

Review of the Integrated Geospatial Information Framework and Strategic Framework on Geospatial Information and Services for Disasters comparison

Prepared by

THE WORKING GROUP ON GEOSPATIAL INFORMATION AND SERVICES FOR DISASTERS

24th July 2020

Introduction

The UN-GGIM Working Group on Geospatial Information and Services for Disasters (the Working Group) has reviewed the Integrated Geospatial Information Framework (IGIF) and compared it with the Strategic Framework on Geospatial Information and Services for Disasters (SF-GISD). The comparison was done taking into consideration the structure and content of both frameworks including their outcomes, goals, targets, principles and priorities.

This review was done within the context of the global consultation on the IGIF that concluded in July 2020. The intent was to evaluate the compatibility and alignment of both of these key geospatial information management frameworks and to make recommendations on relevant further work that would be needed to guide users of the frameworks.

Background

The SF-GISD was developed by the Working Group and endorsed by the Committee of Experts at its 7th Session in 2017:

“as a guide for Member States in their respective national activities to ensure the availability and accessibility of quality geospatial information and services across all phases of the emergency cycle, and as a means to reach out and engage with decision makers” Decision 7/110, Report on the seventh session (2-4 August 2017), UN-GGIM.

The intent of the SF-GISD is to provide Member States with guidance on the priority actions they should take in order to bring about the more effective use of geospatial information for disaster risk reduction and management. The importance and value of the SF-GISD was further evidenced through its adoption by the UN Economic and Social Council in July 2018 under [resolution 2018/14](#).

The subsequent development of the IGIF by the Committee of Experts has led the Working Group to review the compatibility of both frameworks. This report presents the results of that review.

Approach

The following three approaches were used to compare the frameworks and they are presented in the three tables appended to this report:

1. High-level comparison and matching of both framework’s key elements (Table 1)
2. The five SF-GISD Priorities for Action compared to the nine IGIF Strategic Pathways (Table 2)
3. The six SF-GISD targets compared to the nine IGIF Strategic Pathways (Table 3)

Table 1 looks at the overall scope, vision, goals, target and priorities among other things, of each and lays them out side-by-side for easy reference and comparison.

The comparison in Table 1 has been used to help formulate the commentary in the following section of this note, along with a more detailed review of both frameworks.

Tables 2 and 3 (“Pathways Priorities Targets” tab in the accompanying spreadsheet) are based on a review of the listed actions and targets of the SF-GISD and the Strategic Pathways as described in Part 1 of the IGIF.

Observations from the review

The IGIF is a strategic framework to support the improved delivery of geospatial information to meet the sustainable development needs of countries. The IGIF focuses on the efficient use of geospatial information in support of sustainable development. The SF-GISD on the other hand seeks to ensure the availability and accessibility of geospatial information in support of effective disaster risk management which in effect advances sustainable development.

Both frameworks are designed to be flexible and applied to the unique circumstances of individual countries.

The [IGIF](#) (UN-GGIM, ongoing development) has three parts:

1. Overarching Strategic Framework (Why?)
2. Implementation Guide (What?)
3. Country-level Action Plans (How, when, who?)

The [SF-GISD](#) (UN-GGIM, 2017) outlines five priority areas for action. These actions are differentiated at:

1. National and Local levels, and
2. Global and Regional levels.

The implementation of the IGIF will be done through Country Action Plans. If disaster risk reduction and management is one of the drivers for developing such a plan the SF-GISD will be a useful reference for scoping out the actions to be considered.

Compatibility of the frameworks

Though the frameworks are structured differently, the high-level intent of each are aligned and many of the considerations within each are common.

To map these out, the “Priorities for Action” and “Targets” within the SF-GISD have been considered against each of the nine “Strategic Pathways” enabling the alignment and possible gaps within the frameworks to clearly identified (Table 3).

The comparisons in tables 2 and 3 show that:

- a) There are no gaps or mismatch between the SF-GISD Priorities for Action and IGIF Pathways and many strong links between the elements of both frameworks.
- b) Each of the targets of the SF-GISD can be supported by considering actions within the IGIF Pathways.
- c) “Governance and Institutions” and “Communication and Engagement” pathways are key considerations that should be addressed in supporting the achievement of each target.

Implementation

The SF-GISD provides only a brief high-level commentary on the approach to its implementation. Therefore, there seems great potential to use the IGIF as a tool to create more detailed and specific action plans to form work programmes that will support the outcome and goals of the SF-GISD.

Summary

The analysis showed that there is strong alignment between the two frameworks. The IGIF is supportive of, and mutually compatible with, the SF-GISD. The SF-GISD is a high-level framework and though it presents clear actions for consideration in its implementation it is not an action plan.

The SF-GISD portrays a representation of a functional and sustainable system where access to quality geospatial information and services before, during and after disasters thrives. The IGIF provides a more comprehensive guide which can be referenced in crafting a more detailed national action plan in order to operationalize the SF-GISD.

Using disaster risk reduction and management (DRRM) as a focus for the development (or supporting the development) of a national spatial data infrastructure is recognised by both frameworks. Countries or organizations seeking to establish improved DRRM practices through the greater use of geospatial information and services could reference both frameworks as guiding documents; the SF-GISD for a view of what success could look like and what actions should be considered, and the IGIF as a means to develop a viable and specific action plan for implementation.

It would be valuable to work with those Member States and other organizations that are developing action plans through use of the IGIF to assess their experience and how it could help others seeking to achieve the goals and outcome of the SF-GISD.

Key finding and recommendations

Having undertaken a comparative review of the SF-GISD and IGIF, the Working Group submits the following conclusions and recommendations:

1. The IGIF is supportive of, and mutually compatible with, the SF-GISD.
2. The IGIF should be the primary tool used to develop implementable and detailed action plans to support the improved use of geospatial data and services for disaster risk reduction and management.
3. The SF-GISD remains highly relevant. It will be a valuable resource for those using the IGIF to develop such action plans.
4. The IGIF needs to provide a clear reference to the SF-GISD in order that the priority actions it recommends can be accounted for by those developing related IGIF action plans.
5. The Working Group should work with the IGIF team and UN-GGIM Secretariat to monitor the IGIF's use to develop disaster-related actions plans, and to support and promote the uptake of appropriate priority actions outlined within the SF-GISD within those plans.
6. The relevance and utility of the SF-GISD should be reviewed in 3 to 5 years' time, alongside the that of the IGIF.

Authored by:

Mr Robert Deakin, 24th July 2020

rdeakin@linz.govt.nz

UN-GGIM Working Group GISD representative for the Government of New Zealand

On behalf of the Working Group on Geospatial Information and Services for Disasters, with acknowledgement of the support provided by members of Task Group D of the Working Group

Appendix Tables

Table 1: High-level comparison of the frameworks' key elements

	Strategic Framework on Geospatial Information and Services for Disasters (SF-GISD)		Integrated Geospatial Information Framework (IGIF)
Expected Outcome	The human, socioeconomic and environmental risks and impacts of disasters are prevented or reduced through the use of geospatial information and services	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
Scope and Purpose	The strategic framework aims to guide all stakeholders and partners in the management of geospatial information and services in all phases of Disaster Risk Reduction and Management (DRRM)	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
Goal	Quality geospatial information and services are available and accessible in a timely and coordinated way to support decision-making and operations within and across all sectors and phases of the emergency cycle	Goals	Effective Geospatial Information Management Sustainable Education and Training Programs Increased Capacity, Capability and Knowledge Transfer 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
Targets	<ul style="list-style-type: none"> a) Awareness is raised among concerned entities on the importance of geospatial information and services and communication mechanisms are established, used and sustained b) Regular assessment, monitoring and evaluation of emergency situations are conducted and a comprehensive plan is developed to address identified gaps c) Governance and policies on collaboration and coordination are established, issued and implemented d) Geospatial databases and information products are developed based on common standards, protocols and processes as important tools in every decision-making process across all phases of the emergency cycle e) Common facilities and services are established for all key stakeholders to have a common operational picture of emergency scenarios f) Technical and human capacities are built and/or strengthened and all necessary resources are made available to sustain all the activities 	Targets	N/A
Guiding Principles	<ul style="list-style-type: none"> a) Each Member State shall be in the position to generate, maintain and provide quality geospatial information and services across all phases of the DRRM b) Geospatial information and services generated and maintained by Member States shall be openly accessible to the DRRM community as appropriate c) The implementation of the framework shall encourage data sharing, interoperability and harmonization among neighbor countries in order to respond efficiently to cross-boarder disasters d) The implementation of the framework shall comply with the data specifications and requirements of the NSDI or contribute to the establishment of such infrastructure if not yet in place e) The international organizations and developed countries shall extend and coordinate their support to developing countries, particularly the least developed countries, Small Island Developing States, landlocked developing countries and African countries, as well as middle-income and other countries facing specific disaster risk challenges. 	Underpinning Principles	Strategic Enablement Transparent and Accountable Reliable, Accessible and Easily Used Collaboration and Cooperation Integrative Solution Sustainable and Valued Leadership and Commitment
Priorities for Action	<ul style="list-style-type: none"> 1: Governance and Policies 2: Awareness Raising and Capacity Building 3: Data Management 4: Common Infrastructure and Services 5: Resource Mobilization 	Strategic Pathways	Governance and Institutions Legal and Policy Financial Data Innovation Standards Partnerships Capacity and Education Communication and Engagement

Table 2: Comparison of SF-GISD Priorities for Action and the IGIF Strategic Pathways

Strategic Framework GISD	IGIF Strategic Pathways								
	GOVERNANCE			TECHNOLOGY			PEOPLE		
Priorities for Action	Governance and Institutions	Legal and Policy	Financial	Data	Innovation	Standards	Partnerships	Capacity and Education	Communication and Engagement
1: Governance and Policies	1	1	1	1	1	1	1	1	1
2: Awareness Raising and Capacity Building	1	1	0	1	1	1	1	1	1
3: Data Management	1	1	0	1	1	1	1	1	1
4: Common Infrastructure and Services	1	1	0	1	1	1	1	1	1
5: Resource Mobilization	1	1	1	0	0	0	1	1	1

Key: 1 - there is a strong link between the SF-GISD actions expressed at the "National and Local" and "Global and Regional" levels and the IGIF Pathway
 0 - there is an inferred link between the SF-GISD actions expressed at the "National and Local" and "Global and Regional" levels and the IGIF Pathway
 i.e. finance and technology are assumed necessary to all actions even though they do not feature specifically in the indicated "Priorities for Action"

Table 3: Comparison of SF-GISD Priorities for Action and the IGIF Strategic Pathways

Strategic Framework GISD	IGIF Strategic Pathways								
	Governance and Institutions	Legal and Policy	Financial	Data	Innovation	Standards	Partnerships	Capacity and Education	Communication and Engagement
Targets									
a) Awareness is raised among concerned entities on the importance of geospatial information and services and communication mechanisms are established, used and sustained									
b) Regular assessment, monitoring and evaluation of emergency situations are conducted and a comprehensive plan is developed to address identified gaps									
c) Governance and policies on collaboration and coordination are established, issued and implemented									
d) Geospatial databases and information products are developed based on common standards, protocols and processes as important tools in every decision-making process across all phases of the									
e) Common facilities and services are established for all key stakeholders to have a common operational picture of emergency scenarios									
f) Technical and human capacities are built and/or strengthened and all necessary resources are made available to sustain all the activities									

Key: - there is a strong supporting link from IGIF Pathway to the SF-GISD Target