Lesson 3: Integrated Geospatial Information Framework (IGIF) and Geospatial Knowledge Infrastructure (GKI)

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Lesson 3: Integrated Geospatial Information Framework (IGIF) and Geospatial Knowledge Infrastructure (GKI)

This lesson will focus on:

- Why is the IGIF needed and what is it?
- What are the key components and pathways of the IGIF?
- How is the IGIF being used and implemented globally?
- What is the relationship between the GKI and IGIF?
Why is the IGIF needed?

The transformative nature of the 2030 Agenda requires new and innovative data sources and integration approaches to implement the SDGs and to ‘leave no one behind’.

The SDGs are highly dependent on geospatial information and enabling technologies as the primary data and tools for relating people to their location, place and environment, and to measure ‘where’ progress is, or is not, being made, especially at local levels.
Disruptive nature of digital transformation

The disruptive nature of digital transformation, technology, innovation, and their exponential impacts, means that society’s expectations on how, and at what level of detail, we record what is happening where and when are changing at a rapid pace.
Citizen connectivity is increasing, with geospatial information playing a greater part. This leads to growing demand for quality geospatial information, and greater citizen expectations for digital government services.

Changing community expectations

Positioning geospatial information to address global challenges
Case for change

Data management policies, practices, and integration and analytical capabilities are currently limited in many countries.

- This is particularly a significant challenge for developing countries.

Geospatial information has been typically collected in organisational silos - resulting in data duplication, and the use of different data standards, formats and classifications.

- This has made data harmonisation, maintenance and integration problematic.

The intent of the Framework:
To provide an inclusive and engaging mechanism to bring collaboration, coordination and cohesion across a country, (government institutions & private sector) for the purposes of developing, strengthening and integrating arrangements in national geospatial information management.
“Within the past generation, hundreds of millions of people have emerged from extreme poverty, and access to education has greatly increased for both boys and girls. Further, the spread of information and communications technology and global inter-connectedness has great potential to accelerate human progress, to bridge the digital divide, to develop knowledge societies, and to encourage scientific and technological innovation.”

2030 Agenda for Sustainable Development, para. 14-15

Providing and exploiting the new data needs, information systems, analytics and associated enabling technologies and tools to support the implementation of the SDGs is going to take strategic policy leadership and transformational change - a digital transformation that is able to bridge the ‘geospatial digital divide’ which continues to inhibit development progress for developing countries.

Greg Scott, November 2016
Geospatial information has emerged as a major contributor to economic transformation in many countries, including e-government, e-service and e-commerce. Yet there is still a considerable lack of awareness and understanding of the vital and integrative role of geospatial information and related enabling architectures, such as National Spatial Data Infrastructures (NSDIs), in contributing to national development.

There needs to be more institutional collaboration, coordination, interoperability and integration across the various national data information systems and platforms.
“develop an overarching Geospatial Framework……”

“prepare and implement country level Action Plans.....”

Seventh Session of UN-GGIM, August 2017

ROADMAP FOR COLLABORATION

BETWEEN

WORLD BANK’S GLOBAL PRACTICE ON
SOCIAL, URBAN AND RURAL DEVELOPMENT,
AND RESILIENCE

AND

UNITED NATIONS STATISTICS DIVISION

TO ASSIST COUNTRIES TO BRIDGE
GEOSPATIAL DIGITAL DIVIDE

Positioning geospatial information to address global challenges

ggim.un.org
The IGIF is a multi-dimensional Framework that is aimed at strengthening national geospatial information management in countries, developing countries in particular. It comprises an overarching Strategy - from local to global, Implementation guidance, and Action plans at the country level. The IGIF explains the Why, What, How, When and Who of a nation’s geospatial information program.

http://ggim.un.org/IGIF/
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK (IGIF)

PART 1: OVERARCHING STRATEGIC FRAMEWORK

ADOPTED BY UN-GGIM AT ITS EIGHTH SESSION IN AUGUST 2018
• Forward-looking (aspirational) and built on national needs and circumstances.
• Provides the overarching strategic messages and integrated national framework, focusing on policy perspectives and elements of geospatial information.
• Demonstrates ‘why’ geospatial information management is a critical element of national social and economic development, and ‘why’ it needs to be strengthened.
• Vision and Mission statements communicate the overarching aim of the Integrated Geospatial Information Framework (IGIF).
• The Framework achieves this via Strategic Drivers, 7 Underpinning Principles, 8 Goals, 9 Strategic Pathways and defined Benefits that lead to a national approach that takes account of national circumstances, priorities and perspectives.
• As a ‘strategic’ introduction to the IGIF, the intended audience of the Overarching Strategic Framework includes national leaders, political leaders, organizational managers, the business community and academia.
### Vision

The efficient use of geospatial information by all countries to effectively measure, monitor and achieve sustainable social, economic and environmental development – leaving no one behind.

### Mission

To promote and support innovation and provide the leadership, coordination and standards necessary to deliver integrated geospatial information that can be leveraged to find sustainable solutions for social, economic and environmental development.

### Strategic Drivers

- National Development Agenda
- National Strategic Priorities
- National Transformation Programme
- Community Expectations
- Multilateral trade agreements
- Transforming our World: 2030 Agenda for Sustainable Development
- New Urban Agenda
- Sendai Framework for Disaster Risk Reduction 2015–2030
- Addis Ababa Action Agenda
- Small Island Developing States Accelerated Modalities of Action (SAMOA Pathway)
- United Nations Framework Convention on Climate Change (Paris Agreement)
- United Nations Ocean Conference: Call for Action

### Underpinning Principles

- Strategic Enablement
- Transparent and Accountable
- Reliable, Accessible and Easily Used
- Collaboration and Cooperation
- Integrative Solution
- Sustainable and Valued
- Leadership and Commitment

### Goals

- **Effective Geospatial Information Management**
  - Increased Capacity, Capability and Knowledge Transfer
- **Sustainable Education and Training Programs**
  - International Cooperation and Partnerships Leveraged
- **Integrated Geospatial Information Systems and Services**
  - Enhanced National Engagement and Communication
- **Economic Return on Investment**
  - Enriched Societal Value and Benefits
The **Vision** recognizes the responsibility for countries to plan for and provide better outcomes for future generations, and our collective aspiration to ‘leave no one behind’.

The **Mission** is designed to stimulate action towards bridging the geospatial digital divide; to find sustainable solutions for social, economic and environmental development; and to influence inclusive and transformative societal change for all citizens according to national priorities and circumstances.

The motivation: National to Global **Strategic Drivers**
**IGIF: Strategic Drivers**

<table>
<thead>
<tr>
<th>Addis Ababa Action Agenda</th>
<th>Multilateral trade agreements</th>
<th>Transforming our World: 2030 Agenda for Sustainable Development</th>
<th>INSPIRE</th>
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<tbody>
<tr>
<td>New Urban Agenda</td>
<td>Small Island Developing States Accelerated Modalities of Action (SAMOA Pathway)</td>
<td>United Nations Framework Convention on Climate Change (Paris Agreement)</td>
<td>National Transformation Programmes</td>
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**Global development agendas are a major driver for maintaining quality geospatial data to better inform policy and demonstrate national progress globally.**

**Positioning geospatial information to address global challenges**

[ggim.un.org](http://ggim.un.org)
IGIF: STRATEGIC DRIVERS

- Digital Transformation - Moving countries towards e-economies, e-service and e-commerce to improve citizen services
- Build capacity for using geospatial technology
- Enhance informed government decision-making processes
- Facilitate private sector development
- Take practical actions to achieve a digital transformation
- Being able to bridge the geospatial digital divide
IGIF: 7 UNDERPINNING PRINCIPLES

PRINCIPLE 1: Strategic Enablement
Implementation of the IGIF requires political and financial support

PRINCIPLE 2: Transparent and Accountable
All citizens have access to geospatial information and resources

PRINCIPLE 3: Reliable, Accessible and Easily Used
Geospatial information is reliable, and made accessible and usable

PRINCIPLE 4: Collaboration and Cooperation
Strengthens information sharing, reduces duplication of effort, and provides clarity on roles and responsibilities

PRINCIPLE 5: Integrative Solution
Considers how people, organizations, systems, and policy and legal structures work together

PRINCIPLE 6: Sustainable and Valued
National efficiencies and productivity are increased and sustainable in the long term

PRINCIPLE 7: Leadership and Commitment
Implementation of the IGIF requires strong leadership and commitment at the highest level
IGIF: 8 Goals

1. Effective Geospatial Information management
2. International Cooperation and Partnerships Leveraged
3. Increased Capacity, Capability, and Knowledge Transfer
4. Integrated Geospatial Information Systems and Services
5. Economic Return on Investment
6. Sustainable Education and Training Programs
7. Enhanced National Engagement & Communication
8. Enriched Societal Value and Benefits

The 8 Goals reflect a future state where countries have the capacity and skills to organize, manage, curate and leverage geospatial information to advance government policy and decision-making capabilities.
The IGIF is anchored by 9 Strategic Pathways to guide Governments towards implementation.

<table>
<thead>
<tr>
<th>Governance and Institutions</th>
<th>Policy and Legal</th>
<th>Financial</th>
<th>Innovation</th>
<th>Standards</th>
<th>Governance and Policy</th>
<th>Technology and Data Interoperability</th>
<th>Partnerships</th>
<th>Capacity and Education</th>
<th>Communication and Engagement</th>
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Geospatial information has immense social and economic value. Citizens, communities, business sectors, governments, and many other stakeholders benefit every day.

Anchored by 9 Strategic Pathways, the IGIF is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps. The Strategic Pathways ‘implement’ the IGIF through actions.

Knowledge | Decisions | Development | Society | Economy | Environment | Users | Citizens | Access | Technology | Applications | Value

Positioning geospatial information to address global challenges

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Positioning geospatial information to address global challenges

The ultimate benefits, including the considerable economic benefits, of integrating and strengthening national geospatial information management is that it is a strategic enabler for all levels of government and the broader community.

It improves planning for economic growth and delivery of better services.

It supports the delivery of the SDGs, such as poverty alleviation, socially inclusive development, protection of the environment, disaster response times, regional cooperation and transparency in governance.

**IGIF: Benefits**

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<thead>
<tr>
<th>BENEFITS (SOCIETAL)</th>
<th>Knowledge</th>
<th>Decisions</th>
<th>Action</th>
<th>Development</th>
<th>Society</th>
<th>Economy</th>
<th>Environment</th>
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<td>Government</td>
<td>Users</td>
<td>Citizens</td>
<td>Access</td>
<td>Technology</td>
<td>Applications</td>
<td>Value</td>
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<tr>
<th>BENEFITS (THEMATIC)</th>
<th>Water</th>
<th>Energy</th>
<th>Tourism</th>
<th>Health</th>
<th>Education</th>
<th>Infrastructure</th>
<th>Security</th>
<th>Population</th>
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<td>Defence</td>
<td>Industry</td>
<td>Transport</td>
<td>Disasters</td>
<td>Urbanisation</td>
<td>Food Supply</td>
<td>Planning</td>
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United Nations Secretariat
Global Geospatial Information Management

ggim.un.org
9 Strategic Pathways solve the IGIF puzzle
Positioning geospatial information to address global challenges

9 Strategic Pathways solve the IGIF puzzle...with 36 Key Elements
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK (IGIF)
PART 2: IMPLEMENTATION GUIDE
ADOPTED BY UN-GGIM AT ITS TENTH SESSION IN SEPTEMBER 2020
IGIF: IMPLEMENTATION GUIDE - FOUNDATIONS

- Explains ‘what’ specific guidance and options can be taken by countries in implementing the IGIF. It captures strategic to operational needs with guiding principles; while not being detailed and prescriptive – Country-level Action Plans do that.

- Provide guidance for countries to establish ‘nationally’ integrated geospatial information frameworks in such a way that transformational change is enabled, visible and sustainable.

- Every country is at different levels of maturity in their geospatial development journey, so the guidance is comprehensive, yet general enough to be applicable to all countries, and sufficiently flexible so that each country can develop their own plan of actions to meet their national priorities and circumstances.
IGIF: IMPLEMENTATION GUIDE

1. Abstract
2. Summary
3. Introduction
4. Context and Rationale
5. Approach
6. Elements
7. Guiding Principles
8. Actions
9. Deliverables
10. Outcomes
11. Resources

“Tools” and “Interrelated Actions” are identified throughout the Chapter
Positioning geospatial information to address global challenges

1. Abstract
2. Summary
3. Introduction
4. Context and Rationale
5. Approach
6. Elements
7. Guiding Principles
8. Actions
9. Deliverables
10. Outcomes
11. Resources

IGIF: IMPLEMENTATION GUIDE

STRATEGIC PATHWAY 1

Governance and Institutions

4 KEY ELEMENTS

Governance Model
Leadership
Institutional Arrangements

Value Proposition

Outcomes
- Efficient planning and coordination of government’s geospatial information resources
- Strengthened leadership, institutional mandates and political buy-in
- A cooperative data sharing environment
- A shared understanding of the value of integrated geospatial information management

Elements
- Governance Model
- Leadership
- Value Proposition
- Institutional Arrangements

Tools
- Steering Committee
- Charter Example
- Guidance for Vision, Mission and Goal Statements
- Strategic Alignment Template
- Country Action Plan Template
- Monitoring and Evaluation Template
- Success Indicators Example

Guiding Principles
- Facilitate
- Strategic Outlook
- Credibility
- Participatory
- Open and Transparent
- Accountability
- Guidance
- Clarity
- Project Management
- Oversight
- Communication and Evaluation
- Legal interoperability

Interrelated Actions
- Policy and Legal Review (SP2)
- Data Inventory (SP4)
- Data Gap Analysis (SA)
- Policy Framework (SP2)
- ICT Capacity Review (SP5)
- ICT Needs Assessment and Gap Analysis (SP6)
- Stakeholder Engagement Strategy (SP9)
- Capacity Assessment and Gap Analysis (SP9)
- Business Model (SP2)
- Data Acquisition Program (SP4)
- Formalized Data Supply Chains (SP4)
- Socio-Economic Value Assessment (SP3)

Actions
- Forming the Leadership
  - Governing Body
  - Geospatial Coordination Unit(s)
  - Specialist Working Groups
  - Establishing Accountability
  - Governance Model
- Defining Value
  - Strategic Alignment Study
  - Value Proposition Statement
- Setting Direction
  - Geospatial Information Management Strategy
  - Change Strategy
  - Creating a Plan of Action
  - Country-level Action Plan
  - Tracking Success
  - Monitoring and Evaluation
  - Success Indicators
1. Abstract
2. Summary
3. Introduction
4. Context and Rationale
5. Approach
6. Elements
7. Guiding Principles
8. Actions
9. Deliverables
10. Outcomes
11. Resources
Solving the Puzzle

Understanding the IGIF Implementation Guide

This introductory chapter, Solving the Puzzle, describes how to understand and use the IGIF. Part 2 Implementation Guide. The Implementation Guide expands on each of the nine strategic pathways of the integrated Geospatial Information Framework (IGIF), with details of each pathway provided in separate, uniformly structured chapters. The Implementation Guide pathways provide the 'what' - the specific guidance and options to be taken by countries in implementing the IGIF. It captures strategic to operational needs with guiding principles, actions, deliverables, outcomes and resources. The aim is to provide guidance for governments to establish integrated geospatial information frameworks in countries in such a way that transformational change is enabled, visible and sustainable.

Executive Summary

Geospatial information is a critical component of the national infrastructure and knowledge economy – a blueprint of what happens where, and the means to integrate and leverage a wide variety of government services. It provides the integrative platform and ‘glue’ for all digital data that has, or can have, a location dimension to it. All countries and all sectors need geospatial information and enabling technologies for making decisions on national policy, strategic priorities and sustainable development.

However, many countries continue to face a series of impediments that exacerbate their ability and ‘opportunity’ to participate fully in transformational change with geospatial information capabilities. Yet, this change is essential to support national development, economic prosperity, and through that, a global and thriving information economy. Many countries still need to bridge the geospatial digital divide. Bridging this divide requires building capacity for people, establishing governance, and implementing technology and processes to sustain national geospatial information capabilities. This is achieved through the implementation of an integrated geospatial information framework aligned to national strategies and arrangements so that it can be anchored into national development priorities.

The IGIF comprises three parts as separate, but connected, documents: Part 1 is an Overarching Strategic Framework; Part 2 is an Implementation Guide; and Part 3 is a Country-level Action Plan. The three parts comprise a comprehensive IGIF that is intended to serve a country’s needs for finding sustainable solutions for social, economic and environmental development, to influence inclusive and transformative societal change for all citizens according to national priorities and circumstances, and to leave no one behind.

With a focus on the ability for geospatial information to be integrated with any other meaningful data to solve societal and environmental problems, the IGIF acts as a catalyst for economic growth and opportunity, and stimulates improved understanding and decision-making for national development priorities and the Sustainable Development Goals (SDGs). The Implementation Guide communicates to the user ‘what’ is needed to establish, implement, strengthen, improve, and maintain a national geospatial information management system and capability.

Importantly, the IGIF is not an infrastructure. It is a standardize ‘framework’, independent of Spatial Data Infrastructures (SDIs), National Spatial Data Infrastructures (NSDIs) and any other infrastructures. However, the IGIF fundamentally recognizes, builds upon, and augments previous investments and substantial achievements in planning and implementing SDIs and NSDIs.

The IGIF is a framework of concepts that not only provides additional structure, reasoning, and evidence as to why SDIs are important, but also provides the guidance, options and actions to plan for, develop, and implement an integrated national geospatial information management program, aligned to national strategic priorities and circumstances within a country.

With the data revolution, and now with digital transformation disrupting traditional methods of data delivery and dissemination, users have typically not understood or appreciated the value and need for integrated geospatial information as a way to expand and improve the usefulness of their data. Such data has, as its common element, location information. Once the location (for example coordinates or a geocode) is included, trends, relationships, geographic comparisons, predictive analytics and other important connections become evident, especially when mapped and visualized.

While the concept and relevance of the IGIF, as an integrative framework, appears to be new it is anchored by and builds substantially upon an existing body of work produced by UN-GGIM through its Subcommittees, Expert Groups and Working Groups, and Thematic Networks. These works have served as sources of information for each strategic pathway in the Implementation Guide. This will continue to be the case.

1. Introduction

The IGIF aims to translate high-level, strategic geospatial information concepts into practical implementation guidance and action for use by Member States. The three parts of the IGIF have been developed with the knowledge that it will be a ‘living document’, maintained in the year ahead to continue to evolve, be further refined, and will respond to a changing data and technology paradigm as a valuable resource for Member States.

What is the relationship between the Implementation Guide and the other two parts of the Framework?

Part 1 of the IGIF, the Overarching Strategic Framework, is the strategic policy guide for Member States to reference when developing and strengthening their national and sub-national geospatial information management systems and capabilities (Figure 1). It presents a forward-looking and aspirational geospatial framework built on national needs and circumstances. As an introduction to the IGIF, the intended audience includes groups such as national bodies, political leaders, organizational managers, the business
Geospatial information is a critical component of the national infrastructure and knowledge economy – a blueprint of what happens where, and the means to integrate and leverage a wide variety of government services. It provides the integrative platform and ‘glue’ for all digital data that has, or can have, a location dimension to it. All countries and all sectors need geospatial information and enabling technologies for making decisions on national policy, strategic priorities and sustainable development.

However, many countries continue to face a series of impediments that exacerbate their ability and ‘opportunity’ to participate fully in transformational change with geospatial information capabilities. Yet, this change is essential to support national development, economic prosperity, and through that, a global and thriving information economy. Many countries still need to bridge the geospatial digital divide. Bridging this divide requires building capacity for people, establishing governance, and implementing data, technology and processes to sustain national geospatial information capabilities. This is achieved through the implementation of an integrated geospatial information framework aligned to national strategies and arrangements so that it can be anchored into national development priorities.

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Global Development Agendas

2030 Agenda for Sustainable Development

Sendai Framework for Disaster Risk Reduction 2015-2030

Paris Agreement on Climate Change

SAMOA Pathway for SIDS

Addis Ababa Action Agenda

HABITAT III New Urban Agenda

Our Ocean, Our Future: Call for Action

UN-GGIM Global Geospatial Frameworks

Integrated Geospatial Information Framework (IGIF)

Strategic Framework on Geospatial Information and Services for Disasters

Global Statistical Geospatial Framework (GSGF)

Framework for Effective Land Administration (FELA)

Global Fundamental Geospatial Data Themes

Global Geodetic Reference Frame (GGRF)

National Institutional Arrangements in Geospatial Information Management

Role of Standards in Geospatial Information Management

Compendium on Licensing of Geospatial Information

Statement of Shared Guiding Principles for Geospatial Information Management

Positioning geospatial information to address global challenges

ggim.un.org
A Framework for the World, the Integrated Geospatial Information Framework (IGIF) is a reference guide for developing and strengthening national arrangements in geospatial information management and assisting countries in bridging the geospatial digital divide.
DIFFERENCE BETWEEN THE GKI AND THE IGIF
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK (IGIF)

- A catalyst for economic growth and opportunity, the IGIF focuses on geospatial information that is integrated with any other meaningful data to solve societal and environmental problems. It also focuses on integrating organizations to deliver national outcomes.

- Recognizing the evolving need to move towards ‘knowledge on demand’ or a ‘knowledge infrastructure’, the IGIF fundamentally recognizes, builds upon, and augments previous investments and achievements in planning and implementing SDIs and NSDIs, building additional structure, reasoning, and evidence.

- The IGIF also provides the guidance, options and actions to plan for, develop, and implement an integrated national geospatial information management program, aligned to national strategic priorities, circumstances, and SDGs, within a country. It is a holistic approach to managing and sustaining national geospatial information capabilities and resources. The IGIF also captures the value of the GKI.
As part of this emerging ‘knowledge infrastructure’, the GKI seeks to bring a geospatial dimension to the wider digital ecosystem - and leveraging innovation and creativity.

While we in the geospatial community tend to focus on ‘geospatial infrastructure’, it is really much more than this. Geospatial, like geography itself, is about ‘integration’ - of data, technology, infrastructure, social, institutional, organizational, partnerships, innovation...and knowledge.

While the GKI is anchored by geospatial information, its intent is to engage with a broader range of industry sectors - the commercial geospatial industry, national geospatial agencies, broader user industries, and civil society.

With geospatial information at the heart of the advancing knowledge environment, the GKI aims to move the geospatial sector closer to the wider 4IR data ecosystem, focusing on delivering knowledge to support human and machine decision-making, with cognition as the path from data to insights, knowledge, and understanding....and anchored by location.
“Driven through a geospatial industry perspective, the GKI aims to move the geospatial sector closer to the wider Fourth Industrial Revolution data ecosystem, focusing on delivering knowledge to support human and machine decision-making. In parallel, the GKI will increase the use of geospatial data, information and knowledge across business and government, setting the conditions for better evidence-based decisions. In this regard, the GKI will build upon the IGIF as a coherent set of elements that will contribute to bringing geospatial cognition to the heart of the data, knowledge and decision-support ecosystem.”
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK (IGIF)
PART 3: COUNTRY-LEVEL ACTION PLANS
TIM TRAINOR
The Country-level Action Plan (CAP) is specific to, and completed by, each country. The CAP provides the process to build an IGIF for a nation, beginning with specific plans that align with national priorities and circumstances. CAP templates are available for countries to use and detail ‘how’ the guiding principles, options, and actions specified in the Implementation Guide will be carried out, ‘when’ and by ‘whom’.

Each CAP explains where each country is at in terms of their capabilities and capacity, and reflects decisions made to advance and/or enhance national geospatial arrangements within that country, what their aspirations are, and where they want to be after planning for their IGIF.

The CAP is a plan, not a programme that is implemented. The CAP contains the processes, templates and tools that are available and necessary to first develop a national action plan, and then operationalize the IGIF through its subsequent implementation, and aligned with national priorities.

Using the Implementation Guide and available tools, CAPs are now being actively developed and implemented by countries, and with support from multiple donors and stakeholders, including the United Nations, World Bank, FAO and some countries.
## IGIF: Country-level Action Plan (CAP)

<table>
<thead>
<tr>
<th>Completed Pilots</th>
<th>IGIF Implementation in Progress/Planned (funding support)</th>
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<tbody>
<tr>
<td>Albania (WB)</td>
<td>Burkina Faso (UNSD)</td>
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<td>Palestine (WB)</td>
<td>Cambodia (WB)</td>
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<td>Guyana (FAO)</td>
<td>Colombia (WB)</td>
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<td>Albanian Level:</td>
<td>Dominican Republic</td>
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<td>Tirana, Albania</td>
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|                      | Lesotho                                                 |
|                      | Liberia (WB/Sweden)                                      |
|                      | Moldova (Norway/WB)                                      |
|                      | Mongolia (UNSD/WB)                                       |
|                      | Nepal (UNSD)                                             |
|                      | Netherlands                                              |
|                      | Nicaragua (WB)                                           |
|                      | Philippines (WB)                                         |
|                      | Russia                                                  |

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|                      | Senegal (WB)                                            |
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|                      | Serbia (WB-FAO)                                         |
|                      | Sierra Leone (WB)                                       |
|                      | Sweden                                                  |
|                      | Tonga (UNSD)                                            |
|                      | UAE                                                     |
|                      | Ukraine (Norway)                                         |
|                      | United Kingdom                                           |
|                      | Vietnam (WB)                                            |

Note on Methodology:
UNSD supports countries remotely through UN tools and on-line engagement.
FAO, Norway and Sweden are using World Bank tools and provide in-country support.
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11TH TRANCHE DEVELOPMENT ACCOUNT PROJECT

STRENGTHENING GEOSPATIAL INFORMATION MANAGEMENT IN DEVELOPING COUNTRIES
TOWARDS IMPLEMENTING THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT
(PROJECT 1819D)
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DA 11 COUNTRIES

• Burkina Faso
• Ethiopia
• Fiji
• Nepal
• Mongolia
• Tonga
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INTEGRATED DOCUMENTS

Overarching Strategic Framework
Part 1
Why?

Implementation Guide
Part 2
What?

Assessment and Analysis
Capacity Development
Development Account Project Activities
Where, Which?

Country-level Action Plans
National (sub-national) Plans
How, When, Who?

Integrated Geospatial Information Framework
Framework Reference Guide
United Nations Secretariat
Global Geospatial Information Management
Positioning geospatial information to address global challenges

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PHASE 1
- Project Kick-off and Scoping Activities

PHASE 2
- Information Gathering and Analytical Exercises
- Needs Assessment and Gap Analysis Report

PHASE 3
- Action Planning Activities
- Country Action Plan

Activities

Key Deliverable
- Project Execution Plan
IGIF: COUNTRY-LEVEL ACTION PLAN (CAP)

COMPONENT 1: PROJECT EXECUTION

Component 1: Project Execution
- Activities
  1. Project Initiation
  2. Pre-needs Assessment
  3. Project Scoping and Scheduling

Component 2: Information Gathering Activities and Analytical Exercises
- Assessment and Analysis

Component 3: Planning Activities
- Country-Level Action Plan

Component 4: Implementation Guidance and Monitoring and Evaluation Activities
- Implementation of the Country-level Action Plan
Positioning geospatial information to address global challenges

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**COMPONENT 2: ASSESSMENT AND ANALYSIS**

- **From Component 1**
  1. Project Initiation
  2. Pre-needs Assessment
  3. Project Scoping and Scheduling

- **Information Gathering Activities**
  4. Current and Desired Performance
  5. Baseline Survey
  6. Environmental Scanning

- **Analytical Exercises**
  7. Stakeholder Identification and Analysis
  8. Stakeholder Engagement Workshop
  9. Strategic Alignment (and Benefits)
  10. Vision, Mission and Goals

- **Matrix**
  11. Gap Analysis

- **Needs Assessment and Gap Analysis Report**

**Desired Performance Understood**

**Current Situation Understood**

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COMPONENT 3: COUNTRY ACTION PLAN

From Component 2

11. Gap Analysis Matrix

Component 3 Activities

13. Review Country Action Plan Template
14. Describe Activities and Sub-tasks
15. Populate Country Action Plan
16. Implementation Schedule
17. Budget Estimations
18. Develop Success Indicators
19. Country Action Plan (Final)
**IGIF: COUNTRY-LEVEL ACTION PLAN (CAP)**

**PROJECT EXECUTION PLAN**

<table>
<thead>
<tr>
<th>Component One: Project Execution Plan</th>
<th>Activity</th>
<th>Estimated Date</th>
<th>Addendum</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project Initiation Meeting</td>
<td>November 2018</td>
<td>A</td>
<td>November 2018</td>
<td></td>
</tr>
<tr>
<td>2. Pre-needs Assessment Information Sharing</td>
<td>December 2018</td>
<td>B</td>
<td>December 2018</td>
<td></td>
</tr>
<tr>
<td>3. Project Scoping and Schedule (Project Execution Plan)</td>
<td>February 2019</td>
<td>C</td>
<td>February 2019</td>
<td></td>
</tr>
</tbody>
</table>

| Component Two: Needs Assessment and Gap Analysis | Activity                                      | Estimated Date | Addendum | |
|---------------------------------------------------|-----------------------------------------------|----------------|----------|-
| 4. Current and Desired Performance               | March 2019                                    | D              |          | |
| 5. Baseline Survey                               | March 2019                                    | E              |          | |
| 6. Environmental Scanning                        | March 2019                                    | F              |          | |
| 7. Stakeholder Identification and Analysis       | April 2019                                    | G              |          | |
| 8. Stakeholder Engagement Workshop (To be held in conjunction with FGIM council) | April 2019                                  | H              |          | |
| 9. Strategic Alignment (and Benefits)            | April 2019                                    | I              |          | |
| 10. Vision, Mission and Goals                    | April 2019                                    | J              |          | |
| 11. Gap Analysis Matrix                          | May, June 2019                                | K              |          | |

| Component Three: Country Action Plan | Activity                                      | Estimated Date | Addendum | |
|--------------------------------------|-----------------------------------------------|----------------|----------|-
| 14. Strategic Pathway Activities      | July 2019                                    | N              |          | |
| 15. Populate Country Action Plan (with Activities) | August 2019                              | O              |          | |
| 16. Implementation Schedule           | September 2019                               | P              |          | |
| 17. Budget Estimations                | October 2019                                 | Q              |          | |
| 18. Develop Success Indicators        | November 2019                                | R              |          | |
### IGIF: COUNTRY-LEVEL ACTION PLAN (CAP)

#### ACTIVITY 3: CURRENT AND DESIRED STATE

<table>
<thead>
<tr>
<th>Current Performance</th>
<th>Statement</th>
<th>Desired Performance</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Not started; 2 = Minimal; 3 = Moderate; 4 = Extensive; 5 = Achieved</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GOAL 1: Effective Geospatial Information Management**

Enabling geospatial information governance, policy and institutional arrangements that ensure effective geospatial information management, accommodates individual organizational requirements and arrangements, and that are aligned to national and global policy frameworks.

- **Current Performance**:
  - Progress:
    - 1 = Not started; 2 = Minimal; 3 = Moderate; 4 = Extensive; 5 = Achieved
  - The extent to which our governance arrangements for geospatial information management bring together a broad range of institutions to share and provide access to data.

- **Desired Performance**:
  - Priority: 1 = Low and 5 = High

- **Comment:**

**Current Performance**:

- Progress:
  - 1 = Not started; 2 = Minimal; 3 = Moderate; 4 = Extensive; 5 = Achieved
  - The extent to which our geospatial policies and laws stimulate data sharing, innovation and use of geospatial information.

- **Desired Performance**:
  - Priority: 1 = Low and 5 = High

- **Comment:**

**Current Performance**:

- Progress:
  - 1 = Not started; 2 = Minimal; 3 = Moderate; 4 = Extensive; 5 = Achieved
  - The extent to which our technologies and processes enable geospatial information to be easily shared with the broader community of users.

- **Desired Performance**:
  - Priority: 1 = Low and 5 = High

- **Comment:**

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**ACTIVITY 4: BASELINE SURVEY**

### Governance and Institutions - Baseline

The following questions are designed to understand the governance and institutional arrangements, and political buy-in for integrated geospatial information management.

1. **Do you have a National Geospatial Strategy or equivalent?**
   - Yes
   - Name:
   - (Go to Question 2)
   - No
   - If no, which of the following applies?
   - Too time-consuming and there are no resources to develop the strategy
   - Training in strategy development is required
   - It is believed a strategy is not required
   - Other

2. **Has the National Geospatial Strategy or equivalent been endorsed at a high level?**
   - Yes
   - If yes, what is the level of endorsement?
     - Reviewed and approved by organization leadership
     - Reviewed and accepted by the national geospatial coordination body
     - Aspects included in higher-level organization’s strategic plan
     - Other
   - No
   - If no, please explain why the strategy has not been endorsed.

3. **Do stakeholders resonate with the strategic vision?**
   - Government/geospatial data suppliers
   - Yes
   - No
   - Some
   - Don’t know
   - Government/geospatial data users
   - Yes
   - No
   - Some
   - Don’t know
   - Businesses
   - Yes
   - No
   - Some
   - Don’t know
   - Geospatial industry
   - Yes
   - No
   - Some
   - Don’t know
   - Academic/institutions
   - Yes
   - No
   - Some
   - Don’t know
   - Citizens
   - Yes
   - No
   - Some
   - Don’t know

### Questions

9. **Do you have a geographic names dataset?**
   - Yes (national)
   - Yes (in some areas)
   - No (test/paper only)
   - If no, does this apply to a specific name typology?
   - (Go to Question 5)

   If yes, please answer the following:
   - Which of the following features are collected?
     - Road Names
     - Administrative Area Names
     - Water Body Names
     - River and stream Names
     - Landmark/ Monument Name (Place of Interest)
     - Landform Names (Mountain, Hills, Ranges etc.)
   - Who is considered the primary data custodian?

   Are there duplicate or similar names datasets collected?
   - If so, who is the secondary data custodian?

   Is geographic naming a core government function?

   Do you have a national geographic names board to approve names?

   If yes, does the board participate in the JGGED?

   Is the geographic names data accessible?

   How often is the data accessed?

   Who are the primary users?

   What is the primary source of geographic names data?

   What is the accuracy of geographic names data?

   Are geographic names linked to a spatial representation?
## IGIF: Country-level Action Plan (CAP)

### Activity 5: Environmental Scanning

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
<th>POLITICAL</th>
<th>ECONOMIC</th>
<th>SOCIAL</th>
<th>TECHNOLOGICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>Missing, outdated, or sub-standard data themes</td>
<td>Expansion of data use</td>
<td>Free data policy impacts on ROI</td>
<td>Safer Country</td>
<td>Investment opportunities for revenue growth</td>
<td>Institutional Culture</td>
<td>Data quality</td>
</tr>
<tr>
<td>Skills</td>
<td>Policy</td>
<td>New applications</td>
<td>Change in policy</td>
<td>Policy and legislation</td>
<td>Savings</td>
<td>Community needs</td>
<td>Legislation</td>
</tr>
<tr>
<td>Technology</td>
<td>Cross agency collaboration</td>
<td>Community crowdsourcing</td>
<td>Consumer behaviour</td>
<td>Copyright and Intellectual Property</td>
<td>Modernization and maintenance</td>
<td>Intergenerational issues</td>
<td>Technology level</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>ROI and Pricing Models</td>
<td>Government branding</td>
<td>Obsc</td>
<td>Value &amp; importance to the country</td>
<td>Professional Skills</td>
<td>Geographic and geospatial education capacity</td>
<td>Power (utilities) availability</td>
</tr>
<tr>
<td>Community demand</td>
<td></td>
<td>Community trust</td>
<td>Tech</td>
<td></td>
<td>Plant, equipment and personnel availability</td>
<td>Computer literacy</td>
<td>Broadband capacity</td>
</tr>
</tbody>
</table>

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## Activity 6: Stakeholder Identification

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Contact Person</th>
<th>Impact</th>
<th>Influence</th>
<th>Importance</th>
<th>Collaboration Potential</th>
<th>Potential Blockers</th>
<th>Communication Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey Department</td>
<td>John Smith, Director General, <a href="mailto:jsmith@SU.gov">jsmith@SU.gov</a>, 0998 7755 453</td>
<td>High</td>
<td>High</td>
<td>The collection and management of high quality geospatial data</td>
<td>Agree to abide by the recommended policies, standards and guidelines for managing and sharing information</td>
<td>Do not make data accessible potentially due perceived risks</td>
<td>Monthly round table discussion</td>
</tr>
<tr>
<td>Cabinet</td>
<td></td>
<td>Low</td>
<td>High</td>
<td>Understanding the financial, legal and policy implications of geospatial information management</td>
<td>Do not support financing of initiatives</td>
<td>Cabinet submissions, reports</td>
<td></td>
</tr>
<tr>
<td>VGI Community</td>
<td></td>
<td>Medium</td>
<td>Low</td>
<td>Collectors of geospatial information</td>
<td>Participate in community mapping programs such as map-a-thons</td>
<td>Provide incorrect information</td>
<td>Media releases</td>
</tr>
<tr>
<td>Commercial Real Estate Agencies</td>
<td></td>
<td>Medium</td>
<td>Low</td>
<td>Selling properties and land via real estate websites and Mobile Apps</td>
<td>Exemplify the use of geospatial information in awareness raising</td>
<td>Do not choose to leverage geospatial information for business</td>
<td>6 monthly information sessions, information, blogs</td>
</tr>
</tbody>
</table>
**IGIF: COUNTRY-LEVEL ACTION PLAN (CAP)**

**ACTIVITY 8: STAKEHOLDER WORKSHOP**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30 – 9.00</td>
<td>Registration</td>
</tr>
<tr>
<td>9.00 – 10.45</td>
<td><strong>Inaugural Session</strong></td>
</tr>
<tr>
<td></td>
<td>Welcome Address by [Name] Preferably Minister</td>
</tr>
<tr>
<td></td>
<td>Keynote Speech on “Need to Strengthen Integrated Geospatial Information Management” Expert from Geospatial Domain</td>
</tr>
<tr>
<td></td>
<td>Address by Guest Speaker on the ‘Current state of Geospatial Information Management’</td>
</tr>
<tr>
<td></td>
<td>Vote of Thanks by Name</td>
</tr>
<tr>
<td>10.45 – 11.30</td>
<td>Refreshments</td>
</tr>
<tr>
<td>11.30 – 12.30</td>
<td><strong>Information Session</strong></td>
</tr>
<tr>
<td></td>
<td>What is the Integrated Geospatial Information Framework</td>
</tr>
<tr>
<td></td>
<td>Part 1: Strategic Framework</td>
</tr>
<tr>
<td></td>
<td>Part 2: Implementation Guide</td>
</tr>
<tr>
<td></td>
<td>Part 3: Country Action Plan</td>
</tr>
<tr>
<td></td>
<td>What is the Development Account Project</td>
</tr>
<tr>
<td></td>
<td>Needs Assessment and Gap Analysis</td>
</tr>
<tr>
<td></td>
<td>Discussion</td>
</tr>
<tr>
<td>12.30 – 13.30</td>
<td>Lunch</td>
</tr>
<tr>
<td>13.30 – 15.15</td>
<td><strong>Technical Session</strong></td>
</tr>
<tr>
<td></td>
<td>Environmental Scanning Group Activities (preferably 8 Groups)</td>
</tr>
<tr>
<td></td>
<td>Discuss Political, Economic, Social and Technology drivers for change</td>
</tr>
<tr>
<td></td>
<td>Discuss strengths, weaknesses, opportunities and threats</td>
</tr>
<tr>
<td></td>
<td>Each Group to report back on their discussion/findings</td>
</tr>
<tr>
<td>15.15 – 15.30</td>
<td>Refreshment</td>
</tr>
<tr>
<td>15.30 – 16.30</td>
<td>Facilitated discussion on the Vision and Goals for Integrated Geospatial Information Management</td>
</tr>
<tr>
<td></td>
<td>Wrap up and Close: Facilitator Name</td>
</tr>
</tbody>
</table>

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### Activity 9: Strategic Alignment

<table>
<thead>
<tr>
<th>Strategic Drivers</th>
<th>Evidence of Government Strategic Priority</th>
<th>Geospatial Theme</th>
<th>Benefit of Geospatial Information</th>
<th>Current Situation</th>
<th>Investment Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>eGovernment Strategy 2017-2025</td>
<td>Accessible Information</td>
<td>Access to Geospatial Information allows users to complete an interaction with government without the need to visit individual agencies. This fosters transparent government.</td>
<td>Geospatial information is currently not accessible</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The strategy aims to simplify the delivery of information and services to citizens in order to overcome dissatisfaction with fragmented service delivery.</td>
<td></td>
<td>There is no mandated policy on data sharing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Example</td>
<td>Disaster Management Plan 2015-2020</td>
<td>Flood Risk Models</td>
<td>Essential to understanding risk to humans and infrastructure. Required for urban development and investment planning</td>
<td>LIDAR coverage across urban areas is not available</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>The Plan aims to reduce flooding in urban areas by being able to predict areas of flooding vulnerability and make plans to ensure public safety</td>
<td></td>
<td>There is no digital elevation model of urban areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Example</td>
<td>Country Development Master Plan until 2025</td>
<td>Water Quality Monitoring</td>
<td>Essential for analysing how industrial waste impacts water quality and downstream communities.</td>
<td>The location of industrial activity along waterways is not known</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>One of the aims is to improve the quality of drinking water. The plan lays down the guidelines and policies for industrial waste management in order to protect the environment and ensure community safety.</td>
<td></td>
<td>No water quality sensors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Capacity building to maintain and use data is required</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Waste management permitting and monitoring is required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**IGIF: COUNTRY-LEVEL ACTION PLAN (CAP)**

**ACTIVITY 10: VISION, MISSION, GOALS**

<table>
<thead>
<tr>
<th>Our Mission is to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide the leadership and cooperation to create and sustain the value of geospatial information for future generations; or</td>
</tr>
<tr>
<td>Promote and support innovation through the leadership and standards necessary to achieve integrated geospatial information so that it can be leveraged to find sustainable solutions to meet emerging needs and opportunities; or</td>
</tr>
<tr>
<td>Working together to bring geospatial information to the wider community</td>
</tr>
</tbody>
</table>

| We will continuously update and maintain address and geospatial data through a robust partnership program with federal, state, local and tribal governments. Data and processes will be improved through increased quality assessment and feedback will be delivered within the defined guidelines and constraints. |
## IGIF: Country-level Action Plan (CAP)

### Activity 11: Gap Analysis Matrix

<table>
<thead>
<tr>
<th>Elements</th>
<th>Current Situation (Challenges)</th>
<th>Desired Future</th>
<th>Estimated Capacity Gap</th>
<th>Possible Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following elements are to be considered</td>
<td>To be derived from PEST and SWOT Analysis Report (Addendum I), interviews and literature as well as the strategic alignment study (Addendum H) Examples are:</td>
<td>Goals to be developed for each dimension or use the Strategic Pathway Objectives.</td>
<td>Refer to IGIF Part 2 Implementation Guide for assistance. For example: There is a need to determine best approach of championing the importance of geospatial information – for example, through an Executive Order or sponsored legislation. There is a requirements for a central hub or governance mechanism for the coordination of geospatial Information management that facilitates cross-agency coordination and cooperation. There is a need for a strategy to deliver the leadership, roles and responsibilities and guidance for integrated geospatial information management across all levels of government.</td>
<td>List the activities to be included in the Capacity Development Plan. Examples are:</td>
</tr>
</tbody>
</table>
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ACTIVITY 13: COUNTRY ACTION PLAN TEMPLATE

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SP2. LEGAL AND POLICY

Establish a robust legal and policy framework to institute national geospatial legalization and policy to enable the availability, accessibility, exchange, application and management of geospatial information.

2.1 ASSESSMENTS

Identifies stakeholders with interest or responsibilities for Strategic Pathway Activities. For example:

Lead Ministry: Ministry of Land and Land Development, Geospatial Information Coordination Unit. Committees: Legal and Policy Subcommittee with direction from Geospatial Council, and with input from the legal and policy subcommittee.

2.2 CONTACT PERSONS

Person to be contacted for more information on the Strategic Pathway Activities. For example:

Additional Secretary, Ministry of Land and Land Development

2.3 BACKGROUND AND RATIONALE

Information for the reader so that they understand why the activities have been identified. This section includes a brief statement on the current situation and gaps in capabilities. For example:

Currently there are no policies or legal Act for the management and sharing of geospatial information in (Country). Policies are required to promote best practice in geospatial data management, particularly in areas of accessibility to,ENCILABILITY OF, geospatial information.

When developed in conjunction with government organizations and the private sector, policies can be used to overcome many barriers to information access, such as organizational boundaries; lack of consistent information standards; and use of incompatible or inappropriate technologies.

2.4 PROPOSED FRAMEWORK

This section provides a high-level overview of how each of the activities is the strategic pathway interimate.

It is a good idea to include a diagram to assist the reader in understanding the broader framework in which the activities are contained, such as a legal and policy framework. The IGIF Part 12: Implementation Guide provides some example frameworks that can be adopted/adapted.

The proposed legal and Policy Framework (Figure 3.2) considers all aspects of the geospatial data management life cycle from creation and initial storage, its dissemination and use as an information
## IGIF: Country-level Action Plan (CAP)

### Activity 14: Activities and Subtasks

<table>
<thead>
<tr>
<th>Activity</th>
<th>Lead Implementing Agency</th>
<th>Objective</th>
<th>Background and Rationale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Activity Sheet</td>
<td></td>
<td>What is the problem or opportunity that the activity will address? (Note: This is derived from the SWOT Analysis)</td>
<td>Describe the social, economic, political and/or environmental problem to be addressed by the activity. (Note: This is derived from the PEST Analysis and strategic alignment study)</td>
<td>Explain what the project will deliver. Refer to the GPI Part 2: Implementation Guide for more information.</td>
</tr>
</tbody>
</table>

**Lead Implementing Agency:** Example: Department of X

**Objective:** What is the problem or opportunity that the activity will address? (Note: This is derived from the SWOT Analysis)

- **Background and Rationale:** Describe the social, economic, political and/or environmental problem to be addressed by the activity. (Note: This is derived from the PEST Analysis and strategic alignment study)

**Description:** Explain what the project will deliver. Refer to the GPI Part 2: Implementation Guide for more information.

**Activities and Milestones**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish Geospatial Information Coordination Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop Terms of Reference, roles and responsibilities and code of conduct.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oversee and develop the implementation of the spatial data management framework.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For example: This activity will establish the (Country) Geospatial Information Coordination Unit (GCIP) as the central hub for the coordination and accountability for all integrated geospatial information activities.

This unit is to be managed by (Department) and will be comprised of six staff:

- Director Geospatial Information Coordination Unit
- Project Coordinator – Map Portal, Data Warehouse
- Project Coordinator – Spatial Data Management and Classification
- Project Manager – Country Action Plan Implementation and Monitoring
- Field Officer – SDI National Committee
- Field Officer – SDI Implementation

The Geospatial Information Coordination Unit will:

- Provide a forum for the effective management and sharing of spatial information across the government sector.
- Work collaboratively with spatial data suppliers, service providers, and users to achieve the goals and support the strategic priorities of government.
- Ensure that integrated geospatial information management is approached in a multi-disciplinary and multi-sectoral way.
- Promote the use and innovation potential of geospatial information.

The Geospatial Information Coordination Unit is not a spatial data producing agency, nor is it responsible for ongoing daily IT operations.
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ACTIVITY 15: IMPLEMENTATION SCHEDULE
### Activity 16: Budget Estimations

**3. Budget Estimation Tool**

Below is an example of Activity One from the Country Action Plan Template.

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Resource</th>
<th>Days/Months</th>
<th>Project Funding</th>
<th>Recurrent Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seek Cabinet Approval</td>
<td>Project Manager and Director</td>
<td>10 days, 2 days</td>
<td>$X.XX</td>
<td>$X.XX</td>
</tr>
<tr>
<td>Establish the organizational structure, Terms of Reference for positions, and job descriptions</td>
<td>Consultant and Project Officer</td>
<td>12 days, 5 days</td>
<td>$X.XX</td>
<td>$X.XX</td>
</tr>
<tr>
<td>Staff salaries (recurrently funded positions)</td>
<td>Director, Project Coordinator, Project Officer, Policy Officer, Administrative Assistant</td>
<td></td>
<td></td>
<td>$X.XX, $X.XX, $X.XX, $X.XX, $X.XX</td>
</tr>
<tr>
<td>Office resources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Office</td>
<td></td>
<td>$X.XX</td>
<td>$X.XX</td>
<td></td>
</tr>
<tr>
<td>- Technology</td>
<td></td>
<td>$X.XX</td>
<td>$X.XX</td>
<td></td>
</tr>
<tr>
<td>- Office furniture</td>
<td></td>
<td>$X.XX</td>
<td>$X.XX</td>
<td></td>
</tr>
<tr>
<td>- Stationery and sundry items</td>
<td></td>
<td>$X.XX</td>
<td>$X.XX</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>$X.XX</td>
</tr>
</tbody>
</table>

Positioning geospatial information to address global challenges

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**IGIF: COUNTRY-LEVEL ACTION PLAN (CAP)**

**ACTIVITY 17: SUCCESS INDICATORS**

<table>
<thead>
<tr>
<th>Strategic Pathway</th>
<th>Objective</th>
<th>Outcomes</th>
<th>Success Indicators</th>
<th>Means of Verification</th>
</tr>
</thead>
</table>
| Governance and Institutions              | The objective is to attain political endorsement, strengthen institutional mandates and build a cooperative data sharing environment through a shared understanding of the value of an integrated Geospatial Information Framework, and the roles and responsibilities to achieve the vision. | Achievement of [Country’s] strategic geospatial information management goals through effective leadership and coordination | Political endorsement for the Geospatial Information Strategy has been attained  
Roles and responsibilities to achieve the vision have been assigned at a high level                                                                                                                                      | Evidence of government mandate issued  
Relevant Ministerial or departmental appointments identified                             |
| Policy and Legal                        | The objective is to address current legal and policy issues by improving the laws and policies associated with, and have an impact on, geospatial information management, and by proactively monitoring the legal and policy environment, particularly with respect to emerging technologies and the evolving innovative and creative use of geospatial information. | All government agencies that collect and use geospatial information comply with laws and policies relating to geospatial information management | A Legal and Policy Framework for Geospatial Information established  
Laws and policies have been reviewed in the context of emerging technologies                                                                                                                                       | Evidence that government agencies are complying with laws and policies relating to geospatial information management |
### Activity 18: Monitoring and Evaluation

Cut and paste the completed table from Addendum O - Success Indicators (Activity 19).

Use the traffic lights method (or similar) to indicate progress towards achieving your objectives. Delete the circles that do not apply. Quarterly reporting is recommended.

**Traffic Light Reporting:**
- **Green**: Objective has been achieved
- **Amber**: Objective is on track to be delivered
- **Red**: Objective is delayed and requires review and action

<table>
<thead>
<tr>
<th>Strategic Pathway</th>
<th>Objective</th>
<th>Outcomes</th>
<th>Success Indicators</th>
<th>Means of Verification</th>
<th>Traffic Lights</th>
<th>Progress Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance and Institutions</td>
<td>Establish leadership, governance model, institutional arrangements and a clear value proposition to achieve multi-disciplinary and multi-sectoral participation and commitment.</td>
<td>Achievement of [Country’s] strategic geospatial information management goals through a shared understanding of the value of an integrated Geospatial Information Framework, and the roles and responsibilities to achieve the vision.</td>
<td>Political endorsement for the Geospatial Information Strategy has been attained and responsibilities to achieve the vision have been assigned at a high level.</td>
<td>Evidence of government mandate issued</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Positioning geospatial information to address global challenges
INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK (IGIF)
PART 3: COUNTRY-LEVEL ACTION PLANS
CASE STUDY: KINGDOM OF TONGA
Survey

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