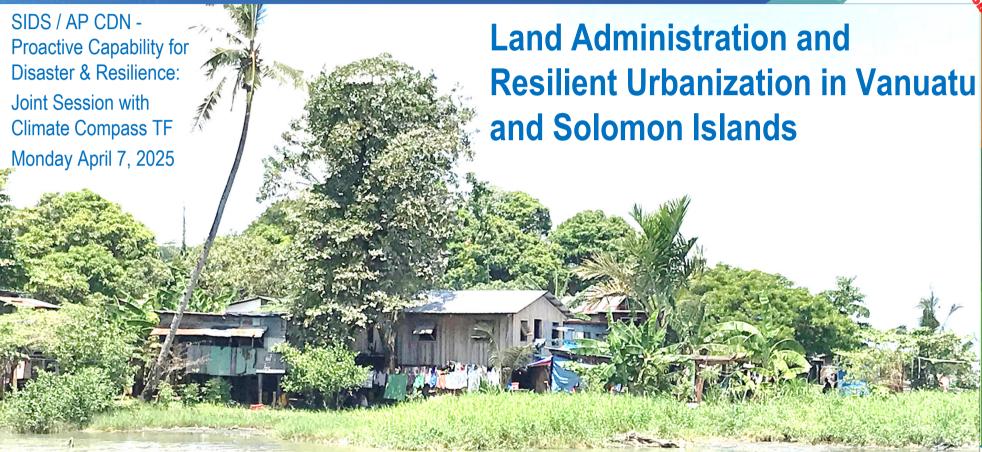






Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Astleja 6-10 April



Surveyors Australia

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Cook Islands         2001         2011         74           Fiji         1996         2007         51           Federated States of Micronesia         2000         2010         22           Kiribati         2010         2015         57	two censuses
Federated States of 2000 2010 22 Micronesia Kiribati 2010 2015 57	-1.2%
Micronesia Kiribati 2010 2015 57	1.5%
	-2.2%
	2.1%
Marshall Islands 1999 2011 74	1.4%
Nauru 2011 100	1.8%
Niue 1997 2011 -	-
Palau 2000 2005 77	3.2%
Papua New Guinea 2000 2011 13	2.8%
Samoa 2011 2016 18	NA
Solomon Islands 1999 2009 20	4.7%
Tonga 1996 2011 23	2.4%
Tuvalu 2002 2012 57	
Vanuatu 1999 2009 24	3.1%

#### Urbanization in Pacific Island Countries

- High rates of urbanization in many Pacific Island Countries.
- Unplanned and informal settlements in urban and periurban areas.
- Settlements spreading onto exposed or unsuitable land.

Source: UN-Habitat (2020)



















## **Duality of land tenure systems**

- Land rights are managed by customary groups according to their own unique processes, which are linked to underlying social and spiritual belief systems.
- Colonial land administration systems introduced.
- At independence un-alienated land returned to customary groups in some countries.









TABLE 2.1 » DISTRIBUTION OF LAND BY SYSTEM OF TENURE IN THE PACIFIC REGION			
	Public <sup>a</sup>	Freehold <sup>b</sup>	Customary
Cook Islands	Some	Little	95%
East Timor <sup>c</sup>	Some	Some	Most
Fiji	4%	8%	88%
Federated States of Micronesia	35%	<1%	65%
Kiribati	50%	<5%	>45%
Marshall Islands	<1%	0%	>99%
Nauru	<10%	0%	>90%
Niue	1.5%	0%	98.5%
Palau	Most	Some	Some
Papua New Guinea	2.5%	0.5%	97%
Samoa	15%	4%	81%
Solomon Islands	8%	5%	87%
Tokelau	1%	1%	98%
Tonga	100%	0%	0%
Tuvalu	5%	<0.1%	95%
Vanuatu	2%	0%	98%

Includes Crown land and land owned by provincial and local governments

Source: Compiled and calculated from various sources, including interviews on field trips and published information











CHCNAV







Includes land that is not strictly freehold, but similar in characteristics, such as the 'perpetual estates' found in Solomon Islands. East Timor does not as yet have a separate legal category of 'customary land', even though most of its rural land remains under





#### **Challenges for land administration**

- Largely paper-based.
- Land records exposed and vulnerable.
- Land administration processes largely manual and slow.
- Significant limitations in human resources capacity.















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# Port Vila, Vanuatu: Cyber attack 2022, Cyclone 2023, Earthquake 2024/2025









## **National Action Plans**

#### The Solomon Islands (2019)

Phase 1 - digitalization of land records, capacity building. institutional strengthening, support for customary land recording.

**Phase 2** - strengthening of geodetic network, unified base maps, development of ILIS, support to NSDI, increasing capacity of the National Data Center, national dialogue on customary land recording, legal framework, updating SOPs, review of Customary Land Records Act.

#### **Vanuatu (2025)**

**Short-term goals** (1-2 years): 1. Institutional Strengthening. 2. Capacity Building. 3. Digitization of Land, Survey and Registry Data. 4. Strengthening Revenue Generation. 5. National Land Development Data Centre within MOLNR.

Medium Term Goals (3-5 years): 1. Unified Base Maps. 2. Strengthening Geodetic Framework. 3. Update of Standard Operating Procedures. 4. Develop Geoportal and NSDI. 5. Integrated LMIS to support land development. 6. Geospatial support for implementation of hazard-risk-informed eplanning.

**Longer term Goals:** 1. Policy and legal support for customary land recording perception survey. 2. Strengthen land administration to support development and settlement upgrading. 3. National dialogue and customary land recording perception survey. 4. Geospatial analytical assessment of the quality and vulnerability of land tenure 5. Housing and settlement policy development.

















# Vanuatu case study - Vanuatu Affordable and Resilient Settlements Pro (VARS)

- Priority actions earthquake recovery and reconstruction, DRR. digitalization of the land administration and geospatial systems, increasing own-source land revenue, capacity building.
- Component 1 Hazard risk-informed land development.
- Component 2 Upgrading of four informal settlements.
- Component 3 Creation of LMIS and geoportal.

















## Solomon Islands case study - Community Access and Urban Services **Enhancement Project II (CAUSE II)**

- Priority actions digitalization of the land administration and geospatial systems, increasing own-source land revenue, capacity building.
- Sub-component 4A Land Administration digitizing land records, updating the valuation roll and maps, unified base maps, creation of Integrated Land Information System and geoportal.
- Sub-component 4B Revenue Mobilization ILIS provides information on valuation roll, and title and ownership details, to enhance billing and collection.

















## The importance of digital land administration and geospatial information systems

- An integrated land information system and geoportal supports improved information for:
  - DRR, recovery and reconstruction,
  - revenue mobilization,
  - e-planning zone maps,
  - risk-informed land administration, land development, and planning.























## Risk informed land administration and planning

- Hazard risk zones are considered in land development location and design.
- Urban settlement upgrading considers exposure and vulnerability in design of resilience actions.
- Risk-informed land administration to protect tenure security for all tenure types and reduce exposure.
- Risk-informed land use planning maps, enforcement of no build zones, and prevention of upstream land development and use that impacts downstream hazard risk.





















### Increasing land own source revenue

- In many PICs land revenue collection is inefficient and a small percentage of government revenue.
- An effective integrated LIS can streamline the mobilize land rents and property rates can dramatically increase revenue for government – including for resilient urbanization.
- Requires digital and correct land records, valuation maps and roll, digital billing systems.



















## Capacity building and institutional strengthening

- Capacity building and institutional strengthening priorities include:
  - Buildings, equipment, software for (i) securing and backing up land, registry, survey, and geospatial data, and (ii) creation of LIS, geoportal and NSDI.
  - Support for policy, legal and regulatory frameworks.
  - Training and human resources.



















#### **Conclusions**

- Land tenure is an important element of resilience.
- Resilient urbanization requires building bridges between the customary and formal land tenure systems.
- Resilient urbanization requires effective digital land administration that provides tenure security, supported by geospatial information systems, and informed by hazard-risk, exposure and vulnerability.
- Land administration and geospatial systems in Pacific Island Countries require capacity building.













