Integrated Geospatial Information Framework

Supporting Sustainable Development and the Wellbeing of Society

UN·IGIF

INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK

The Global Village

We are more physically and digitally connected than ever before in our history.

- Commerce
- Internet
- Migration
- Travel
- Social Media

Challenges of the Global Village

The 2030 Agenda for Sustainable Development

- Established 17 Sustainable Development Goals
- Brought attention and focus to the global challenges
- It was a universal call to action
- Some progress has been made since 2015… but not enough
- Questions:
  - How can we help to achieve the SDGs by 2030?
  - How can we better and more effectively measure, monitor, and report progress on the SDGs?

Geo-enabling the Global Village

To Support Sustainable Development

Statistical Data

- Population
- Age
- Race
- Gender
- Housing
- Owner
- Renter
- Education
- Income
- Poverty
- Employment
- Health Status

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Geospatial Data

- Addresses
- Transportation Networks
- Legal Boundaries
- Hydrography
- Imagery
- Land Cover/Use
- Land Parcels
- Geodetic Reference Frames

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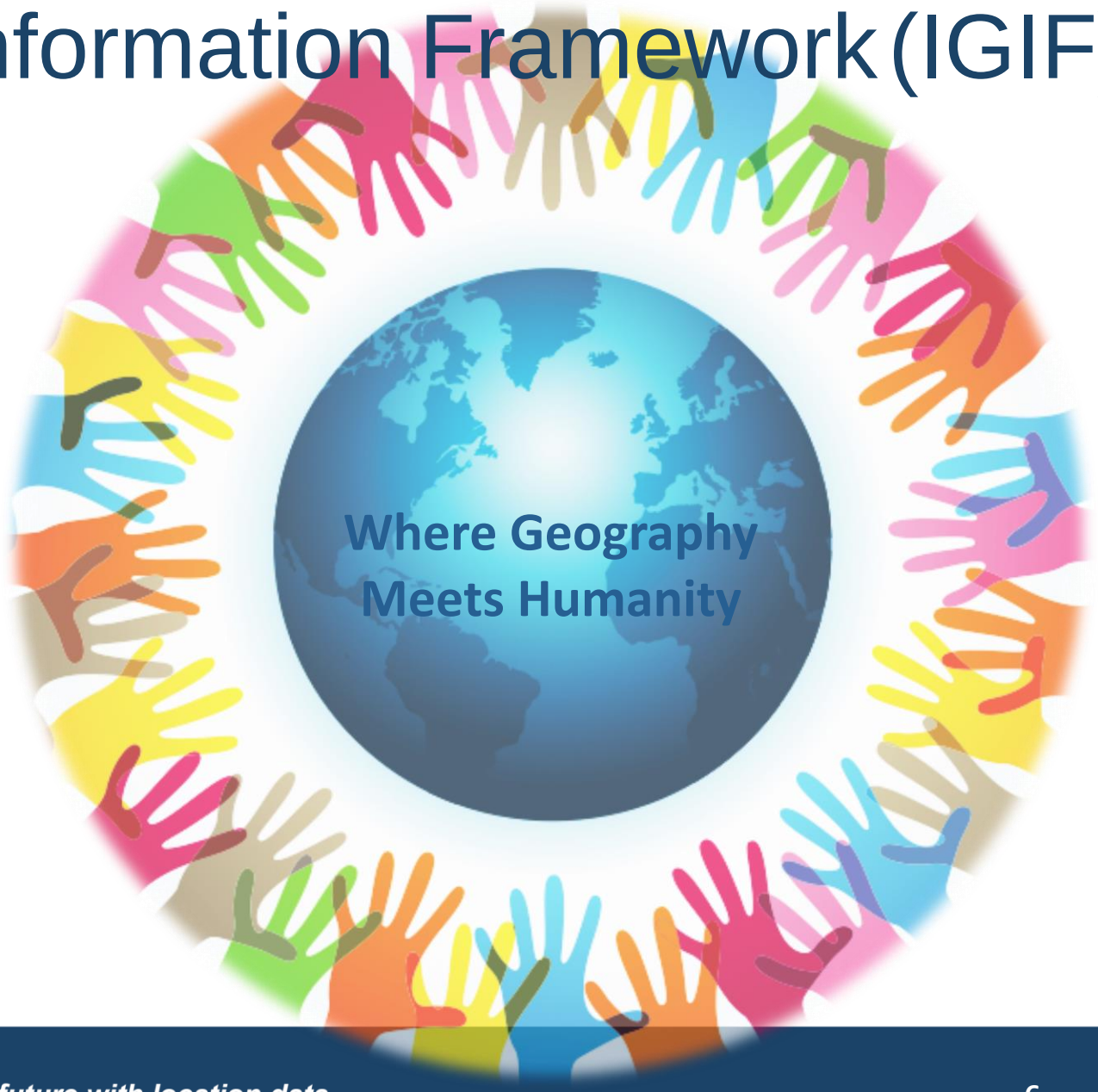
Powerful Tools

- Tools to inform decision making
- Tools to measure, monitor, and report progress
- Powerful visualizations
- Maps
- Charts
- Graphics
- Tables
- Dashboards
- Viewers

Integrated Geospatial Information Framework (IGIF)

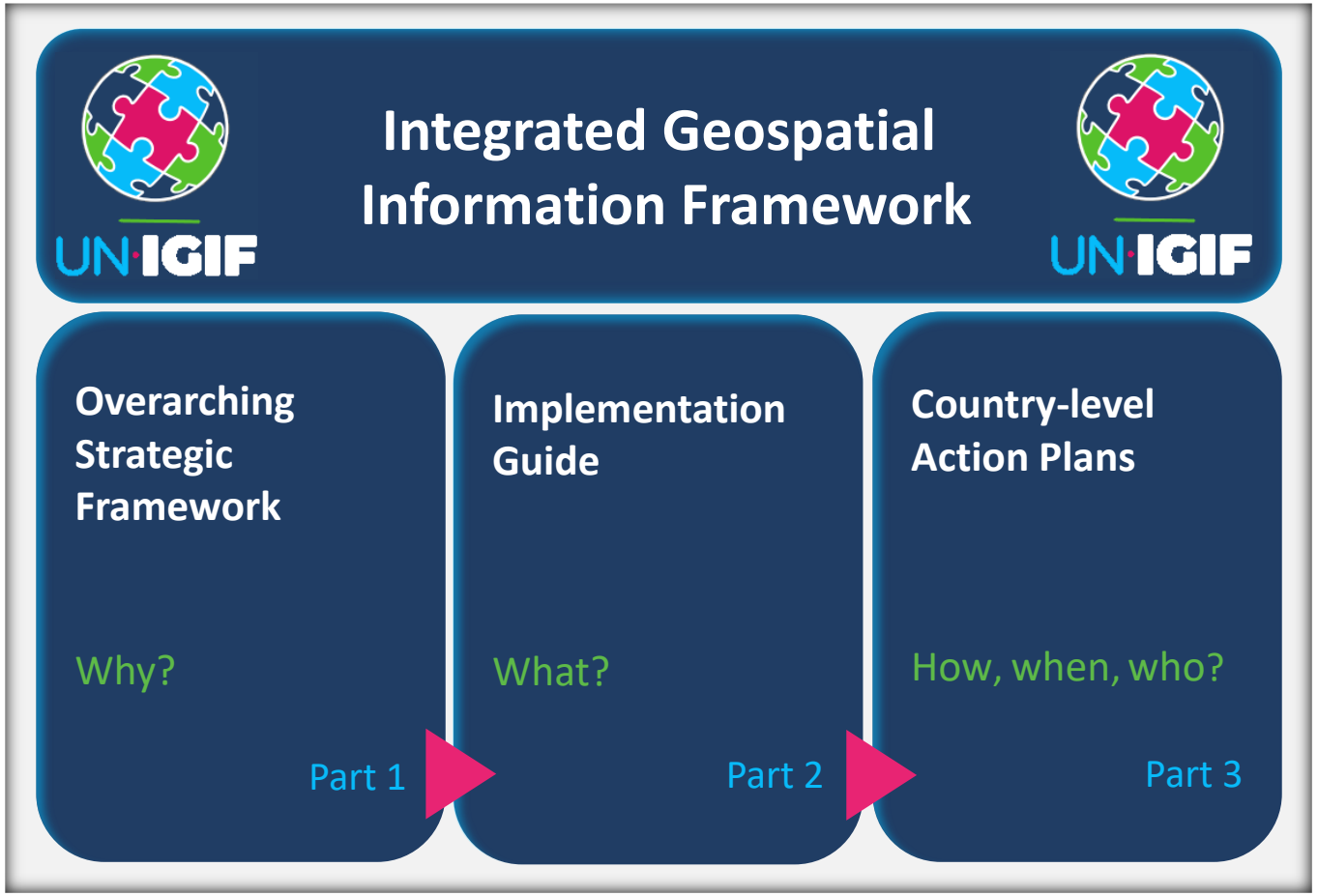
Geo-enabling Countries for a Better Future

- IGIF is globally developed and endorsed by the UN-GGIM Committee of Experts
- Helps countries to integrate information about people and their geography
- Enables effective policy formulation, decision-making, and innovation
- Strengthens geospatial information management and related resources
- IGIF helps deliver sustainable social, economic, and environmental development – leaving no one behind



Integrated Geospatial Information Framework

Three Component Parts of the IGIF



UNSD — UN-GGIM

Part 1: Overarching Strategic Framework

Vision

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

Strategic Drivers

Underpinning Principles

Goals

Mission

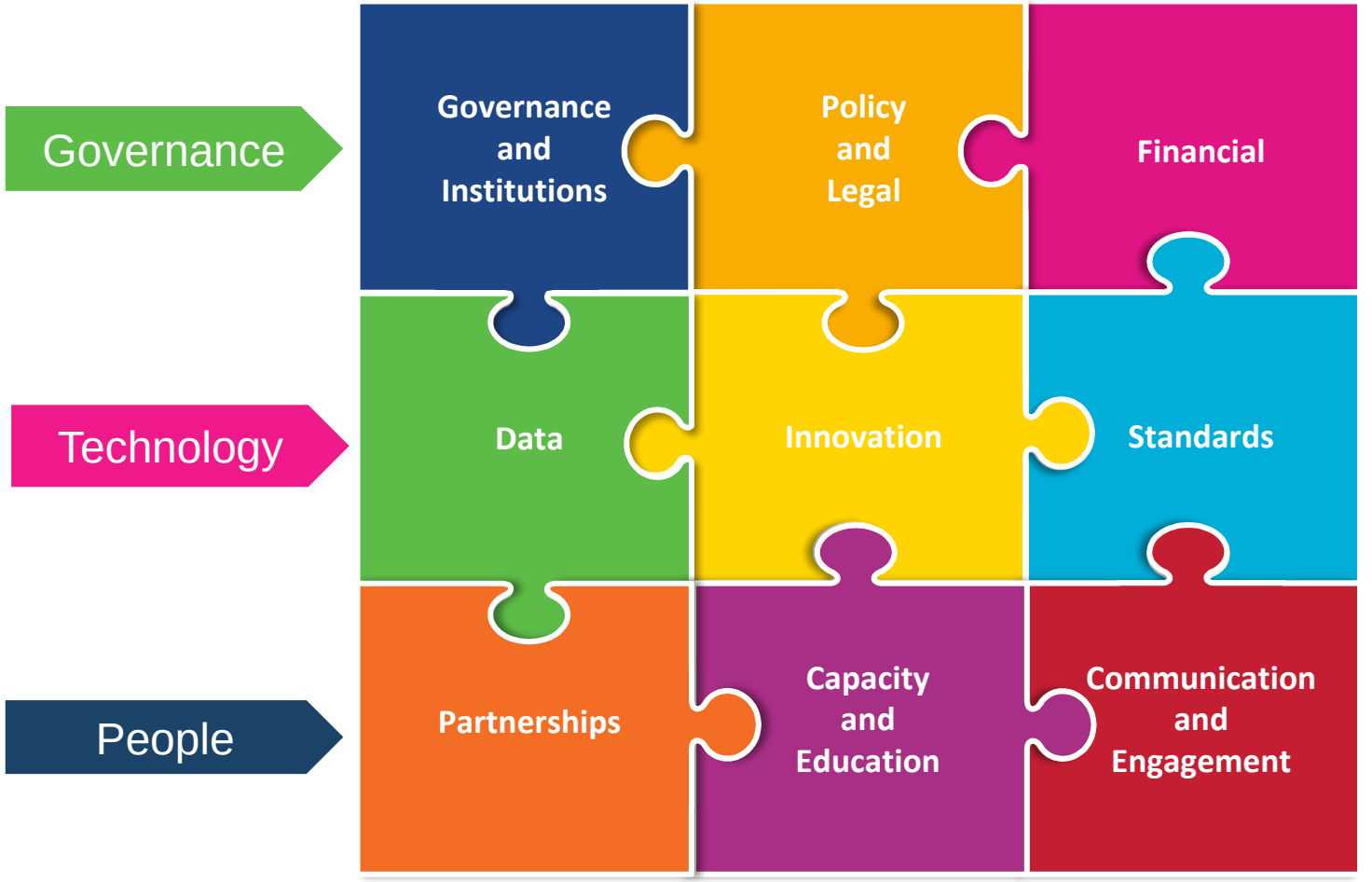
Promote and support innovation and provide the leadership, coordination, and standards necessary to deliver integrated geospatial information that can be leveraged to find sustainable solutions for social, economic and environmental development

Strategic Pathways

Part 2: Implementation Guide

Nine Strategic Pathways for building a better future

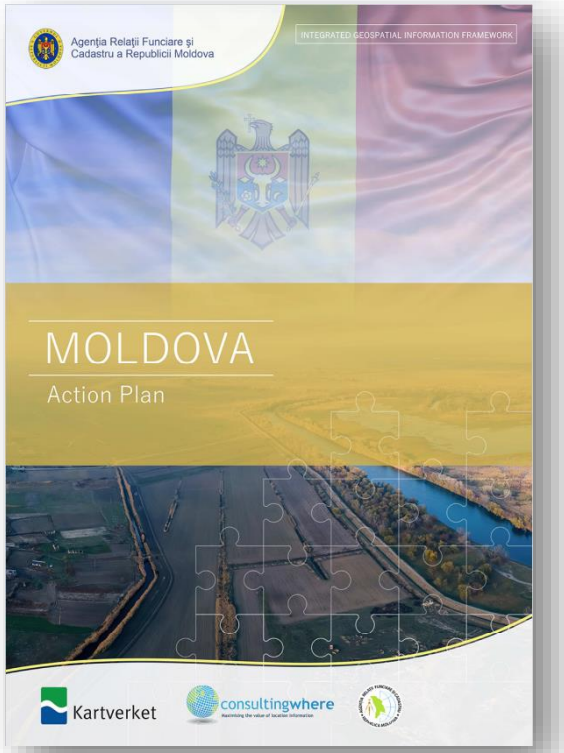
- Describes what actions can be taken to strengthen geospatial information management
- Includes resource materials, good practices, guiding principles and recommended actions and outcomes
- The nine strategic pathways serve as a roadmap for implementing IGIF



Part 3: Country-level Action Plan

Example: Moldova

- Details how the actions will be carried out, when and by whom
- Contains processes, resource materials, sample templates, and examples
- The Country-level Action Plan aligns with national priorities and circumstances



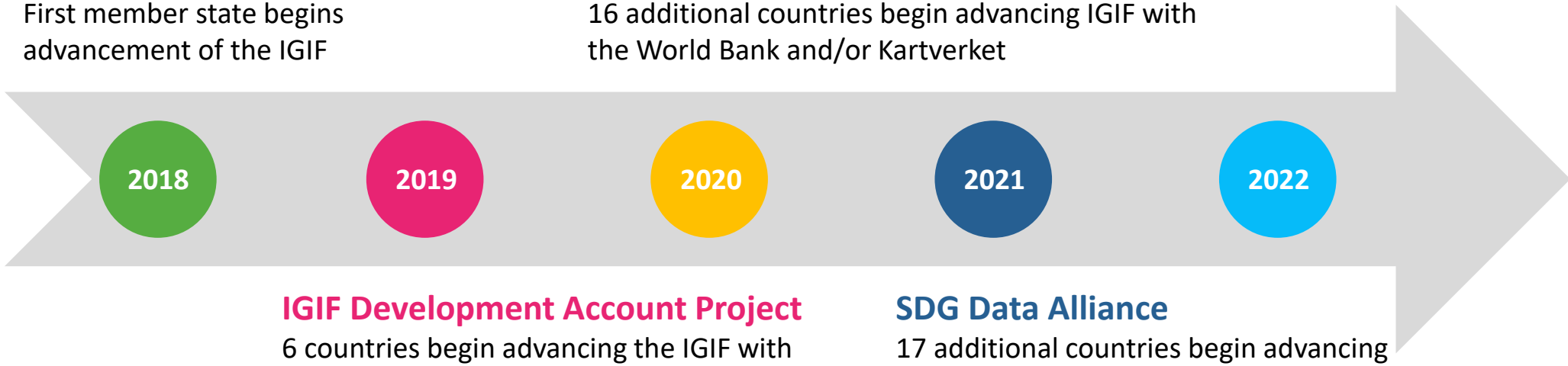
The document is available here

Member States Implementing the IGIF

The Momentum Grows

First Member State
First member state begins advancement of the IGIF

IGIF Projects Continue to Grow
16 additional countries begin advancing IGIF with the World Bank and/or Kartverket



IGIF Development Account Project
6 countries begin advancing the IGIF with UN-GGIM Secretariat

SDG Data Alliance
17 additional countries begin advancing the IGIF with UN-GGIM Secretariat

Results Achieved in Member States

Member State Testimonials

IGIF in the News

Eswatini and Burkina Faso IGIF Teams are featured in the national news

8 National News

Eswatini Observer Monday August 15, 2022

GOVERNMENT GOES FOR GEOSPATIAL INFORMATION

BY NONDUDUZO KUNENE
Mbabane

ESWATINI is preparing integrated geospatial information that will enable the allocation of resources in the country.

Acting Minister of Natural Resources and Energy Jabulani Mabuza met with stakeholders during an engagement workshop on Friday at the Mountain View Hotel in preparation for the establishment of the Eswatini Integrated Geospatial Information Framework (IGIF).

"The integrated geospatial information framework provides a basis and guide for developing, integrating, strengthening and maximising geospatial information management and related resources in all countries," he said.

The framework presents a forward-looking approach that creates an enabling environment where the government can coordinate, develop, strengthen and promote efficient and effective use and sharing of geospatial information for policy formulation, decision-making and innovation.

RESOURCE ALLOCATION: acting Minister of Natural Resources and Energy Jabulani Mabuza. (Pics: Nonduduzo Kunene)

It establishes a common vision for all Governments, expresses the goals that will realise the vision, the actions that need to be implemented to achieve the goals and the outcomes and benefits necessary to support national development.

Speaking during the stakeholders' meeting, the minister said most improvements in government business have a direct impact on improving the lives of citizens. He made an example of how providing health facilities and access to education, clean water and sanitation improved the social wellbeing of citizens therefore 'good geospatial information integrated with planning, census and health data enables efficient allocation of resources'.

"The same approach allows integrated urban planning, incorporating education, employment, health and resilience," he added.

Adding the minister said economies depended on successful businesses, whether large or small.

"Geospatial information is used across sectors, from marketing through logistics to insurance, utilities to telecoms. Banks use it for fraud detection and governments to improve taxation. It is estimated that the global economic value of geospatial services is in the order of 0.2 per cent of global gross domestic product," said Mabuza.

The minister further revealed that sustainable management of the environment, particularly water sources and lakes, forestry, coastal zones, national parks and crop yield prediction, relied upon geospatial information. "Management of climate change impact, and of scarce resources, requires geospatial information, often bringing satellite remote sensing to the fore," he said.

Mabuza said geospatial information brought better measurement of the current situation, monitoring change, planning mitigation, evidence-based decision-making, and then delivering mitigation projects. He said this was particularly important to small island developing States and other countries highly susceptible to climate change and natural disasters.

Mabuza emphasised that geospatial information was key in achieving Sustainable Development Goals (SDGs).

"Out of the 17 SDGs, more than 11 depend on the availability of geospatial information," he said.

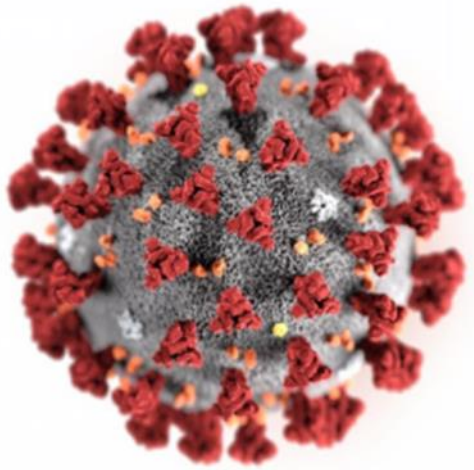
He lauded the United Nations Global Geospatial Information Management (UN-GGIM) for supporting the Kingdom of Eswatini through the SDG data alliance to implement the country level action plan and for providing training for one of the officers in the United States of America on geospatial information management.

Representatives from various sectors following the proceedings.

DRAFTERS: Stakeholders ready to start drafting the geospatial information framework.

The IGIF in Action in Central America

COVID-19 Response



IGIF Pathways Utilized by the Countries

Partnerships

In Country Partners
- Geospatial Agencies
- Statistical Agencies
- Health Ministries
- Emergency Response

Outside Partners
- Pan American Institute of Geography and History
- UN-GGIM Americas
- U.S. Census Bureau
- National Institute of Statistics and Geography, Mexico
- United Nations Economic Commission for Latin America and Caribbean
- National Administrative Department of Statistics, Columbia

Data

Integrated Data

Demographic:
- Population over age 60
- Inter-generational risk
- Crowded living conditions
- Access to public water
- Poverty
- Income

Health:
- Heart Disease
- Hypertension
- Diabetes
- Obesity
- Respiratory/Immune
- Cancer
- Disabilities

Geographic:

Geographic Boundaries
Hospital/Clinic Locations
Airports, ports, train stations

Standards

Common Data Structure
- Data Elements
- Field Names
- Field Length
- Data Type
- Data format

Interoperable Data
- Across government ministries and agencies
- Across countries

Data Quality Standards
- Data quality review

Innovation

Centralized Geospatial Data
- Centralized Geoportal
- Accessible and useful data

Advanced Technology
- ArcGIS Online
- Vulnerability Index Notebook
- Web Maps
- Dashboards
- StoryMaps

Capacity and Education

Building Capacity
- In-person and virtual workshops
- User Guides
- Online training sessions:
  - Geoportal
  - Vulnerability Index methodology
  - Vulnerability Index Notebook
  - Web Maps
  - Dashboards
  - StoryMaps

Communication and Engagement

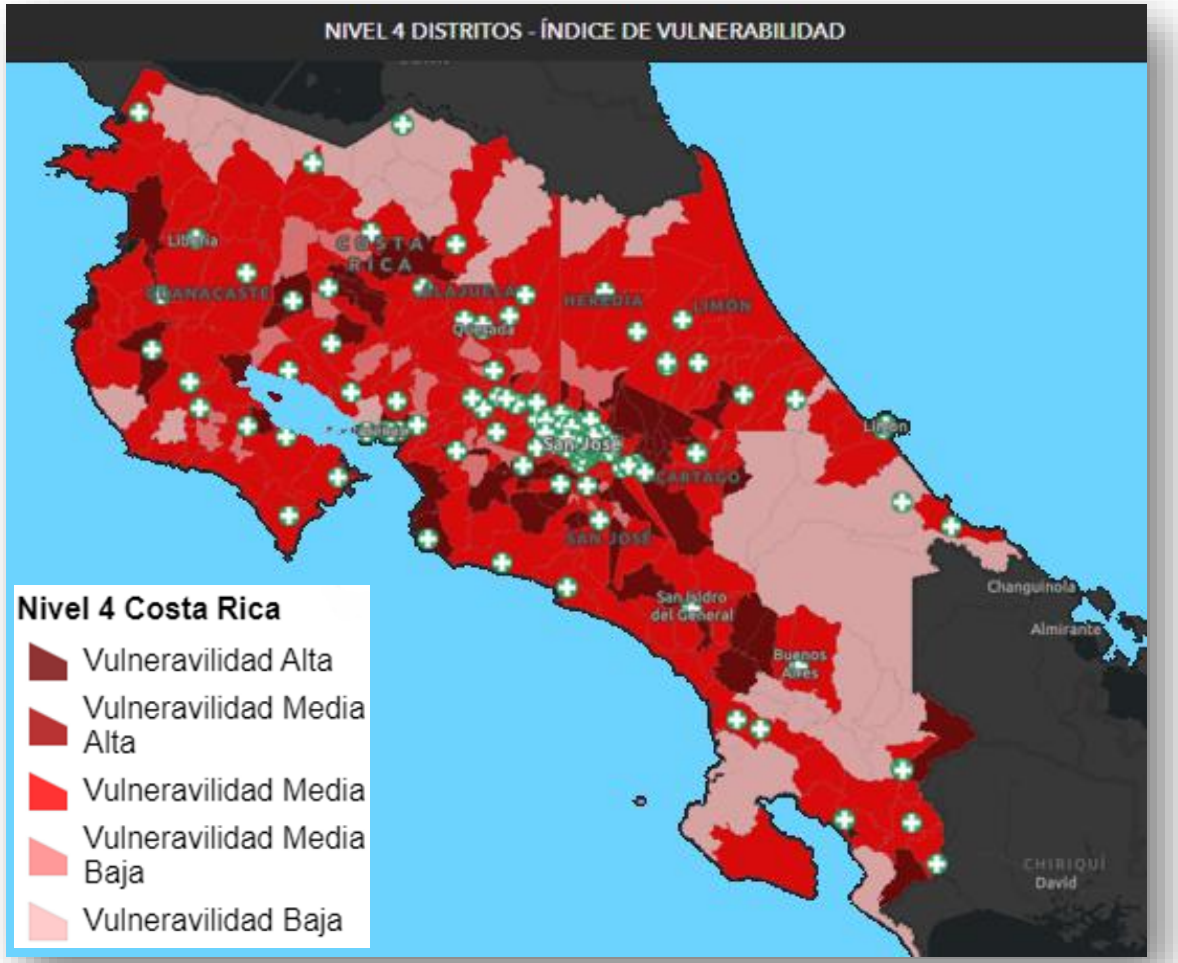
Regular Engagement

In Country:
- Meetings with internal agencies and ministries

Outside Partners:
- Regular meetings with project leads and all participating countries
- Quality review meetings
- Periodic Workshops
- Updates at regional and global meetings
- Communication across countries

Costa Rica Vulnerability Results

- Mapped vulnerability scores for each district
- Overlayed hospital locations
- Created a series of powerful maps, dashboards, and StoryMaps that helped inform response to the rapidly spreading COVID-19 Pandemic in Costa Rica



Thank You!

Questions?