The lecture also maps opportunity pathways: shared regional infrastructure (consortia models), integration of Low Earth Orbit satellite services with consumer safeguards, renewable-energy-backed operations to improve uptime, and structured upskilling pipelines linked to industry-recognized credentials. A staged roadmap is proposed: short-term (access, affordability, competition), medium-term (resilience, skills, regulatory reforms), and long-term (innovation ecosystems, sustainable digital economies).

5.11 Disaster Resilience Technologies

Mr. Amin Shamseddini, Programme Management Officer, United Nations Office for Disaster Risk Reduction – Pacific Subregional Office

Purpose

This session situates technology squarely within an end-to-end disaster risk management system under the Sendai Framework for Disaster Risk Reduction and the Early Warnings for All initiative. It stresses that tools only create value when embedded in governance arrangements that ensure risk knowledge is up to date, monitoring and forecasting are impact-based, warnings are disseminated through redundant channels, and communities take protective action.

Key Messages

Key building blocks include: (i) risk information systems that consolidate multi-hazard, exposure and vulnerability datasets; (ii) national disaster loss and damage databases to support evidence-based investment; (iii) impact-based forecasting tied to decision thresholds; and (iv) multi-channel dissemination using Short Message Service, Interactive Voice Response, mobile applications, community sirens and radio. Technology choices are evaluated against reach, latency, reliability during power/network disruption, inclusivity for persons with disabilities, and maintainability in small-island contexts.
Institutional readiness is treated as a prerequisite. Agencies require standard operating procedures with clearly assigned roles, service-level agreements with telecommunications providers, sustainable operations and maintenance budgets, and cyber-security/data-protection measures to sustain public trust. The lecture highlights that simple, robust, well-maintained systems often outperform sophisticated but under-resourced ones, and it emphasizes drill culture—testing, after-action reviews, and iterative improvement—as the driver of performance over time.

Recommended actions

Adopt the Common Alerting Protocol for structured, multi-channel warnings; institutionalize disaster loss tracking;

budget for long-term operations from day one; and invest in capacity building for meteorological, information and communications technology, and National Disaster Management Office staff so that systems remain reliable beyond pilot phases.

National Action Plans

6.1 Tonga — Weather Forecast SMS Dissemination System

Goal

Deliver daily forecasts and multi-hazard alerts (cyclones, floods, heavy rain, tsunamis) directly to villages and outer islands where internet access is limited

Context

Tonga is among the most disaster-exposed nations globally, with recurring cyclones and volcanic activity devastating infrastructure and livelihoods. Many outer islands lack reliable internet, making SMS and IVR critical last-mile tools for life-saving information

Institutional setup

The Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications, in coordination with the National Emergency Management Office and telecom operators, will lead:

- Implementation strategy
- Partner with telecom operators to develop an SMS gateway and API for multi-hazard dissemination
- Create bilingual, templated, impact-based messages for rapid alerts
- Pilot system in selected outer islands before nationwide rollout
- Deploy IVR/voice channels for vulnerable groups with low literacy or no phone access

Outputs & milestones

- Month 3: MoUs signed, system design validated
- Month 6: SMS gateway operational
- Month 12: Pilot phase completed and evaluated
- Month 24: National scale-up achieved

Risks & mitigation

- Network reliability: introduce redundancy and offline caching
- Operating costs: negotiate subsidized SMS bundles and explore donor support
- Digital exclusion: community focal points and IVR ensure inclusivity
- Governance: establish an inter-agency task force for oversight
- Indicative indicators: Network coverage; delivery success rates; median issuance-to-receipt time; beneficiary satisfaction; reduction in marine and weather-related incidents
- Support requested: Technical assistance, capacity building, and co-financing (hardware, software, and training) from Republic of Korea and regional partners

6.2 Samoa — Smart Alert System (Mobile App + IoT Sirens/Sensors)

Goal

Provide localized, real-time, and reliable alerts to all communities to enable faster evacuation and preparedness actions

Context

Samoa's coastal concentration of people and infrastructure creates high exposure to cyclones, floods, and tsunamis. Existing SMS/radio systems are insufficiently reliable or inclusive. A unified smart alert framework is needed.

Institutional setup

Ministry of Communication and Information Technology (MCIT) leads with the Disaster Management Office (DMO) and village councils

Implementation strategy

- Develop a National Smart Alarming Framework integrating meteorological and hydrological data streams
- Establish a unified ICT platform combining mobile geo-fenced alerts with IoT-enabled solar sirens for redundancy
- Provide training for administrators at national and village level
- Ensure multilingual content, accessible formats, and regular community drills
- Capacity and inclusion: Toolkits for risk communication, multilingual alerts, and targeted outreach to vulnerable groups (elderly, disabled, remote)

Phased timeline

- Phase I (2026): Framework design, procurement, pilot
- Phase II (2027): Scale siren/IoT coverage, geo-fenced alert integration
- Phase III (2028): Nationwide rollout, sustainability measures

Indicators

Percentage of villages with coverage; time-to-warn metrics; participation in drills; public awareness improvements (survey-based)

Risks & mitigation

Maintenance costs mitigated through solar sirens and local technicians; risk of false alerts reduced by rigorous SOPs and redundancy testing

Support requested

Technical design expertise, financing for IoT hardware and sirens, and training partnerships with Korea and regional bodies

6.3 Solomon Islands — App-Based Weather, Climate & Ocean Services

Goal

Deliver real-time forecasts, marine warnings, and preparedness guidance nationwide, with emphasis on remote provinces and maritime communities

Context

The Solomon Islands face frequent cyclones, floods, and tsunamis. Traditional broadcast channels have limited reach in remote areas. Smartphone penetration and growing connectivity via the Coral Sea Cable present an opportunity for app-based services

Institutional setup

Solomon Islands Meteorological Service and the Ministry of Environment, Climate Change, Disaster Management and Meteorology, working with telecom providers and the National Disaster Management Office

Implementation strategy

- Develop Android/iOS app for multi-hazard alerts, with offline caching for low-connectivity areas
- Integrate marine maps and tide information for fisheries and tourism sectors
- Establish community feedback channels to report impacts and verify alerts
- Train SIMS officers and community focal points to administer and maintain the platform

Expected outcomes

- ≥80% population reached within minutes of issuance
- Modernized end-to-end dissemination workflow
- Safer fisheries/tourism through reliable marine warnings
- Strengthened two-way communication between authorities and communities

Monitoring & evaluation

Active users, delivery and receipt analytics, correlation with incidents, completion rates of focal point training

Risks & mitigation

Limited smartphone penetration (mitigated by SMS/IVR backups), sustainability of server/app maintenance (addressed through donor support and public-private partnerships)

Support requested

Expert developers, capacity building, telecom integration, and donor support for scaling and sustainability

6.4 Fiji — Marine Debris Tracking System (Suva Harbour Pilot)

Purpose

Reduce marine pollution, protect ecosystems, and sustain tourism and port operations through real-time debris tracking and policy action

Context

Fiji faces escalating marine litter challenges affecting reefs, fisheries, and coastal economies. Suva Harbour serves as both a commercial and ecological hub where pilot interventions can scale nationally

Data/technology backbone

- National marine litter database centralizing debris data
- Citizen Science app enabling reporting by communities and schools
- GPS drifter buoys at river mouths to trace plastic flows
- Drone/satellite imagery to detect remote and offshore debris

Policy linkage

- Strengthen Extended Producer Responsibility and Container Deposit Schemes
- Support enforcement through hotspot data

- Align with SPREP/UNEP platforms on marine litter and microplastics

Phasing

- Phase I (Years 1–2): Governance, data infrastructure, Suva pilot
- Phase II (Years 3–5): Expansion to other harbours/coasts, policy integration
- Phase III (Year 6+): Innovation on microplastic tracing, source fingerprinting

Outputs & indicators

Reduction of debris items per km of coastline; hotspot reductions in Suva Harbour; number of citizen reporters engaged; enactment of marine litter policies; stakeholder satisfaction

Risks & mitigation

Sustainability risks mitigated through integration with national policy and co-financing; technical risks mitigated with international expertise and satellite partnerships

Support requested

Technical assistance for AI/remote sensing, financial support for scaling, and partnerships with academia/NGOs for citizen science

6.5 Review of Pacific Island Countries' National Action Plans

The National Action Plans (NAPs) developed by Tonga, Samoa, Solomon Islands, and Fiji under the 2025 KOICA–ESCAP Joint Capacity-Building Programme demonstrate the region's strong commitment to leveraging digital technologies for climate resilience and disaster risk reduction. While each plan is tailored to national circumstances, common threads highlight the importance of resilient connectivity, inclusive last-mile dissemination, and the integration of digital innovation into governance and community preparedness.

Tonga's SMS Dissemination System addresses the country's extreme exposure to cyclones and tsunamis, focusing on simple, scalable, and inclusive technologies to reach remote islands. Samoa's Smart Alert System advances a more sophisticated IoT and app-based framework, emphasizing real-time, geo-fenced alerts and integration with meteorological monitoring. The Solomon Islands propose an app-based service combining marine forecasts, push alerts, and two-way community feedback, capitalizing on new submarine cable capacity. Fiji's Marine Debris Tracking System broadens the climate-digital nexus by addressing marine pollution through real-time monitoring, citizen science, and policy linkages to extended producer responsibility and container deposit schemes.

Collectively, the Action Plans reveal a trajectory from basic SMS alerts to advanced smart systems and cross-sectoral applications of digital technology. They underline the necessity of regional cooperation, capacity building, and sustained financing to translate pilots into sustainable nationwide systems. Key cross-cutting recommendations include: (i) ensuring affordability and redundancy in connectivity; (ii) institutionalizing monitoring and evaluation with clear indicators; (iii) embedding inclusive design, multilingual communication, and community drills; and (iv) linking digital systems with policy frameworks to maximize impact. Support from the Republic of Korea and regional partners remains vital to scale these initiatives and ensure that the Pacific can harness digital innovation to safeguard lives, livelihoods, and ecosystems in the face of escalating climate risks.

Considerations

- Inclusion and accessibility: multi-channel dissemination (SMS, IVR, sirens, mobile apps) and plain-language, impact-based messaging

- Data governance and interoperability: open standards, APIs, metadata; alignment with national ICT and DRR policies
- Connectivity & affordability: policy dialogue with the APNIC Foundation on market structure, IXPs, and last-mile constraints in Small Island Developing States
- Ethics & responsible AI: transparent methods, reproducible analytics, and participatory design for tools such as SatGPT and geoAI

Monitoring, Evaluation and Learning

Monitoring, Evaluation and Learning was embedded through plenary Q&A, daily reflections, and structured group Action Plan work and discussions combined with facilitator feedback

Country-level tracking

- Output indicators: systems established (SMS gateways, siren nodes, app releases), staff trained, MoUs signed
- Outcome indicators: alert reach (percentage of population), delivery time, user comprehension, drill performance, incident outcome trends
- Data sources: system logs, telecom analytics, drill reports, beneficiary surveys, incident databases
- Learning loops: after-action reviews; quarterly National Action Plan reviews; regional community of practice convened by ESCAP/partners

Conclusions

The 2025 KOICA–ESCAP Joint Capacity-Building Training Programme on “Digital Technologies for Addressing Climate Change in Pacific Island Countries” demonstrated the strategic importance of marrying technological innovation with climate resilience in some of the world’s most vulnerable states. The training brought together national officials, technical experts, and community representatives from Tonga, Fiji, Samoa, and the Solomon Islands, alongside lecturers and partners from international agencies, universities, and regional organizations. Through intensive sessions, practical demonstrations, and collaborative exercises, participants moved beyond theory to co-design actionable, time-bound national digital action plans tailored to their unique geographies and vulnerabilities.

The Programme succeeded in three major respects. First, it raised the technical capacity of national teams to understand and deploy digital technologies, from renewable energy for marine monitoring, to geospatial analytics powered by AI, to disaster-resilient connectivity infrastructure. Lectures from leading experts provided not only knowledge but also reference cases and methodological guidance that can be directly embedded into national systems. Second, it created a regional community of practice, enabling peer-to-peer learning and collaboration across Pacific Island Countries, with an explicit focus on interoperability, open standards, and shared platforms such as the ESCAP Risk and Resilience Portal. Third, it strengthened linkages between governments and international partners—including KOICA, ESCAP, UNDRR, OOSA, the APNIC Foundation, and academic institutions—laying the foundation for co-financing, technical assistance, and future collaborative research.

The national reports underscored shared vulnerabilities—coastal exposure, sea-level rise, ocean acidification, extreme weather, and limited connectivity—while highlighting country-specific contexts. The action plans that emerged provide tangible pathways for implementation: Tonga advancing SMS- and IVR-based early warnings; Samoa developing a Smart Alert System with IoT-enabled sirens; Solomon Islands designing an app-based climate and ocean service; and Fiji piloting a Marine Debris Tracking System in Suva Harbour. These initiatives illustrate a balance between immediate feasibility and long-term innovation, ensuring both relevance to local communities and alignment with global resilience frameworks.

Several holistic lessons emerged. Foundational connectivity remains a precondition—without affordable, reliable, and inclusive digital access, advanced risk information systems cannot function at scale. Capacity building must go hand in hand with technology deployment, embedding training-of-trainers approaches and local institutional ownership. Sustainability requires not only donor investment but integration into national ICT budgets and policy frameworks, supported by robust monitoring, evaluation, and learning systems. Furthermore, inclusivity—reaching rural communities, marginalized groups, women, youth, and persons with disabilities—must remain at the core of all digital climate solutions. Looking forward, the Programme recommends:

- Finalizing and resourcing the draft National Action Plans within the next 3–6 months, aligning with national ICT budgets and partner pipelines
- Strengthening foundational connectivity through market competition, Internet Exchange Points, and last-mile solutions to guarantee affordable, low-latency services for disaster risk reduction
- Operationalizing risk information platforms, including ESCAP portals and EO/AI-driven analytics, coupled with local training and data governance protocols
- Institutionalizing multi-channel early warning systems (SMS, apps, IVR, sirens) with inclusive design, redundancy, and regular drills to ensure life-saving reliabilities
- Sustaining monitoring, evaluation, and learning networks to ensure that evidence from pilots informs scaling, replication, and regional knowledge sharing

The 2025 KOICA–ESCAP Training Programme has catalyzed a momentum of digital transformation for climate resilience in the Pacific. By combining technology, capacity, and partnerships, it sets a pathway toward operational, nationally owned, and regionally coordinated systems that can safeguard lives, livelihoods, and ecosystems in the years ahead.

Annex A – Participants

Names of the Participants

	Nationality	Names	Job Positions	Completion
1	Samoa	Junior Latu	Principal Software Developer, Ministry of Communications and Information Technology, Apia	○
2	Samoa	Niualega Viliavele Filipo	Senior IT Officer, Ministry of Communications and Information Technology, Apia	○
3	Samoa	Siaaifiti Tolai	System Administration, National University of Samoa, Apia	○
4	Solomon Islands	Reuben Ziru	Manager Innovations – Digital transformations, Ministry of Communication and Aviation, Solomon Islands Government, Honiara	○
5	Solomon Islands	Willie Koua Lasi	Ministry of Communication and Aviation Communication(Senior Technology Officer)	○
6	Solomon Islands	Max Sitai	Meteorological Department, Ministry of Environment, Climate Change, Disaster Management, Honiara	○
7	Tonga	Manuel Bernard Baker	Prime Minister's Office, Digital Transformation Division, Chief System Analyst, Honiara	○
8	Tonga	Semisi Taufa	Digital Transformation Department, Prime Minister Office, Nuku	○
9	Fiji	Ruci Verebasaga	Provincial Administrator – Rewa, Ministry of Rural and Maritime Development and Disaster Management, Suva	○
10	Fiji	Mitieli Cama	Deputy Secretary, Ministry of Rural and Maritime Development and Disaster Management, Suva	○

Annex B – Photos

Welcome Ceremony and the Introduction





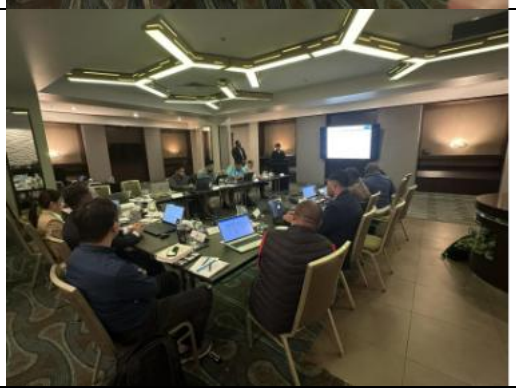




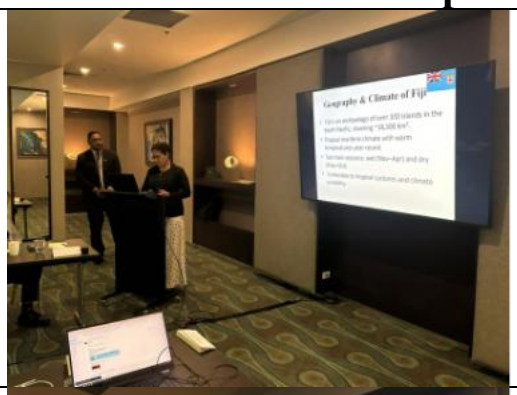




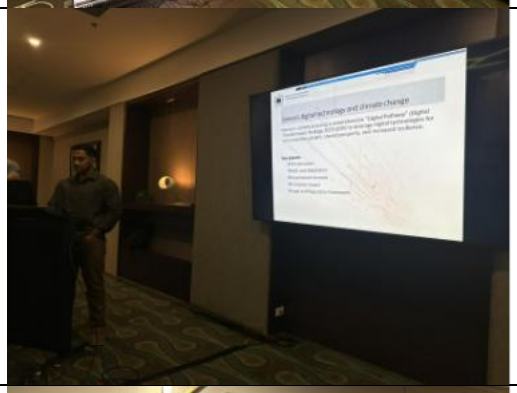




National Report Presentation and Welcome Dinner

















Prof. Won Bae Na and Prof. Incheol Lee's Presentations











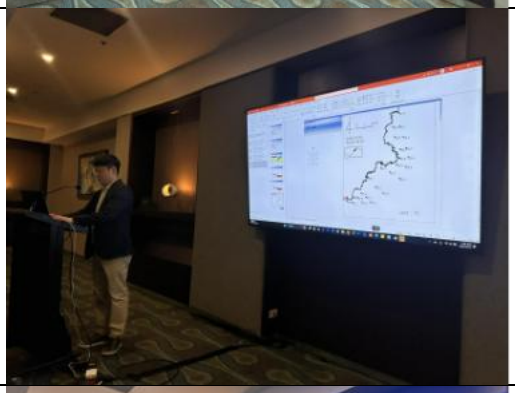


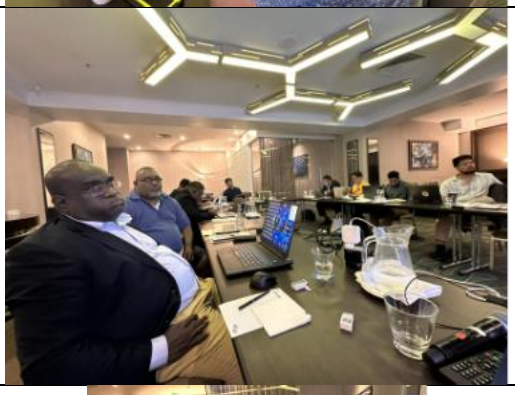




Prof. Kyeong Hoi Kim's Presentations







Saturday Field Trip

















Action Plan Study Meeting









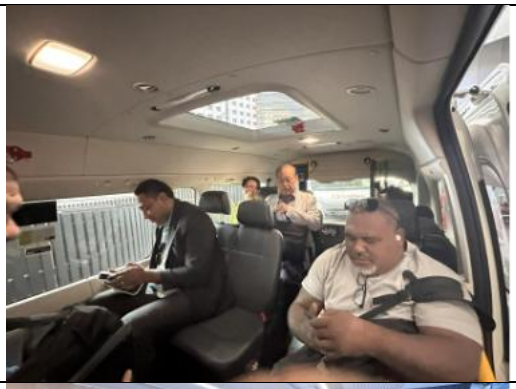


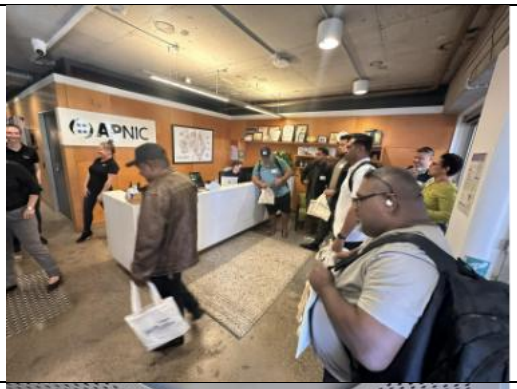






Field Visit to the APNIC foundation and the Powerwells
























ROAD
CLOSED
FLOODING AHEAD
FLOODING









Action Plan Presentations and Wrap-Up







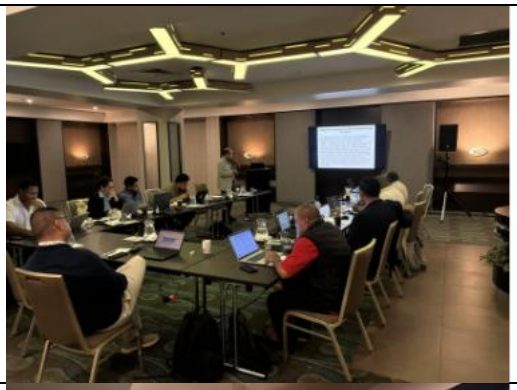










Annex C – Evaluations

Evaluations of Lecturers

Name/Grades	A	B	C	D	E
Amanda H. A. Watson	O				
Amin Shamseddini	O				
Byung Gul Lee	O				
Daisuke Maruichi	O				
Ellisha Heppner	O				
Hamid Mehmood	O				
Incheol Lee	O				
Kim Kyeong Hoi	O				
Omar Ansari	O				
Sheryl Rose Reyes	O				
Siope Vakataki ‘Ofa	O				
Won Bae Na	O				

-The results indicate that participants expressed overall satisfaction with the programme

Field Trip Evaluations

Name/Grades	A	B	C	D	E
Field Trip for Museums and City Council	O				
Field Trip for APNIC and Powerwells	O				
City Tours	O				

-The results indicate that participants expressed overall satisfaction with the field trips

A-Strongly Favorable
B- Favorable
C-Neutral
D-Unfavorable
E-Strongly Unfavorable



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