



United Nations Integrated Geospatial
Information Framework



Ministry of Lands and Natural
Resources
Government of Tonga

Implementation of the National Integrated Geospatial Action Plan

Second United Nations World Geospatial Information Congress
Hyderabad, India

**“Geo-Enabling the Global Village: no one should be left
behind”**

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Ministry of Lands & Natural Resources
Tonga

11th October, 2022



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NATIONAL INTEGRATED GEOSPATIAL ACTION PLAN

KINGDOM OF TONGA

**STRENGTHENING ARRANGEMENTS TOWARD
AN INTEGRATED GEOSPATIAL MANAGEMENT**



Final draft endorsed: 21/06/2022



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PURPOSE

- To strengthen geospatial information management in Tonga to support the implementation of the 2030 Agenda for Sustainable Development Goals,
- To support Tonga's National priorities
- To respond to national circumstances including emergency management.
- To provide the most appropriate and most relevant actions to support and strengthen informed decisions
- To address the gaps, the priority of addressing the gaps, and how to proceed with resolving the gaps through actions.
- To support the achievement of national development priorities toward achieving the Kingdom's SDG goals and targets.



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VISION

- *“A higher quality of life for all Tongans supported by accessible, accurate and reliable integrated geospatial information.”*

MISSION

- *“Promote and support coordination and collaboration to achieve integrated geospatial information management and leverage it as a decision and sustainable solutions to national needs and opportunities.”*



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GOALS

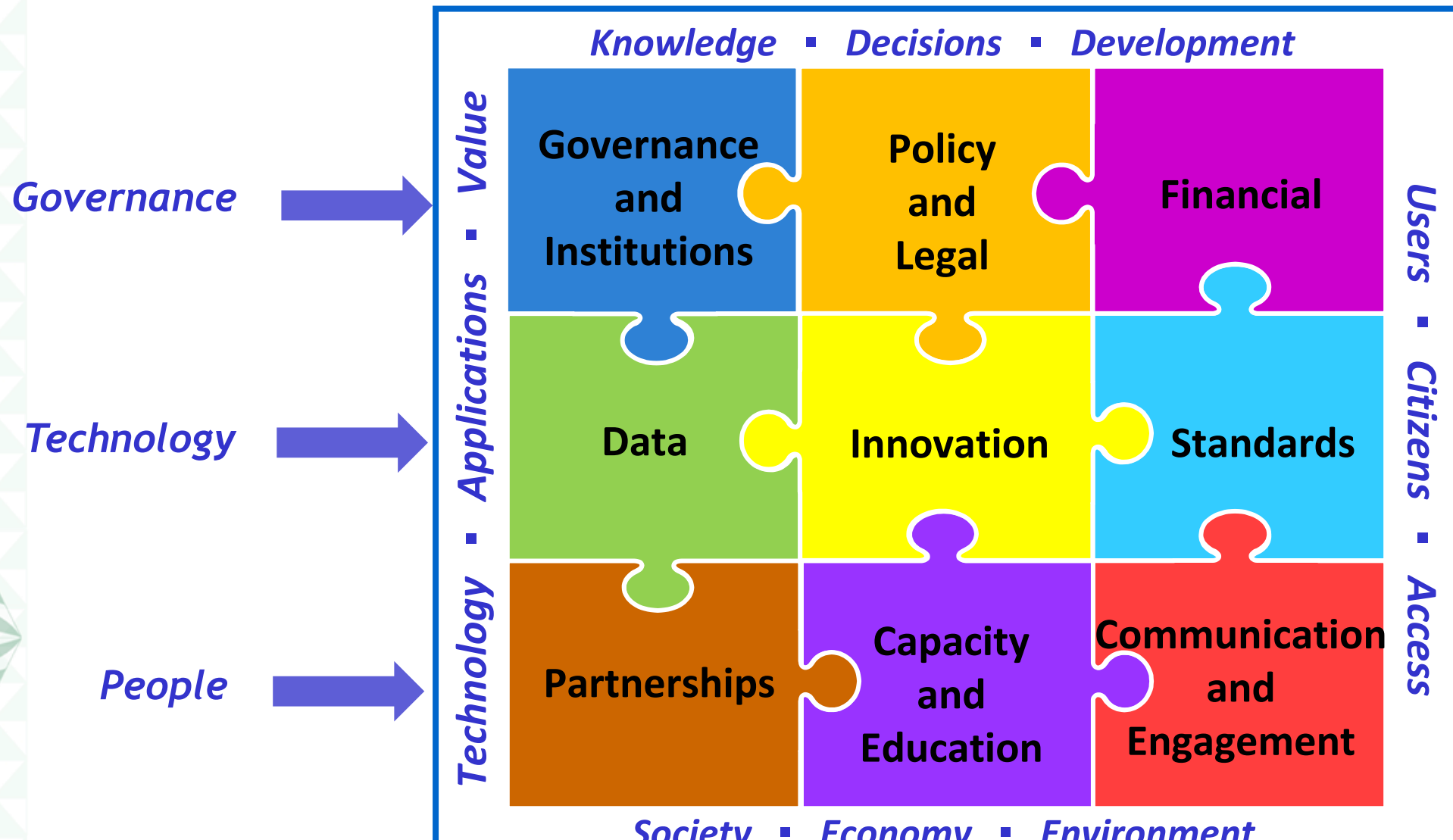


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- *Establish leadership and coordination necessary to deliver and manage effective integrated geospatial information by 2022 - 2024*
- *To develop geospatial guidelines, responsibilities and policy framework by 2022-2026 to promote data standards, sharing and accessibility.*
- *To provide accurate, reliable, timely, accessible and fit-for-purpose integrated geospatial information for all users throughout Tonga.*
- *To expand capacity development, initiate research and innovation of GIS application progressively with a focus on advancing environmental monitoring, emergency management and disaster risk reduction.*



9 STRATEGIC PATHWAYS



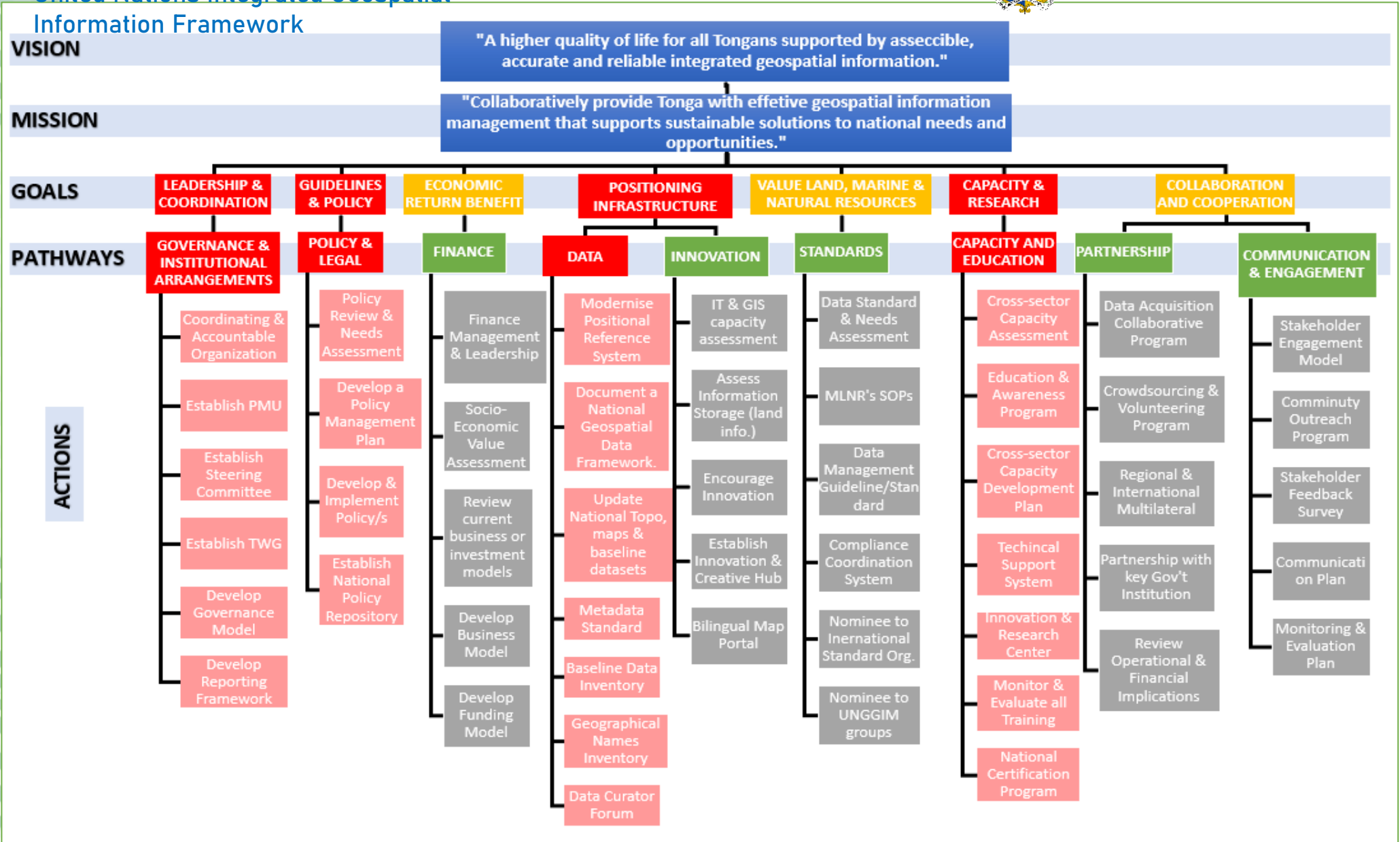


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NGAP





TONGA PRIORITY PATHWAYS

Based on Stakeholder Workshops and Baseline Survey conducted, the following pathways were identified as a priority:

- Pathway 1** - Governance & Institutional Arrangements
- Pathway 2** - Policy & Legal
- Pathway 4** - Data
- Pathway 7** - Capacity Building

Stakeholders List with their Roles and Responsibilities

Strategic Pathway	Implementing Agency	Stakeholder	Leading Agency	Co-Lead
SP1: Governance and Institutions	MLNR	MLNR	MLNR - LGIS	
	Public Service Commission	MEIDECC		
	Prime Minister's Office	MOI		
		MAFF		
		Tonga Statistics Department		
SP2: Policy and Legal	MOJ		MLNR - LGIS & CSD	MOJ
	Policy/Legal Consultant from TWG, LGIS and PMU	Compliance/Policy Officers of organizations that generate and are curator of data		
SP3: Finance	TWG, PMU and LGIS	MOF	MLNR - LGIS	MOF
		Cabinet		
		Partner key organizations		
SP4: Data		UN (donors)	MLNR - LGIS	
	MLNR	MLNR		
	MOI	His Majesty's Armed Forces		
	MEIDECC	Civil Aviation		
	MAFF	Marine and Ports		
	Tonga Statistics	Civil Society Organizations		
	Fisheries	Public Enterprises		
	Public Enterprises	Private Enterprises		
		Non-Profit Organizations		
	Government Departments who are significant users of geospatial information			
SP5: Innovation	MLNR	MLNR	MLNR - LGIS & CSD	MEIDECC - Comm & Info Division Trade and Commerce - Marketing & Innovation
	MEIDECC	Forestry Dept		
	Trade and Commerce	Statistics		
	MAFF	HMAF		
	Fisheries	Government Departments who are significant users of geospatial information		
SP6: Standards	MLNR	MLNR	MLNR - LGIS & Survey & National Spatial Planning	Tonga Statistics
	NEMO-MEIDECC	MAFF		
	MOI	Fisheries		
	TSDf	Public Enterprises		
		Non-Profit Organizations		
	Government and non-government organizations who are significant users of geospatial information			
SP7: Partnership	MLNR	UNGGIM	MLNR	
	Public Enterprises	SOPAC		
	MIA	SPREP		
	Civil Society Organizations	LINZ		
	MEIDECC	Earth Observations		
	Foreign Affairs	Government and non-government organizations who are significant users of geospatial information		
	TWB			
SP8: Capacity and Education	MLNR	MLNR	MLNR - LGIS & Survey	Ministry of Education
	Tonga Statistics	HMAF		
	Ministry of Education and Training	CSO		
		MPE		
		Private Enterprises		
		NGO and GOVT dept who are significant users of geospatial information		
SP9: Communication and Engagement	MLNR	All Stakeholders	MLNR - LGIS	MEIDECC - Comm & Info Division
	TWG, PMU and LGIS	TBC		
		Private and Public agencies		
		Radio Tonga		
		Other media outlets		



Pathway 1 - Governance & Institutional Arrangements

- SDG Data Alliance supports and recommends SDG Data Hubs with implementation approach as follows:
 - ❖ Plan: Learn about SDG Data Hub, engage with stakeholders, form a project team, and potentially a working group to provide Governance.
 - ❖ Assess and Design: Working with Stakeholders, assess national priorities, and availability of data to determine the first SDGs that the hub will focus on. Agree on SDG Data Hub governance and data sharing arrangements.
 - ❖ Deliver
 - ❖ Grow



Con't GOVERNANCE & INSTITUTIONAL ARRANGEMENTS.

- CD - Concept paper to establish Tonga SDG Task Force and TOR has been approved by the Cabinet.(PMO
- Establish Technical Committee to focus on Strengthening data capacities including data collection system, monitoring and analysis among line Ministries & key stakeholders.



Pathway 2 – POLICY & LEGAL

- Model Legislation for Geospatial Information Management Legislation
- Geospatial Information Management Policy
- Annotated Geospatial Information Sharing Agreement



Pathway 4 - DATA



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- ‘Availability of High Quality Data is so critical for decision makers to understand where investments can have the greatest impacts’ (Antonio Guterres, UN Secretary General).
- SDG Data Alliance supports to establishing National SDG Data Hub Platform: To enable monitoring of achievement of the SDGs by goal, target and indicators (Source: SDG Data Alliance).
- SDG Data Hub Solution Template is configured using ArcGIS Online that organizes people, Data and Tools to accomplish initiatives and goals.
- ESRI GIS Technology grant a professional packages for a country deployment(remoted/or on-site) included:
 - ❖ 2 ArcGIS Desktops Advanced Licenses + Non royalty Bearing Extensions
 - ❖ 1 ArcGIS Enterprise Advanced + Non royalty Bearing Server Roles
 - ❖ 5 ArcGIS Online Creator named users
 - ❖ 10,000 ArcGIS Online Service Credits
 - ❖ 2 insights for ArcGIS
 - ❖ Access number of Global Data sets via ArcGIS Living Atlas
 - ❖ Capacity Building opportunities



PATHWAY 7: CAPACITY BUILDING

- a. **Support career opportunities** in geospatial related academic fields (Geophysicist, Geologist, GIS analysts, Environmental analyst, etc.).
- b. **Establish a research centre** to build data analyst capacity, data science and data management.
- c. Enhance in-country imagery capturing techniques, processing, storage, etc.

Implementation Schedule

Year		1st Year - 2023				2nd Year - 2024				3rd Year - 2025				4th Year - 2026				5th Year - 2027			
Yearly Quarters		Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec
STRATEGIC PATHWAYS	1 Governance & IAs	■	■	▨																	
	2 Policy & Legal			■	■	■	▨														
	3 Financial					■	■	▨													
	4 Data					■	■	■	■	▨	▨			■	■	■	■	▨	▨		
	5 Standards					■	■	■	▨	▨				■	■	■	▨	▨			
	6 Innovation		■	■	▨	▨															
	7 Partnership								■	■	■	▨									
	8 Capacity & Education						■	■			■	■		■	■	■	■	▨	■	■	▨
	9 Communication & Engagement		■	■			■	■			■	■			■	■			■	■	■

Marks End of Year
 Priority Pathways
 Duration of Implementation
 Lag Period

Table 1: Implementation schedule of the Action Plan



CURRENT TONGA NGAP

- The Minister and CEO of the Ministry Lands and Natural Resources has approved.
- Final NGAP preparation for Cabinet Submission
 - Amending of booklet layout (Tonga GIS Team)
 - Cabinet Submission had been drafted.
- Continuous virtual Meetings with the UN consultants
- COMPLETED NGAP Reviews
- COMPLETED first phase of planning & developing NGAP
 - 3 Stakeholder workshops (2019, 2020,2021)
- Once approved by Cabinet and is made a Legal Document, a Launching will take place.



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THANKS FOR LISTENING

ANY QUESTION?