Mona GeoInformatics Institute Mapping Service Portfolio (2023)

Contact

+1 (876) 977-3160-2 / 631-9694

info@monainformatixItd.com

main.monagis.com

Kingston

Port-au- Santo Prince Domingo

San Juan

Caribbean Sea

San José

Panama City Panamá Barranquilla Maracaibo Cartagena

Caracas

VENEZUEL

Bucaramanga

Medellin

Bogotá

Cali

COLOMBIA

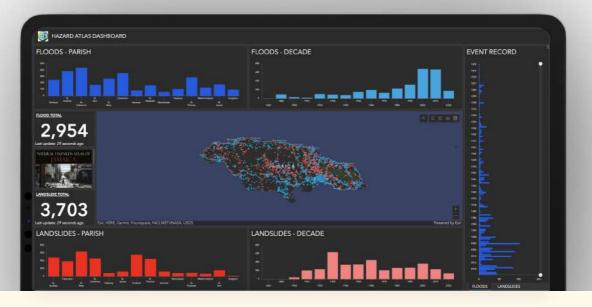


About Mona GeoInformatics Institute

Mona GeoInformatics Institute (MGI) is a pioneering hub for geospatial and software solutions. MGI is at the forefront of innovation by merging the prowess of Geographic Information Systems (GIS) with the versatility of modern web technologies. Through a synergy of GIS technology and frameworks like React, Vite, and Django, and utilizing languages such as Python, JavaScript, and TypeScript, we craft effective products leveraging both proprietary solutions and various open-source projects, we've successfully developed modern web applications that serve as indispensable tools for notifying about and reporting on geospatial information and pertinent GIS data while harnessing the capabilities of these software tools. With a usercentric approach, we make the map creation process seamless and accessible, ensuring that you have the geographic context necessary to excel in your projects and endeavours. Trust us to be your mapping partner, delivering tailored mapping solutions that empower your vision.



Hazard Map



About the Project

MGI's Online Natural Hazards Map of Jamaica provides information to the general public about historical floods and landslides, two significant natural hazards affecting Jamaica annually, particularly during the Atlantic Hurricane Season.

Started: 2017 (Ongoing)

Informing the Public:- MGI's Online Natural Hazards Map of Jamaica educates the public about annual floods and landslides, particularly during the hurricane season (June 1 - November 30).

Mapping Hazards:- MGI tracks and maps natural disasters using GIS technology, providing precise coordinates on the Online Natural Hazards Map.

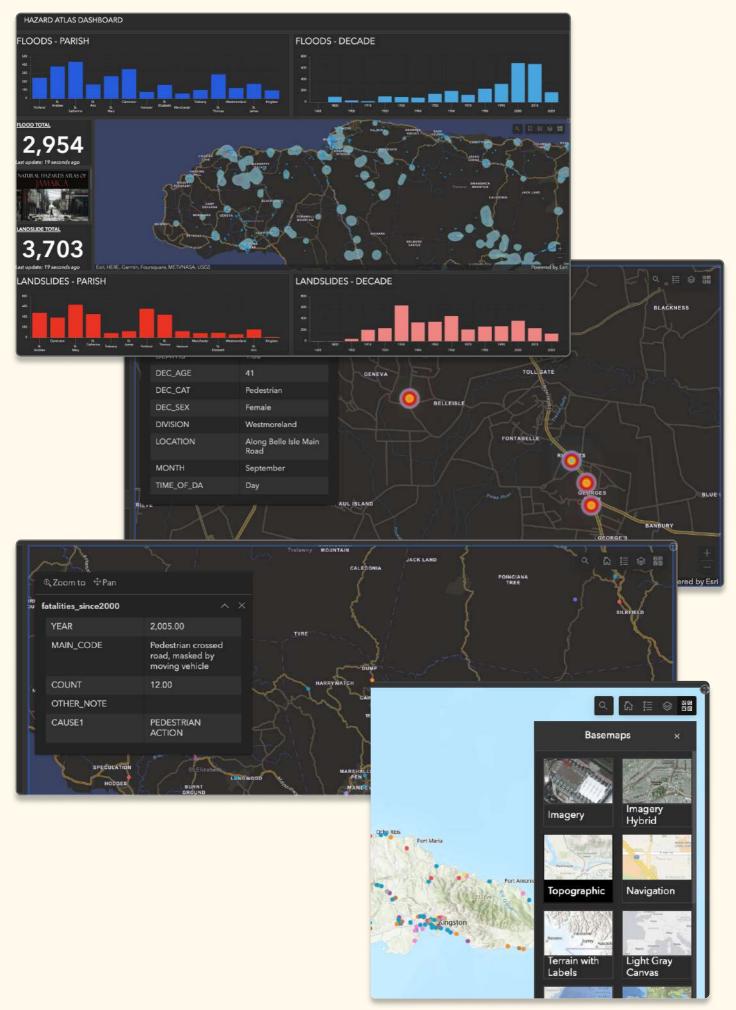
Accessible Resource:- This user-friendly web map is freely accessible to everyone, transforming how we understand and prepare for natural hazards in Jamaica.

Raising Awareness:- By making this information public, the project contributes to increased awareness among both government bodies and the general public, addressing environmental challenges and fostering development in Jamaica.

Visit the project by clicking <u>here</u> or on our website <u>main.monagis.com</u>



Hazard Map



Fatal Crash Map



About the Project

In collaboration with JN Foundation and JNGI, the Mona GeoInformatics Institute (MGI) has developed and maintained the ongoing Online Fatal Crash Map since 2015. This interactive map, updated daily with data from the JCF's Traffic and Highway Patrol Division, highlights fatal road crash distribution in Jamaica. It plays a pivotal role in enhancing public awareness of road safety and serves as a key tool for stakeholders working towards national and global road fatality reduction goals.

Started: 2015 (Ongoing)

ArcGIS Online Expertise:- We leverage the interactive web mapping capabilities of ArcGIS Online to present geospatial data in an engaging and informative manner.

Streamlined Data Processing:- Geospatial data undergoes meticulous processing and is securely uploaded to ArcGIS Online. Subsequently, we implement a dynamic visualization dashboard.

Global Recognition:- Our geospatial visualizations are globally renowned and have been adopted by prestigious institutions like Johns Hopkins University for their widely recognized COVID-19 dashboard.

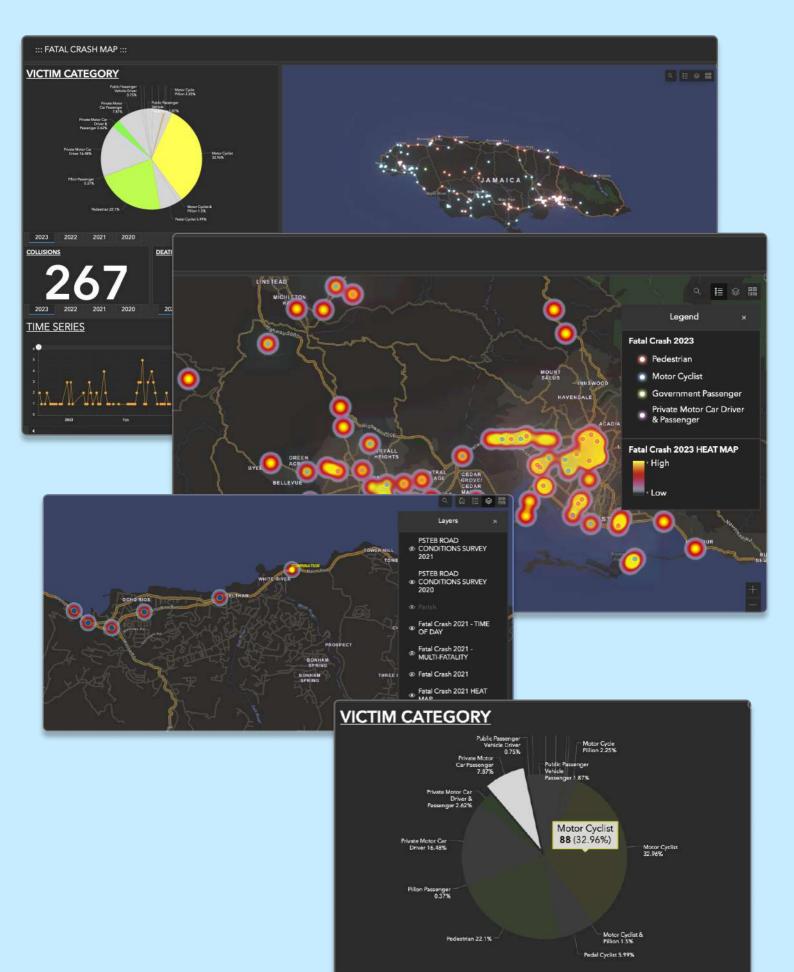
Reputation:- The interactive COVID-19 dashboard was crafted by Lauren Gardner of Johns Hopkins University, recipient of the 2022 Lasker-Bloomberg Public Service Award, one of America's highest accolades in biomedical research.

Visit the project by clicking here

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Fatal Crash Map



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Jamaica Tertiary Education Commission

J-TEC

About

Mona Geoinformatics Institute (MGI) embarked on a purposeful mapping endeavor, utilizing meticulously gathered data to chart the addresses of Registrar of Higher Education Institutions throughout Jamaica, bridging accessibility gaps in education. The project culminated in an engaging interactive web map, characterized by its user-friendliness and rich information content. This web map invites exploration of higher education institutions, Jamaican parishes, and local communities, offering versatile views with the option to toggle map layers on and off.

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CATEGO	Esri, HERE, Garmin, FAO, NOAA, USGS
80 Gen Higi University Educ College Colle	rel Specialized Workforce/Specialized Teachers' Institute er College University General Community

GIS Integration

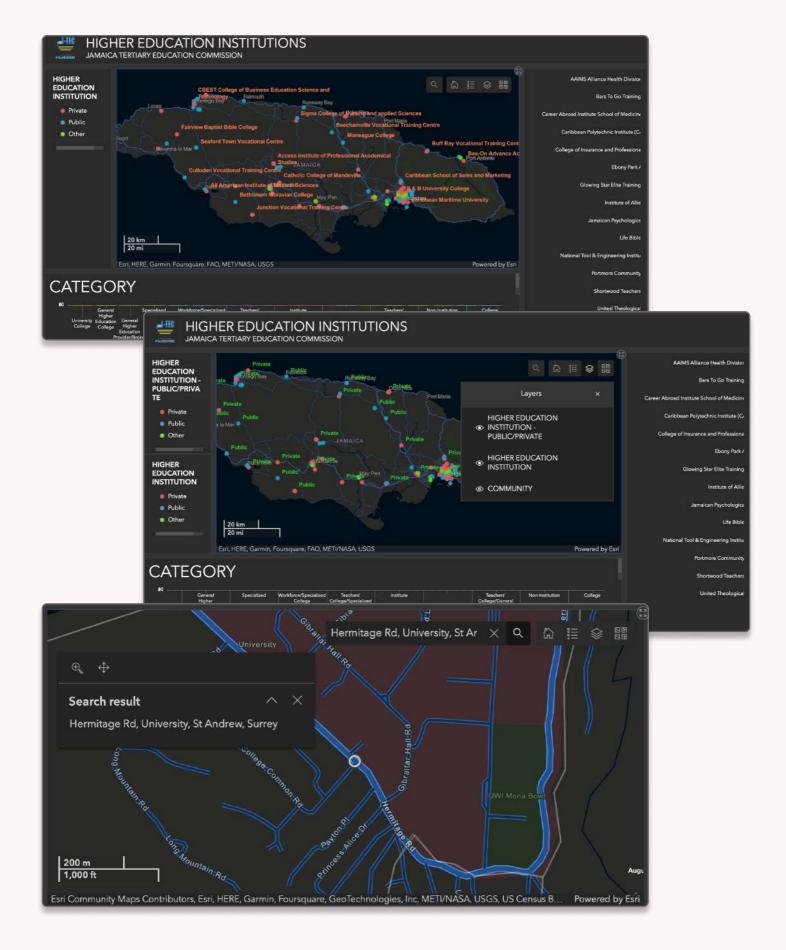
Mapping with a Purpose:- MGI used existing accurate data to meticulously map the addresses of Registrar of Higher Education Institutions across Jamaica, making education accessible to all.

Interactive Web Map Magic:- MGI crafted an interactive web map that's as user-friendly as it is informative. Explore higher education institutions, parishes, and communities across Jamaica. Switch between satellite and road-map views, and effortlessly toggle map layers on and off.

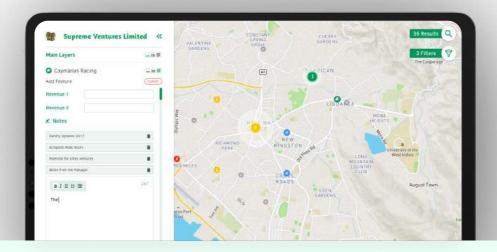
Your Map, Your Way:- We provided our client with a web link (URL) to access this interactive map, giving them an easy and friendly tool to explore all the mapped higher education institutions.



Jamaica Tertiary Education Commission J-TEC



Interactive Web Map for Supreme Ventures Limited (SVL)



Project Features

Mona GeoInformatics Institute (MGI) collaborated with Supreme Ventures Limited (SVL) to create an interactive web-based map, leveraging MGI's current datasets as a basemap. This map serves as a valuable tool for SVL, offering a range of functionalities and features to enhance location-based decisionmaking.

Project Details

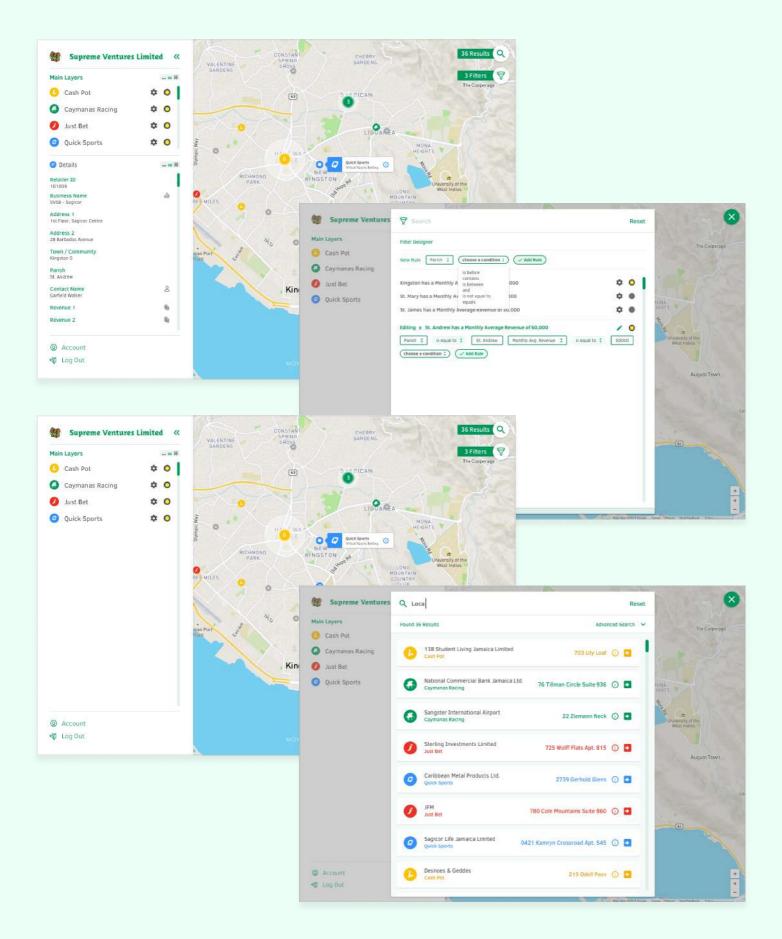
Client:- Supreme Ventures Limited (SVL)

Map Features:- The interactive web map is designed with a Google Maps basemap and provides the following features:

- 1. User Authentication: The map supports user authentication, allowing both administrative users and regular users to access the map.
- 2. Map Views: Users can switch between satellite and map views to gain different perspectives on the displayed data.
- 3. Layer Toggling: The map allows users to toggle between different layers, enhancing data visualisation.
- 4. Editing Functions: Users have the capability to edit and update map data, enabling SVL to maintain accurate and up-to-date location information.
- 5. Client Administrative Functions: The map provides administrative functions for SVL, facilitating efficient management and control of location data.



Interactive Web Map for Supreme Ventures Limited (SVL)



Climate Change Knowledge Platform

(CCKP)

About

The Climate Change Knowledge Platform (CCKP) operates as a pivotal tool for mapping and visualizing initiatives and projects that are aligned with, or receive funding from, the University of the West Indies. This platform serves as a dynamic interface to showcase the university's commitment to addressing climate change challenges through various initiatives. By providing an interactive and comprehensive map of these projects, the CCKP enhances accessibility to valuable information, fostering collaboration and awareness among stakeholders involved in climate action.

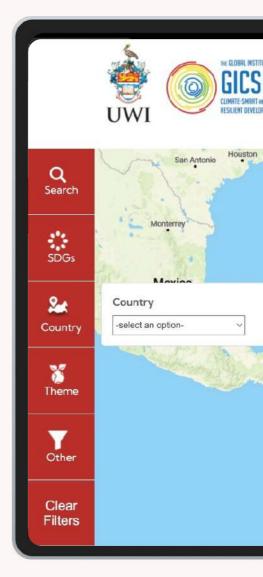
GIS Integration

Mapping Climate Initiatives:- CCKP leverages GIS technology to map and visualize climate-related initiatives and projects affiliated with the University of the West Indies.

Dynamic Filtering:- The platform offers dynamic filtering options, enabling users to display projects based on factors like Sustainable Development Goals (SDGs), countries, and thematic areas. This enhances the user experience and facilitates targeted exploration of climate projects.

User-Generated Content:- Users have the capability to upload project information and track locations through coordinates, contributing to a comprehensive and up-to-date repository of climate-related initiatives.

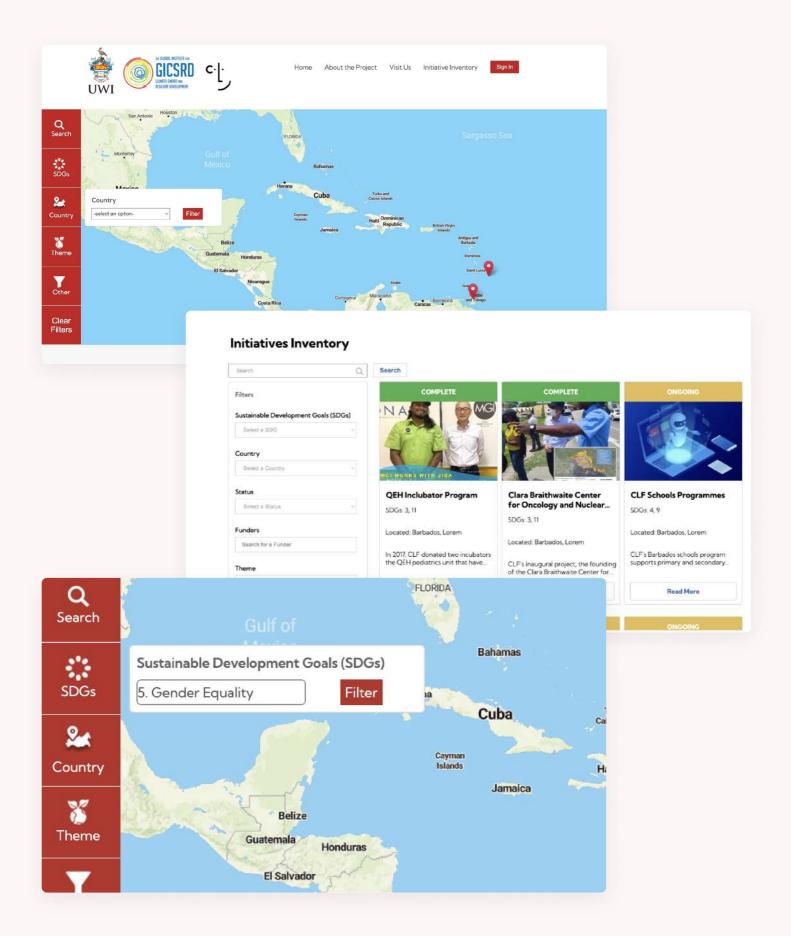
Fostering Collaboration:- By providing an interactive map showcasing these projects, the CCKP facilitates collaboration and knowledge sharing among stakeholders dedicated to addressing climate change challenges. It enhances accessibility to valuable climate-related information, encouraging collective action.



Visit the project by clicking here



Climate Change Knowledge Platform (CCKP)



Natural Resources Inventory

(NRI)

About

The National Resource Inventory (NRI) stands as a robust geospatial content management system, serving as a versatile platform designed for the seamless organization and dissemination of geospatial data. This innovative system amalgamates various mature and stable open-source software projects, offering users a unified and user-friendly interface. This empowers individuals, even those without specialized expertise, to effortlessly collaborate, share valuable data, and craft engaging interactive maps.

GeoNode Integration:- We use GeoNode to streamline data management, enhancing data visualization and sharing within our geospatial projects alongside NRI and GIS.

Open Source Synergy:- GeoNode's open-source nature aligns with our inclusive approach, making it a cost-effective and accessible solution in harmony with NRI and GIS.

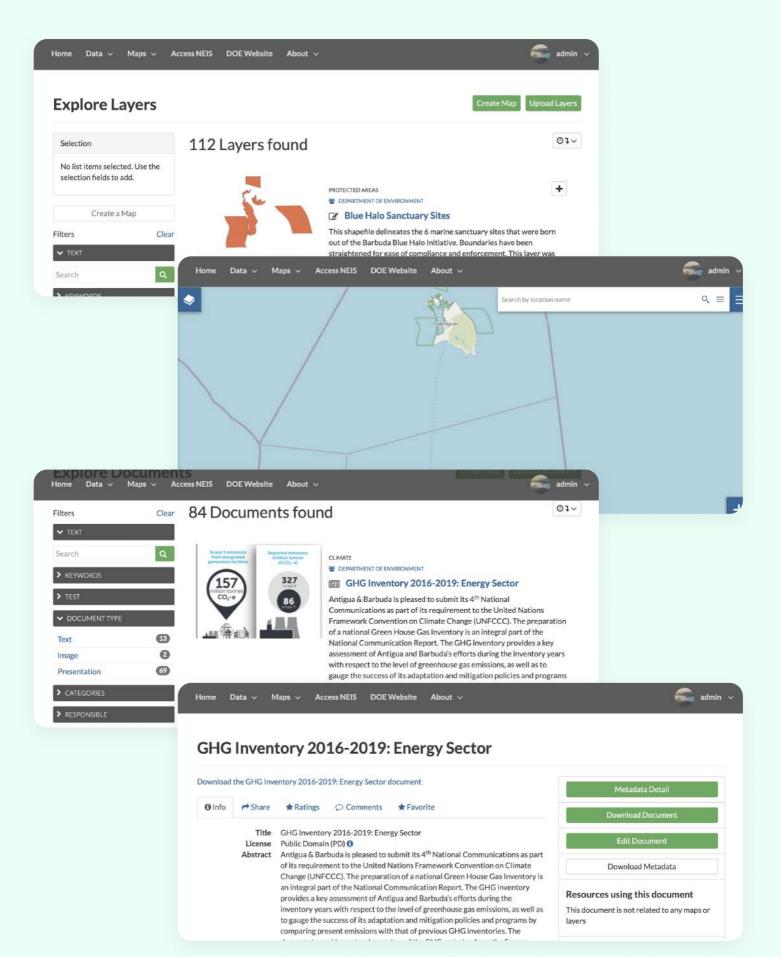
User-Friendly Customization:- GeoNode simplifies layer management, enabling easy customization of maps and datasets, ensuring actionable geospatial insights in collaboration with NRI and GIS.





Natural Resources Inventory

(NRI)



Jamaica Sargassum Early Advisory System

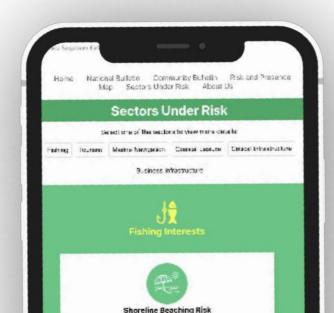
(JSEAS)

About

JSEAS, the Jamaica Sargassum Early Advisory System, is a user-friendly web application designed to provide valuable insights into sargassum occurrences along the Jamaican coast. This innovative platform allows users to easily upload geojson data, enabling real-time updates to an interactive map displaying sargassum levels. Beyond its mapping capabilities, JSEAS offers detailed information on the diverse opportunities presented by sargassum in Jamaica. Moreover, it ensures proactive engagement by sending email alerts, facilitating timely responses to sargassum events. In essence, JSEAS serves as a practical tool for monitoring and understanding sargassum patterns while also providing valuable data for informed decision-making.

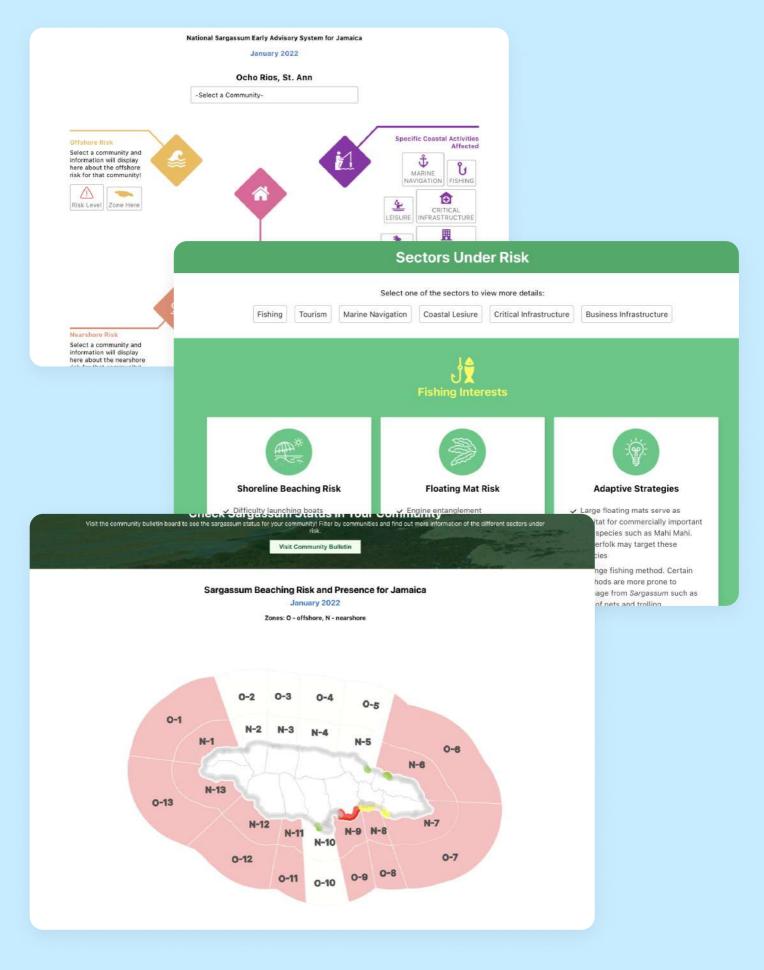
GIS Integration

In the JSEAS project, a robust GIS integration using React was implemented, facilitating the analysis and visualization of data from geojson files. This integration allowed for an in-depth examination of sargassum levels on Jamaica's shores and an assessment of beaching risk for various coastal communities affected by this natural phenomenon. Leveraging geospatial data and advanced visualization tools, the project delivered tailored solutions for each community through unique bulletins. These bulletins not only highlighted specific sargassum-related sector risks but also illuminated potential opportunities. The GIS integration in the project enhanced the understanding of sargassum distribution and empowered local communities with the information needed to make informed decisions and adapt to the challenges posed by this environmental issue.





Jamaica Sargassum Early Advisory System (JSEAS)



Thank you!

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