United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM)

Working Group on Geospatial Information & Services for Disasters (WG Disasters)

"Assessment 2020 Results - Strategic Framework on Geospatial Information and Services for Disasters"

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INSIDE PAGE

This document was produced by the Working Group on Geospatial Information & Services for Disasters (WG Disasters) of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM).

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A. Abbreviations

CBO	Community-Based Organization
CCA	Climate Change Adaptation
CDM	Comprehensive Disaster Management
CEOS	Committee on Earth Observation Satellites
CRDM	Comprehensive Disaster Risk Management
CODs	Common Operational Datasets
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ECOSOC	(United Nations) Economic and Social Council
EEI	Essential Elements of Information
EWS	Early Warning Systems
EO	Earth observation
FODs	Fundamental Operational Datasets
GA	(United Nations) General Assembly
GGIM	(United Nations) Global Geospatial Information Management
GEO	Group on Earth Observations
GI	Geospatial Information
HVA	Hazard Vulnerability Risk Assessment
IAEG	Inter-Agency & Expert Group on Disaster-related Statistics
IEC	Information, Education and Communication
IGIF	Integrated Geospatial Information Framework
ISO	International Organization for Standardization
M&E	Monitoring and Evaluation
MER	Monitoring, Evaluation and Reporting
NGOs	Non-Government Organizations
NHAs	National Hydrographic Agencies
NDMAs	National Disaster Management Agencies
NDRRM	National Disaster Risk Reduction and Management
NMAs	National Mapping Agencies
NSIs	National Statistical Institutions
NSDI	National Spatial Data Infrastructure
OGC	Open Geospatial Consortium
RBM	Results-based Management
SF-GISD	Strategic Framework on Geospatial Information and Services for Disasters
TG	Task Groups
TNA	Training Needs Assessment
UN	United Nations
UN-GGIM	United Nations Group of Experts on Global Geospatial Information Management
UNISDR	United Nations International Strategy for Disaster Reduction
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
VGI	Volunteered Geospatial Information
WCDRR	World Conference on Disaster Risk Reduction
WG-Disasters	Working Group on Geospatial Information and Services for Disasters

B. Glossary

Business use Case	A list of actions or event steps that would guide actors in implementing a specific system (e.g. DRM)
Database	Is a collection of information organized for convenient access, facilitating improved management and continuous updating.
DRM	Known also as disaster risk reduction and management, it is the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster. *Source: Section 3, Republic Act 10121*
Five Priorities Of Action	These are the action points identified by the UN-GGIM in implementing the Strategic Framework on Geospatial Information and Services for Disasters, namely (a) Governance and Policies, (b) Awareness Raising and Capacity Building, (c) Data Management, (d) Common Infrastructure and Services, and (e) Resource Mobilization.
Geospatial Information	Are data referenced to a place – a set of geographic coordinates – on the Earth surface, whether on land or at sea.
Humanitarian Profiling	Refers to the various data collection methods concerning the promotion of human welfare. These profiles may include data holdings on affected population, estimated damage costs, and relief requirements, among others.
Interoperability	Denotes the ability of diverse systems and organizations to work together. It is considered important as it allows different data components to work together. *Source: opendatahandbook.org*
Open Data	Is data that can be freely used, re-used and redistributed by anyone – subject only, at most, to the requirement to attribute and share alike. *Source: opendatahandbook.org*
Operations Center	Refers to the facilities established by UN Member States and other stakeholders to integrate all efforts on disaster response. In most cases, these facilities house up-to-date technologies and systems to simulate, monitor and respond to specific disaster events.

Spatial Data Infrastructure	Denotes a framework of technologies, policies, and institutional arrangements that together facilitate the creation, exchange, and use of geospatial data and related information resources across an information-sharing community. Such a framework can be implemented narrowly to enable the sharing of geospatial information within an organization or more broadly for use at a national, regional, or global level. *Source: www.esri.com*
Strategic Framework	Pertains to the UN-GGIM Strategic Framework on Geospatial Information and Services for Disasters (2016-2030). It serves as a guiding policy document bringing all stakeholders and partners involved in DRM together to ensure that the necessary quality geospatial information and services are available and accessible in a coordinated way to decision making and operations before, during and after disaster events.
UN-GGIM	Refers to the United Nations Committee of Experts on Global Geospatial Information Management. It is an intergovernmental subsidiary body of the UN Economic and Social Council with the responsibility of providing a forum for coordination and dialogue among Member States, and between Member States and relevant international organizations on enhanced cooperation in the field of global geospatial information. *Source: UN-GGIM WG Disasters Terms of reference*
WG-Disasters	Known also as the Working Group on Geospatial Information and Services for Disasters, it is a working group within the UNGGIM that is assigned to develop and implement a strategic framework on geospatial information and services for disasters in support of the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030. It is currently co-chaired by Jamaica and the Philippines.

C. Acknowledgements & Disclaimers

The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) Working Group on Geospatial Information and Services for Disasters (WG Disasters) facilitated the development of the Strategic Framework on Geospatial Information and Services for Disasters and its accompanying Assessment tool, under the previous leadership of the Philippines and Jamaica. Under the current leadership of Jamaica and Japan, the "UN-GGIM Strategic Framework on Geospatial Information and Services for Disasters Assessment Survey" was globally administered in June - October 2020, by the Working Group in collaboration with the UN-GGIM Secretariat.

This paper has been authored by representatives of UN-GGIM WG Disasters through its Task Group A: Implementation and Monitoring of the Strategic Framework. The content is based on the findings from the "UN-GGIM Strategic Framework on Geospatial Information and Services for Disasters Assessment Survey" administered globally in June - October 2020.

The survey was administered to the five regions of the UN-GGIM: Africa, Americas, Asia and Pacific, Arab States and Europe. Gratitude extended to all contributors from Africa, Americas, Asia and Pacific and Europe. A full list of those who have contributed can be found at the end of the paper. We are grateful to every person and organization for giving their time, either to provide online submissions or written document contributions towards the successful completion of this paper.

The content reflects the views of the contributing Member States, non-Member States, and non-governmental organizations from the participating regions. Particular focus was placed on responses from the regions of the Americas, Asia and Pacific and Europe. Gratitude is expressed to contributors from Africa, we however regret that their contributions were not analyzed given the low overall number of responses, which would not allow for a true representative sample and related results. Through consensus, major trends and themes were identified by the authors for reporting.

Special gratitude is extended to Ms. Simone Lloyd, GISP, Lead for Task Groups A and C, who spearheaded the development of this publication. Special commendations are expressed to Mr. Taro Ubukawa, Senior Geospatial Expert within the UN-GGIM Secretariat, who contributed significantly to the processing and analysis of the survey data. Additionally, special gratitude is extended to Ms. Cecille Blake, Statistician within the UN-GGIM Secretariat, for her guidance and editorial assistance towards completion.

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D. Foreword

The Strategic Framework on Geospatial Information and Services for Disasters was adopted by the Committee of Experts in August 2017 and by the United Nations Economic and Social Council (ECOSOC) on 2 July 2018. The Framework was birth out of several consultations among senior officials and technical experts from Member States and other stakeholders tasked to formulate a geospatially based framework aligned with and supporting the execution of the Sendai framework for disaster risk reduction 2015 - 2030. It was broken down into five priority areas and aims to guide Member States and other stakeholders in making available and accessible quality geospatial information and services before, during and after disaster events.

The Working Group on Geospatial Information and Services for Disasters (WG-Disasters) of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) brings to us the Background Paper entitled "Assessment 2020 Results - Strategic Framework on Geospatial Information & Services for Disasters".

The aim and objectives of the Assessment Survey are to: (1) gauge the level and status of implementation of geospatial information and services for disasters initiatives relative to the Strategic Framework among Member States, (2) understand the national geospatial information and services landscape across all phases of disasters within Member States, and (3) to better develop their national implementation plans for geospatial information and services in support of disaster risk reduction and management (DRRM).

The Background Paper shares the experiences of Member States on a primarily global and regional basis. It is built on the five priorities for action and is a critical baseline benchmark for Members States in implementing the strategic framework.

Our greatest lessons can be found in our challenges and gaps. In an effort to ensure resilience building, the strengths and gaps identified from the survey points us to the key areas where investments in strengthening geospatial information and supporting services need to be focused and marshalling global resources should be targeted.

As co-chairs of the Geospatial Information and Services for Disasters Working Group (WG-Disasters) of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM), it gives us great pleasure to share with you the completed Background Paper for the Strategic Framework Assessment Survey, which is a major step in advancing the work program of the Working Group. The Working Group's new Workplan (2020-2023), presented for noting by the Committee of Experts for the Eleventh Session of UN-GGIM, will target the outcomes presented in the Background Paper as we continue our efforts to support implementation of the Strategic Framework in Member States.

We take this opportunity to thank all persons who contributed to completing the survey, and analyzing and preparing the report. We invite all UN-GGIM representatives to see the Strategic Framework and its survey as tools to support your National Disaster Risk Reduction and Management (NDRRM) programme. The Working Group therefore encourages the use of the Assessment Survey Background Paper to inform your future activities, towards substantially reducing disaster risk and losses in lives, livelihoods and health.

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E. Introduction

1. The Working Group on Geospatial Information and Services for Disasters (WG-Disasters) was created by the Committee of Experts at its fifth session, under decision 5/110, [1]adopted in August 2015 with the mandate to develop and implement a strategic framework. A notable achievement of the WG-Disasters under the previous leadership of the co-chairs Jamaica and Philippines, has been the preparation of the Strategic Framework on Geospatial Information and Services for Disasters (Strategic Framework) and its adoption by ECOSOC on 2 July 2018 under resolution 2018/14 (Figure 1). The Framework serves 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 disaster risk management (DRM) (Figure 2). The Strategic Framework approach is applicable in addressing both thematic and compounded hazard scenarios. More information about the Framework is available at Strategic Framework.

Figure 1: Strategic Framework

Strategic Framework on Geospatial Information and Services for Disasters

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 management

Expected Outcome

The social, economic, and environmental risks and impacts of disasters are prevented or reduced through the use of geospatial information and services

Goal

Quality geospatial information and services are available and accessible in a timely and coordinated way to support decision-making and operations within and among all stakeholders and partners and in all phases of disaster risk management

Priorities for Action

Member States with the support of regional and international organizations as well as other relevant organizations should focus their action on the following five priorities for action:

Priority 1 Governance and Policies	Priority 2 Awareness Raising and Capacity Building	Priority 3 Data Management	Priority 4 Common Infrastructure and Services	Priority 5 Resource Mobilization
Policies, collaborative agreements and legal frameworks aiming at improving the availability and accessibility of quality geospatial information and services among all stakeholders and partners established and implemented in all phases of DRM	Awareness is raised among concerned entities on the importance of geospatial information and services and all necessary technical and human capacities are built and/or strengthened	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 DRM	Common facilities and services are established for all key stakeholders and partners to have a common operational picture of emergency scenarios	All necessary technical, human and financial resources are available to sustain all the activities of DRM

Guiding Principles

The strategic framework is guided by the 2030 Agenda for Sustainable Development, International Strategy for Disaster Reduction, Sendai Framework for Disaster Risk Reduction (2015-2030), the UN-GGIM Global Statistical Geospatial Framework, UN General Assembly resolution on international cooperation on humanitarian assistance in the field of natural disasters, from relief to development and other relevant instruments. It is also guided by the principles of open data and requirements of national data infrastructure, and by the UN-GGIM's Statement of Shared Guiding Principles for the Management of Geospatial Information.

Figure 2: Strategic Framework Core Areas

[1] E/2015/46-E/C.20/2015/17

2. The Strategic Framework was developed to support the achievement of the Sendai Framework for Disaster Risk Reduction (2015-2030), by striving for "human, socioeconomic and environmental risks and impacts of disasters are prevented or reduced through the use of geospatial information and services"

3. The WG-Disasters is currently co-chaired by Jamaica and Japan and has 56 expert members from Member States, United Nations offices and agencies, international organizations, non-governmental organizations (NGOs), academia, private sector and from the United Nations System.

4. An Assessment Survey entitled "UN-GGIM Strategic Framework on Geospatial Information and Services for Disasters Assessment Survey" was prepared and endorsed at the ninth session of the Committee of Experts as a tool to assist Member States in establishing their capacity to implement the Strategic Framework with the view to provide further guidance to support capacity gaps within priority areas for action as defined by the Strategic Framework.

5. This background paper is a deliverable of the Working Group to the Committee of Experts. The "UN-GGIM Strategic Framework on Geospatial Information and Services for Disasters Assessment Survey" has been prepared as a tool to assist Member States in determining their capacity to implement the Strategic Framework, with a view to provide further guidance to identify gaps within priority areas for action as defined by the Strategic Framework. The assessment survey is intended to be a simple and practical assessment tool to assist Member States and the UN-GGIM regional committees to evaluate and develop national implementation plans, and also serve as a mechanism to establish the status of the interlinkages between national geospatial information and services for disaster management.

The Assessment Survey, the proforma of which was adopted at the ninth session of the Committee of Experts in August 2019, consists of the five sections focusing on the respective Strategic Framework priority areas, namely: A) governance and policies; B) awareness raising and capacity building; C) data management; D) common infrastructure and services; and E) resource mobilization.

F. Objective

1. Assessment Survey

The objectives of the Strategic Framework Strategic Framework on Geospatial Information and Services for Disasters Assessment Survey exercise were to:

- Assist the Working Group to better understand the status of the national geospatial information and services landscape across all phases of disasters in Member States;
- To determine mechanisms and strategies to support the implementation of the Strategic Framework within Member States; and

- Alternatively, the tool can be used by Member States to better develop their national implementation plans for geospatial information and services in support of disaster risk reduction and management (DRRM).

2. Background Paper

The objectives of the "Assessment 2020 Results - Strategic Framework on Geospatial Information & Services for Disasters" background paper are to:

- share the results/findings of the globally administered Strategic Framework on Geospatial Information and Services for Disasters Assessment Survey;
- determine whether there is scope to improve the assessment instrument; and
- identify or determine recommendations moving forward in support of the Framework and assistance needed for Member States to support implementation.

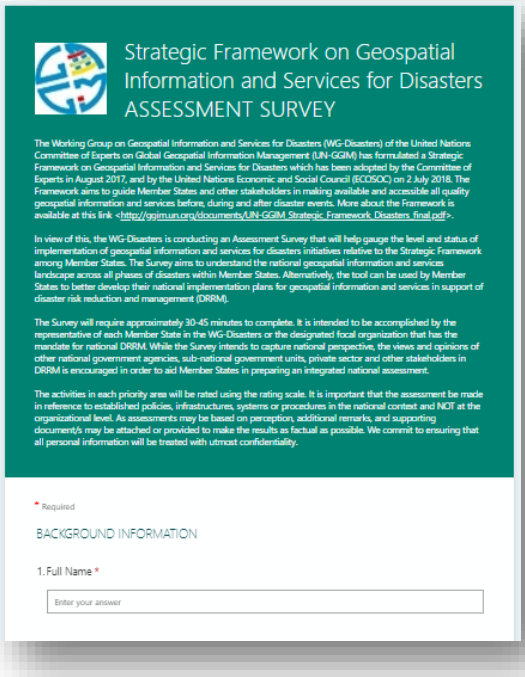
G. Methodology

1. Global Survey Administration/Consultation Process

The implementation and monitoring of the Strategic Framework is a major work item for the Working Group. An element of the implementation and monitoring of the Strategic Framework is the execution of the Assessment Survey. Over the initial period of June to August 2020, with an extension to October 2020, The Working Group through Task Group A, assisted by the UN-GGIM Secretariat, globally administered the "Strategic Framework on Geospatial Information and Services for Disasters Assessment Survey".

National mapping agencies and geospatial data management organizations, with the assistance of focal organizations with mandates for disaster risk reduction and management, were invited, by letter of 3 June 2020, to complete on-line the Assessment Survey or via document submission (Figures 3 and 4).

The survey consisted of five chapters focusing on the respective priority areas detailed in the Strategic Framework, namely a) Governance and policies, b) Awareness raising and capacity building, c) Data management, d) Common infrastructure and services, and e) Resource mobilization. The survey was prepared as an online form and circulated to the UN-GGIM Member States, and observers in June 2020, with a completion deadline of 2nd October 2020 (Figure 3).



Strategic Framework on Geospatial Information and Services for Disasters
ASSESSMENT SURVEY

The Working Group on Geospatial Information and Services for Disasters (WG-Disasters) of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) has formulated a Strategic Framework on Geospatial Information and Services for Disasters which has been adopted by the Committee of Experts in August 2017, and by the United Nations Economic and Social Council (ECOSOC) on 2 July 2018. The Framework aims to guide Member States and other stakeholders in making available and accessible all quality geospatial information and services before, during and after disaster events. More about the Framework is available at this link <http://ggim.un.org/documents/UN-GGIM Strategic_Framework_Disasters_final.pdf>.

In view of this, the WG-Disasters is conducting an Assessment Survey that will help gauge the level and status of implementation of geospatial information and services for disasters initiatives relative to the Strategic Framework among Member States. The Survey aims to understand the national geospatial information and services landscape across all phases of disasters within Member States. Alternatively, the tool can be used by Member States to better develop their national implementation plans for geospatial information and services in support of disaster risk reduction and management (DRRM).

The Survey will require approximately 30-45 minutes to complete. It is intended to be accomplished by the representative of each Member State in the WG-Disasters or the designated focal organization that has the mandate for national DRRM. While the Survey intends to capture national perspective, the views and opinions of other national government agencies, sub-national government units, private sector and other stakeholders in DRRM is encouraged in order to aid Member States in preparing an integrated national assessment.

The activities in each priority area will be rated using the rating scale. It is important that the assessment be made in reference to established policies, infrastructures, systems or procedures in the national context and NOT at the organizational level. As assessments may be based on perception, additional remarks, and supporting document/s may be attached or provided to make the results as factual as possible. We commit to ensuring that all personal information will be treated with utmost confidentiality.

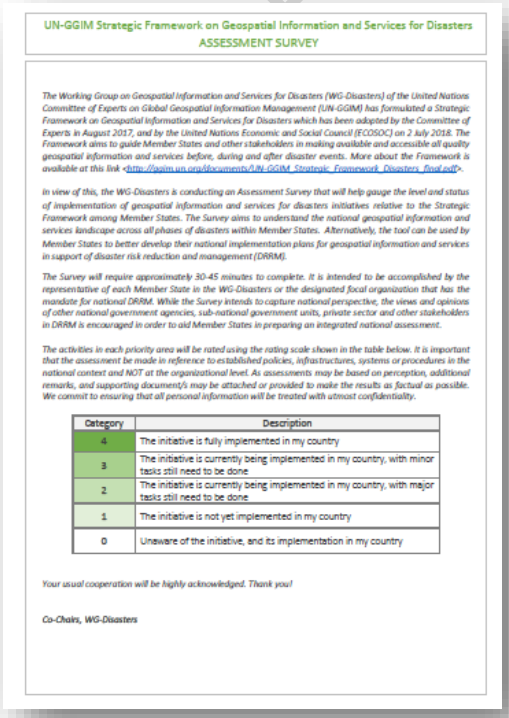
* Required

BACKGROUND INFORMATION

1. Full Name *

Enter your answer

Figure 3: Strategic Framework Assessment tool - Online Survey



UN-GGIM Strategic Framework on Geospatial Information and Services for Disasters
ASSESSMENT SURVEY

The Working Group on Geospatial Information and Services for Disasters (WG-Disasters) of the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) has formulated a Strategic Framework on Geospatial Information and Services for Disasters which has been adopted by the Committee of Experts in August 2017, and by the United Nations Economic and Social Council (ECOSOC) on 2 July 2018. The Framework aims to guide Member States and other stakeholders in making available and accessible all quality geospatial information and services before, during and after disaster events. More about the Framework is available at this link <http://ggim.un.org/documents/UN-GGIM_Strategic_Framework_Disasters_final.pdf>.

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The activities in each priority area will be rated using the rating scale shown in the table below. It is important that the assessment be made in reference to established policies, infrastructures, systems or procedures in the national context and NOT at the organizational level. As assessments may be based on perception, additional remarks, and supporting document/s may be attached or provided to make the results as factual as possible. We commit to ensuring that all personal information will be treated with utmost confidentiality.

Category	Description
4	The initiative is fully implemented in my country
3	The initiative is currently being implemented in my country, with minor tasks still need to be done
2	The initiative is currently being implemented in my country, with major tasks still need to be done
1	The initiative is not yet implemented in my country
0	Unaware of the initiative, and its implementation in my country

Your usual cooperation will be highly acknowledged. Thank you!

Co-Chairs, WG-Disasters

Figure 4: Strategic Framework Assessment tool - Document submission

Figure 5: Strategic Framework - 5 Priority Areas

A rating scale from one to five, "unaware" to "fully implemented", was applied to each question, and respondents were asked to select the most applicable category on the scale. Given that the assessment is subjective, respondents were asked to submit additional remarks, and supporting document/s to make the results as factual and comparable as possible.

Table 1: Assessment Survey Rating Scale

Category	Description
5	The initiative is fully implemented in my country
4	The initiative is currently being implemented in my country, with minor tasks still need to be done
3	The initiative is currently being implemented in my country, with major tasks still need to be done
2	The initiative is not yet implemented in my country
1	Unaware of the initiative, and its implementation in my country

2. Analysis Process

Responses were received from 43 Member States, 1 non-member state, and 6 non-governmental organizations (Figure 6). At the regional level, there were five responses from Africa, 12 from the Americas, 14 from Asia and the Pacific and 12 from Europe (Figure 7). A full listing of the contributors is presented as Appendix I and II. The analysis was undertaken using the 43 responses from Member States and assessment executed for three regions namely the Americas, Europe and Asia and the Pacific. Analysis was not undertaken for Africa given the low number responses received that would not allow for a true representative sample and related results. No responses were received from the Arab States.

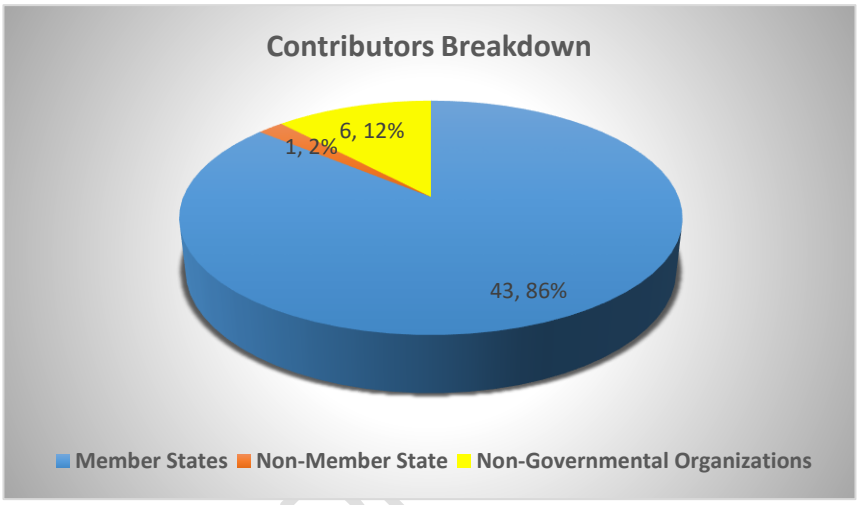


Figure 6: Breakdown of Contributors

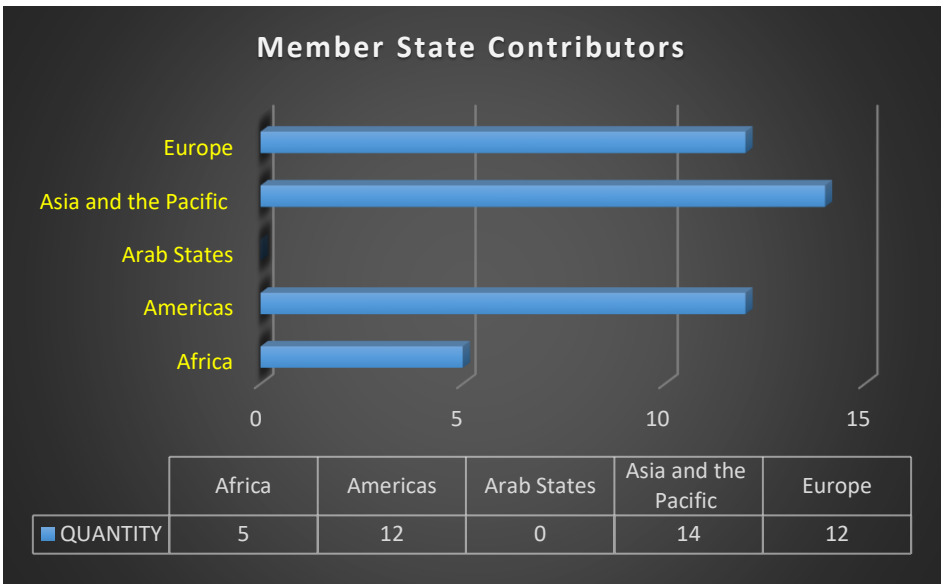


Figure 7: Breakdown of Member State Contributors

The Assessment Survey comprised five chapters focusing on the respective priority areas and was further broken down to reflect 38 questions. Focus was however placed on carefully selected questions, given their level of importance and relevance. It was determined that apart from being highly relevant and important these core questions also influenced other questions. As such, detailed analysis was pursued for 19 questions or areas (Table 2).

Table 2: Assessment Survey Analysis Focus Areas

Priority Area	Focus Areas
A	1. Political Support
	2. Financial Support
	3. Champion Identified
	4. Monitoring & Evaluation Program Implemented to track Country's Progress
B	1. Geospatial information and services are translated into easily understood strategies and tools
	2. GI & Services integrated in Academic Programs
	3. DRM-related researches using GI & Services are initiated and managed
	4. Training programs on the use of GI & Services
C	1. Existence of a common and accessible database system
	2. National and local DRM plans include hazard, vulnerability and disaster risk assessment maps, etc.
	3. A common contact database of national and local emergency responders
	4. Data management guidelines incorporates key factors
D	1. A common infrastructure and facility, particularly a national operations center is established
	2. A backup facility for online and offline access to geospatial data
	3. Interoperability of all systems and processes in DRM organizations
E	1. DRM organizations are sensitized on the necessity of funding GI & Services for DRM
	2. The private sector encouraged to invest in GI & Services for DRM
	3. Funding support easily accessible for implementation of the five priorities for action

The data collected from the member state contributors was analyzed and presented using pie charts, bar graphs and line graphs/frequency polygons.

It should be noted that given the subjective methodology applied in the Assessment Survey, it is difficult to make a true quantitative evaluation of the scores assigned to each question. Notwithstanding, a number of trends were identified in the each of the five sections of the survey. Details of these trends are provided globally and regionally.

H. Government vs. Non-Government Response Averages

Frequency polygons were used to compare the frequency distribution of responses received from government versus non-government organizations for all five priority areas. Upon careful examination of the responses, it was found that the average of non-government organizations was higher than that of government organizations in most of the questions, as such the analysis primarily focused on the government sector.

Priority A: Governance and Policies

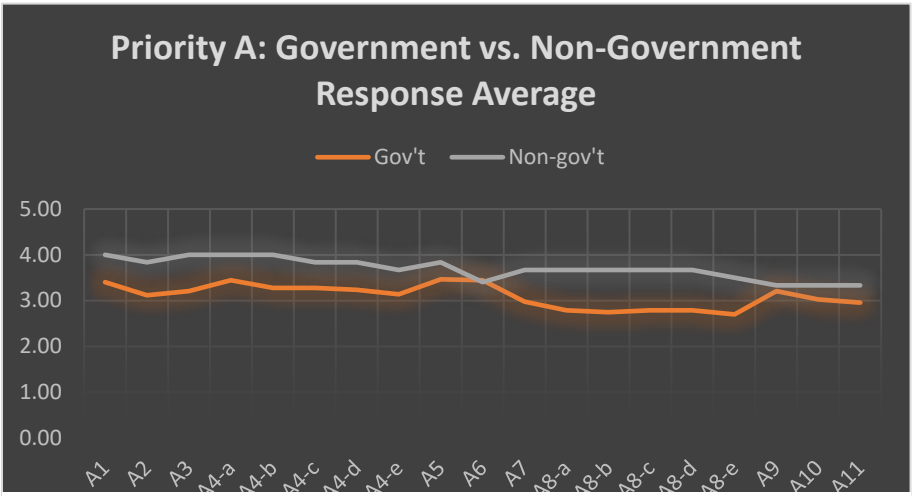


Figure 8: Priority A - Government vs. Non-Government Response Average

Within priority area A, there was an overall high average, with scores 4 and 5 being dominant, whereby countries reported having Political support in terms of policy and leadership to implement the five priorities for action contained in the strategic framework; having national agencies or special bodies mandated with clear roles and responsibilities for implementation. Additionally, open channels of communication for improving coordination, collaboration and exchange of geospatial information and relevant resources have been established and maintained and plans and programs aimed at making available and accessible all quality geospatial information and services are developed and implemented (Figure 8).

A relatively low average was however reported for the existence and implementation of necessary laws and policies that bind all efforts in a systematic and consensus-based roadmap, a monitoring and evaluation program to track the country's progress, low promotion of mutual learning and exchange of good governance practices and policies and low effective channels where Member States and other stakeholders can share technical knowledge, lessons learned, best practices and case studies.

Priority B: Awareness Raising and Capacity Building

Category three was the predominant score for awareness raising and capacity building. The following initiatives are being implemented with major tasks still needing to be executed was found for geospatial information and services are translated into strategies and tools that can easily be understood and used by a wider audience, their inclusion in academic programs is promoted and advanced, training programmes and DRM-related researches using geospatial information and services are initiated and managed (Figure 9).

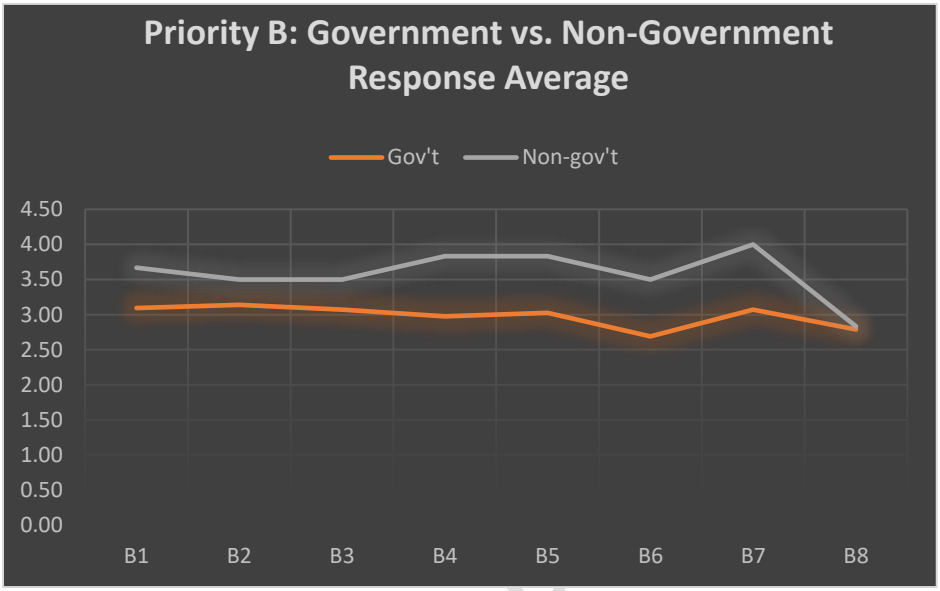


Figure 9: Priority B - Government vs. Non-Government Response Average

Within priority area B, there was however a relatively low score for encouraging active and inclusive role of media on the local and national levels in raising public awareness on the importance of geospatial information and services in disaster management. There were low reported instances of best practices being benchmarked and cascaded locally from other Member States and institutions (Figure 9).

Priority C: Data Management

Within priority area C on Data Management, there was a relatively high average, with category 3 being predominantly reported for the existence of a common and accessible database system of minimum/baseline geospatial information and services requirements; with hazard, vulnerability and disaster risk assessment maps, and other information products being crucial inputs to national and local DRM plans and the existence of a common contact database of national and local emergency responders (Figure 10).

A relatively low average was reported for the conducting and updating of Humanitarian profiling and event/incident scenario building before, during and after disasters; low than average business use cases and data/information product templates (e.g., hazard and risk models) being developed and implemented to aid decision-making needs for geospatial information and services for disasters; relatively low integration of geospatial data and statistics in DRM plans and programs and best practices, particularly established data use standards, protocols and processes from other Member States and international organizations are adopted and cascaded locally.

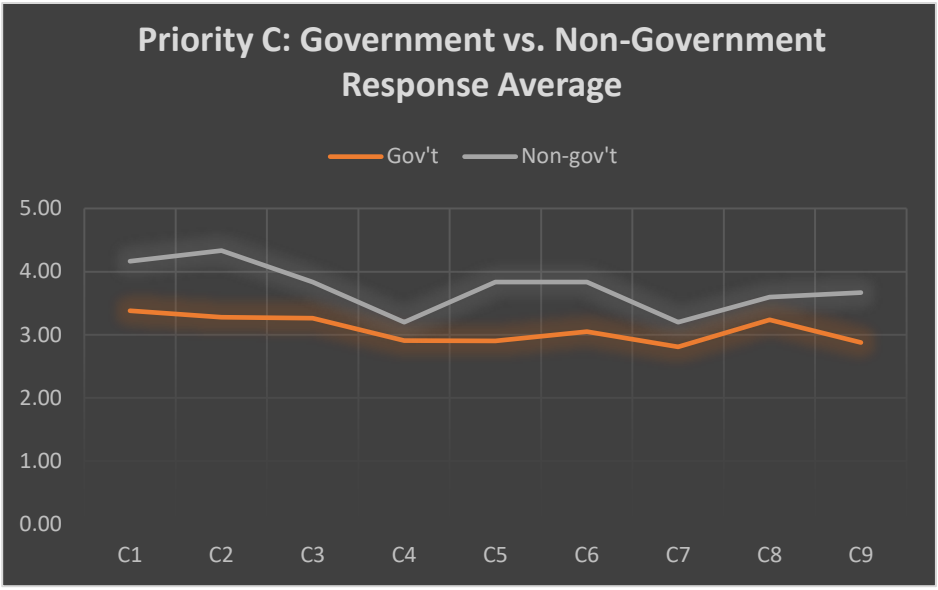


Figure 10: Priority C - Government vs. Non-Government Response Average

Priority D: Common Infrastructure and Services

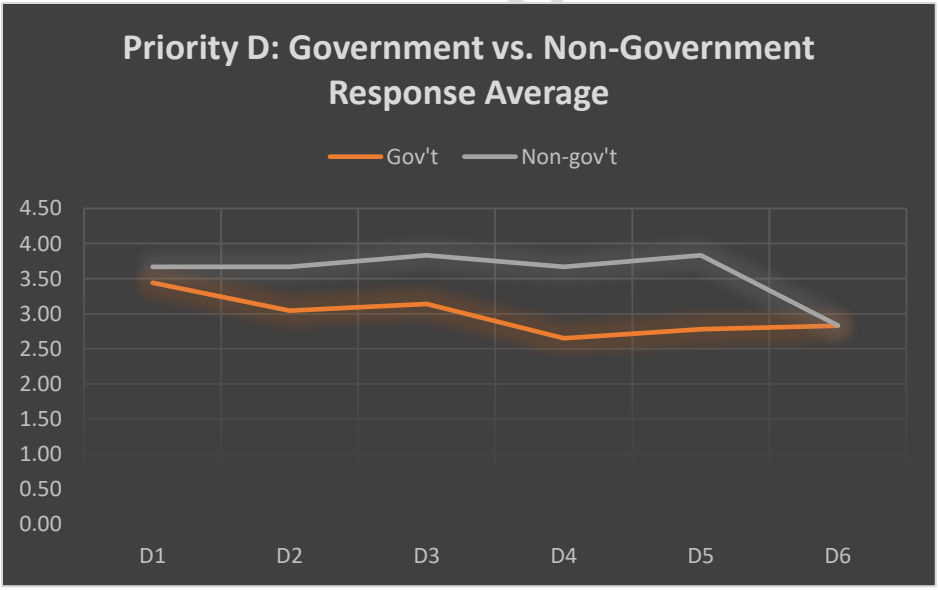


Figure 11: Priority D - Government vs. Non-Government Response Average

Within priority D, a relatively high average was reported for the existence of a common infrastructure and facility, particularly a national operations center being established (Figure 11). Additionally, the establishment of a maintenance program supporting the common infrastructure and facility, in addition to a backup facility for online and offline access to geospatial data to sustain operations during disasters being established.

A relatively low average was however recorded for the interoperability of all systems and processes in DRM organizations being ensured; the maintenance of the integrity of established common infrastructures and services, as evidenced by regular emergency simulation exercises; and mechanisms put in place to obtain technical assistance from other Member States and international organizations in establishing local common infrastructure and services.

Priority E: Resource Mobilization

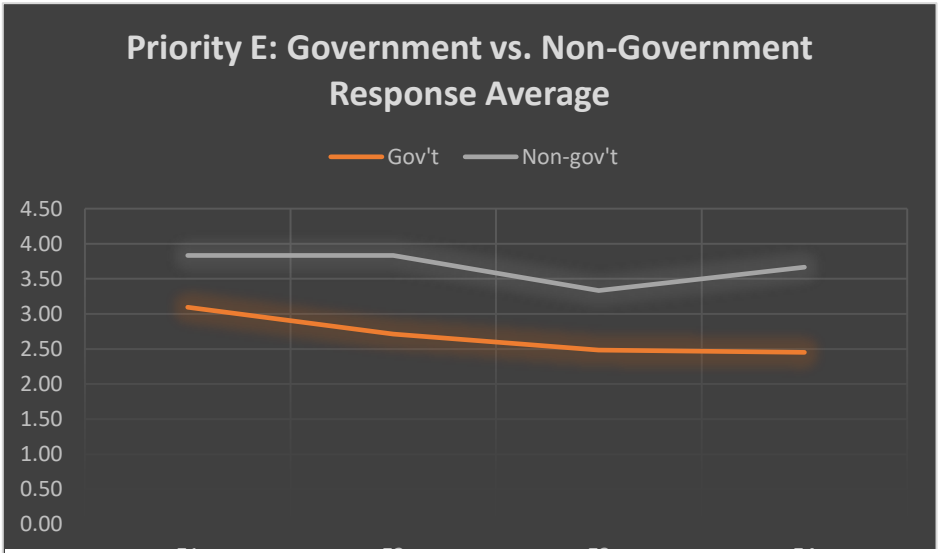


Figure 12: Priority E - Government vs. Non-Government Response Average

Within priority area E, a relatively high average was reported for DRM organizations being sensitized on the necessity of funding the acquisition, maintenance and updating of geospatial information and services for disasters.

A relatively low average was however recorded for private sector, including financial institutions being encouraged to invest in the provision of geospatial information and related services for DRM, in addition to funding support for the activities in the implementation of the five priorities for action, including grants, loans and other forms of financial support being easily accessible.

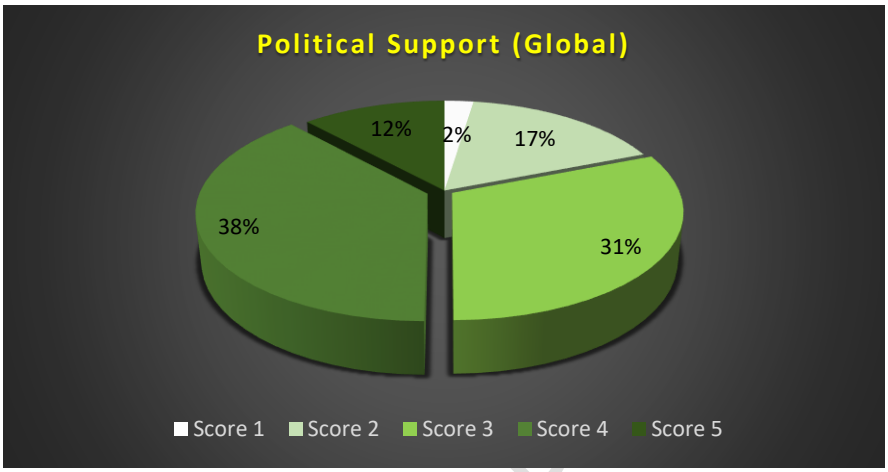
I. The Regional Perspective

Priority A: Governance and Policies

Upon examination of the results for priority A, the following were the findings.

1. Political Support

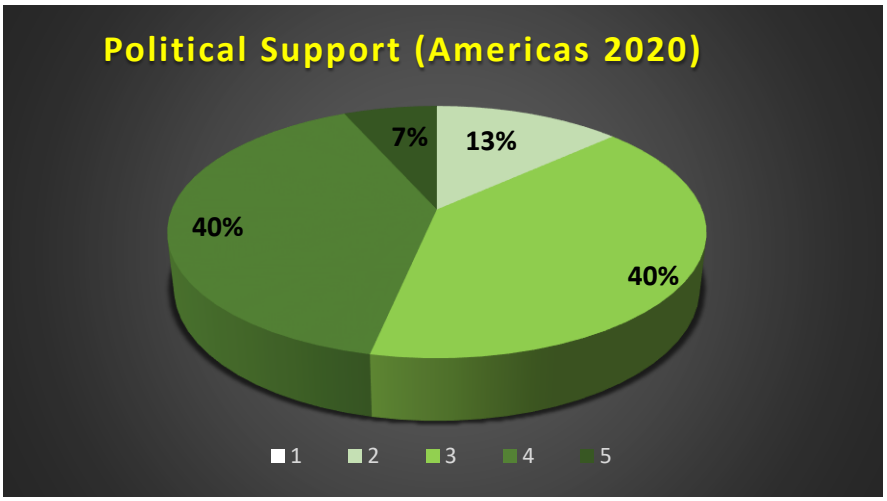
a. Global Results



Globally, only 12% of the respondents indicated having attained a maximum category/score of 5, whereby political support has been fully pursued and implemented. A majority of 34% of the Member States indicated having attained category/score 4, whereby the pursuit of political support is currently being implemented with minor tasks still needing to be undertaken. On the other hand 31% indicated category/score 3, whereby gaining political support has commenced and is being implemented with major tasks still needing undertaking. A very promising find, speaks to a combined only 19% being either not aware of the initiative nor its implementation within their country.

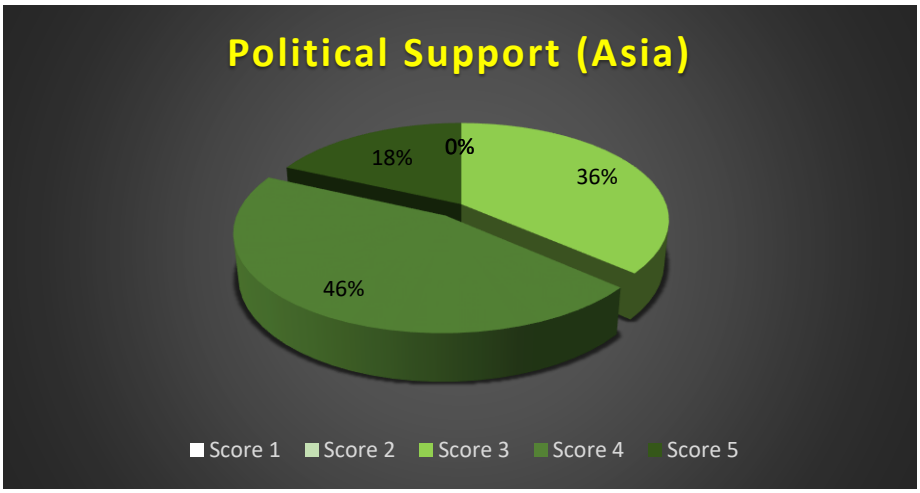
b. Regional Results

i. Americas Region



Within the Americas, no respondent indicated not being aware of the political support initiative nor its implementation within their country. Only 7% of the respondents indicated having attained a maximum category/score of 5, whereby political support has been fully pursued and implemented. A majority of 40% of the Member States indicated having attained category/score 4, whereby the pursuit of political support is currently being implemented with minor tasks still needing to be undertaken. Additionally, another 40% indicated category/score 3, whereby gaining political support has commenced and is being implemented with major tasks still needing undertaking. A very promising find, speaks to only 13% indicating that implementation has not already commenced within their country. As such, a combined 87% of respondents were at beginner, intermediate and advanced implementation stages, with 47% being more advanced.

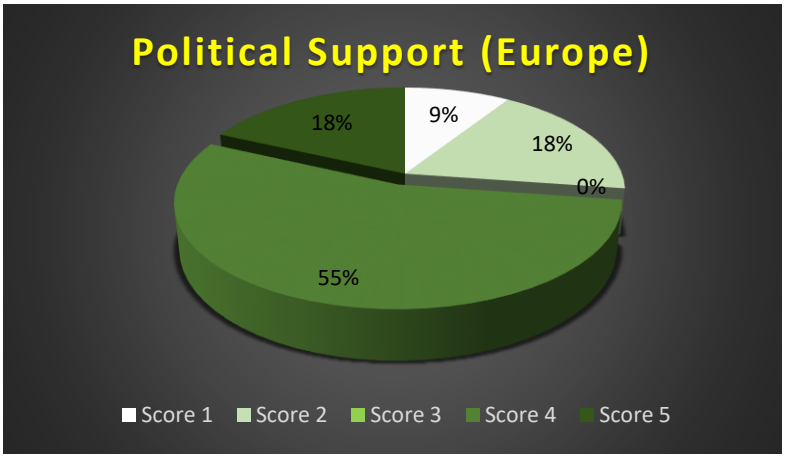
ii. Asia



Within Asia, no respondent indicated not being aware of the political support initiative nor its implementation within their country, nor that the initiative has not commenced within their country. Eighteen percent (18%) indicated having attained a maximum category/score of 5, whereby political support has been fully pursued and implemented. A majority of 46% of the Member States indicated having attained category/score 4, whereby the pursuit of political support is currently being implemented with minor tasks still needing to be undertaken. And a remaining 36% indicated category/score 3, whereby gaining political support has commenced and is being implemented with major tasks still needing

undertaking. As such, all respondents were at beginner, intermediate and advanced implementation stages, with a combined 64% being intermediate to advanced.

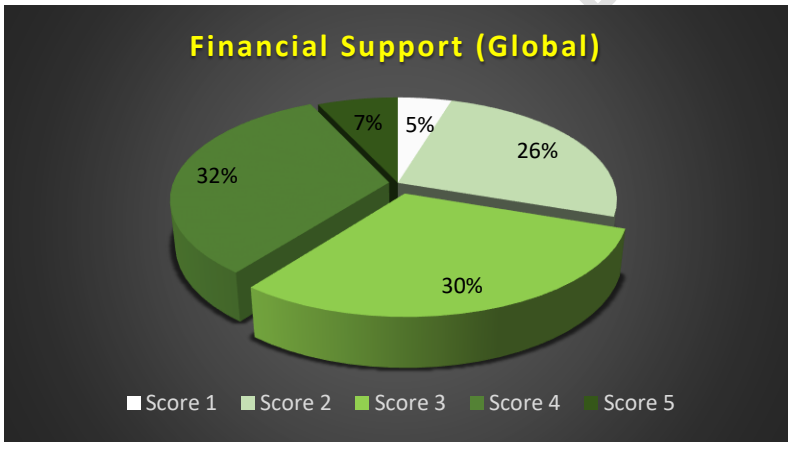
iii. Europe Region



Within Europe, only 9% of respondents indicated not being aware of the political support initiative nor its implementation within their country, another 18% had not commenced the initiative. Eighteen percent (18%) indicated having attained a maximum category/score of 5, whereby political support has been fully pursued and implemented. A majority of 55% of the Member States indicated having attained category/score 4, whereby the pursuit of political support is currently being implemented with minor tasks still needing to be undertaken. No respondents indicated category/score 3, whereby gaining political support has commenced and is being implemented with major tasks still needing undertaking. As such, a combined 73% are at an intermediate to advanced implementation stage.

2. Financial Support

a. Global Results

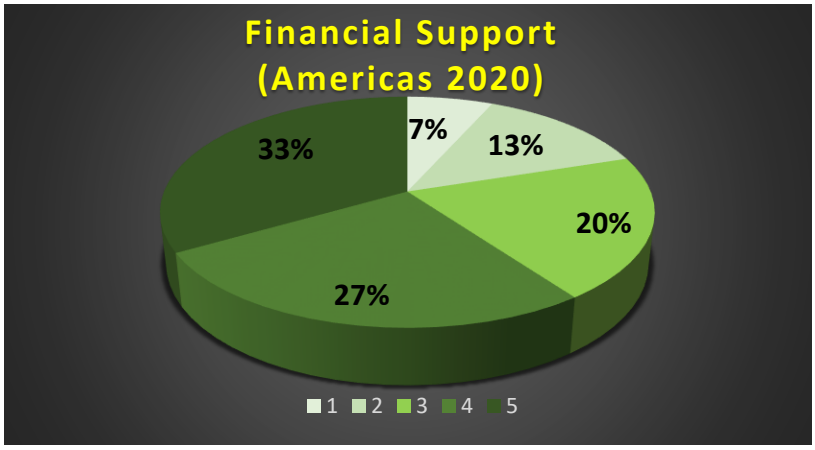


Globally, 7% indicated having attained a maximum category/score of 5, whereby financial support has been fully pursued and implemented, while only 5% of respondents indicated not being aware of the financial support initiative nor its implementation within their country, another 26% had not commenced the initiative. A majority of 32% of the Member States indicated having attained category/score 4, whereby the pursuit of financial support is currently being implemented with minor tasks still needing to be undertaken and another 30% having started implementation with major tasks still to be implemented. A combined 39% are at an intermediate to advanced implementation stage

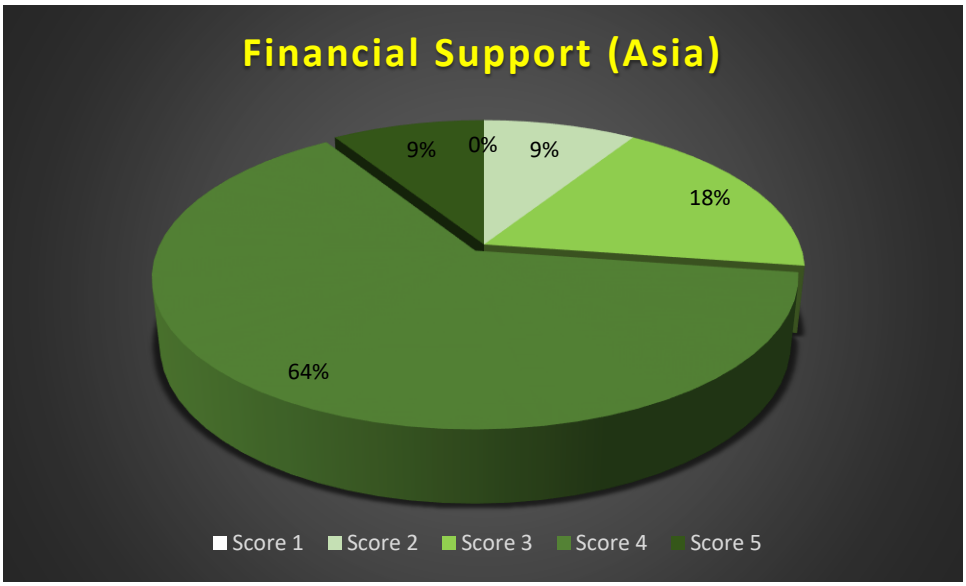
b. Regional Results

i. Americas Region

Within the Americas, a majority of 33% of respondents indicated having attained a maximum category/score of 5, whereby financial support has been fully pursued and implemented, with another 27% indicating category/score 4, whereby the pursuit of financial support is currently being implemented with minor tasks still needing to be undertaken. Another 20% have started implementation of financial support mechanisms with major tasks still to be implemented. Thirteen percent (13%) indicated not having commenced implementation, while only 7% of respondents indicated not being aware of the financial support initiative nor its implementation within their country. A combined 60% are at an intermediate to advanced implementation stage



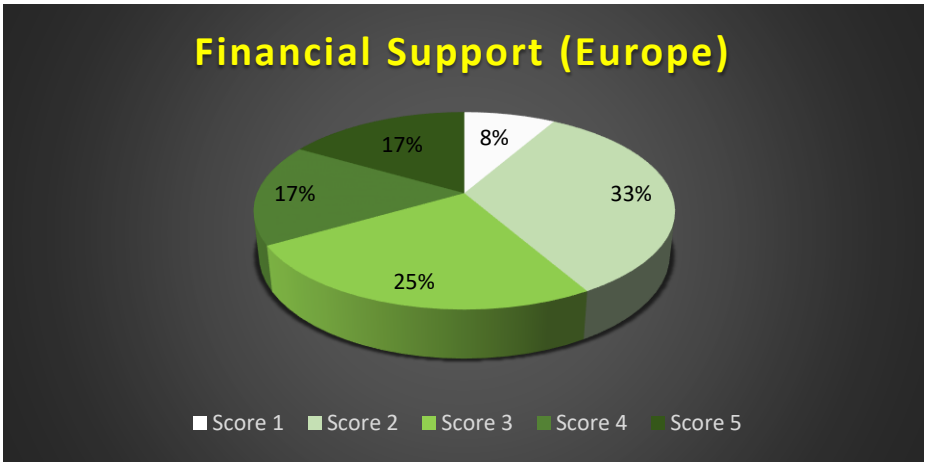
iv. Asia Region



Within Asia, a majority of 64% of respondents indicated category/score 4, whereby the pursuit of financial support is currently being implemented with minor tasks still needing to be undertaken. Only 9% indicated a maximum category/score of 5, whereby financial support has been fully pursued and implemented, while another 18% have started implementation of financial support mechanisms with major tasks still to be implemented (category/score 3). Nine percent (9%) indicated not

having commenced implementation, while no respondent indicated not being aware of the financial support initiative nor its implementation within their country. A combined 73% are at an intermediate to advanced implementation stage.

v. Europe Region



Within Europe, a majority of 33% of respondents indicated not having commenced implementation, while 8% indicated not being aware of the financial support initiative nor its implementation within their country.

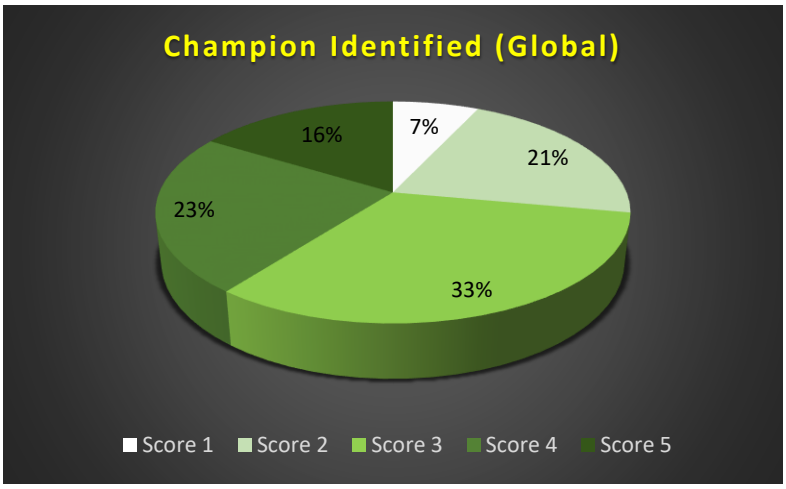
Twenty five (25%) have commenced implementation of financial support mechanisms with major tasks still to be implemented (category/score 3).

Seventeen (17%) indicated category/score 4, whereby the pursuit of financial support is currently being implemented with minor tasks still needing to be undertaken, while another 17% indicated a maximum category/score of 5, whereby financial support has been fully pursued and implemented. A combined 59% are at some stage of implementation, while 34% of this amount are at an intermediate to advanced stage.

3. Champion Identified

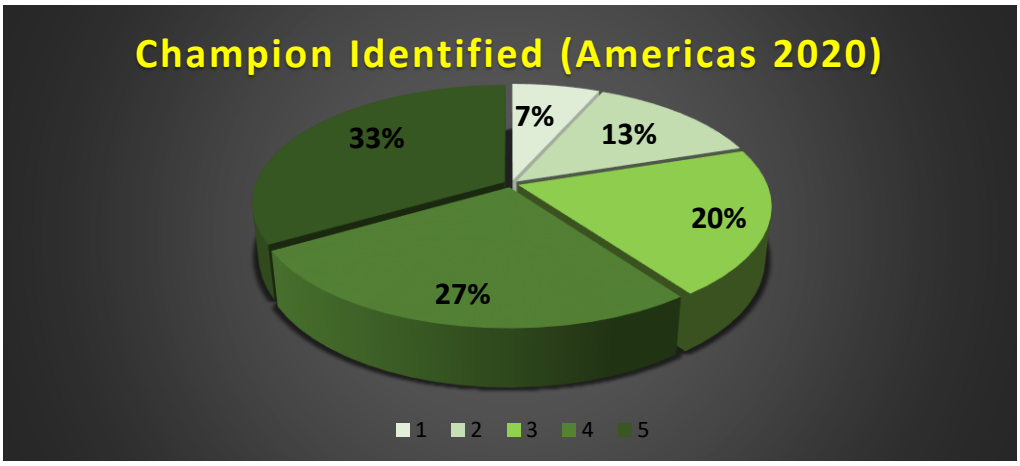
a. Global Results

Globally, a majority of 33% of respondents indicated having commenced the implementation of a champion, with major tasks still to be implemented (category/score 3). Another twenty three (23%) have indicated category/score 4, whereby the pursuit of a champion is currently being implemented with minor tasks still needing to be undertaken, while another 16% indicated a maximum category/score of 5, whereby champion identification has been fully pursued and implemented. Another 21% have not pursued the identification of a champion, while 7% indicated not being aware of the initiative nor its implementation within their country. A combined 72% are at some stage of implementation, while 39% of this amount are at an intermediate to advanced stage.



b. Regional Results

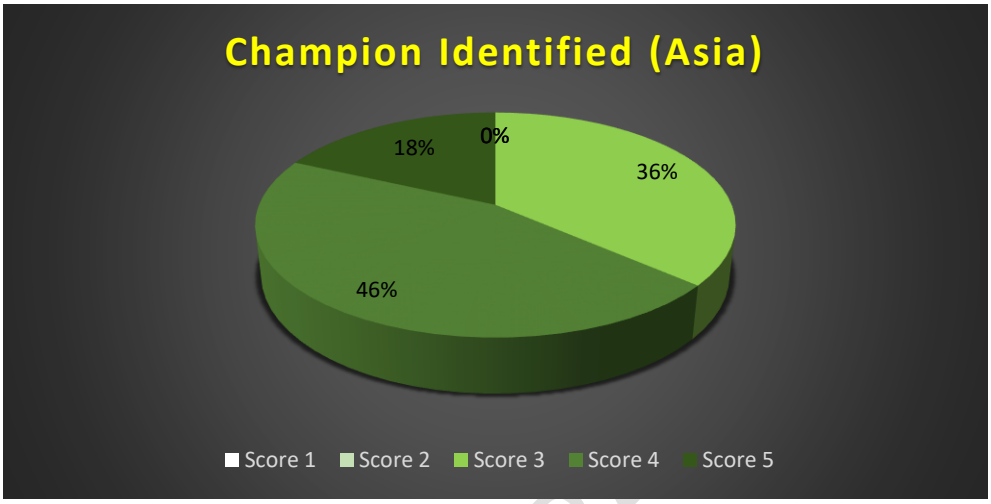
i. Americas Region



Within the Americas, a majority of 33% of respondents indicated having attained a maximum category/score of 5, whereby champion identification has been fully pursued and implemented. Another 27% have indicated category/score 4, whereby the pursuit of a champion is currently being implemented with minor tasks still needing to be undertaken. Twenty

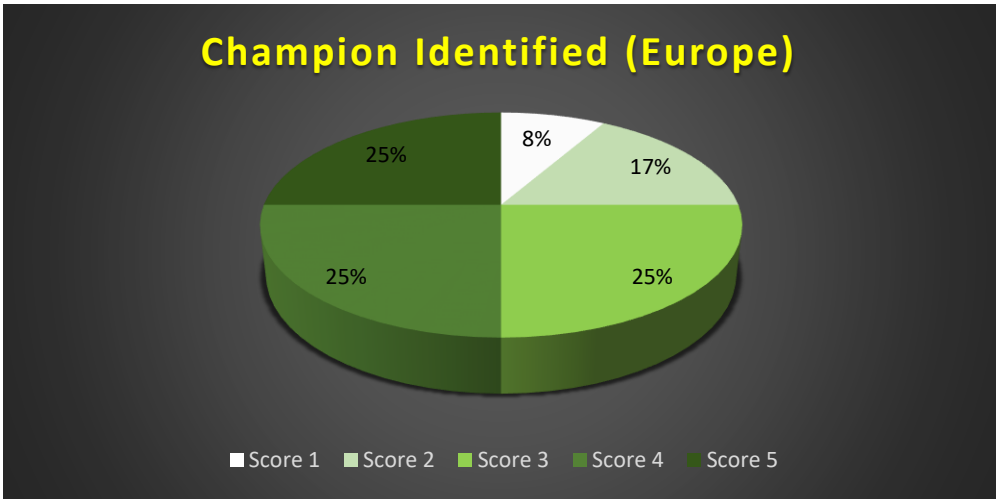
percent (20%) have confirmed that they have commenced the implementation of a champion, with major tasks still to be implemented (category/score 3). Another 13% have not pursued the identification of a champion, while 7% indicated not being aware of the initiative nor its implementation within their country. A combined 80% are at some stage of implementation, while 60% of this amount are at an intermediate to advanced stage.

i. Asia Region



Within Asia, a majority of 46% of respondents indicated having attained category/score 4, whereby the pursuit of a champion is currently being implemented with minor tasks still needing to be undertaken, while 18% indicated a maximum category/score of 5, whereby champion identification has been fully pursued and implemented. Another 36% have confirmed that they have commenced the implementation of a champion, with major tasks still to be implemented (category/score 3). No respondent indicated not being aware of the initiative, nor not having commenced the initiative. All respondents were therefore at some stage of implementation, while 64% are at an intermediate to advanced stage.

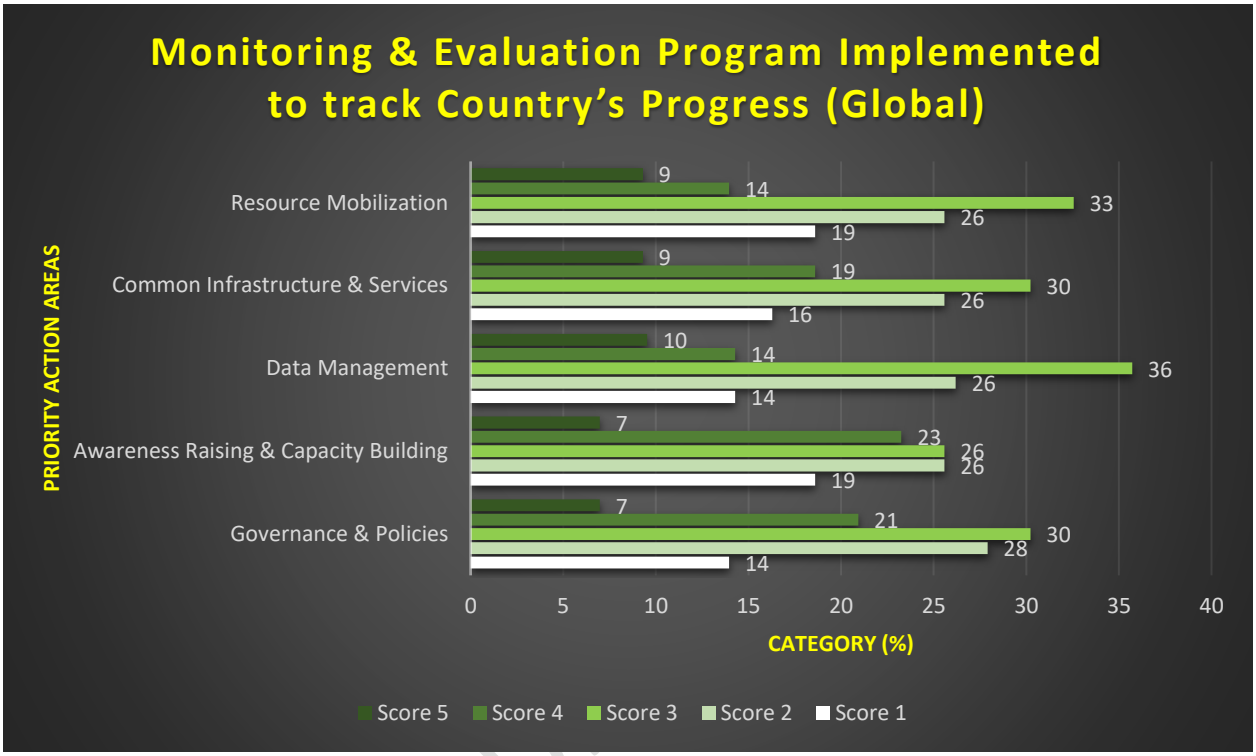
ii. Europe Region



Within Europe, 25% of respondents indicated having attained a maximum category/score of 5, whereby champion identification has been fully pursued and implemented. Another 25% have indicated category/score 4, whereby the pursuit of a champion is currently being implemented with minor tasks still needing to be undertaken and another 25% have confirmed that they have commenced the implementation of a champion, with major tasks still to be implemented (category/score 3). Seventeen percent (17%) have not pursued the identification of a champion, while 8% indicated not being aware of the initiative nor its implementation within their country. A combined 75% are at some stage of implementation, while 50% of this amount are at an intermediate to advanced stage.

4. Monitoring & Evaluation Program

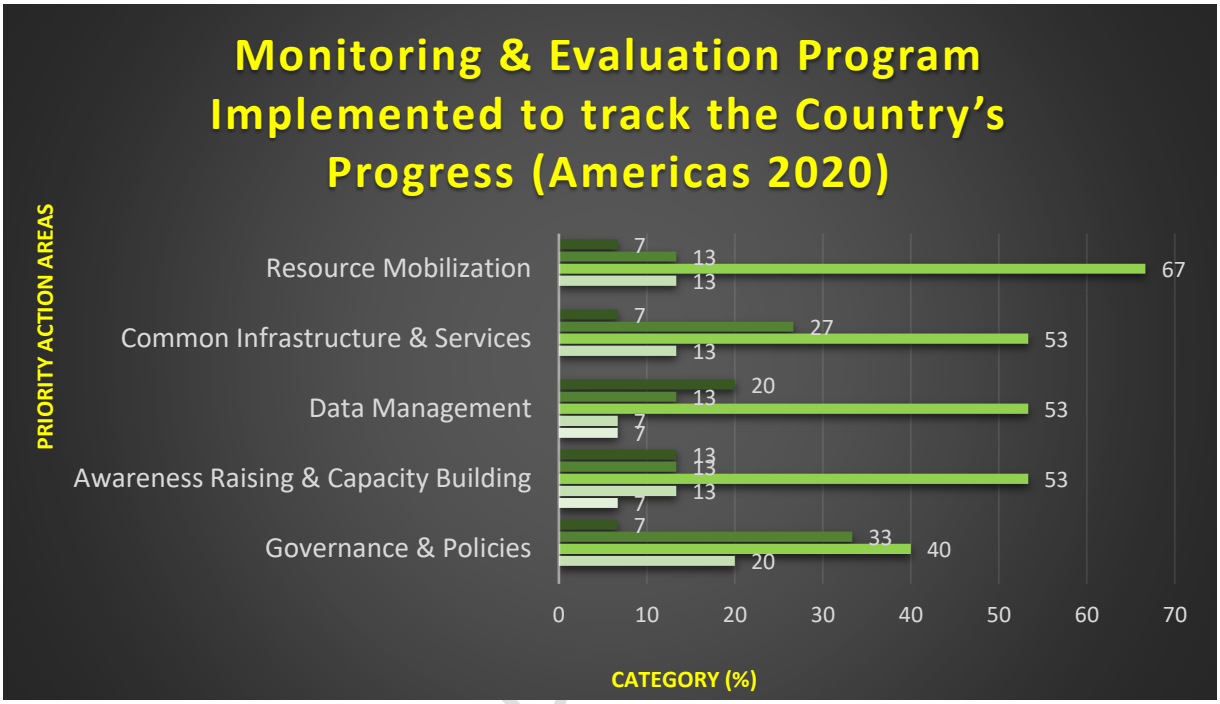
a. Global Results



Globally, 7 - 9% of respondents scored category/score 5 for having monitoring and evaluation programmes implemented to track the country's progress across all 5 priority areas. All overwhelmingly indicated being at stage 3, varying from 26 - 33%, having commenced their monitoring initiatives with major work still needed.

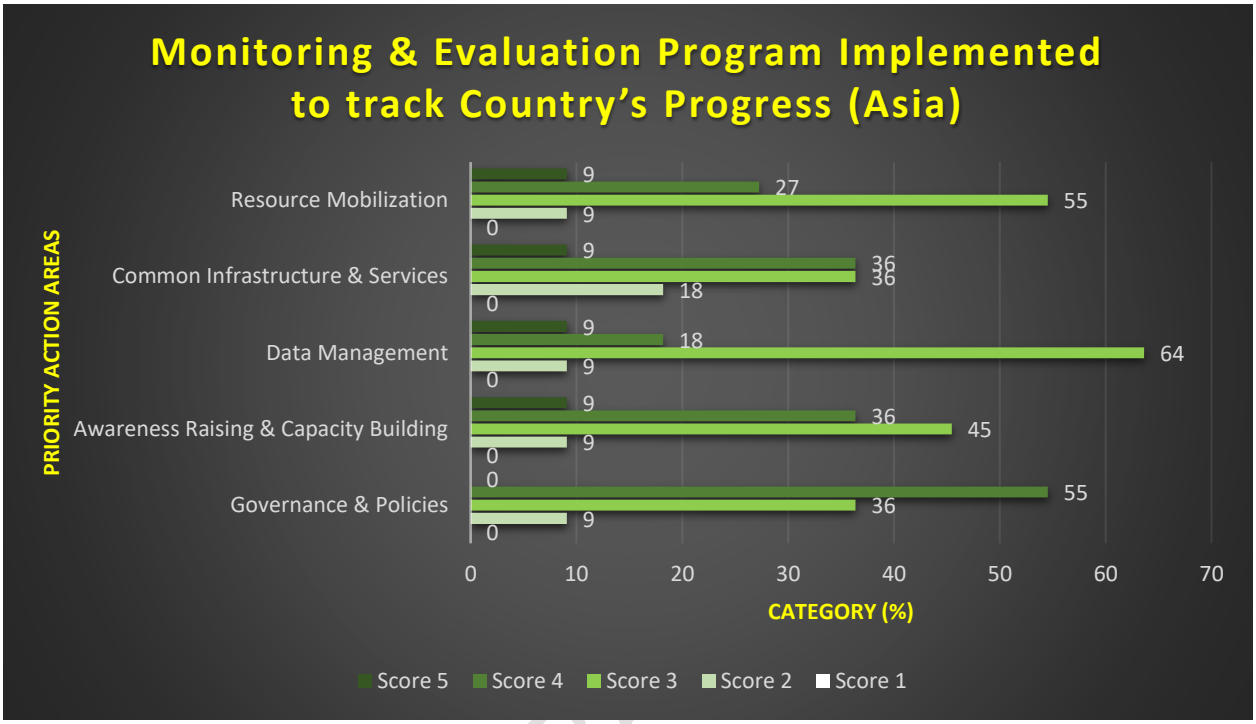
b. Regional Results

i. Americas Region



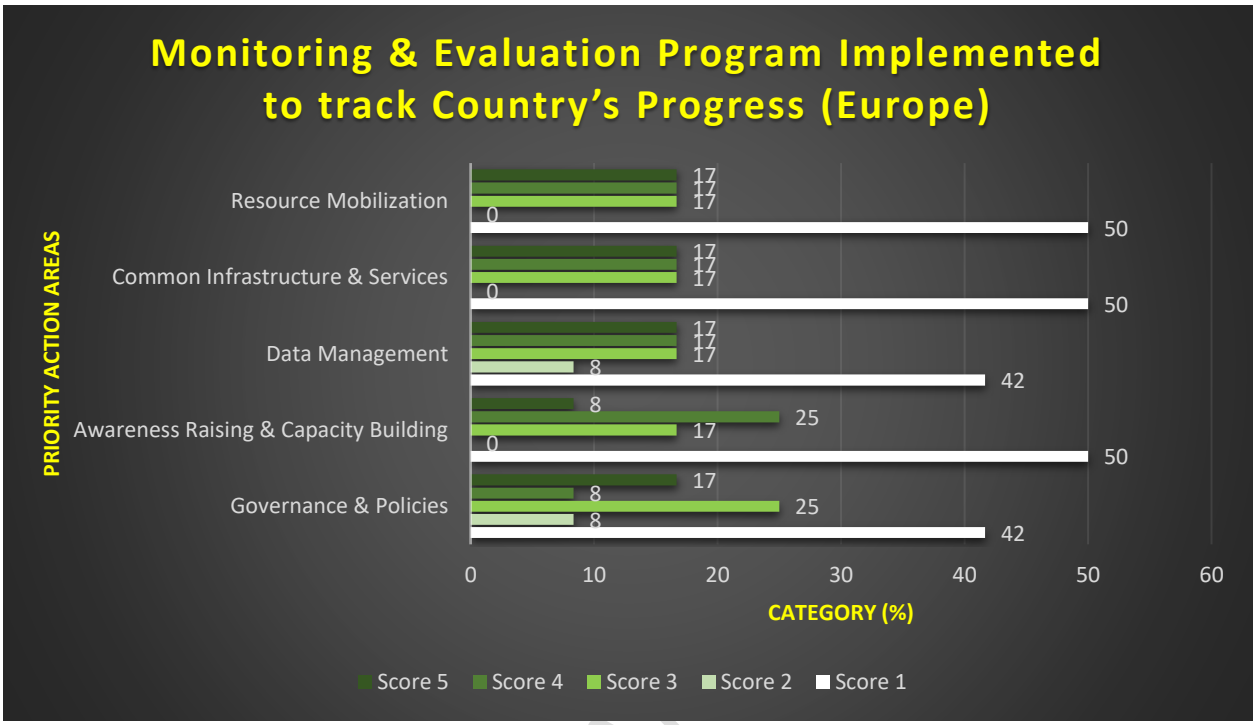
Within the Americas, 7 - 20% of respondents scored category/score 5 for having monitoring and evaluation programmes implemented to track the country's progress across all 5 priority areas. All overwhelmingly indicated being at stage 3, varying from 40 - 67%, having commenced their monitoring initiatives with major work still needed.

iii. Asia Region



Within Asia, an average of 9% of respondents scored category/score 5 for having monitoring and evaluation programmes implemented to track the country's progress across all 5 priority areas. Most overwhelmingly indicated being at stage 3, varying from 36 - 64%, having commenced their monitoring initiatives with major work still needed. Governance and policies was the only priority having attained stage 4, indicating intermediate implementation.

iv. Europe Region

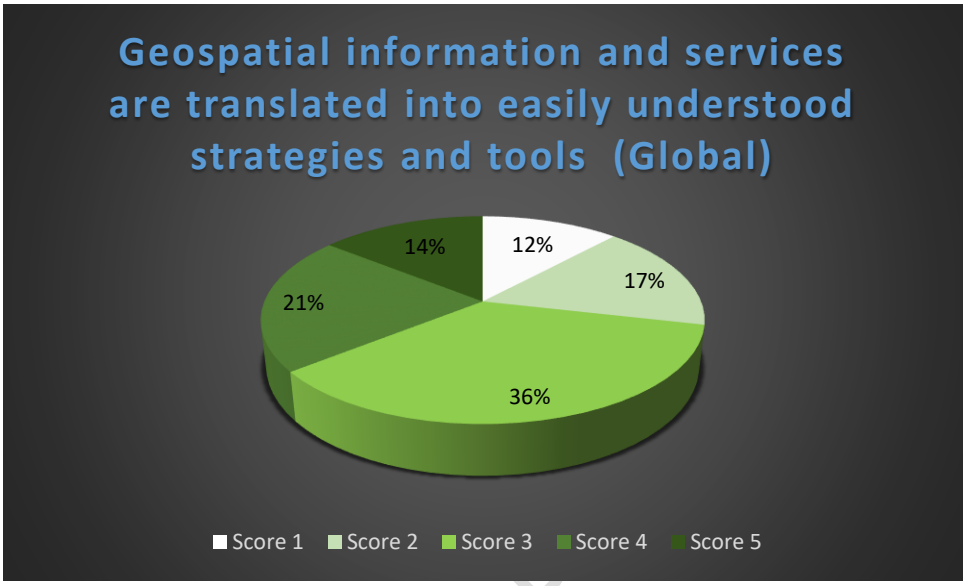


Within Europe, an average of 17% of respondents scored category/score 5 for having monitoring and evaluation programmes implemented to track the country's progress across all 5 priority areas. All overwhelmingly indicated (42-50%) not being aware of tracking measures being implemented for each.

Priority B: Awareness Raising and Capacity Building

1. Geospatial information and services are translated into easily understood strategies and tools

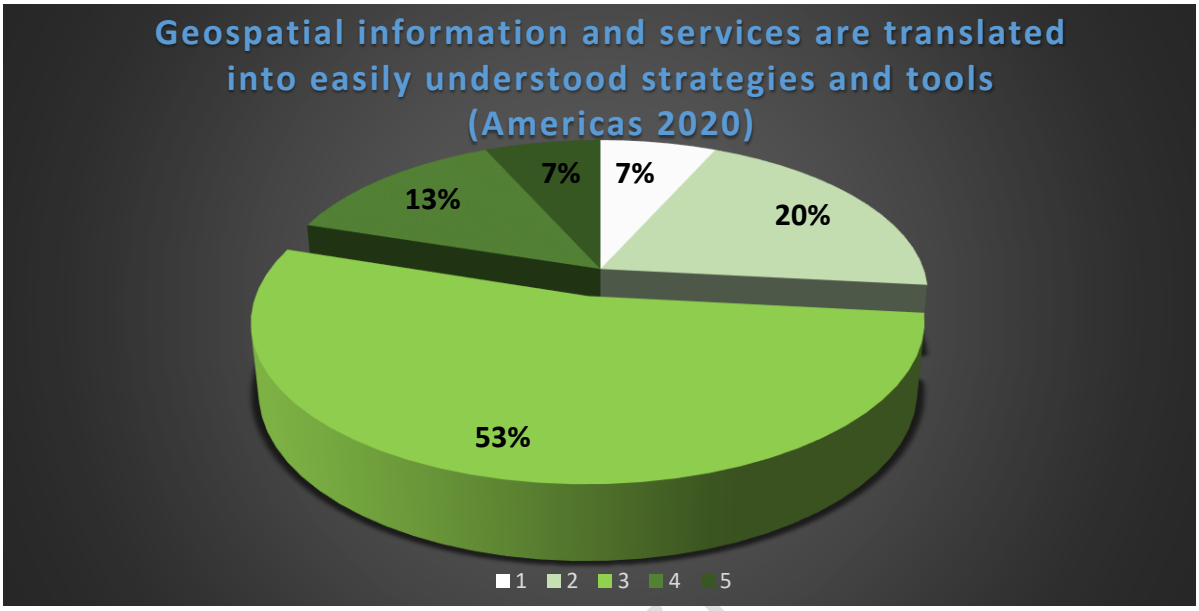
a. Global Results



Globally, a majority of 36% of respondents indicated having commenced the implementation of translating geospatial information and services into easily understood strategies and tools that would aid uptake, adaptation and adoption. They however still have major tasks needing implementation (category/score 3). Another twenty one (21%) have indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while another 14% indicated a maximum category/score of 5, whereby this initiative has been fully pursued and implemented. On the otherhand, 17% have not pursued the translation of geospatial information and services into easily understood strategies and tools, while 12% indicated not being aware of the initiative nor its implementation within their country. A combined 71% are at some stage of implementation, 36% of this amount are at an intermediate to advanced stage, while 29% have not commenced implementation or are not aware of it being implemented.

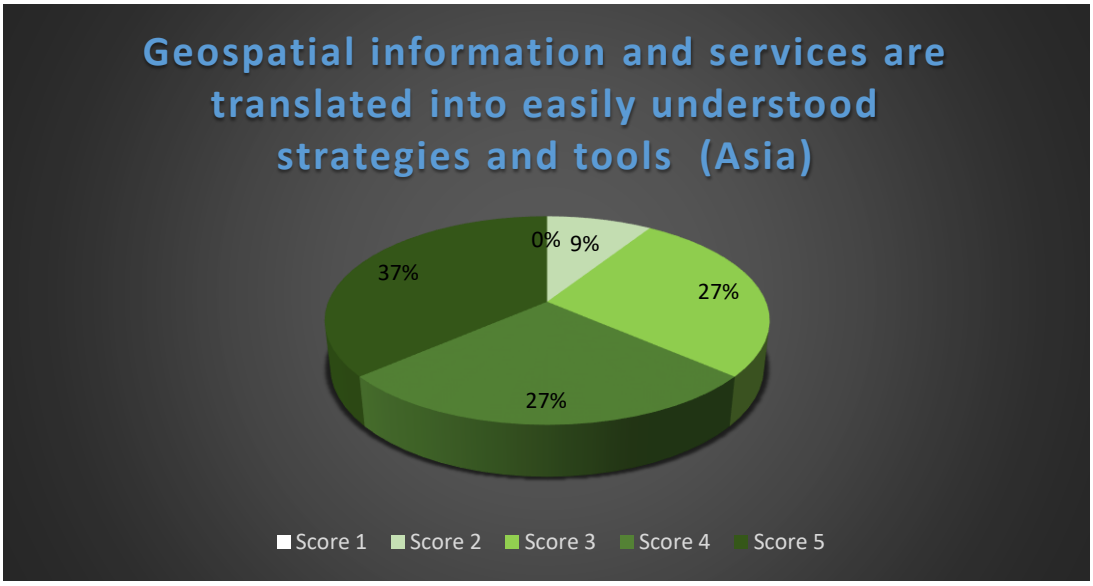
b. Regional Results

i. Americas Region



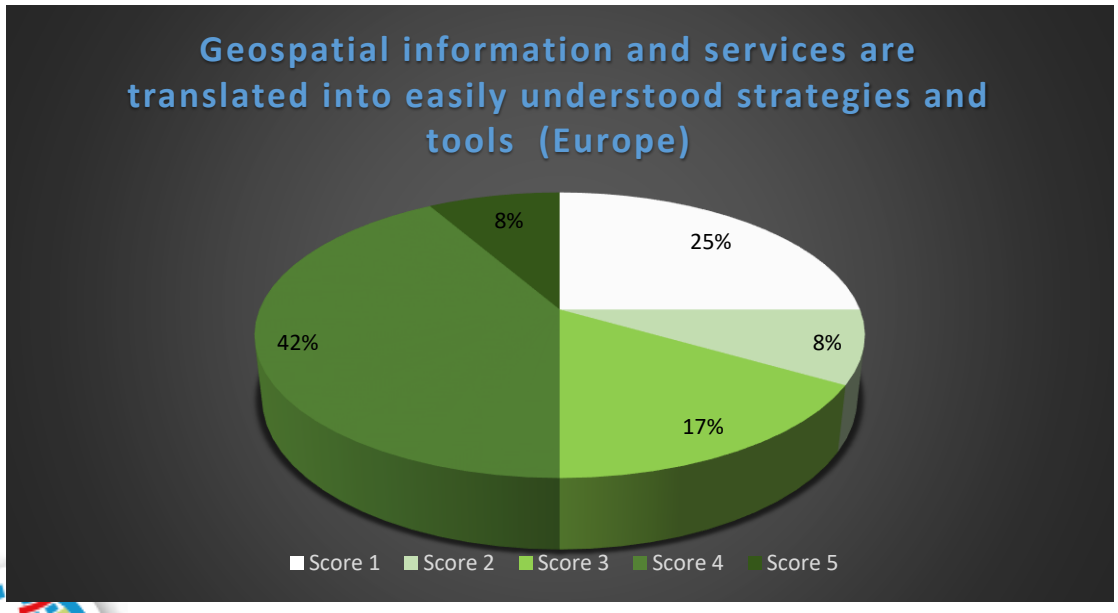
Within the Americas, a majority of 53% of respondents indicated having commenced the implementation of translating geospatial information and services into easily understood strategies and tools that would aid uptake, adaptation and adoption. They however still have major tasks needing implementation (category/score 3). Another 13% have indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while another 7% indicated a maximum category/score of 5, whereby this initiative has been fully pursued and implemented. On the otherhand, 20% have not pursued the translation of geospatial information and services into easily understood strategies and tools, while 7% indicated not being aware of the initiative nor its implementation within their country. A combined 73% are at some stage of implementation, 20% of this amount are at an intermediate to advanced stage, while 27% have not commenced implementation or are not aware of it being implemented.

ii. Asia Region



Within Asia, a majority of 37% indicated a maximum category/score of 5, having commenced the implementation of translating geospatial information and services into easily understood strategies and tools whereby this initiative has been fully pursued and implemented. Twenty seven (27%) of respondents indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while another 27% have commenced implementation with major tasks still needing implementation (category/score 3). A remaining 9% have not pursued the translation of geospatial information and services into easily understood strategies and tools. A combined 91% are at some stage of implementation, 64% of this amount are at an intermediate to advanced stage, while 9% have not commenced implementation. No respondents indicated not being aware of the initiative nor its implementation within their country.

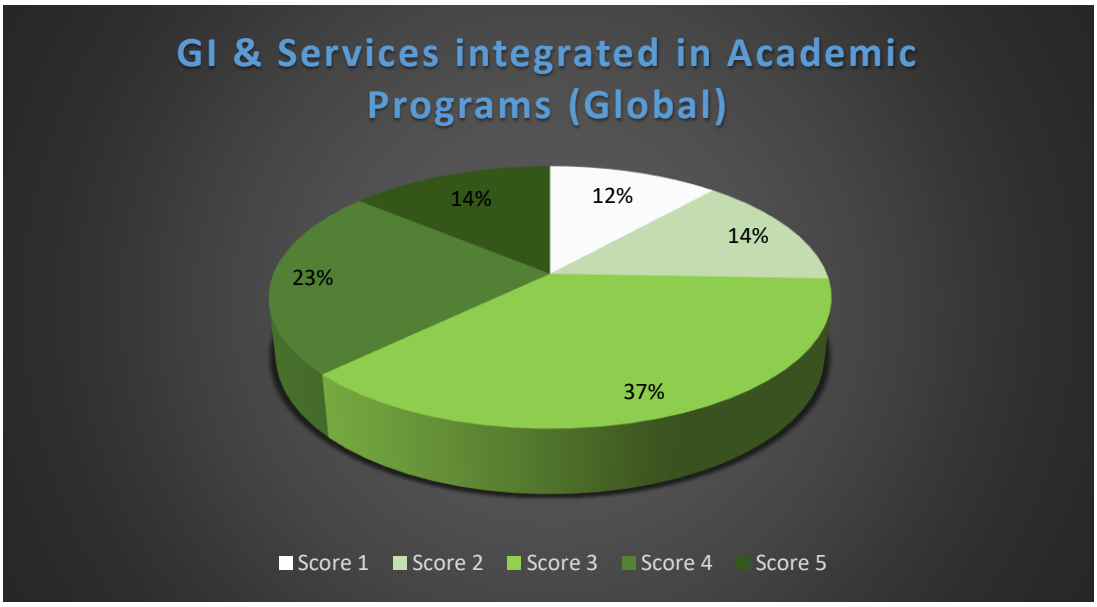
iii. Europe Region



Within Europe, a majority of 42% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Another 8% indicated a maximum category/score of 5, having commenced the implementation of translating geospatial information and services into easily understood strategies and tools whereby this initiative has been fully pursued and implemented. Seventeen percent (17%) have commenced implementation with major tasks still needing implementation (category/score 3). Eight percent (8%) have not pursued the translation of geospatial information and services into easily understood strategies and tools, while a remaining 25% indicated not being aware of the initiative nor its implementation within their country. A combined 67% are at some stage of implementation, of this amount 50% are at an intermediate to advanced stage.

2. GI & Services integrated in Academic Programs

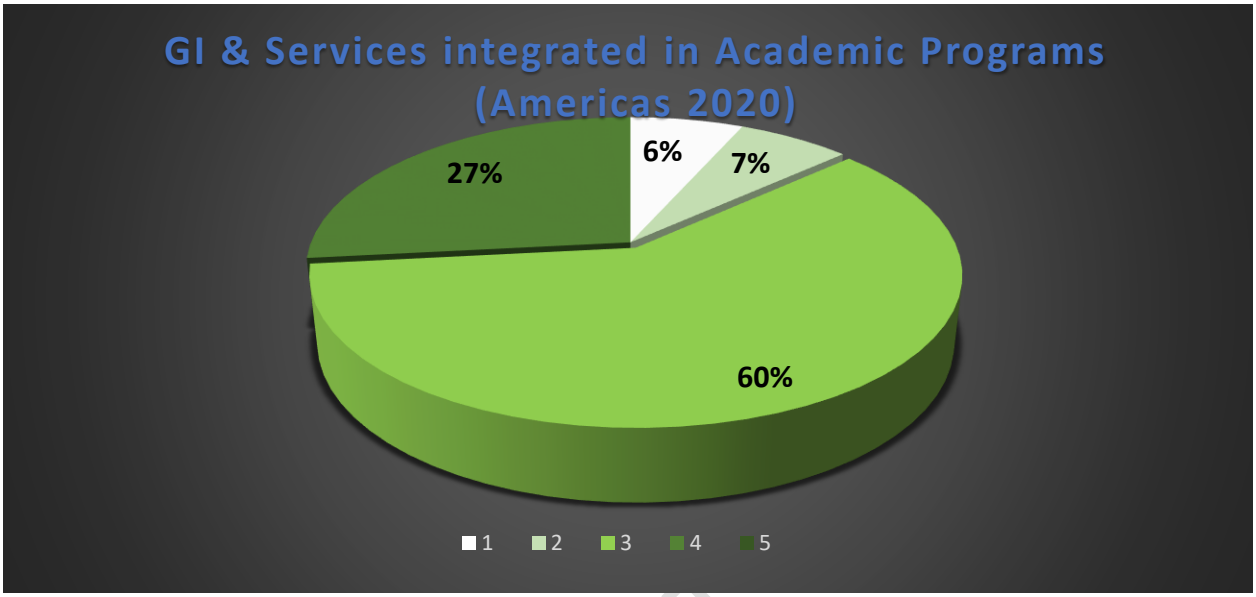
a. Global Results



Globally, a majority of 37% of respondents indicated having commenced the implementation of having geospatial information and services integrated into academic programmes. They however still have major tasks needing implementation (category/score 3). Another twenty three (23%) have indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while another 14% indicated a maximum category/score of 5, whereby this initiative has been fully pursued and implemented. On the otherhand, 14% have not pursued the integration of geospatial information and services into academic programmes, while 12% indicated not being aware of the initiative nor its implementation within their country. A combined 74% are at some stage of implementation, 37% of this amount are at an intermediate to advanced stage, while 26% have not commenced implementation or are not aware of it being implemented.

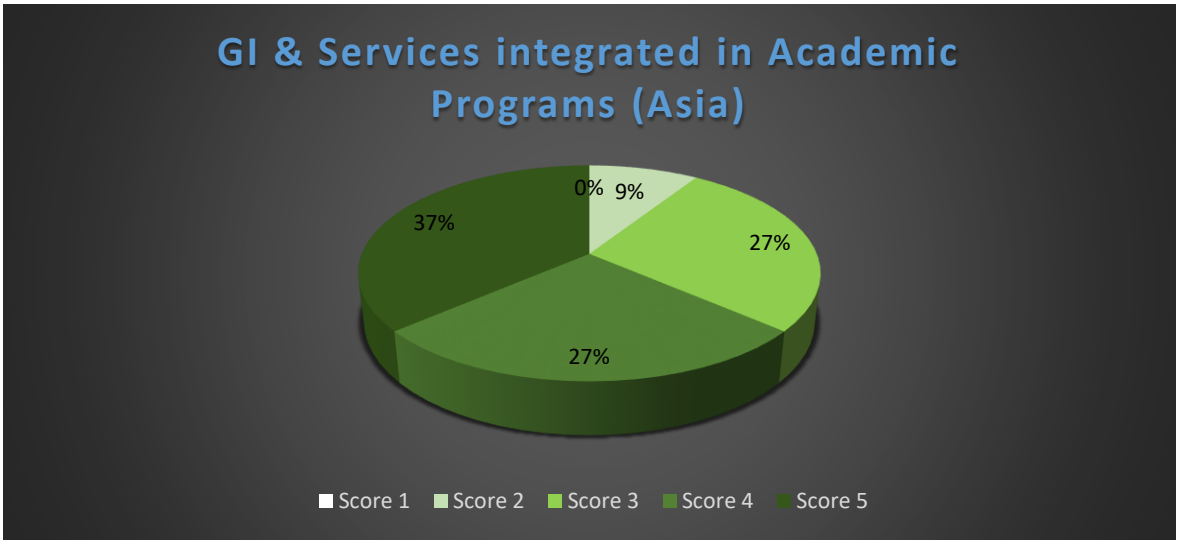
b. Regional Results

i. Americas Region



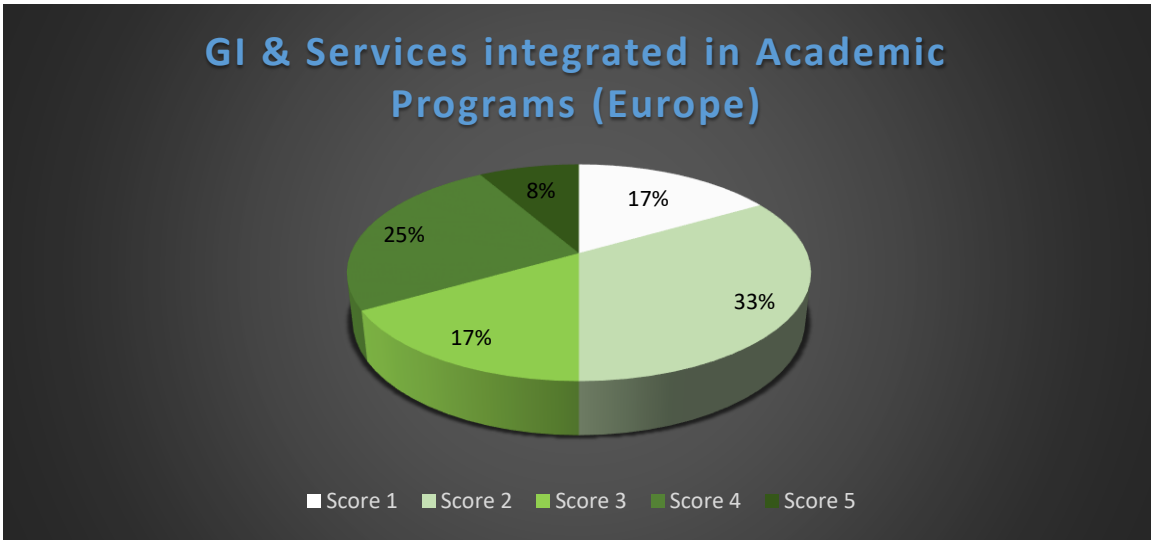
Within the Americas, a majority of 60% of respondents indicated having commenced the implementation of having geospatial information and services integrated into academic programmes, with major tasks still needing implementation (category/score 3). Another twenty seven (27%) have indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. There were however no respondents indicating a maximum category/score of 5, whereby this initiative has been fully pursued and implemented. On the otherhand, 7% have not pursued the integration of geospatial information and services into academic programmes, while 6% indicated not being aware of the initiative nor its implementation within their country. A combined 87% are at a beginner to intermediate stage of implementation, while 13% have not commenced implementation or are not aware of it being implemented.

ii. Asia Region



Within Asia, a majority of 37% of respondents indicated a maximum category/score of 5, whereby geospatial information and services integration into academic programmes has been fully pursued and implemented. Twenty seven percent (27%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while another 27% have commenced the implementation of having geospatial information and services integrated into academic programmes, with major tasks still needing implementation (category/score 3). Another 9% have not pursued this initiative as yet, while there were no respondents indicating that they were not aware of it being implemented. A combined 91% are at a beginner to advanced stage of implementation, while 64% of this amount are at an intermediate to advanced stage.

iii. Europe Region

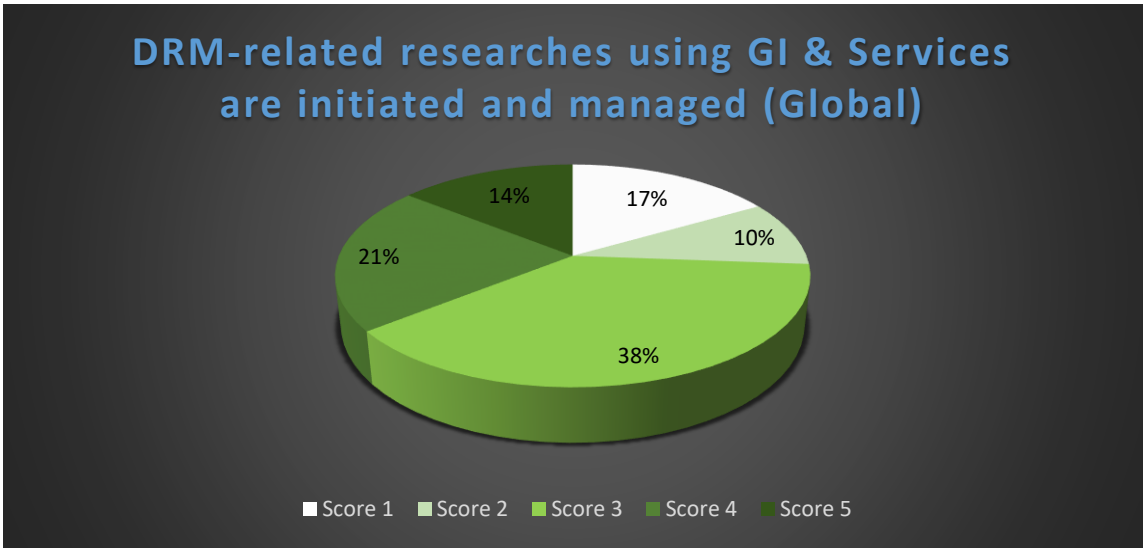


Within Europe, only 8% indicated a maximum category/score of 5, whereby geospatial information and services integration into academic programmes has been fully pursued and implemented. Twenty five

(25%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while another 17% have commenced the implementation of having geospatial information and services integrated into academic programmes, with major tasks still needing implementation. Thirty three (33%) have however not commenced this initiative as yet, while 17% of respondents indicated not being aware of it being implemented. A combined 50% are at a beginner to advanced stage of implementation, while 33% of this amount are at an intermediate to advanced stage.

3. DRM-related researches using GI & Services are initiated and managed

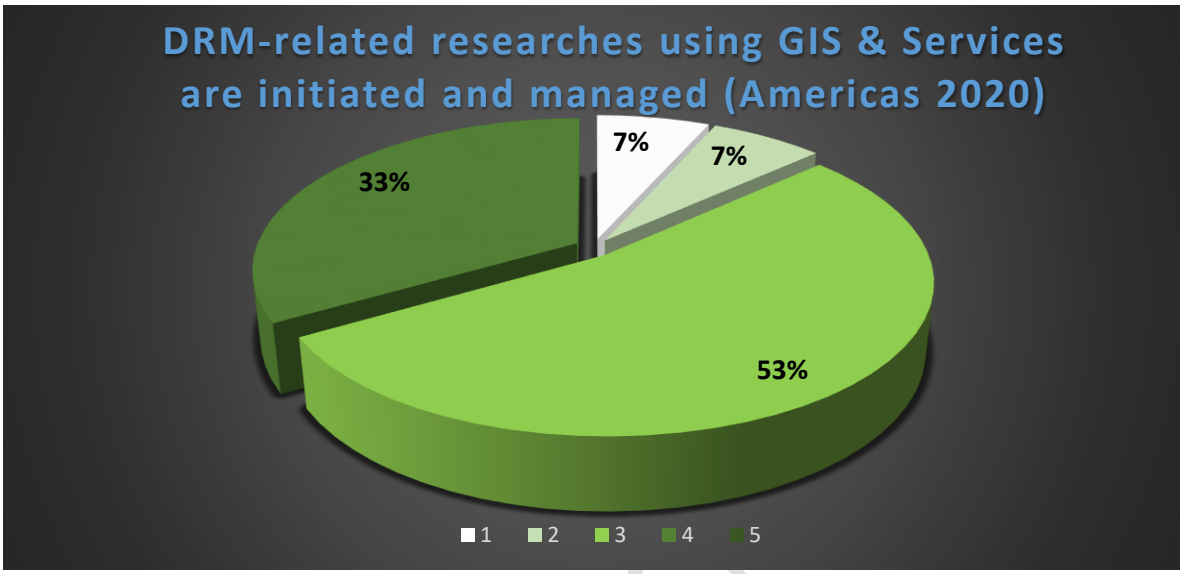
a. Global Results



Globally, only 14% indicated a maximum category/score of 5, whereby DRM related researches using geospatial information and services are initiated and managed, has been fully pursued and implemented. Twenty one (21%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while another 38% have commenced the implementation of having geospatial information and services integrated into DRM related researches, with major tasks still needing implementation. Ten percent (10%) have however not commenced this initiative as yet, while 17% of respondents indicated not being aware of it being implemented. A combined 73% are at a beginner to advanced stage of implementation, while 35% of this amount are at an intermediate to advanced stage.

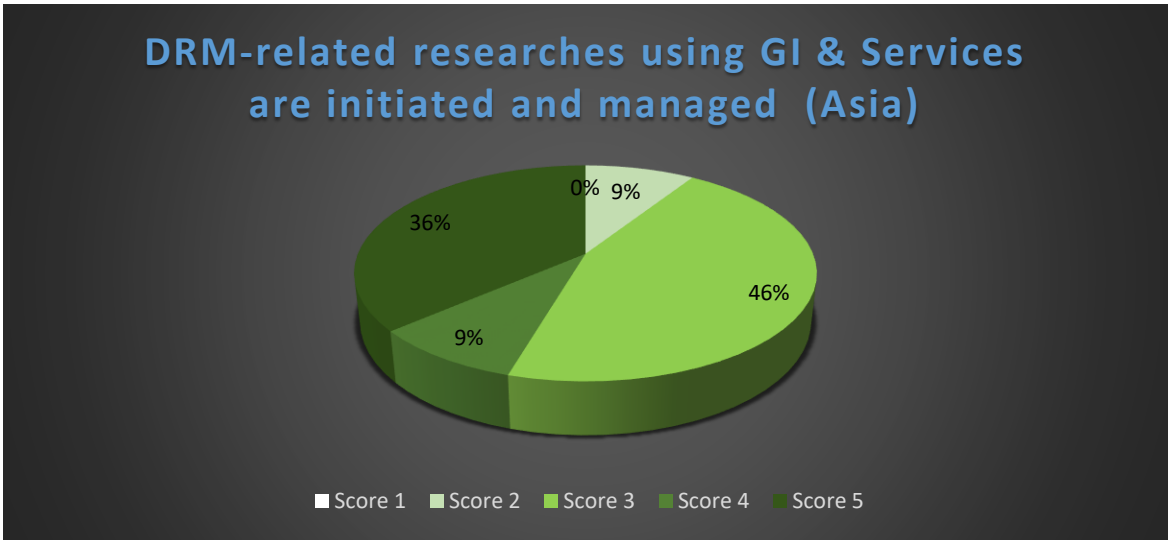
b. Regional Results

i. Americas Region



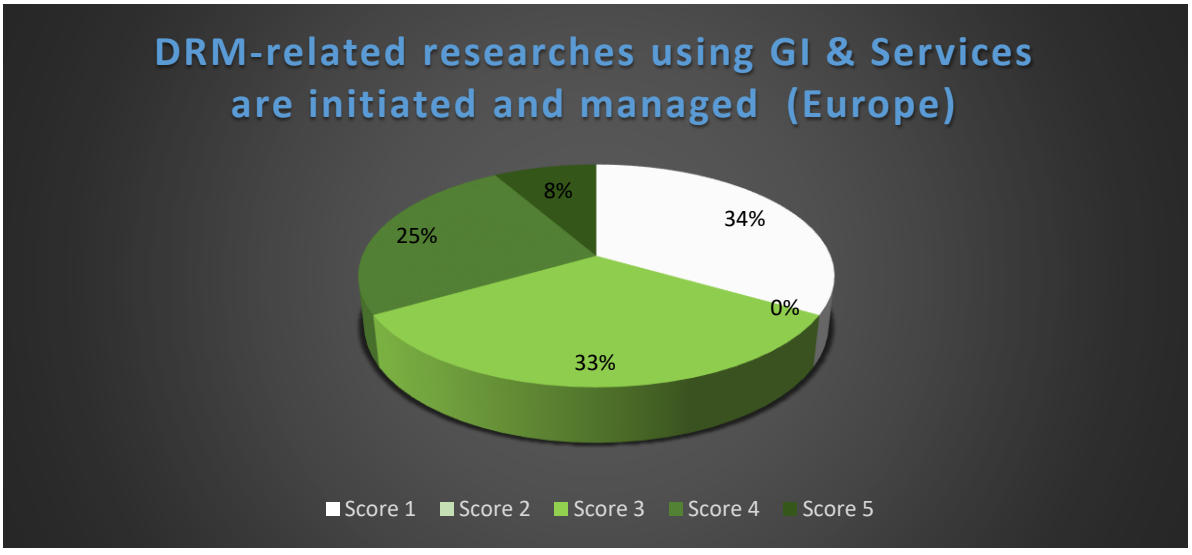
Within the Americas, no respondents indicated a maximum category/score of 5, whereby DRM related researches using geospatial information and services are initiated and managed, has been fully pursued and implemented. Thirty three (33%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 53% have commenced the implementation of having geospatial information and services integrated into DRM related researches, with major tasks still needing implementation. Seven percent (7%) have however not commenced this initiative as yet, while another 7% of respondents indicated not being aware of it being implemented. A combined 86% are at a beginner to intermediate stage of implementation, while 14% have not commenced or are unaware of the initiative.

ii. Asia Region



Within Asia, 36% of respondents indicated a maximum category/score of 5, whereby DRM related researches using geospatial information and services are initiated and managed, has been fully pursued and implemented. Nine percent (9%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 46% have commenced the implementation of having geospatial information and services integrated into DRM related researches, with major tasks still needing implementation. Nine percent (9%) have however not commenced this initiative as yet, while there were no respondents indicating not being aware of it being implemented. A combined 91% are at a beginner to intermediate stage of implementation, of which 45% are at an intermediate to advanced stage.

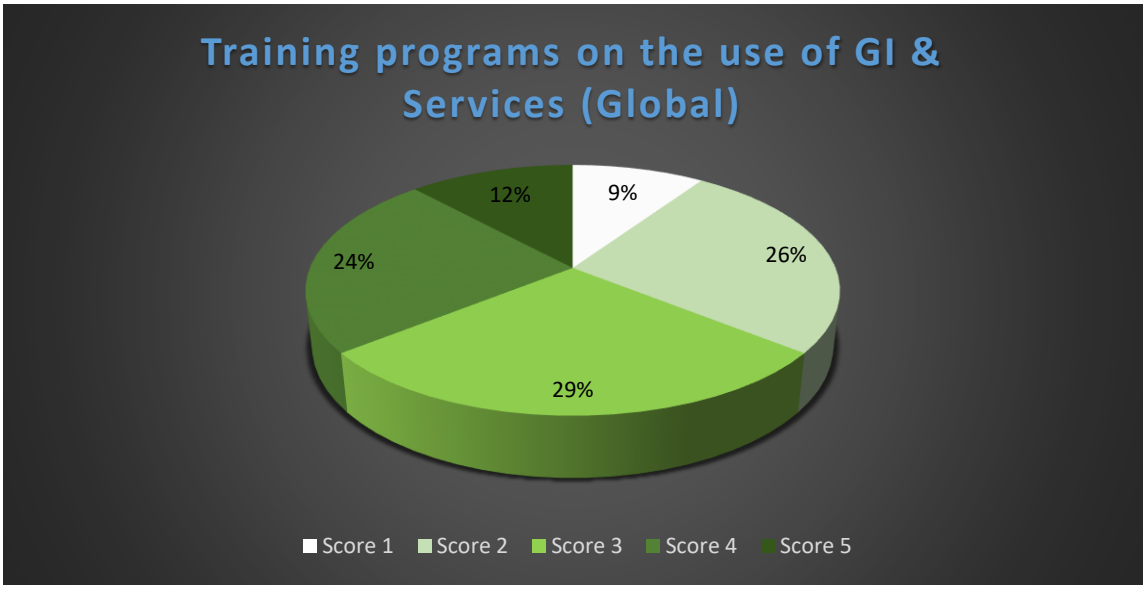
iii. Europe Region



Within Europe, only 8% of respondents indicated a maximum category/score of 5, whereby DRM related researches using geospatial information and services are initiated and managed, has been fully pursued and implemented. Twenty five (25%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 33% have commenced the implementation of having geospatial information and services integrated into DRM related researches, with major tasks still needing implementation. No respondents indicated not having started this initiative, while a significant 34% indicated not being aware of it being implemented. A combined 66% are at a beginner to intermediate stage of implementation, of which 33% are at an intermediate to advanced stage.

4. Training programs on the use of GI & Services

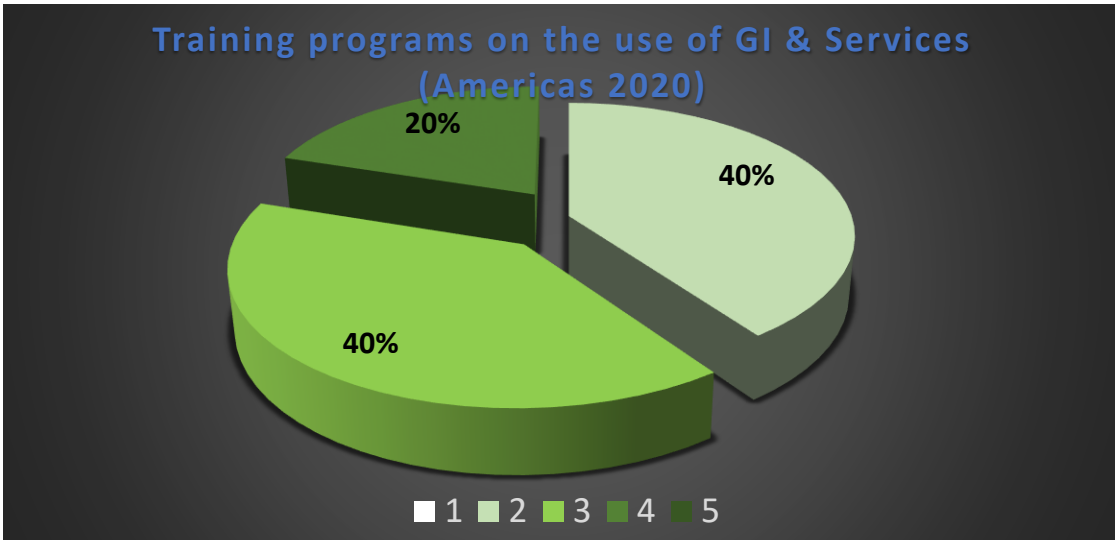
a. Global Results



Globally, only 12% of respondents indicated a maximum category/score of 5, whereby the development of training programmes on the use of geospatial information and services has been fully pursued and implemented. Twenty four (24%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 29% have commenced the development of geospatial based training programmes, with major tasks still needing implementation. Twenty six percent (26%) have not yet commenced this initiative, while 9% were not aware of the initiative being implemented. A combined 65% are at a beginner to intermediate stage of implementation, of which 36% are at an intermediate to advanced stage. A significant 35% have however not commenced or unaware of the initiative's implementation status.

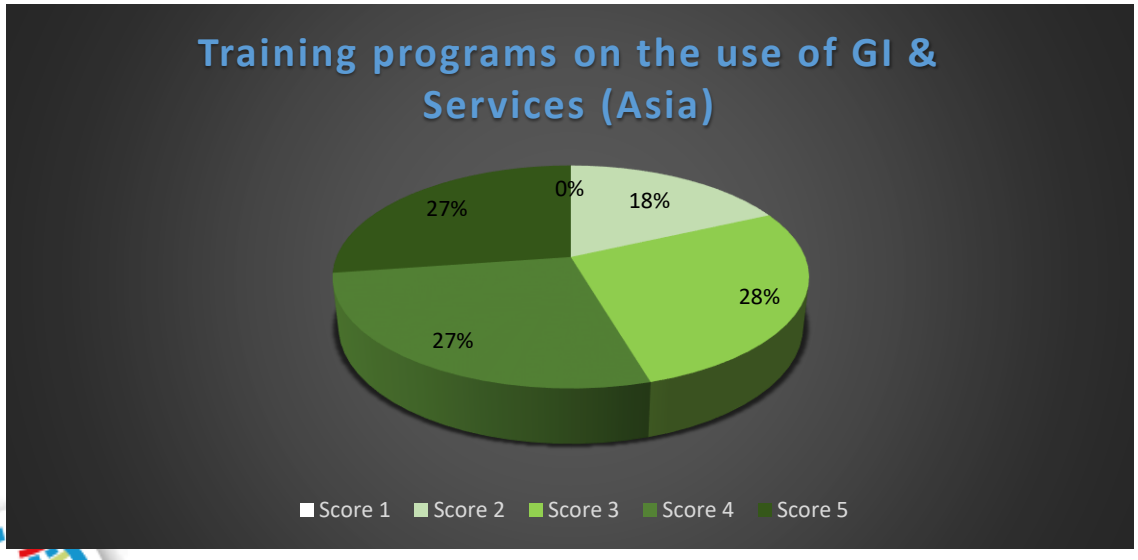
b. Regional Results

i. Americas Region



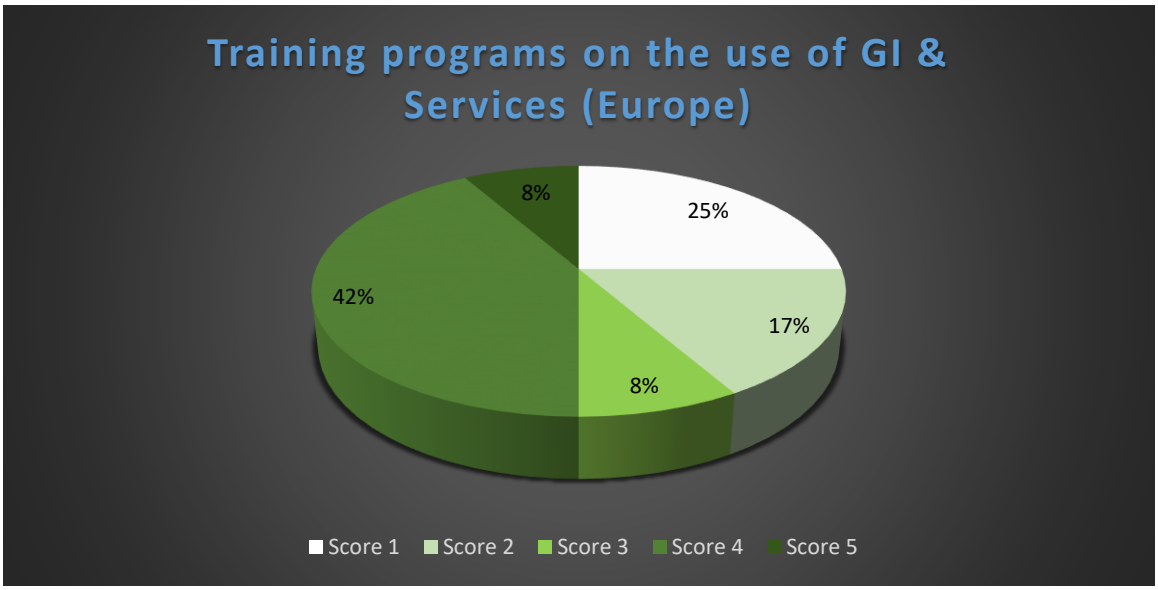
Within the Americas, no respondents indicating a maximum category/score of 5, whereby the development of training programmes on the use of geospatial information and services has been fully pursued and implemented. Twenty (20%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 40% have commenced the development of geospatial based training programmes, with major tasks still needing implementation, while another 40% have not yet commenced this initiative. Additionally, there were no respondents who were not aware of the initiative being implemented. A combined 60% of respondents were at a beginner to intermediate stage of implementation.

ii. Asia Region



Within Asia, a significant 27% of respondents indicated a maximum category/score of 5, whereby the development of training programmes on the use of geospatial information and services has been fully pursued and implemented. Another twenty seven (27%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A slight majority of 28% have commenced the development of geospatial based training programmes, with major tasks still needing implementation. Eighteen percent (18%) have not yet commenced this initiative, while no respondents were unaware of the initiative being implemented. A combined 82% are at a beginner to advanced stage of implementation, of which 54% are at an intermediate to advanced stage.

iii. Europe Region

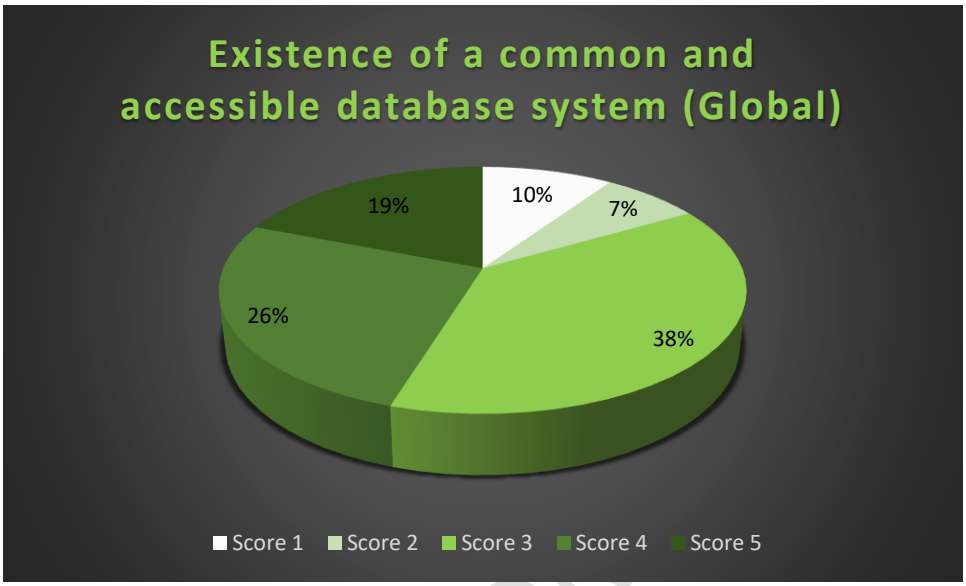


Within Europe, only 8% of respondents indicated a maximum category/score of 5, whereby the development of training programmes on the use of geospatial information and services has been fully pursued and implemented. A significant 42% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Only 8% have commenced the development of geospatial based training programmes, with major tasks still needing implementation. On the otherhand, a significant 25% were unaware of the initiative being implemented, while 17% have not yet commenced this initiative. A combined 58% are at a beginner to advanced stage of implementation, of which a significant 50% are at an intermediate to advanced stage.

Priority C: Data Management

1. Existence of a common and accessible database system

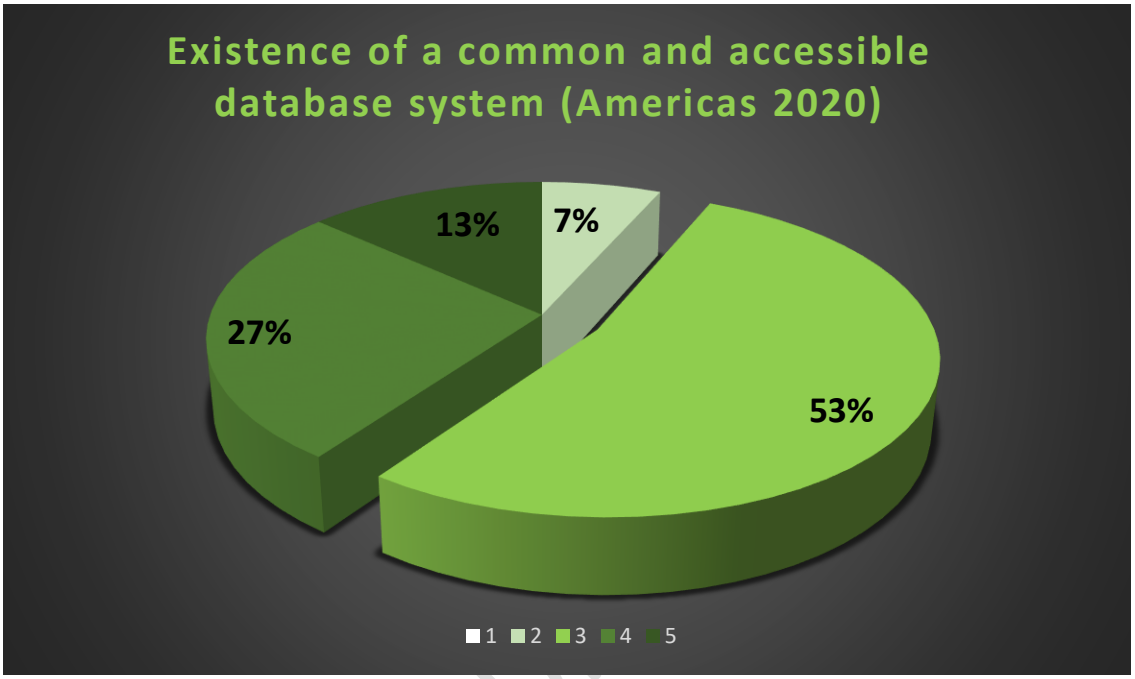
1. Global Results



Globally, 19% of respondents indicated a maximum category/score of 5, whereby the existence of a common and accessible database system to support data management has been fully pursued and implemented. Twenty six (26%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 38% have commenced the establishment of a common and accessible database system, with major tasks still needing implementation. Seven percent (7%) have not yet commenced this initiative, while 10% were not aware of the initiative being implemented. A combined 83% are at a beginner to advanced stage of implementation, of which 45% are at an intermediate to advanced stage. Seventeen percent (17%) have however not commenced or unaware of the initiative's implementation status.

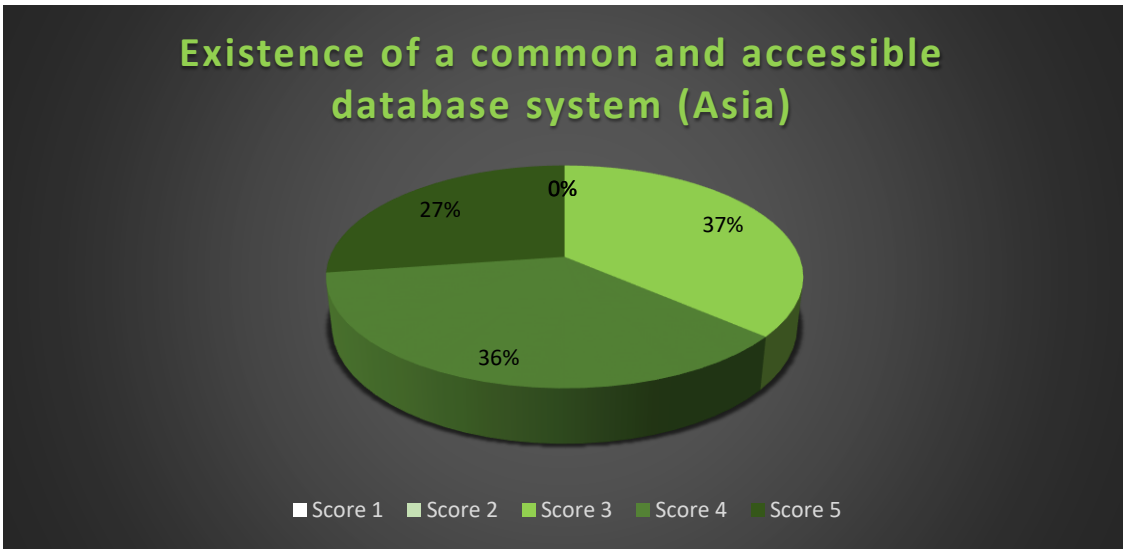
2. Regional Results

i. Americas Region



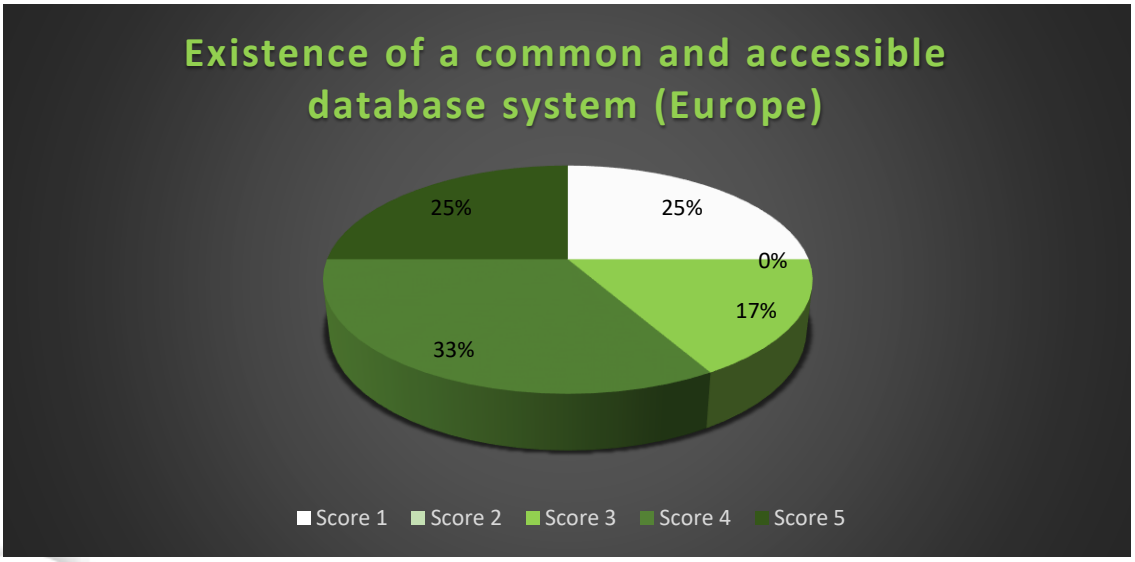
Within the Americas, 13% of respondents indicated a maximum category/score of 5, whereby the existence of a common and accessible database system to support data management has been fully pursued and implemented. Twenty seven (27%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 53% have commenced the establishment of a common and accessible database system, with major tasks still needing implementation. Seven percent (7%) have not yet commenced this initiative, while no respondents being unaware of the initiative being implemented. A combined 93% are at a beginner to advanced stage of implementation, of which 40% are at an intermediate to advanced stage.

iv. Asia Region



Within Asia, all respondents indicated beginner to advanced stage of implementation. No respondents were unaware of the initiative being implemented or have not commenced. Twenty seven (27%) indicated a maximum category/score of 5, whereby the existence of a common and accessible database system to support data management has been fully pursued and implemented. Thirty six (36%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A remaining 37% have commenced the establishment of a common and accessible database system, with major tasks still needing implementation. A combined 63% reported having an intermediate to advanced stage of implementation.

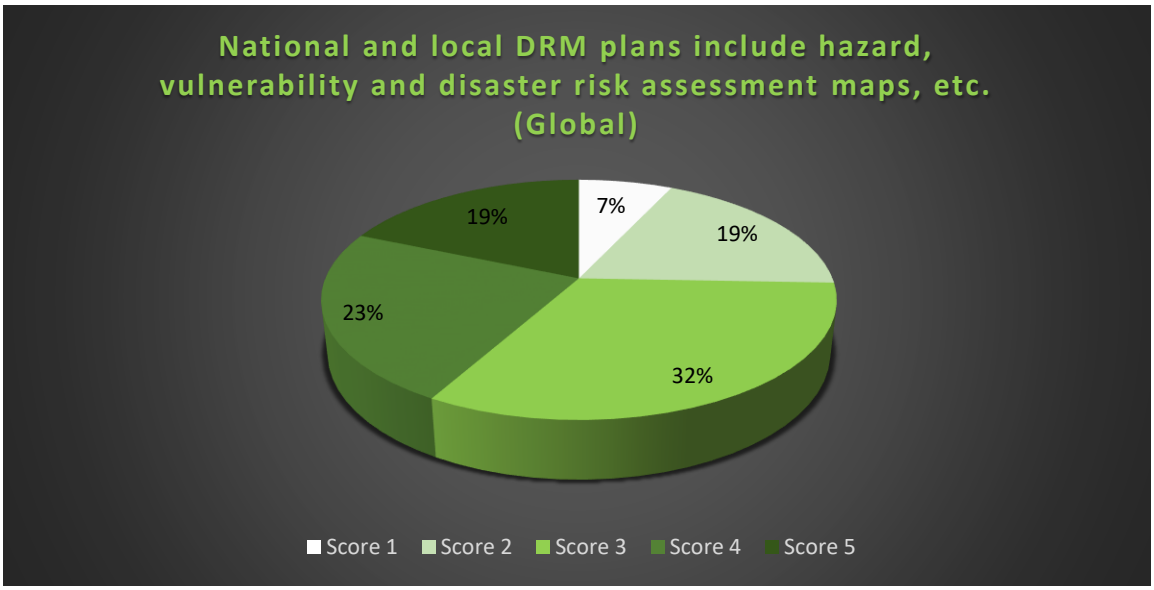
v. Europe Region



Within Europe, a significant 25% of respondents indicated a maximum category/score of 5, whereby the existence of a common and accessible database system to support data management has been fully pursued and implemented. Thirty three (33%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A remaining 25% were not aware of the initiative being implemented. There were no reported instances of the initiative not commencing. A combined 75% reported being at some stage of implementation, of which 58% were at intermediate to advanced stage of implementation.

2. National and local DRM plans include hazard, vulnerability and disaster risk assessment maps, etc.

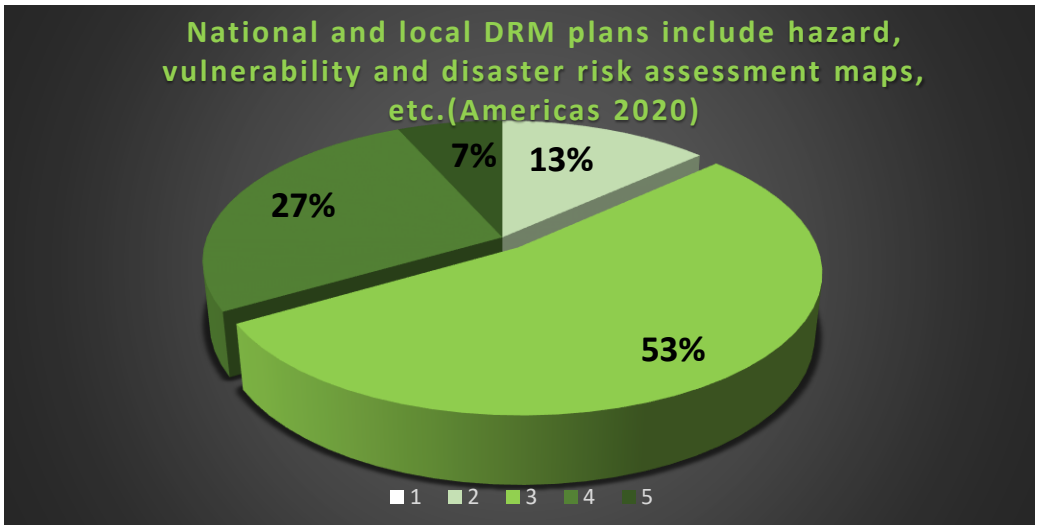
a. Global Results



Globally, 19% of respondents indicated a maximum category/score of 5, whereby hazard vulnerability and disaster risk assessment maps etc. occur in existing national and local DRM plans. Twenty three (23%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Another 32% have commenced the initiative with major tasks needing completion. On the other hand, 19% have not commenced, while 7% are unaware of the existence of such initiatives within their countries. A combined 74% reported being at some stage of implementation, of which 42% were at intermediate to advanced stage of implementation.

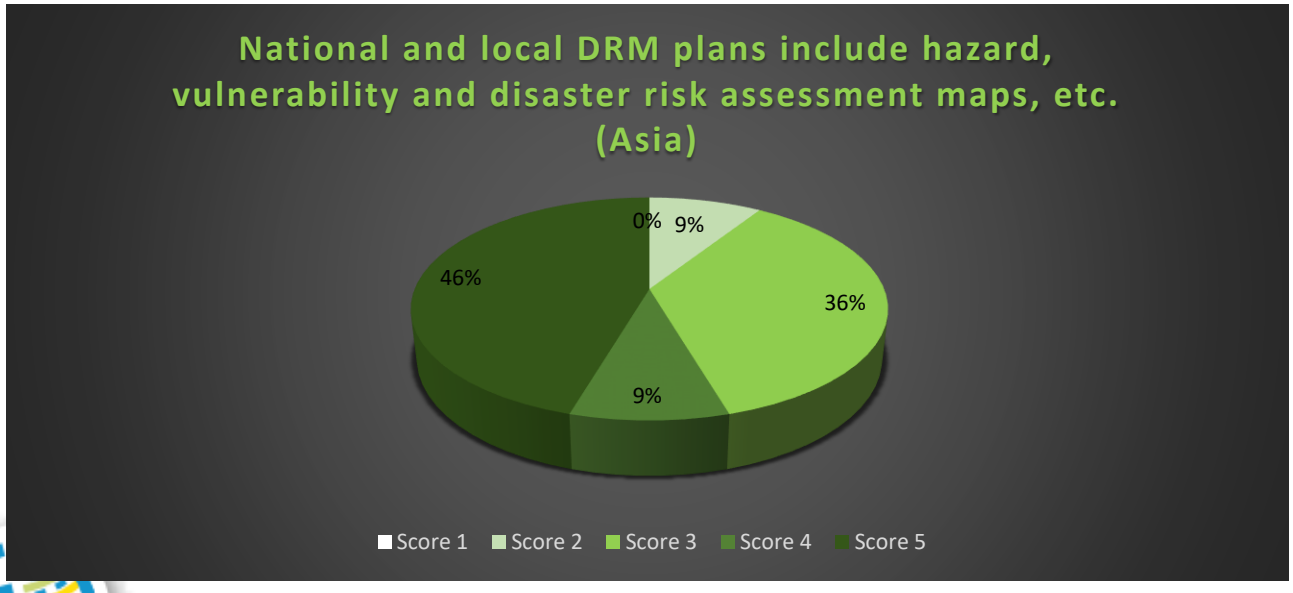
b. Regional Results

i. Americas Region



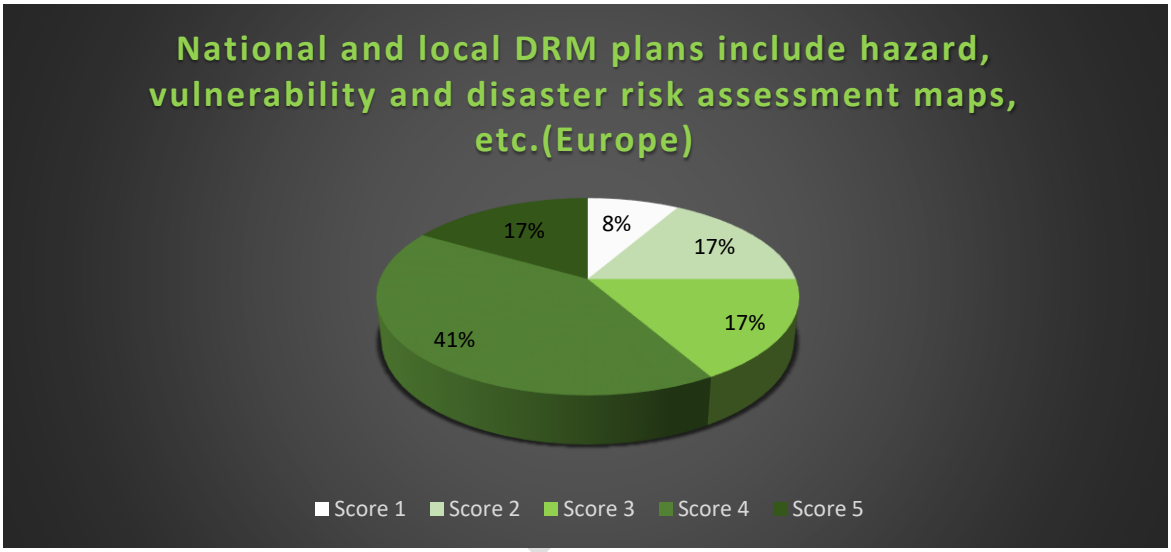
Within the Americas, only 7% of respondents indicated a maximum category/score of 5, whereby hazard vulnerability and disaster risk assessment maps etc. occur in existing national and local DRM plans. Twenty seven (27%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 53% have commenced the initiative with major tasks needing completion. On the other hand, 13% have not yet commenced, while there were no respondents indicating being unaware of the existence of such initiatives within their countries. A combined 87% reported being at some stage of implementation, of which 34% were at intermediate to advanced stage of implementation.

ii. Asia Region



Within Asia, a very significant 46% of respondents indicated a maximum category/score of 5, whereby hazard vulnerability and disaster risk assessment maps etc. occur in existing national and local DRM plans. Nine percent (9%) indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Another 36% have commenced the initiative with major tasks needing completion, while 9% have not yet commenced. No respondents indicated being unaware of the existence of such initiatives within their countries. A combined 91% reported being at some stage of implementation, of which 55% were at intermediate to advanced stage of implementation.

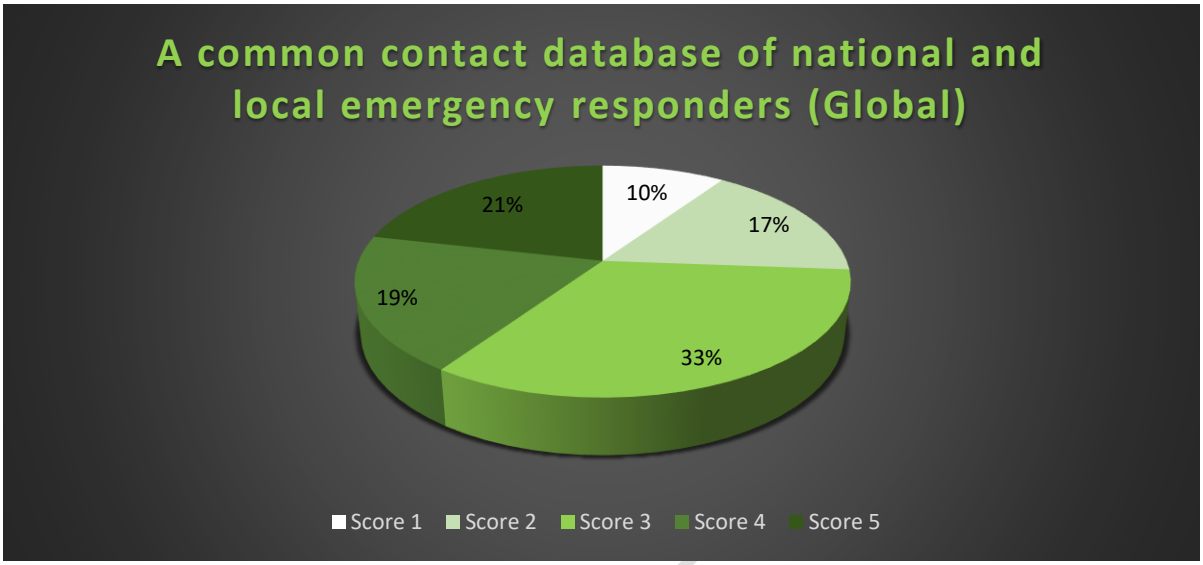
iii. Europe Region



Within Europe, 17% of respondents indicated a maximum category/score of 5, whereby hazard vulnerability and disaster risk assessment maps etc. occur in existing national and local DRM plans. A majority of 41% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Seventeen percent (17%) have commenced the initiative with major tasks needing completion, while another 17% have not yet commenced. Eight percent (8%) indicated being unaware of the existence of such initiatives within their countries. A combined 75% reported being at some stage of implementation, of which 58% were at intermediate to advanced stage of implementation. Twenty five (25%) have not yet started or are unaware.

3. A common contact database of national and local emergency responders

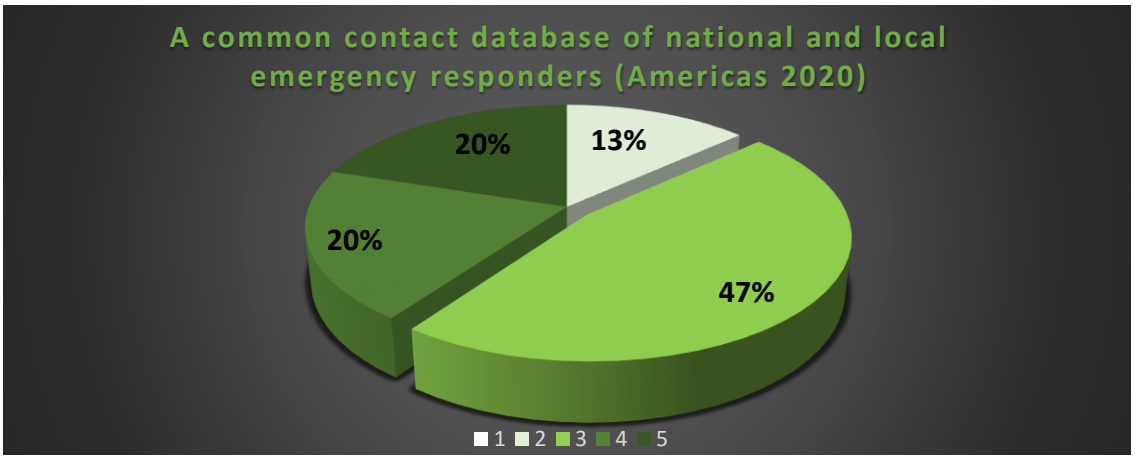
a. Global Results



Globally, 21% of respondents indicated a maximum category/score of 5, whereby there exists a common database of national and local emergency responders. A majority of 33% indicated category/score 3, having commenced the initiative with major tasks needing completion, while 19% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Seventeen percent (17%) have not yet commenced, while 10% were unaware of the existence of such initiatives within their countries. A combined 73% reported being at some stage of implementation, of which 40% were at intermediate to advanced stage of implementation. Twenty seven (27%) have not yet started or are unaware.

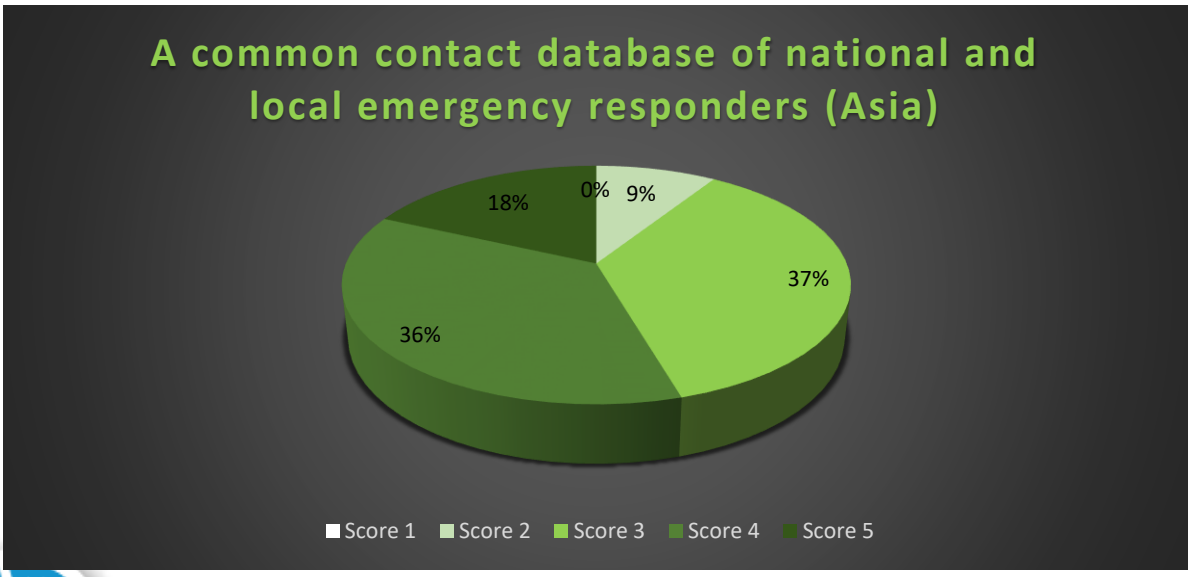
b. Regional Results

i. Americas Region



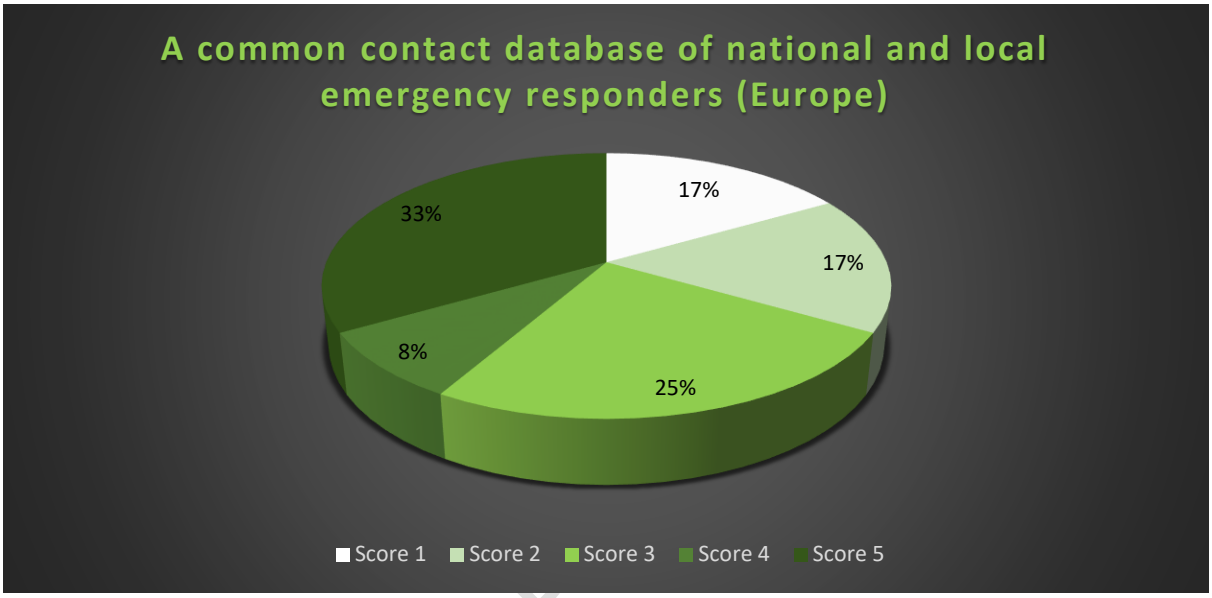
Within the Americas, 20% of respondents indicated a maximum category/score of 5, whereby there exists a common database of national and local emergency responders. A majority of 47% indicated category/score 3, having commenced the initiative with major tasks needing completion, while another 20% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Thirteen percent (13%) have not yet commenced, while there were no responders being unaware of the existence of such initiatives within their countries. A combined 87% reported being at some stage of implementation, of which 40% were at intermediate to advanced stage of implementation.

ii. Asia Region



Within Asia, 18% of respondents indicated a maximum category/score of 5, whereby there exists a common database of national and local emergency responders. A 37% indicated category/score 3, having commenced the initiative with major tasks needing completion, while 36% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Nine percent (9%) have not yet commenced, while there were no responders being unaware of the existence of such initiatives within their countries. A combined 91% reported being at some stage of implementation, of which 54% were at intermediate to advanced stage of implementation.

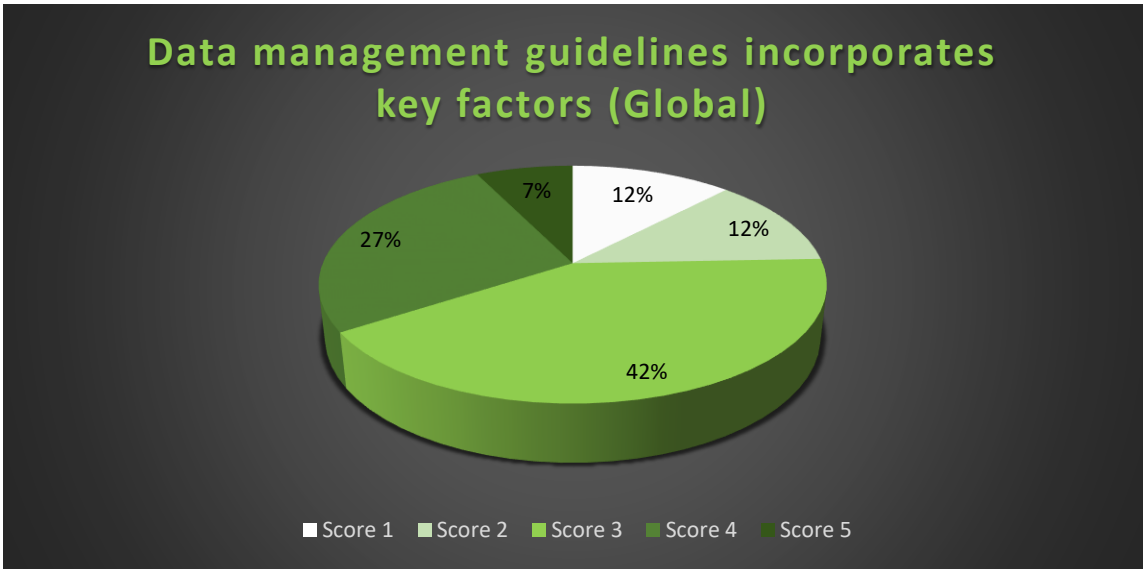
iii. Europe Region



Within Europe, a significant 33% of respondents indicated a maximum category/score of 5, whereby there exists a common database of national and local emergency responders. Twenty five (25%) indicated category/score 3, having commenced the initiative with major tasks needing completion, while 8% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Seventeen percent (17%) have not yet commenced, while another 17% there were no responders being unaware of the existence of such initiatives within their countries. A combined 91% reported being at some stage of implementation, of which 54% were at intermediate to advanced stage of implementation. Thirty four percent (34%) have not commenced or are unaware of existing initiatives.

4. Data management guidelines incorporates key factors

a. Global Results

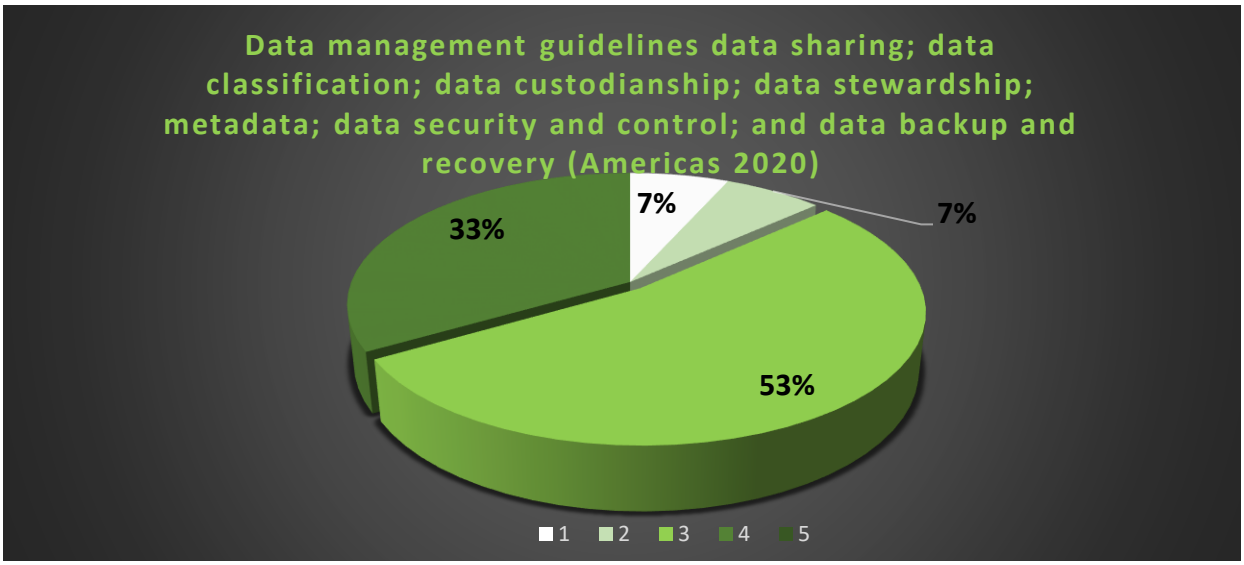


Globally, only 7% of respondents indicated a maximum category/score of 5, whereby data management guidelines that incorporate key factors exist. A majority of 42% indicated category/score 3, having commenced the initiative with major tasks needing completion, while 27% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Twelve percent (12%) have not yet commenced, while another 12% were unaware of the existence of such initiatives within their countries. A combined 76% reported being at some stage of implementation, of which 34% were at intermediate to advanced stage of implementation. Twenty four percent (24%) have not commenced or are unaware of existing initiatives.

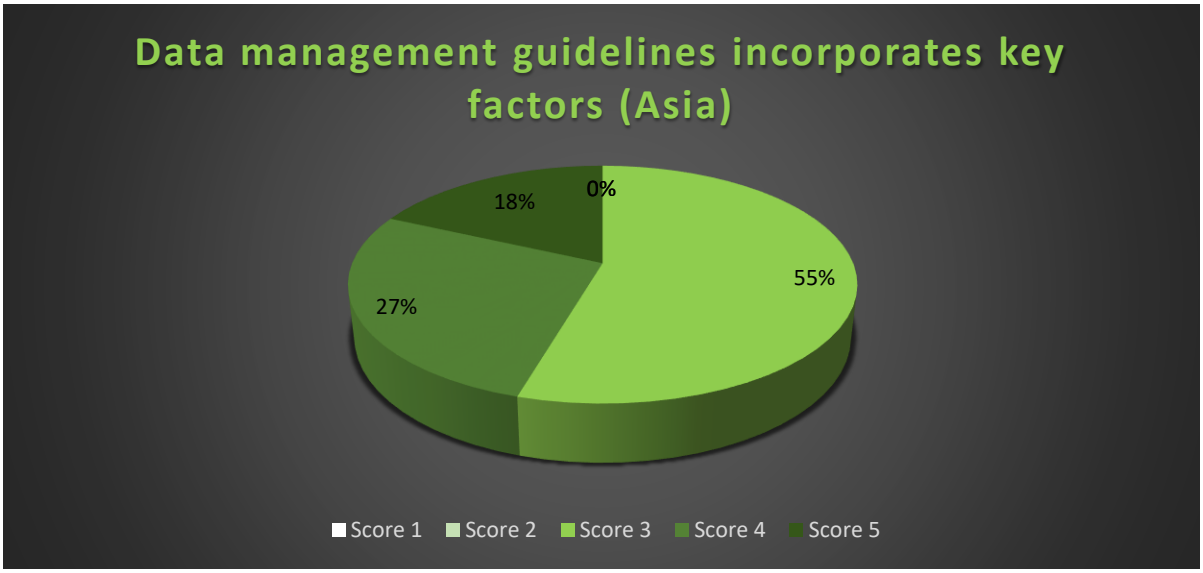
b. Regional Results

i. Americas Region

Within the Americas, no respondent indicated a maximum category/score of 5, whereby data management guidelines that incorporate key factors exist. A majority of 55% indicated category/score 3, having commenced the initiative with major tasks needing completion, while 33% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Seven (7%) have not yet commenced, while another 7% were unaware of the existence of such initiatives within their countries. A combined 86% reported being at beginner to intermediate stage of implementation. Fourteen percent (14%) have not commenced or are unaware of existing initiatives.

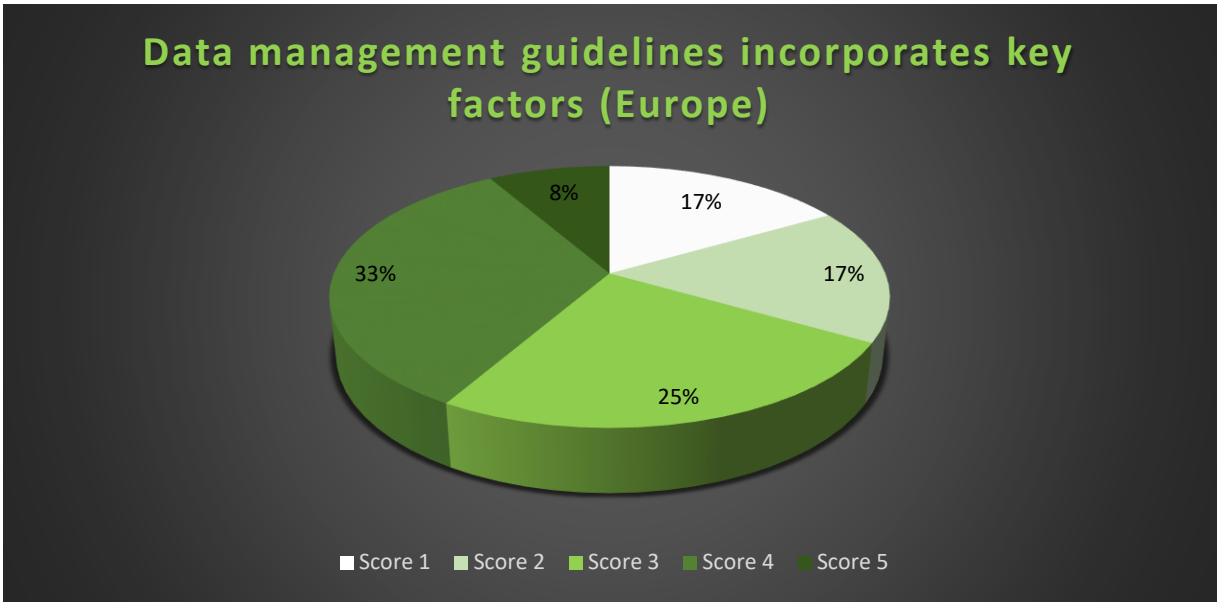


ii. Asia Region



Within Asia, all respondents were at some stage of implementation. Eighteen percent (18%) indicated a maximum category/score of 5, whereby data management guidelines that incorporate key factors exist. A majority of 55% indicated category/score 3, having commenced the initiative with major tasks needing completion, while 27% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. No respondents have not yet commenced or are unaware of existing initiatives.

iii. Europe Region

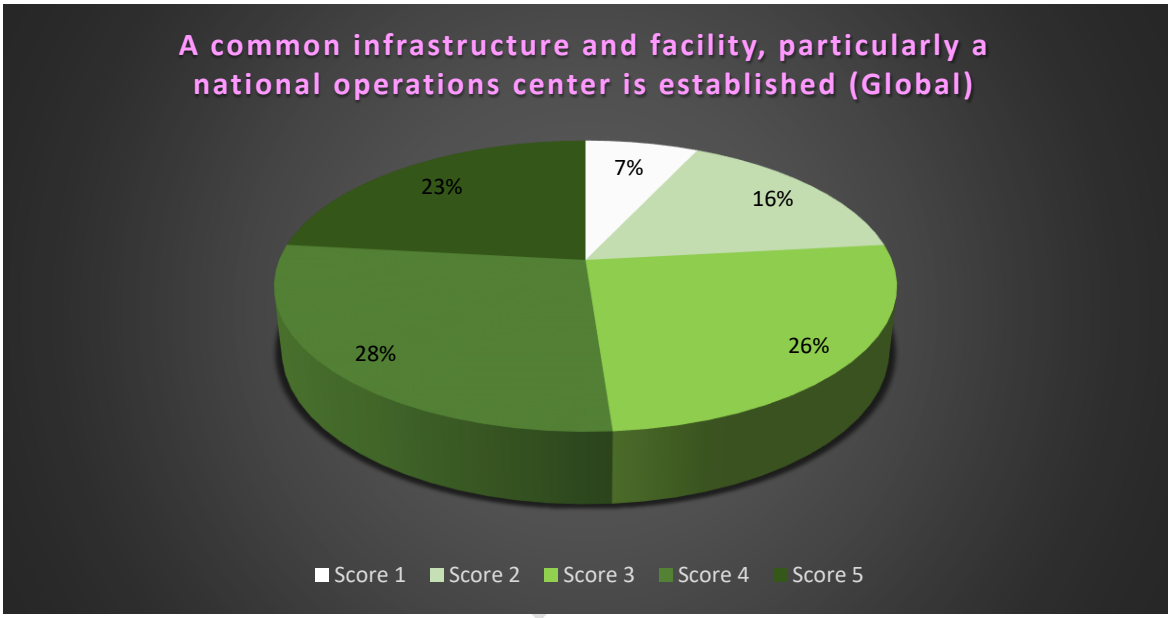


Within Europe, only 8% of respondents indicated a maximum category/score of 5, whereby data management guidelines that incorporate key factors exist. A majority of 33% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while 25% indicated category/score 3, having commenced the initiative with major tasks needing completion. Seventeen percent (17%) have not yet commenced, while another 17% were unaware of the existence of such initiatives within their countries. A combined 66% reported being at some stage of implementation, while 41% of this were intermediate to advanced. Twenty four percent (24%) have not commenced or are unaware of existing initiatives.

Priority D: Common Infrastructure and Services

1. A common infrastructure and facility, particularly a national operations center is established

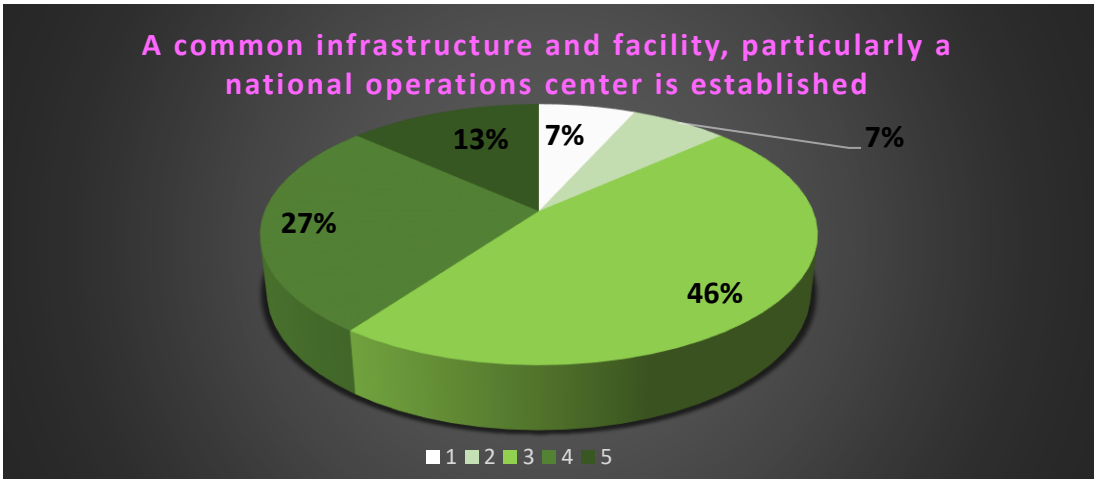
a. Global Results



Globally, 23% of respondents indicated a maximum category/score of 5, whereby a common infrastructure and facility exists such as a national operations centre. A majority of 28% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while 26% indicated category/score 3, having commenced the initiative with major tasks needing completion. Sixteen percent (16%) have not yet commenced, while a remaining 7% were unaware of the existence of such initiatives within their countries. A combined 77% reported being at some stage of implementation, while 51% of this were intermediate to advanced. Twenty three percent (23%) have not commenced or are unaware of existing initiatives.

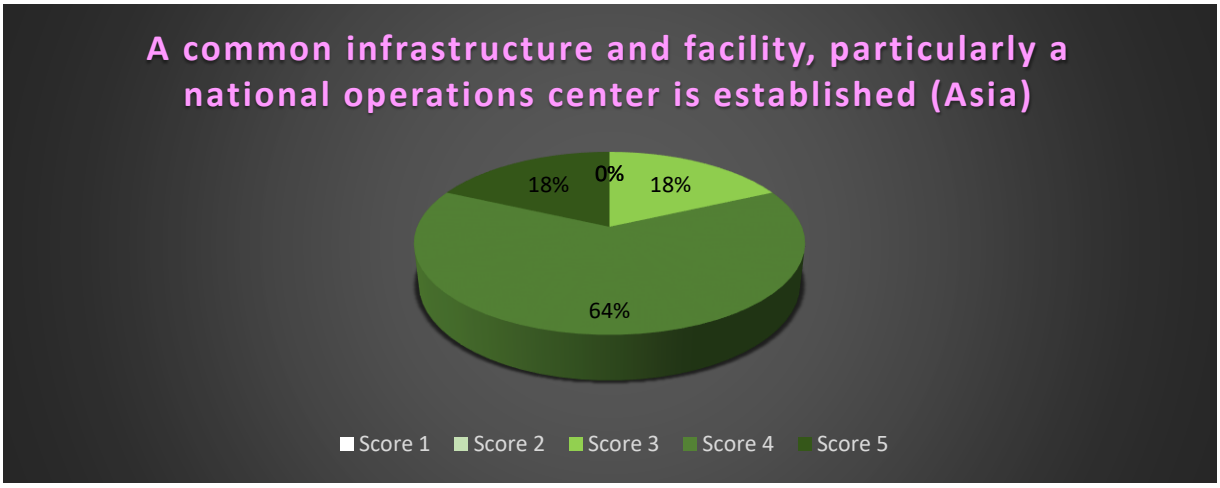
b. Regional Results

i. Americas Region



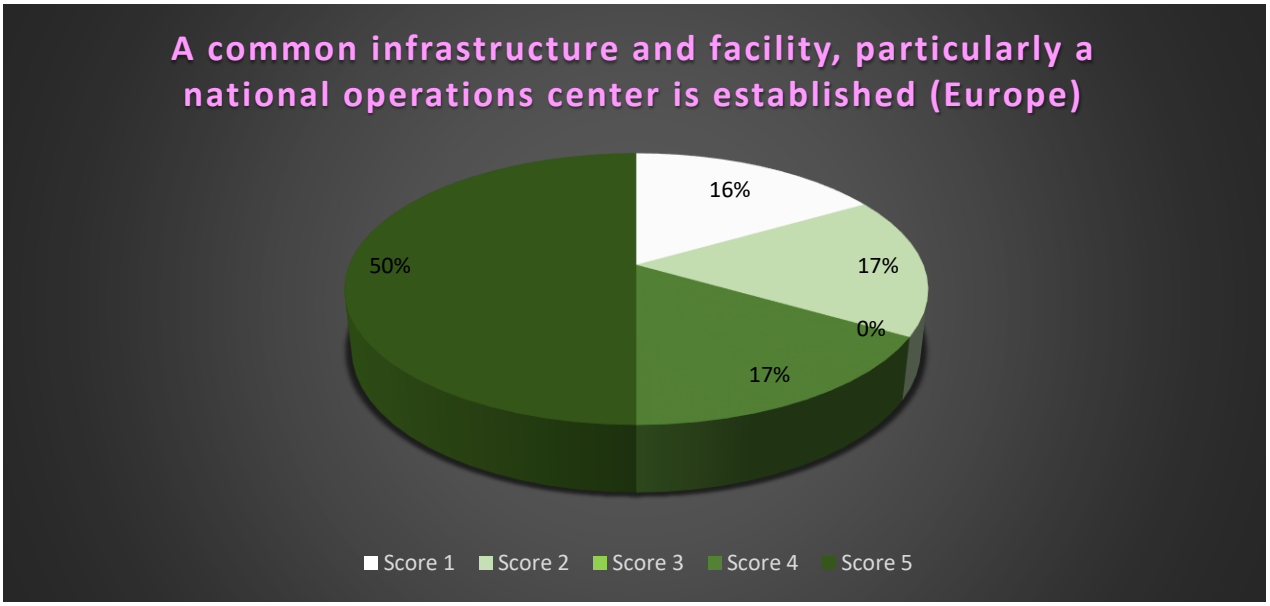
Within the Americas, 13% of respondents indicated a maximum category/score of 5, whereby a common infrastructure and facility exists such as a national operations centre. A majority of 46% reported category/score 3, having commenced the initiative with major tasks needing completion, while 27% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Seven percent (7%) have not yet commenced, while a remaining 7% were unaware of the existence of such initiatives within their countries. A combined 86% reported being at some stage of implementation, while 40% of this were intermediate to advanced. Fourteen percent (14%) have not commenced or are unaware of existing initiatives.

ii. Asia Region



Within Asia, all respondents were at some stage of implementation. Of this, 18% of respondents indicated a maximum category/score of 5, whereby a common infrastructure and facility exists such as a national operations centre. A majority of 64% reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while 18% reported category/score 3, having commenced the initiative with major tasks needing completion. A combined 82% reported being at intermediate to advanced level. No non-commencement nor unawareness was reported.

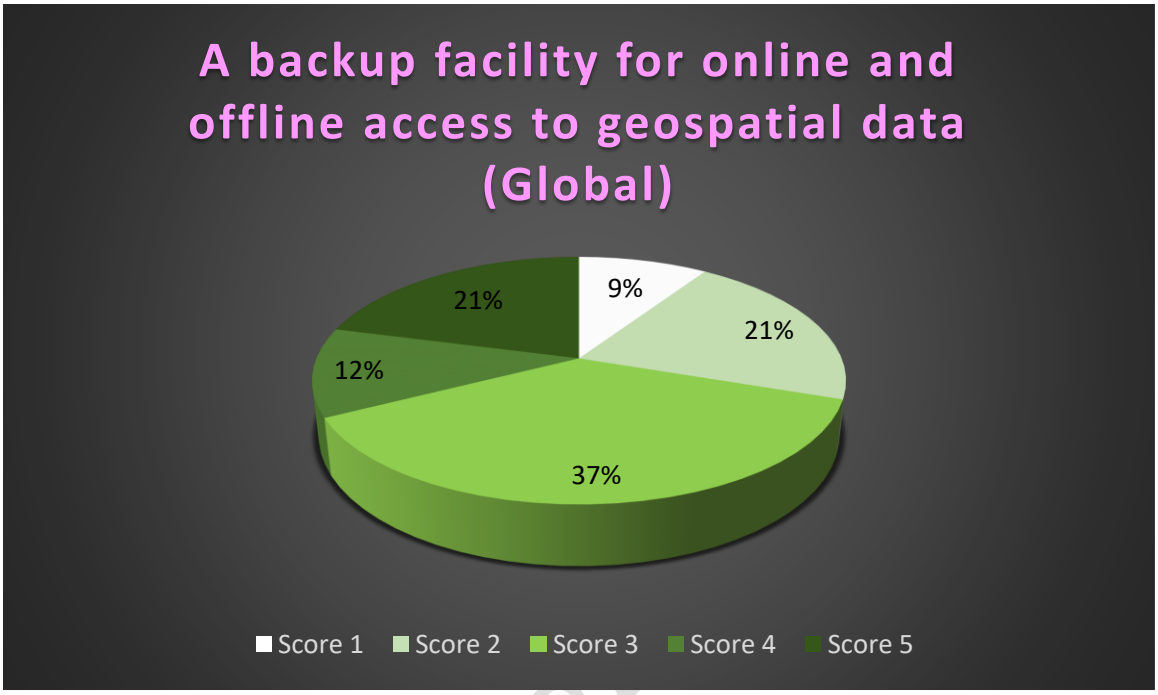
iii. Europe Region



Within Europe, a highly significant 50% of respondents indicated a maximum category/score of 5, whereby a common infrastructure and facility exists such as a national operations centre. Seventeen percent (17%) reported category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken, while another 17% reported not having started and 16% being unaware. A combined 67% reported being at intermediate to advanced level.

2. A backup facility for online and offline access to geospatial data

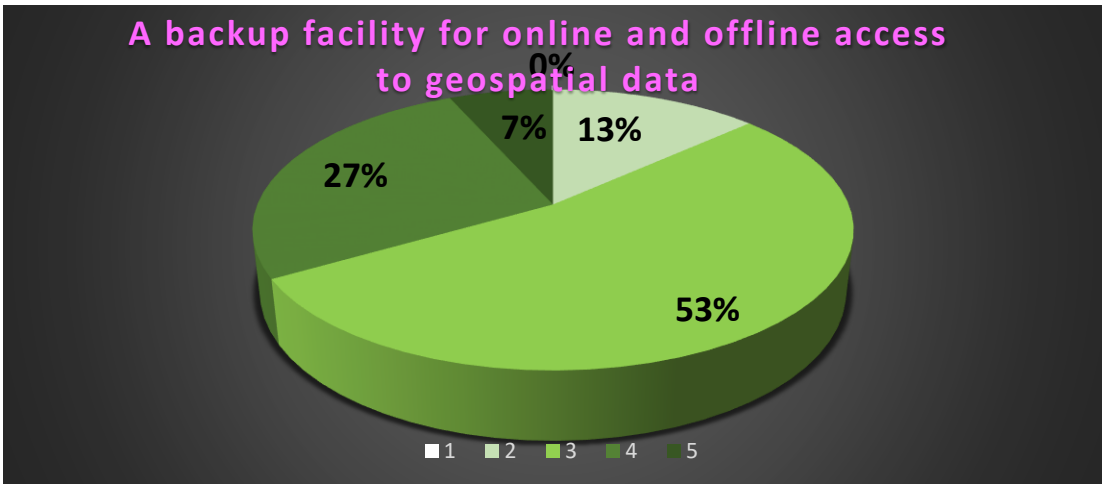
a. Global Results



Globally, 27% of respondents indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. A majority of 37% reported category/score 3, having commenced the initiative with major tasks needing completion, while 12% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Twenty one percent (21%) have not yet commenced, while a remaining 9% were unaware of the existence of such initiatives within their countries. A combined 70% reported being at some stage of implementation, while 33% of this were intermediate to advanced. Thirty percent (30%) have not commenced or are unaware of existing initiatives.

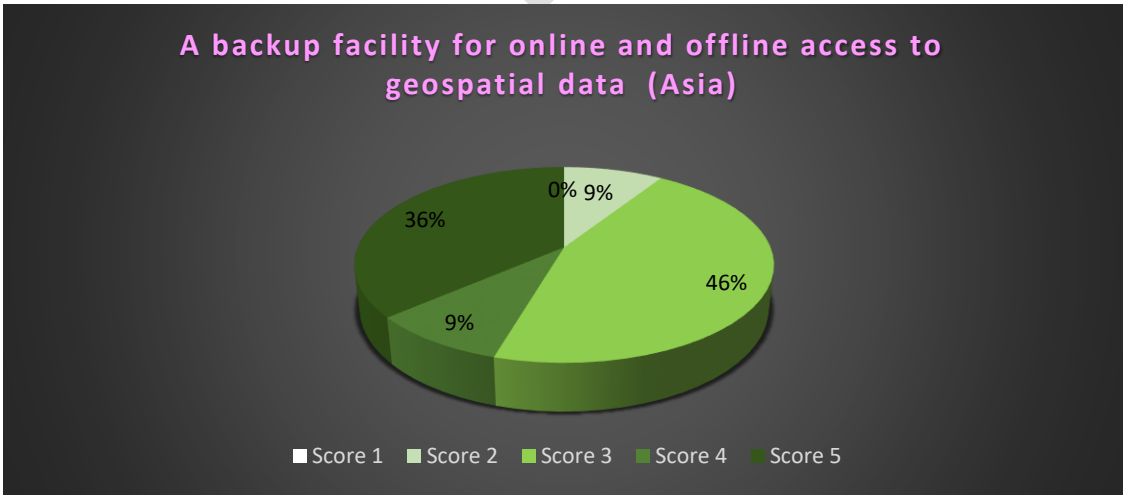
b. Regional Results

i. Americas Region



Within the Americas, only 7% indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. A majority of 53% reported category/score 3, having commenced the initiative with major tasks needing completion, while 27% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Thirteen percent (13%) have not yet commenced, there were no unaware cases of the existence of such initiatives within their countries. A combined 87% reported being at some stage of implementation, while 34% of this were intermediate to advanced.

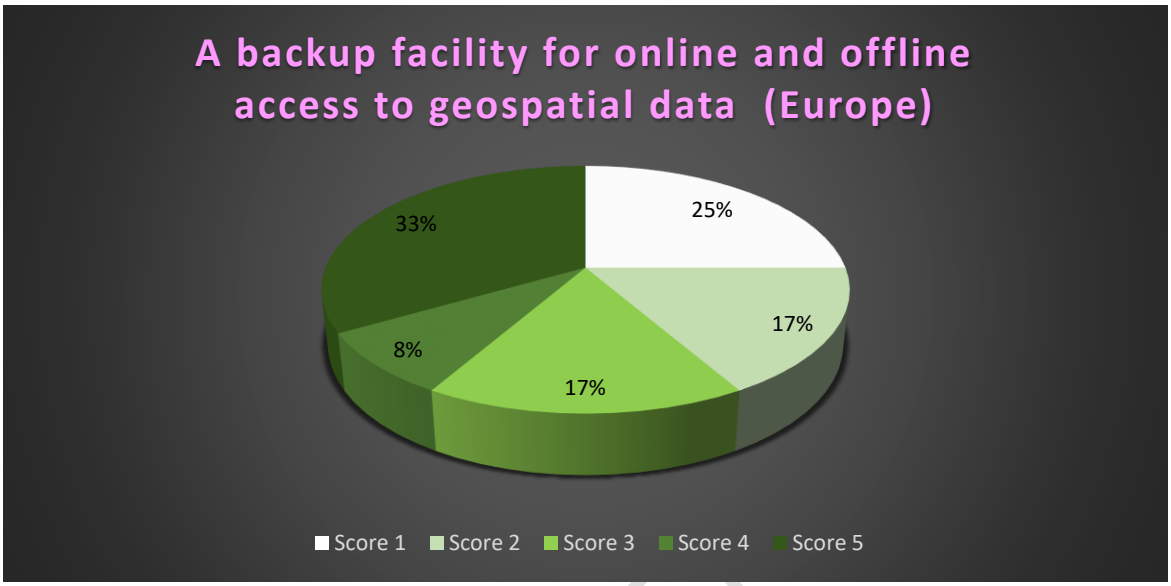
ii. Asia Region



Within Asia, a significant 36% indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. A majority of 46% reported category/score 3, having commenced the initiative with major tasks needing completion, while 9% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Nine percent (9%) have not yet commenced, there were no unaware cases of the existence of such

initiatives within their countries. A combined 91% reported being at some stage of implementation, while 45% of this were intermediate to advanced.

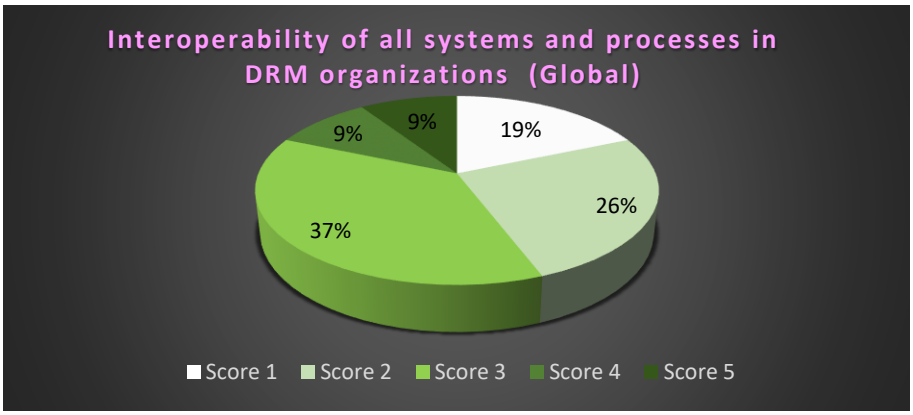
iii. Europe Region



Within Europe, a majority of 33% indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. Seventeen percent (17%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 8% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Seventeen percent (17%) have not yet commenced, while a significant 25% were unaware of the existence of such initiatives within their countries. A combined 58% reported being at some stage of implementation, while 41% of this were intermediate to advanced. Forty two percent (42%) were unaware or have not commenced.

3. Interoperability of all systems and processes in DRM organizations

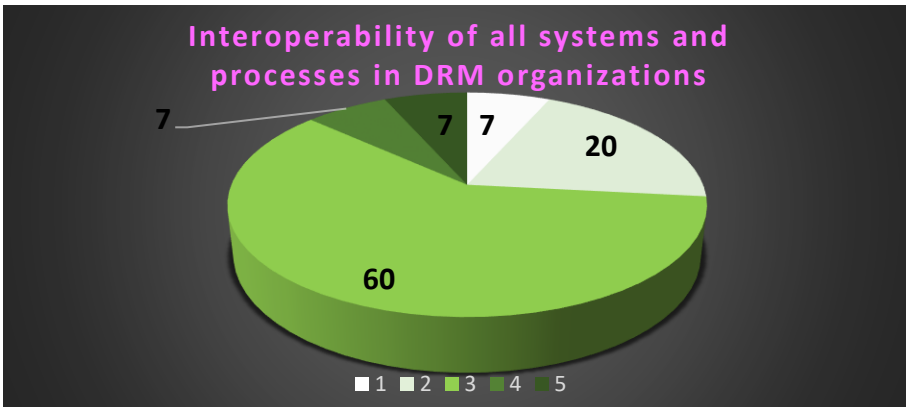
a. Global Results



Globally, only 9% indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. Thirty seven percent (37%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 9% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Twenty six percent (26%) have not yet commenced, while 19% were unaware of the existence of such initiatives within their countries. A combined 55% reported being at some stage of implementation, while 18% of this were intermediate to advanced. Forty five percent (45%) were unaware or have not commenced.

b. Regional Results

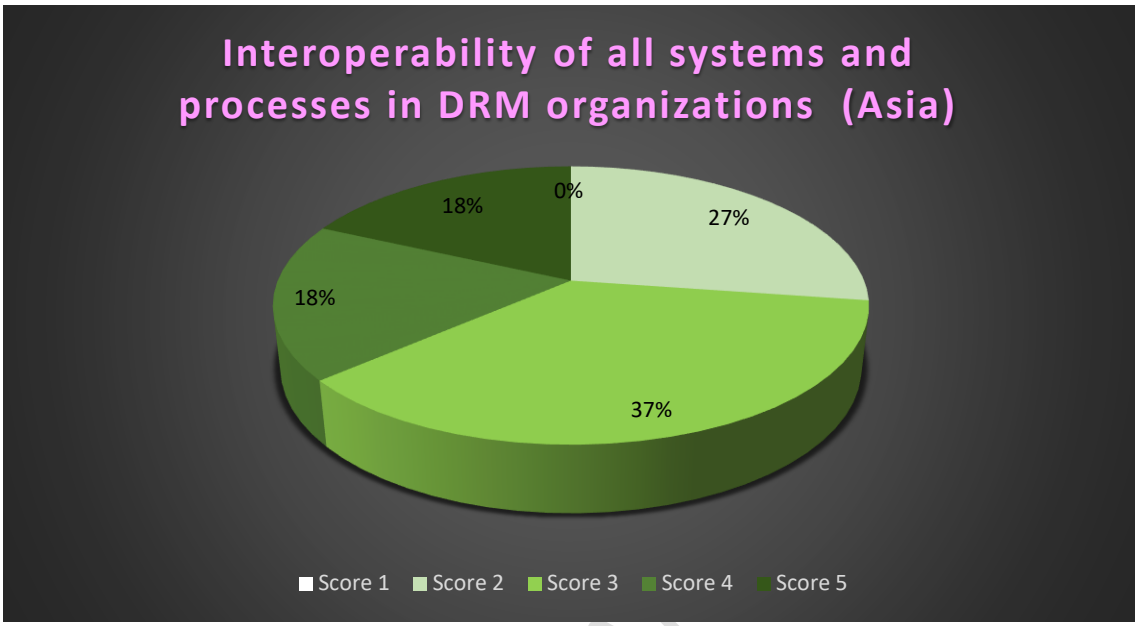
i. Americas Region



Within the Americas, only 7% indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. Sixty percent (60%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 7% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Twenty percent (20%) have not yet commenced, while 7% were unaware of the existence of such initiatives within their countries. A combined 74% reported being at some stage of implementation, while

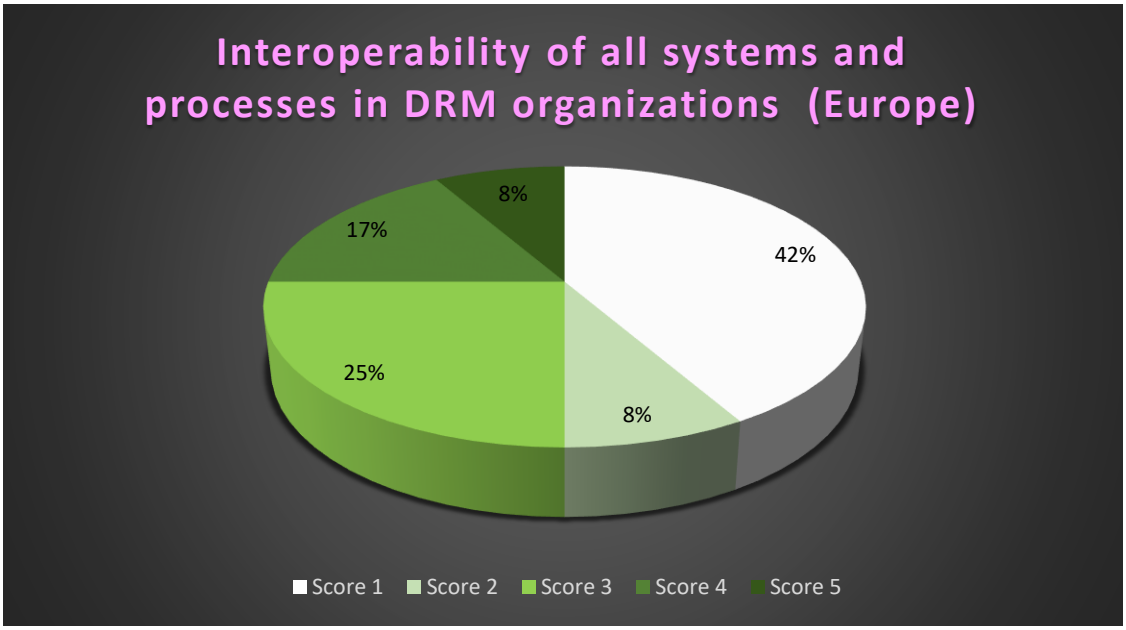
14% of this were intermediate to advanced. Twenty seven percent (27%) were unaware or have not commenced.

ii. Asia Region



Within Asia, 18% indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. Thirty seven percent (37%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 18% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Twenty seven (27%) have not yet commenced, with no respondents being unaware of the existence of such initiatives within their countries. A combined 73% reported being at some stage of implementation, while 36% of this were intermediate to advanced.

iii. Europe Region

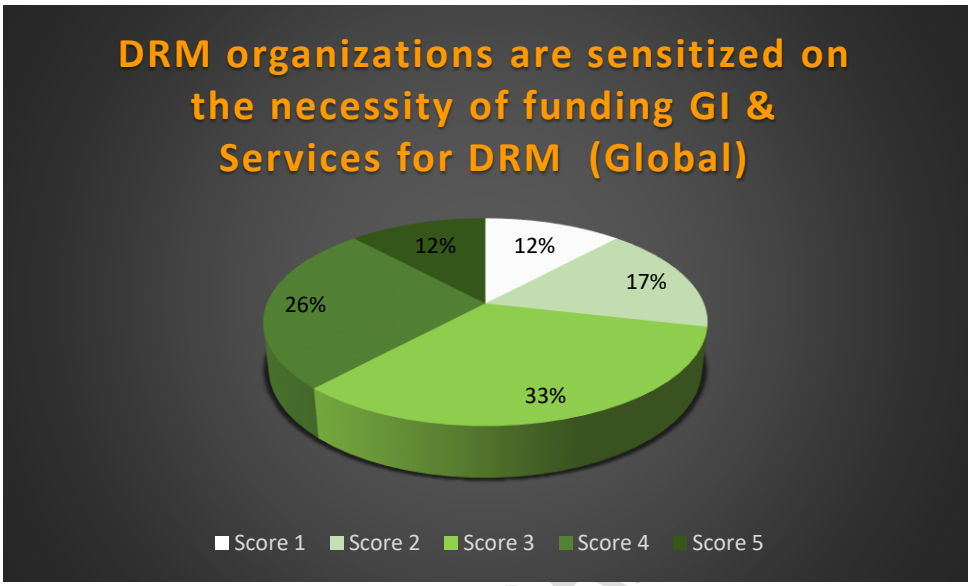


Within Europe, 8% indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. Twenty five percent (25%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 17% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Eight percent (8%) have not yet commenced, while a highly significant 42% were unaware of the existence of such initiatives within their countries. A combined 50% reported being at some stage of implementation, while 25% of this were intermediate to advanced.

Priority E: Resource Mobilization

1. DRM organizations are sensitized on the necessity of funding GI & Services for DRM

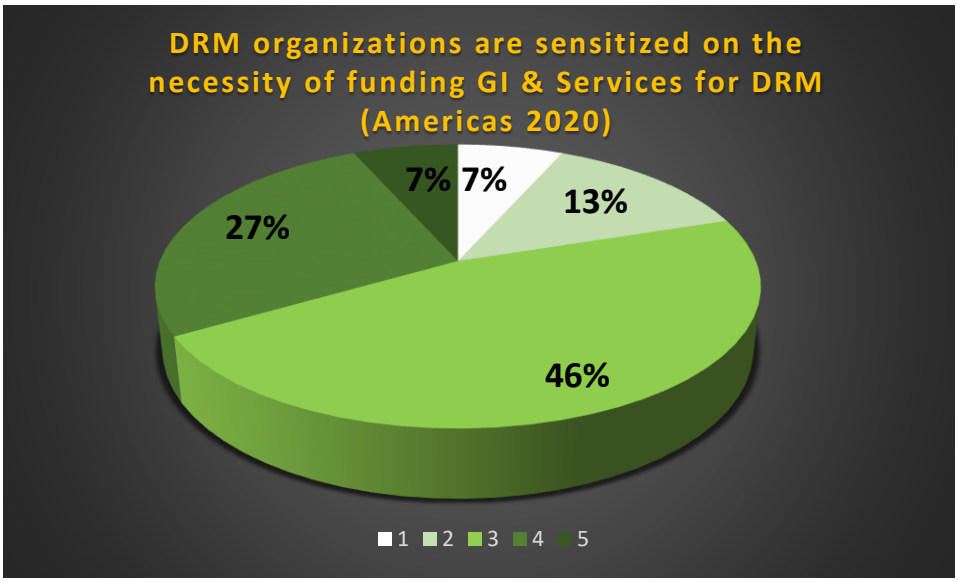
a. Global Results



Globally, 12% indicated a maximum category/score of 5, whereby DRM organizations have been sensitized on the need to fund geospatial information and services in support of disaster management initiatives. Thirty three percent (33%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 26% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Seventeen percent (17%) have not yet commenced, while 12% were unaware of the existence of such initiatives within their countries. A combined 71% reported being at some stage of implementation, while 18% of this were intermediate to advanced. Twenty nine percent (29%) were unaware or have not commenced.

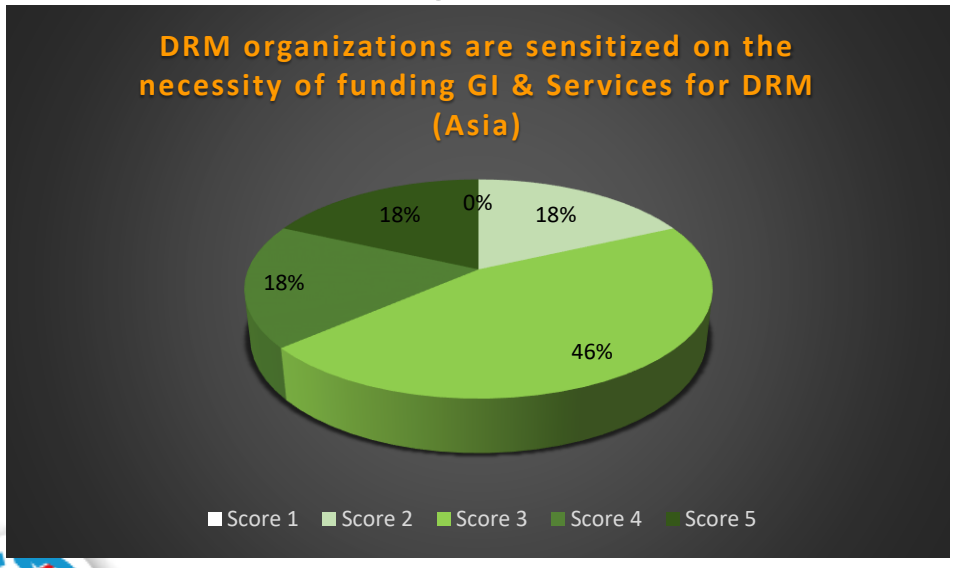
b. Regional Results

i. Americas Region



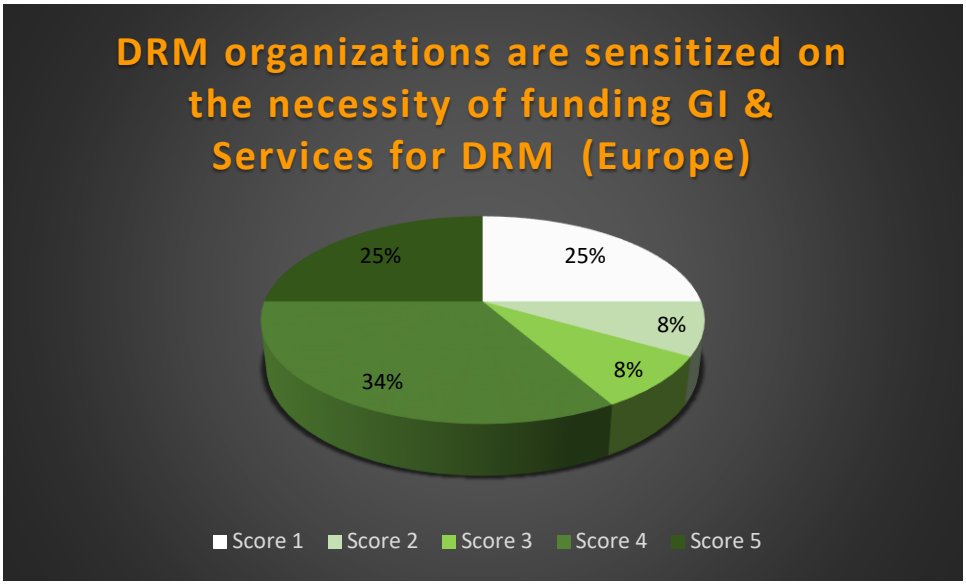
Within the Americas, only 7% indicated a maximum category/score of 5, whereby DRM organizations have been sensitized on the need to fund geospatial information and services in support of disaster management initiatives. Forty six percent (46%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 27% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Thirteen percent (13%) have not yet commenced, while 7% were unaware of the existence of such initiatives within their countries. A combined 80% reported being at some stage of implementation, while 20% of this were intermediate to advanced. Twenty nine percent (29%) were unaware or have not commenced.

ii. Asia Region



Within Asia, 18% indicated a maximum category/score of 5, whereby DRM organizations have been sensitized on the need to fund geospatial information and services in support of disaster management initiatives. Forty six percent (46%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 18% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Eighteen percent (18%) have not yet commenced, while there was no unawareness of the existence of such initiatives within countries. A combined 82% reported being at some stage of implementation, while 36% of this were intermediate to advanced.

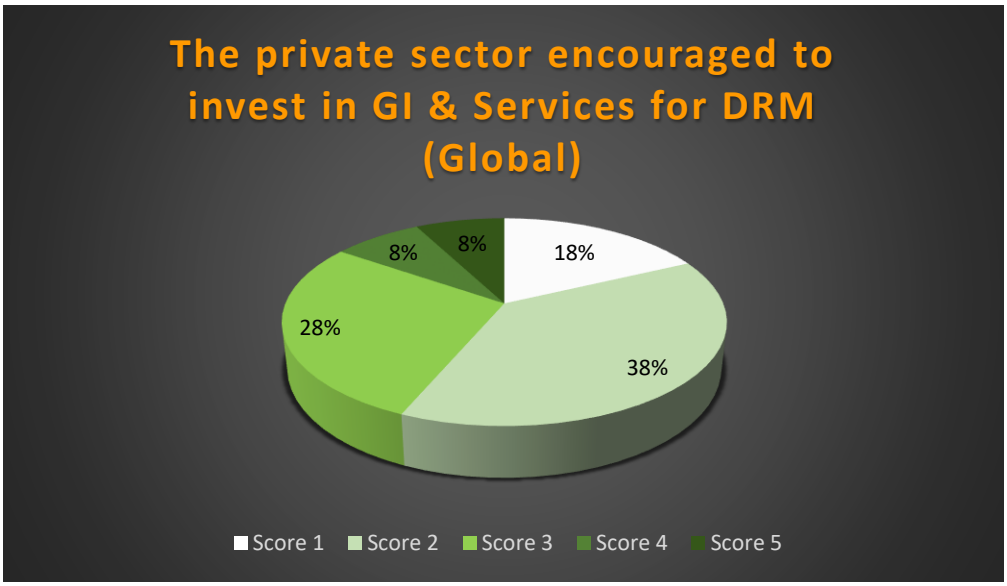
iii. Europe Region



Within Europe, a significant 25% indicated a maximum category/score of 5, whereby DRM organizations have been sensitized on the need to fund geospatial information and services in support of disaster management initiatives. A majority 34% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Eight percent (8 %) reported category/score 3, having commenced the initiative with major tasks needing completion, while 8% have not yet commenced and a remaining 25% were unaware of the existence of such initiatives within their countries. A combined 67% reported being at some stage of implementation, while 36% of this were intermediate to advanced. Thirty three percent (33%) were unaware or have not commenced.

2. The private sector encouraged to invest in GI & Services for DRM

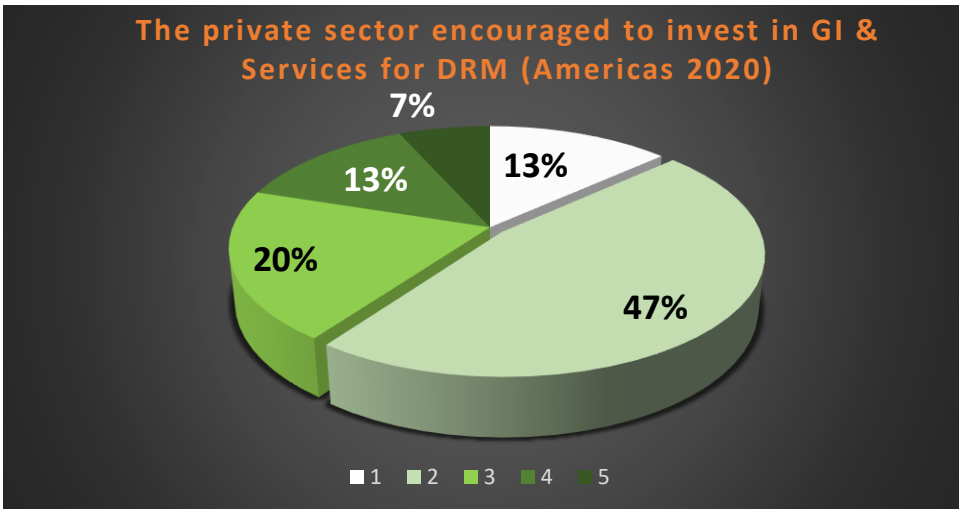
a. Global Results



Globally, only 8% indicated a maximum category/score of 5, whereby the private sector is invited to invest in geospatial information and services in support of disaster management initiatives. Twenty eight percent (28%) reported category/score 3, having commenced the initiative with major tasks needing completion, while only 8% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Thirty eight percent (38%) have not yet commenced, while 18% were unaware of the existence of such initiatives within their countries. A combined 44% reported being at some stage of implementation, while 18% of this were intermediate to advanced. Fifty six percent (56%) were unaware or have not commenced.

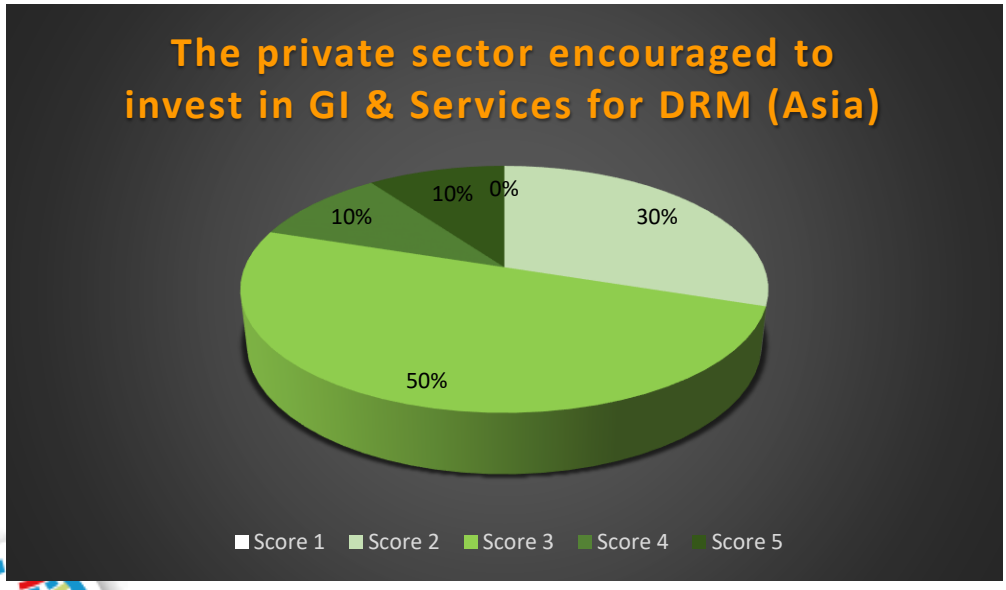
b. Regional Results

i. Americas Region



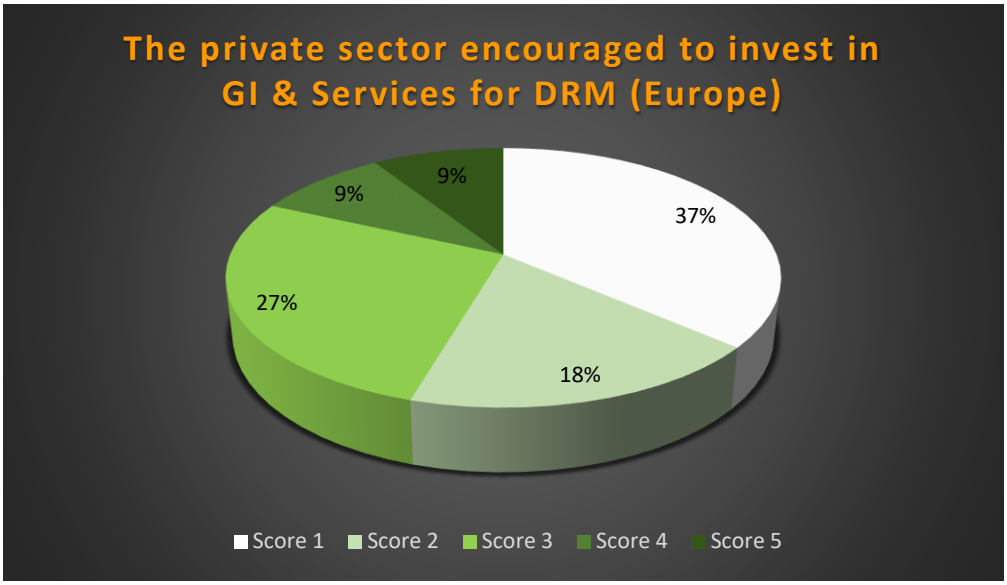
Within the Americas, only 7% indicated a maximum category/score of 5, whereby the private sector is invited to invest in geospatial information and services in support of disaster management initiatives. Twenty percent (20%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 13% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. A majority of 47% have not yet commenced, while 13% were unaware of the existence of such initiatives within their countries. A combined 40% reported being at some stage of implementation, while 20% of this were intermediate to advanced. Sixty six percent (60%) were unaware or have not commenced.

ii. Asia Region



Within Asia, only 10% indicated a maximum category/score of 5, whereby the private sector is invited to invest in geospatial information and services in support of disaster management initiatives. Fifty percent (50%) reported category/score 3, having commenced the initiative with major tasks needing completion, while another 10% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Thirty percent (30%) have not yet commenced, while there were no respondents who were unaware of the existence of such initiatives within their countries. A combined 70% reported being at some stage of implementation, while 20% of this were intermediate to advanced.

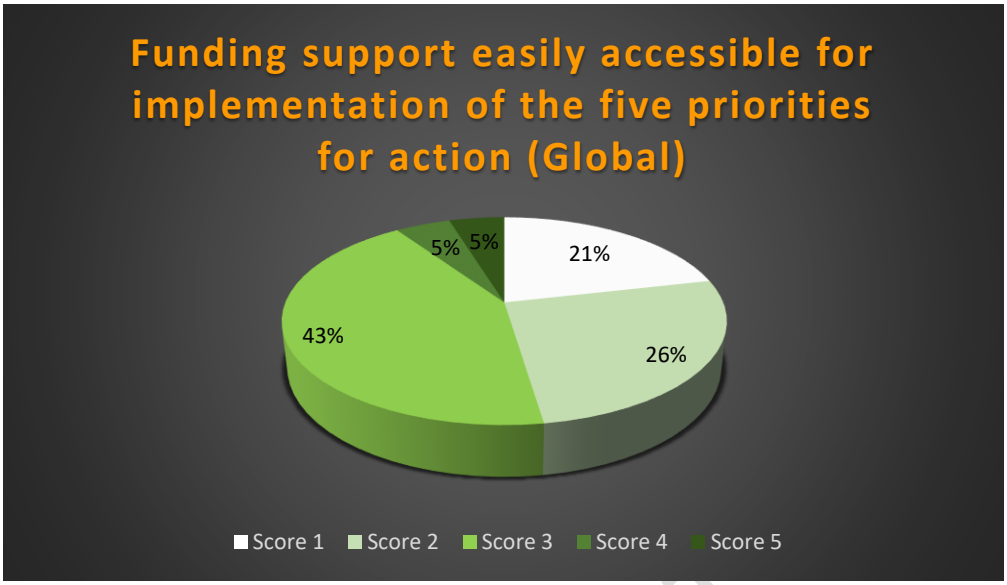
iii. Europe Region



Within Europe, only 9% indicated a maximum category/score of 5, whereby the private sector is invited to invest in geospatial information and services in support of disaster management initiatives. Twenty seven percent (27%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 9% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Eighteen percent (18%) have not yet commenced, while a significant 37% were unaware of the existence of such initiatives within their countries. A combined 45% reported being at some stage of implementation, while 18% of this were intermediate to advanced. Fifty five percent (55%) have not started or were unaware.

3. Funding support easily accessible for implementation of the five priorities for action

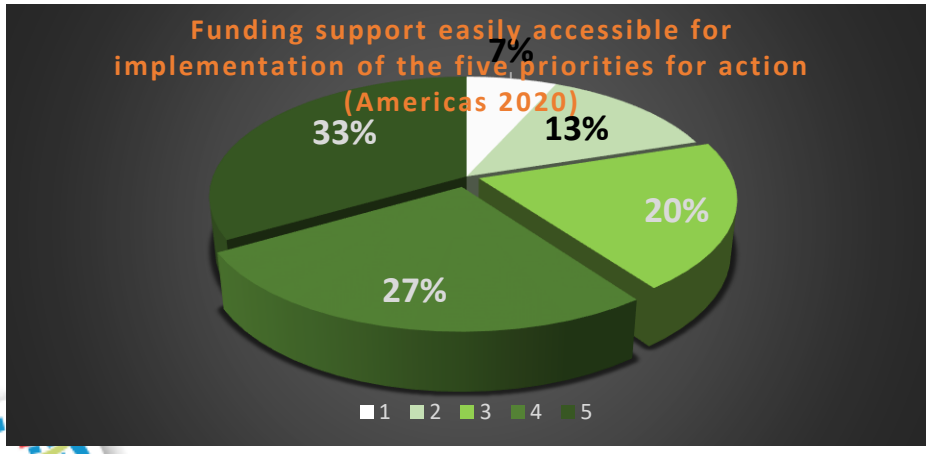
a. Global Results



Globally, only 5% indicated a maximum category/score of 5, whereby funding support is easily accessible to facilitate the implementation of all five priority areas for action. Forty three percent (43%) reported category/score 3, having commenced the initiative with major tasks needing completion, while only 5% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Twenty six percent (26%) have not yet commenced, while 21% were unaware of the existence of such initiatives within their countries. A combined 53% reported being at some stage of implementation, while 10% of this were intermediate to advanced. Forty seven percent (47%) were unaware or have not commenced.

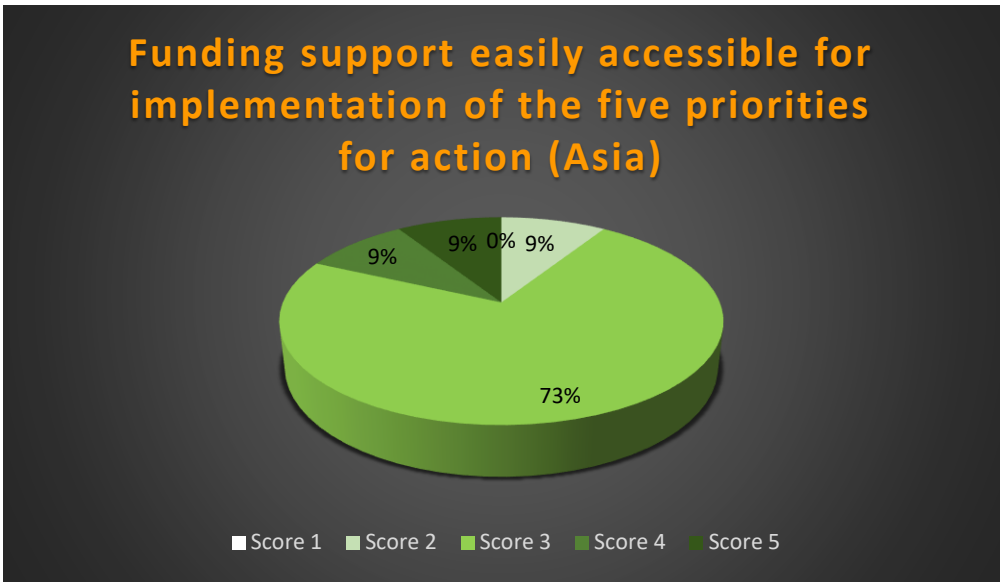
b. Regional Results

i. Americas Region



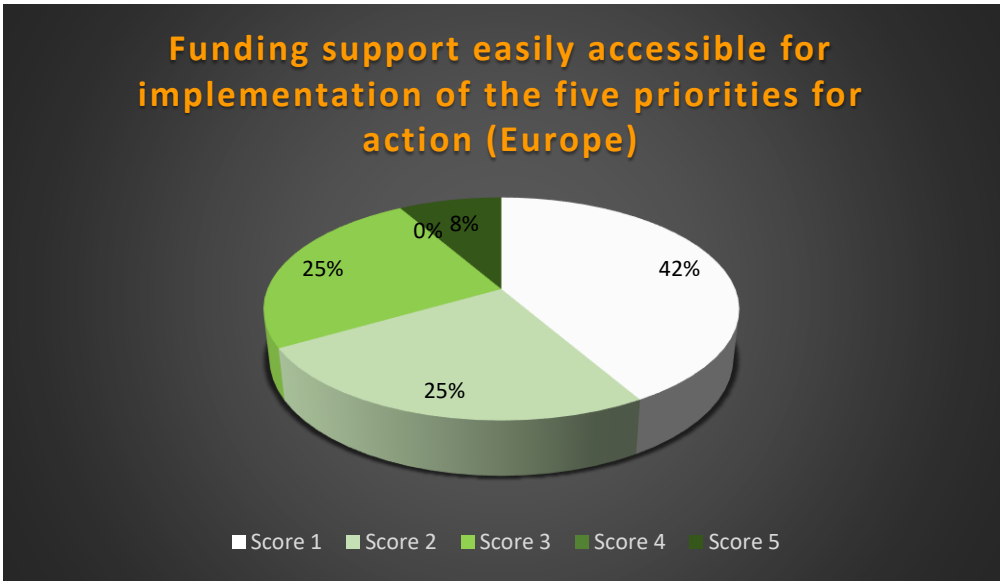
Within the Americas, a significant 33% indicated a maximum category/score of 5, whereby funding support is easily accessible to facilitate the implementation of all five priority areas for action. Twenty percent (20%) reported category/score 3, having commenced the initiative with major tasks needing completion, while 27% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Thirteen percent (13%) have not yet commenced, while 7% were unaware of the existence of such initiatives within their countries. A combined 80% reported being at some stage of implementation, while 60% of this were intermediate to advanced. Twenty percent (20%) were unaware or have not commenced.

ii. Asia Region



Within Asia, only 9% indicated a maximum category/score of 5, whereby funding support is easily accessible to facilitate the implementation of all five priority areas for action. A majority of 73% reported category/score 3, having commenced the initiative with major tasks needing completion, while only 9% indicated category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Nine percent (9%) have not yet commenced, while there were no respondents being unaware of the existence of such initiatives within their countries. A combined 91% reported being at some stage of implementation, while 18% of this were intermediate to advanced.

iii. Europe Region



Within Europe, only 8% indicated a maximum category/score of 5, whereby funding support is easily accessible to facilitate the implementation of all five priority areas for action. A majority of 42% were unaware of any initiatives. Twenty five (25%) reported category/score 3, having commenced the initiative with major tasks needing completion, while there were no category/score 4, whereby this initiative is currently being implemented with minor tasks still needing to be undertaken. Another twenty five (25%) have not yet commenced, while a high 42% were unaware of the existence of such initiatives within their countries. A combined 33% reported being at some stage of implementation, while 67% were unaware or have not started.

J. Findings & Gaps

1. Findings

Based on the analysis, it was found that the DRM status across responding countries differed, as was expected. The differences also imply that Members States are at various phases of the Strategic Framework implementation. The results also showed that many countries had previously developed their own disaster management framework to enhance the use of geospatial information and services for disaster before becoming aware of the Strategic Framework.

Priority A: Governance and Policies

For **priority A**, governance and policy, most counties scored a high of four and five, which indicated currently being implemented and full policy and leadership support, open channels of communication and the plans and programs aiming at making available and accessible all quality geospatial information and services. On the other hand, scores for monitoring and evaluation program to track the country's progress, mutual learning and exchange of good practice and effective channels where Member States and others can share technical knowledge were relatively low.

Within the Americas region, the gaining of political support saw a combined 87% of respondents being at beginner, intermediate and advanced implementation stages, with 47% being more advanced. On the other hand Asia had all their respondents being at beginner, intermediate and advanced implementation stages, with a combined 64% being more advanced to advance, while Europe had a combined 73% reported an intermediate to advanced implementation stage for political support.

Political Support

Globally, only 12% of the respondents indicated having attained a maximum category/score of 5. A combined only 19% being either not aware of the initiative nor its implementation within their country.

Within the Americas, a combined 87% of respondents were at beginner, intermediate and advanced implementation stages, with 47% being more advanced.

Within Asia, all respondents were at beginner, intermediate and advanced implementation stages, with a combined 64% being intermediate to advanced.

Within Europe, 18% indicated having attained a maximum category/score of 5. A combined 73% are at an intermediate to advanced implementation stage.

Financial Support

Globally, 7% indicated having attained a maximum category/score of 5. A combined 39% are at an intermediate to advanced implementation stage.

Within the Americas, a majority of 33% of respondents indicated having attained a maximum category/score of 5. A combined 60% are at an intermediate to advanced implementation stage.

Within Asia, Only 9% indicated a maximum category/score of 5. A combined 73% are at an intermediate to advanced implementation stage.

Within Europe, 17% indicated a maximum category/score of 5. A combined 59% are at some stage of implementation, while 34% of this amount are at an intermediate to advanced stage.

Champion Identified

Globally, 16% indicated a maximum category/score of 5. A combined 72% are at some stage of implementation, while 39% of this amount are at an intermediate to advanced stage.

Within the Americas, a majority of 33% of respondents indicated having attained a maximum category/score of 5. A combined 80% are at some stage of implementation, while 60% of this amount are at an intermediate to advanced stage.

Within Asia, 18% indicated a maximum category/score of 5. All respondents were therefore at some stage of implementation, while 64% are at an intermediate to advanced stage.

Within Europe, 25% of respondents indicated having attained a maximum category/score of 5. A combined 75% are at some stage of implementation, while 50% of this amount are at an intermediate to advanced stage.

Monitoring and Evaluation Tracking

Globally, 7 - 9% of respondents scored category/score 5 for having monitoring and evaluation programmes implemented to track the country's progress across all 5 priority areas. All overwhelmingly indicated being at stage 3, varying from 26 - 33%, having commenced their monitoring initiatives with major work still needed.

Priority B: Awareness Raising and Capacity Building

In terms of **priority B**, awareness raising and capacity building, there were no significant differences among the rating accorded to each question. It was also found that many countries

had difficulties in encouraging active and inclusive role of media and benchmarking and cascading good practices from other Member States and institutions.

Geospatial Information and Services into Easily Understood Strategies and Tools

Globally, a combined 71% are at some stage of implementing the translation of geospatial information and services into easily understood strategies and tools that would aid uptake, adaptation and adoption; 36% of this amount are at an intermediate to advanced stage, while 29% have not commenced implementation or are not aware of it being implemented.

Within the Americas, a combined 73% are at some stage of implementation, 20% of this amount are at an intermediate to advanced stage, while 27% have not commenced implementation or are not aware of translation of geospatial information and services into easily understood strategies and tools, being implemented in their country.

Within Asia, a combined 91% are at some stage of implementation, 64% of this amount are at an intermediate to advanced stage, while 9% have not commenced implementation. No respondents indicated not being aware of the initiative nor its implementation within their country.

Within Europe, a combined 67% are at some stage of implementation, of this amount 50% are at an intermediate to advanced stage. Eight percent (8%) have not pursued the translation of geospatial information and services into easily understood strategies and tools, while a remaining 25% indicated not being aware of the initiative nor its implementation within their country.

Geospatial Information and Services Integrated Into Academic Programmes

Globally, a combined 74% are at some stage of implementation, 37% of this amount are at an intermediate to advanced stage, while 26% have not commenced implementation or are not aware of it being implemented.

Within the Americas, a combined 87% are at a beginner to intermediate stage of implementation, while 13% have not commenced implementation or are not aware of geospatial information and services integrated into academic programmes being implemented.

Within Asia, a combined 91% are at a beginner to advanced stage of implementation, while 64% of this amount are at an intermediate to advanced stage. Nine percent (9%) have not pursued this initiative as yet, while there were no respondents indicating that they were not aware of it being implemented.

Within Europe, thirty three percent (33%) have not commenced this initiative as yet, while 17% of respondents indicated not being aware of it being implemented. A combined 50% are at a

beginner to advanced stage of implementation, while 33% of this amount are at an intermediate to advanced stage.

DRM-related researches using GI & Services are initiated and managed

Globally, ten percent (10%) have however not commenced this initiative as yet, while 17% of respondents indicated not being aware of it being implemented. A combined 73% are at a beginner to advanced stage of implementation, while 35% of this amount are at an intermediate to advanced stage.

Within the Americas, no respondents indicated a maximum category/score of 5, whereby DRM related researches using geospatial information and services were fully initiated and managed. A combined 86% are at a beginner to intermediate stage of implementation, while 14% have not commenced or are unaware of the initiative.

Within Asia, a combined 91% are at a beginner to intermediate stage of implementation, of which 45% are at an intermediate to advanced stage. Nine percent (9%) have however not commenced this initiative as yet, while there were no respondents indicating not being aware of it being implemented

Within Europe, no respondents indicated not having started this initiative, while a significant 34% indicated not being aware of it being implemented. A combined 66% are at a beginner to intermediate stage of implementation, of which 33% are at an intermediate to advanced stage.

Asia reported 36% for category 5, while 8% for Europe and no category 5 responses from the Americas.

Training programs on the use of GI & Services

Globally, only 12% of respondents indicated a maximum category/score of 5 for the development of training programmes on the use of geospatial information and services. A combined 65% are at a beginner to intermediate stage of implementation, of which 36% are at an intermediate to advanced stage. A significant 35% have however not commenced or unaware of the initiative's implementation status.

Within the Americas, a combined 60% of respondents were at a beginner to intermediate stage of implementation, while another 40% have not yet commenced the development of training programmes on the use of geospatial information and services.

Within Asia, 18% have not yet commenced this initiative, while no respondents were unaware of the initiative being implemented. A combined 82% are at a beginner to advanced stage of implementation, of which 54% are at an intermediate to advanced stage.

Within Europe, a combined 58% are at a beginner to advanced stage of implementation, of which a significant 50% are at an intermediate to advanced stage. On the otherhand, a significant 25% were unaware of the initiative being implemented, while 17% have not yet commenced this initiative.

Priority C: Data Management

For **priority C**, data management, almost half the responding countries, with a score of five or four, indicated having satisfactory implementation of common and accessible database systems of baseline geospatial information and services requirement, hazard, vulnerability and disaster risk assessment maps, and common contact databases of national and local emergency responders. In addition, the data showed relatively low scores for humanitarian profiling and incident scenario building, business use cases and data product template to aid decision making needs, integration of geospatial data and statistics in DRM plans and programs, in addition to adopting and cascading good practices from other Member States and international organizations locally.

Existence of a common and accessible database system

Globally, 19% of respondents indicated a maximum category/score of 5, whereby the existence of a common and accessible database system to support data management has been fully pursued and implemented. A combined 83% are at a beginner to advanced stage of implementation, of which 45% are at an intermediate to advanced stage. Seventeen percent (17%) have however not commenced or unaware of the initiative's implementation status.

Within the Americas, seven percent (7%) have not yet commenced this initiative, while no respondents being unaware of the initiative being implemented. A combined 93% are at a beginner to advanced stage of implementation, of which 40% are at an intermediate to advanced stage.

Within Asia, all respondents indicated being at some stage of implementation, with a combined 63% reported having an intermediate to advanced stage of implementation. No respondents were unaware of the initiative being implemented or have not commenced.

Within Europe, there were no reported instances of the initiative not commencing. A combined 75% reported being at some stage of implementation, of which 58% were at intermediate to advanced stage of implementation.

National and local DRM plans include hazard, vulnerability and disaster risk assessment maps, etc.

Globally, 19% of respondents indicated a maximum category/score of 5, whereby hazard vulnerability and disaster risk assessment maps etc. occur in existing national and local DRM plans. A combined 74% reported being at some stage of implementation, of which 42% were at intermediate to advanced stage of implementation. On the other hand, 19% have not commenced, while 7% are unaware of the existence of such initiatives within their countries.

Within the Americas, only 7% of respondents indicated a maximum category/score of 5, whereby hazard vulnerability and disaster risk assessment maps etc. occur in existing national and local DRM plans. A combined 87% reported being at some stage of implementation, of which 34% were at intermediate to advanced stage of implementation. On the other hand, 13% have not yet commenced.

Within Asia, a very significant 46% of respondents indicated a maximum category/score of 5 for full implementation. A combined 91% reported being at some stage of implementation, of which 55% were at intermediate to advanced stage of implementation. No respondents indicated being unaware of the existence of such initiatives within their countries.

Within Europe, 17% of respondents indicated a maximum category/score of 5. A combined 75% reported being at some stage of implementation, of which 58% were at intermediate to advanced stage of implementation. Twenty five (25%) have not yet started or are unaware.

A common contact database of national and local emergency responders

Globally, 21% of respondents indicated a maximum category/score of 5, whereby there exists a common database of national and local emergency responders. A combined 73% reported being at some stage of implementation, of which 40% were at intermediate to advanced stage of implementation. Twenty seven (27%) have not yet started or are unaware.

Within the Americas, 20% of respondents indicated a maximum category/score of 5, whereby there exists a common database of national and local emergency responders. A combined 87% reported being at some stage of implementation, of which 40% were at an intermediate to advanced stage.

Within Asia, 18% of respondents indicated a maximum category/score of 5. A combined 91% reported being at some stage of implementation, of which 54% were at intermediate to advanced stage of implementation.

Within Europe, a significant 33% of respondents indicated a maximum category/score of 5. A combined 91% reported being at some stage of implementation, of which 54% were at intermediate to advanced stage of implementation. Thirty four percent (34%) have not commenced or are unaware of existing initiatives.

Data management guidelines incorporates key factors

Globally, only 7% of respondents indicated a maximum category/score of 5, whereby data management guidelines that incorporate key factors exist. A combined 76% reported being at some stage of implementation, of which 34% were at intermediate to advanced stage of implementation. Twenty four percent (24%) have not commenced or are unaware of existing initiatives.

Within the Americas, no respondent indicated a maximum category/score of 5. A combined 86% reported being at beginner to intermediate stage of implementation. Fourteen percent (14%) have not commenced or are unaware of existing initiatives.

Within Asia, all respondents were at some stage of implementation. Eighteen percent (18%) indicated a maximum category/score of 5. No respondents have not yet commenced or are unaware of existing initiatives.

Within Europe, only 8% of respondents indicated a maximum category/score of 5, whereby data management guidelines that incorporate key factors exist. A combined 66% reported being at some stage of implementation, while 41% of this were intermediate to advanced. Twenty four percent (24%) have not commenced or are unaware of existing initiatives.

Priority D: Common Infrastructure and Services

An analysis of the ratings accorded to the questions under **priority D**, common infrastructure and services, showed that many countries have a common infrastructure and facility such as a national operation's centre. However, in terms of interoperability of all systems and processes, integrity of established common infrastructures and services, and technical assistance from other Member States and international organizations received a relatively low score of one and two on the rating scale.

A common infrastructure and facility, particularly a national operations center is established

Globally, 23% of respondents indicated a maximum category/score of 5, whereby a common infrastructure and facility exists such as a national operations centre. A combined 77% reported being at some stage of implementation, while 51% of this were intermediate to advanced. Twenty three percent (23%) have not commenced or are unaware of existing initiatives.

Within the Americas, 13% of respondents indicated a maximum category/score of 5. A combined 86% reported being at some stage of implementation, while 40% of this were intermediate to advanced. Fourteen percent (14%) have not commenced or are unaware of existing initiatives.

Within Asia, all respondents were at some stage of implementation, with 18% of respondents indicating a maximum category/score of 5. A combined 82% reported were at intermediate to advanced level.

Within Europe, a highly significant 50% of respondents indicated a maximum category/score of 5, whereby a common infrastructure and facility exists such as a national operations centre. A combined 67% reported being at intermediate to advanced level.

A backup facility for online and offline access to geospatial data

Globally, 27% of respondents indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. A combined 70% reported being at some stage of implementation, while 33% of this were intermediate to advanced. Thirty percent (30%) have not commenced or are unaware of existing initiatives.

Within the Americas, only 7% indicated a maximum category/score of 5. A combined 87% reported being at some stage of implementation, while 34% of this were intermediate to advanced.

Within Asia, a significant 36% indicated a maximum category/score of 5. A combined 91% reported being at some stage of implementation, while 45% of this were intermediate to advanced.

Within Europe, a majority of 33% indicated a maximum category/score of 5. A combined 58% reported being at some stage of implementation, while 41% of this were intermediate to advanced. Forty two percent (42%) were unaware or have not commenced.

Interoperability of all systems and processes in DRM organizations

Globally, only 9% indicated a maximum category/score of 5. A combined 55% reported being at some stage of implementation, while 18% of this were intermediate to advanced. Forty five percent (45%) were unaware or have not commenced.

Within the Americas, only 7% indicated a maximum category/score of 5, whereby a backup facility for online and offline access to geospatial data exists. A combined 74% reported being at some stage of implementation, while 14% of this were intermediate to advanced. Twenty seven percent (27%) were unaware or have not commenced.

Within Asia, 18% indicated a maximum category/score of 5. A combined 73% reported being at some stage of implementation, while 36% of this were intermediate to advanced. Twenty seven (27%) have not yet commenced, with no respondents being unaware of the existence of such initiatives within their countries.

Within Europe, 8% indicated a maximum category/score of 5, while a highly significant 42% were unaware of the existence of such initiatives within their countries. A combined 50% reported being at some stage of implementation, while 25% of this were intermediate to advanced.

Priority E: Resource Mobilization

For **priority E**, resource mobilization, the funding situation of the DRM organizations and academic institutions differed from country to country. However, it was found that encouraging the private sector to invest and ease of access to funding to support the five priorities for actions were accorded relatively low scores in many countries.

DRM organizations are sensitized on the necessity of funding GI & Services for DRM

Globally, 12% indicated a maximum category/score of 5. A combined 71% reported being at some stage of implementation, while 18% of this were intermediate to advanced. Twenty nine percent (29%) were unaware or have not commenced.

Within the Americas, only 7% indicated a maximum category/score of 5. A combined 80% reported being at some stage of implementation, while 20% of this were intermediate to advanced. Twenty nine percent (29%) were unaware or have not commenced.

Within Asia, 18% indicated a maximum category/score of 5. Eighteen percent (18%) have not yet commenced, while there was no unawareness of the existence of such initiatives within

countries. A combined 82% reported being at some stage of implementation, while 36% of this were intermediate to advanced.

Within Europe, a significant 25% indicated a maximum category/score of 5. A combined 67% reported being at some stage of implementation, while 36% of this were intermediate to advanced. Thirty three percent (33%) were unaware or have not commenced.

The private sector encouraged to invest in GI & Services for DRM

Globally, only 8% indicated a maximum category/score of 5, whereby the private sector is invited to invest in geospatial information and services in support of disaster management initiatives. A combined 44% reported being at some stage of implementation, while 18% of this were intermediate to advanced. Fifty six percent (56%) were unaware or have not commenced.

Within the Americas, only 7% indicated a maximum category/score of 5. A combined 40% reported being at some stage of implementation, while 20% of this were intermediate to advanced. Sixty six percent (60%) were unaware or have not commenced.

Within Asia, only 10% indicated a maximum category/score of 5. A combined 70% reported being at some stage of implementation, while 20% of this were intermediate to advanced, 30% that have not yet commenced.

Within Europe, only 9% indicated a maximum category/score of 5. A combined 45% reported being at some stage of implementation, while 18% of this were intermediate to advanced. Fifty five percent (55%) have not started or were unaware.

Funding support easily accessible for implementation of the five priorities for action

Globally, only 5% indicated a maximum category/score of 5, whereby funding support is easily accessible to facilitate the implementation of all five priority areas for action. A combined 53% reported being at some stage of implementation, while 10% of this were intermediate to advanced. Forty seven percent (47%) were unaware or have not commenced.
Within the Americas, a significant 33% indicated a maximum category/score of 5. A combined 80% reported being at some stage of implementation, while 60% of this were intermediate to advanced. Twenty percent (20%) were unaware or have not commenced.
Within Asia, only 9% indicated a maximum category/score of 5. A combined 91% reported being at some stage of implementation, while 18% of this were intermediate to advanced, with 9% having not yet commenced.

Within Europe, only 8% indicated a maximum category/score of 5. A combined 33% reported being at some stage of implementation, while 67% were unaware or have not started.

In summary, the regional comparison among the Americas, Asia and Europe, revealed some difference among the regions. For the Americas, most priority areas were accorded category four - currently being implemented, as compared to Asia and the Pacific that reflected category three and four - currently being implemented and being implemented, for most of the five priority areas. On the other hand, Europe's respondents primarily assigned categories four and five- being implemented and fully implemented, for most of the five priority areas. This is an indication of a need for more DRM interventions and support for countries in the Americas and the Asia and the Pacific.

2. Gaps

Responding Member States indicated experiencing challenges or gaps in leveraging geospatial data and related infrastructures. This included a lack of sufficient financial resources or that financial support for DRM is decentralized at local levels. The identification of sustained sources of funding to support geospatial information and services integration in DRM activities is a definite need, requiring the identification of targeted interventions.

Some communication channels rely on personal network contacts rather than institutional arrangements. In other cases, communication channels exist but their maturity and operation needed improvement. A lack of or outdated DRM laws and policies were other challenges identified.

In addition, the analysis showed that DRR related actions exist but are ad hoc, diffused, intermittent and not systematized in a roadmap. The integration of geospatial information including EO data for DRR needs further strengthening. Many countries have coordination and collaboration mechanisms led by a National Disaster Committee. These gaps and challenges provide opportunities for DRR bodies to collaborate with stakeholders towards improving their readiness in utilizing geospatial information and services for disasters.

Additionally, the difficulty in advocating for the use of geospatial information, as many policy makers and stakeholders find it hard to understand geospatial information and related products. These gaps and challenges provide opportunities for DRR bodies to collaborate with countries towards improving their readiness in utilizing geospatial information and services for disasters.

Given the situations are different by states, a future task of the Working Group could be to enhance the mutual learning and exchange of the good practices due to lower scores throughout the survey. This has already been included in our work plan.

K.Next Steps:

a. Recommendations

During 2020-2021, the Working Group made significant strides to increase awareness and build capacity on the Strategic Framework on Geospatial Information and Services for Disasters and its Assessment Survey tool. There has been increased realization of the importance, relevance and applicability of the Framework in promoting the development, provision and ease of access to geospatial information to support disaster response activities.

- To optimize on the implementation and monitoring of the Strategic Framework on Geospatial Information and Services for Disasters within Member States, the Working Group recognizes the need for forged synergies, collaboration and coordination through partnership between the National Disaster Agencies (NDA) and the National Geospatial Agencies. This approach is therefore highly recommended and encouraged.

- Given the need for representatives of both the National Disaster Agencies (NDA) and the National Geospatial Agencies of Member States, it is recommended that fields be facilitated to capture the details of a primary representative from each entity that would have contributed to the completion of the Assessment Survey.

- The Working Group invites Member States to make recommendations regarding how the Assessment Survey can be improved to support its use in monitoring the Strategic Framework's implementation. Recommendations regarding the rewording of questions, the inclusion of additional questions or removal of questions are encouraged. The Working Group therefore encourages open discussion focused on whether scope exists to improve the assessment instrument and whether this opportunity should be provided and pursued.

- The Working Group invites Member States to openly share challenges being experienced as they strive to commence or/and advance the implementation of the various priority areas.

- Additionally, the Working Group encourages Member States who have made progress across the priority areas, to share their strategies and good practices employed for the various Strategic Framework priority initiatives with other Member States. The Working Group looks forward to facilitating opportunities that will promote and host virtual and face to face knowledge exchange opportunities.

- Given the outcomes of the assessment analysis, the following recommendations were identified for moving forward in support of the Strategic Framework. The support and assistance of Member States will be essential throughout this process.

b. Way Forward

In conclusion, the outcomes of the Assessment 2020 Results for the globally administered Strategic Framework on Geospatial Information and Services for Disasters, have assisted the Working Group in understanding the status of the Strategic Framework's implementation within the Member States of the Americas, Asia and Europe. The analysis and presentation of findings from this global assessment is key as the UN-GGIM Working Group on Geospatial Information and Services for Disasters continues to facilitate the monitoring and implementation of the Strategic Framework towards ensuring that quality and reliable geospatial information and services are made accessible within a timely and coordinated manner across all sectors and within each phase of disaster planning.

Moving forward, the Working Group seeks guidance from the Committee of Experts towards determining the following:

- Although there were only four responding Member States from the African region, therefore not reflecting a representative sample, the Committee of Experts is invited to consider whether analysis and presentation of findings procedures should be conducted for these Member States. An alternate consideration would be to re-open the survey and invite non-responding Member States to contribute. Upon the receipt of additional contributions, analysis could then be pursued and findings presented for this region.

- There were no responses to the survey from the Arab States. The Committee of Experts is invited to consider whether the Working Group should re-open the survey and invite all Arab States Member States to contribute. Upon the receipt of these contributions, analysis could then be pursued and findings presented for this region.

- The First edition (draft) of the "Assessment 2020 Results - Strategic Framework on Geospatial Information and Services for Disasters," pursued analysis for the three primary responding regions - Americas, Asia and Europe. Analysis and presentation of findings was not pursued for individual Member States within these regions. The Committee of Experts is invited to consider whether the Working Group should facilitate case studies for select Member States. This would provide the opportunity to share their progress

among the priority areas, strategies, approaches and good practices employed, benefits observed, challenges experienced and solutions employed or in progress.

- Thirty eight (38) questions were posited under the five priority areas of the Strategic Framework Assessment Survey. Of this, 19 core questions were analyzed for the purposes of this background paper, given their level of significant and relevance, in addition to their incorporation of or influence on the other related questions. The Committee of Experts is invited to consider whether the Working Group should facilitate the analysis and presentation of findings procedures for these additional areas/questions.

- Moving Forward the Working Group invites the Committee of Experts to determine the frequency within which the Strategic Framework Assessment Survey should be globally administered among Member States, analyzed and findings presented to support the continued monitoring and implementation of the Strategic Framework, as a strategic geospatial support for the Sendai Framework.

- Moving Forward the Working Group looks forward to producing a second edition of the "Assessment 2020 Results - Strategic Framework on Geospatial Information and Services for Disasters," within 2021/2022, for sharing with the Member States and presenting to the Committee of Experts for consideration at its 12th Session in 2022.

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Appendix

Appendix I: Survey Contributors

Sincere gratitude is extended to all Member State government organizations, non-government organizations and other representatives who facilitated the submission of completed assessment survey documents via online or as a written contribution. All contributors are listed as follows:

Governmental organizations from member states:

- Algeria
- Argentina
- Armenia
- Australia
- Bosnia and Herzegovina
- Botswana
- Brazil
- Chile
- China
- Colombia (*)
- Côte D'Ivoire
- Czech Republic
- Denmark
- Finland
- Germany
- Guyana
- Honduras
- Indonesia
- Ireland
- Jamaica
- Japan
- Malaysia
- Mexico
- Mongolia
- Netherlands

- New Zealand
- Oman
- Peru
- Philippines
- Serbia
- Sint Maarten (Kingdom of Netherlands)
- Slovenia
- Sweden
- Switzerland
- Thailand
- Tunisia
- Uganda
- Ukraine
- United States of America
- Uruguay
- Uzbekistan
- Vietnam

(*) Two different organizations answered from the same states.

Governmental organizations (Non-Member States):

- State of Palestine

Governmental organizations from other States:

- Cook Islands

Non-Governmental Organizations:

- GEOSYSTEMS HELLAS SA
- Jeju National University
- OceanWise Ltd
- Trimble
- VisioTerra
- VU University Amsterdam

Appendix II:
Member States Contributors categorized by Region

The region classification is based on the standard country or area codes for statistical use (M49). The following are the list of the region used for the analysis. Member States governmental organizations were the primary focus. We apologize to the contributors from Africa, whose contribution were not analyzed given the low overall number of responses, which would not allow for a true representative sample and related results. We thank you for your efforts.

Americas:

- Argentina
- Brazil
- Chile
- Colombia (*)
- Guyana
- Honduras
- Jamaica
- Mexico
- Peru
- Sint Maarten (Kingdom of Netherlands)
- United States of America
- Uruguay

(*) Two different organizations answered from the same states.

Asia:

- Armenia
- China
- Indonesia
- Japan
- Malaysia
- Mongolia
- Oman
- Philippines
- Thailand

- Uzbekistan
- Vietnam
- State of Palestine (**)

(**) Non-member states

Europe:

- Bosnia and Herzegovina
- Czech Republic
- Denmark
- Finland
- Germany
- Ireland
- Netherlands
- Serbia
- Slovenia
- Sweden
- Switzerland
- Ukraine

Africa:

- Algeria
- Botswana
- Côte D'Ivoire
- Tunisia
- Uganda

Arab States:

- No submissions

Appendix III: Score Distribution (Governmental organizations)

		Priority Area A																		
		A1	A2	A3	A4-a	A4-b	A4-c	A4-d	A4-e	A5	A6	A7	A8-a	A8-b	A8-c	A8-d	A8-e	A9	A10	A11
Global	n	42	43	43	43	43	43	43	43	43	43	43	43	43	42	43	43	43	43	43
	Score 1	1	2	3	2	4	3	2	3	2	1	5	6	8	6	7	8	5	6	5
	Score 2	7	11	9	7	6	7	9	8	3	5	10	12	11	11	11	11	6	8	9
	Score 3	13	13	14	11	13	16	14	18	16	17	15	13	11	15	13	14	13	14	14
	Score 4	16	14	10	16	14	9	13	8	17	14	7	9	10	6	8	6	13	9	13
	Score 5	5	3	7	7	6	8	5	6	5	6	6	3	3	4	4	4	6	6	2
Americas	n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Score 1	0	1	1	0	1	1	0	0	0	2	1	1	1	1	1	1	2	2	
	Score 2	1	2	3	3	2	1	2	2	0	0	3	4	5	3	3	4	1	1	2
	Score 3	6	5	5	5	8	7	7	9	9	7	5	6	4	6	7	6	6	7	6
	Score 4	5	4	1	4	1	2	3	1	3	4	2	1	2	2	1	1	4	2	2
	Score 5	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Asia	n	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	Score 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Score 2	0	1	0	0	0	0	1	0	0	0	1	1	1	1	2	1	1	2	1
	Score 3	4	2	4	3	1	6	4	7	3	5	5	4	5	7	4	6	3	3	4
	Score 4	5	7	5	5	8	3	4	2	7	4	4	6	4	2	4	3	5	4	6
	Score 5	2	1	2	3	2	2	2	2	1	2	1	0	1	1	1	1	2	2	0
Europe	n	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Score 1	1	1	1	1	2	2	2	2	1	1	2	5	6	5	6	6	3	3	2
	Score 2	2	4	2	1	1	2	2	2	2	1	3	1	0	1	0	0	1	2	3
	Score 3	0	3	3	2	3	1	1	1	1	3	3	3	2	2	2	2	2	2	3
	Score 4	6	2	3	5	3	3	5	4	5	5	0	1	3	2	2	2	3	2	3
	Score 5	2	2	3	3	3	4	2	3	3	2	4	2	1	2	2	2	3	3	1

		Priority Area B								Priority Area C								
		B1	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**B8**	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**
Global	n	42	43	42	43	42	42	42	43	42	43	42	43	42	41	42	42	41
	Score 1	5	5	7	7	4	9	7	6	4	3	4	7	6	5	5	4	5
	Score 2	7	6	4	5	11	9	4	14	3	8	7	8	8	5	10	6	11
	Score 3	15	16	16	16	12	14	14	10	16	14	14	15	15	17	18	16	12
	Score 4	9	10	9	12	10	6	13	9	11	10	8	8	10	11	6	8	10
	Score 5	6	6	6	3	5	4	4	4	8	8	9	5	3	3	3	8	3
Americas	n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	Score 1	1	1	1	1	0	1	1	1	0	0	0	2	1	1	0	0	1
	Score 2	2	1	1	1	6	6	3	5	1	2	2	3	2	1	4	3	4
	Score 3	8	7	7	6	4	4	5	3	7	7	6	5	7	7	6	7	4
	Score 4	1	3	3	4	2	1	3	3	3	3	2	2	2	3	2	2	3
	Score 5	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0
Asia	n	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	Score 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Score 2	1	1	1	2	2	1	1	3	0	1	1	1	3	0	0	1	2
	Score 3	3	3	5	1	3	4	4	3	4	4	4	4	3	6	8	5	6
	Score 4	3	3	1	7	3	4	4	3	4	1	4	5	3	3	2	3	2
	Score 5	4	4	4	1	3	2	2	2	3	5	2	1	2	2	1	2	1
Europe	n	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	11
	Score 1	3	2	4	3	3	5	3	2	3	1	2	3	2	2	2	2	3
	Score 2	1	4	0	1	2	1	0	3	0	2	2	1	2	2	5	1	1
	Score 3	2	2	4	6	1	4	3	3	2	2	3	4	3	3	2	1	1
	Score 4	5	3	3	1	5	0	5	3	4	5	1	1	4	4	1	3	4
	Score 5	1	1	1	1	1	2	1	1	3	2	4	3	1	1	2	5	2

		Priority Area D								Priority Area E	
		D1	D2	D3	D4	D5	D6	E1	E2	E3	E4
Global	n	43	43	43	43	41	41	42	42	39	42
	Score 1	3	7	4	8	5	6	5	6	7	9
	Score 2	7	7	9	11	13	10	7	12	15	11
	Score 3	11	14	16	16	13	13	14	14	11	18
	Score 4	12	7	5	4	6	9	11	8	3	2
	Score 5	10	8	9	4	4	3	5	2	3	2
Americas	n	12	12	12	12	12	12	12	12	12	12
	Score 1	1	1	0	1	0	1	1	1	2	2
	Score 2	1	1	2	3	6	5	2	3	6	6
	Score 3	6	10	7	8	5	4	6	7	2	4
	Score 4	3	0	3	0	1	2	3	1	1	0
	Score 5	1	0	0	0	0	0	0	0	1	0
Asia	n	11	11	11	11	11	11	11	11	10	11
	Score 1	0	0	0	0	0	0	0	0	0	0
	Score 2	0	1	1	3	3	0	2	3	3	1
	Score 3	2	3	5	4	3	6	5	3	5	8
	Score 4	7	4	1	2	3	4	2	4	1	1
	Score 5	2	3	4	2	2	1	2	1	1	1
Europe	n	12	12	12	12	11	11	12	12	11	12
	Score 1	2	4	3	5	4	3	3	4	4	5
	Score 2	2	2	2	1	2	2	1	4	2	3
	Score 3	0	0	2	3	2	2	1	2	3	3
	Score 4	2	2	1	2	1	2	4	1	1	0
	Score 5	6	4	4	1	2	2	3	1	1	1

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