



**SIGS**

SMALL ISLAND  
GEOGRAPHIC SOCIETY



## ABOUT SIGS

Small Island Geographic Society (SIGS), founded in 2018, is an NGO registered in Maldives to create an interest among young people and build new generations who are interested in the unique environment, geography and livelihood of small islands.

SIGS was founded by a group of professional environmental consultants working in the Maldives. SIGS will collaborate genuine & knowledgeable practical ideas and concepts that positively impact the small island environment and its people.



**OUR TEAM**



**PROGRAMMES**



**PROJECTS**



**EVENTS**



**OUR PARTNERS**

# OUR TEAM



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Vice President



**Faruhath Jameel (Farey)**  
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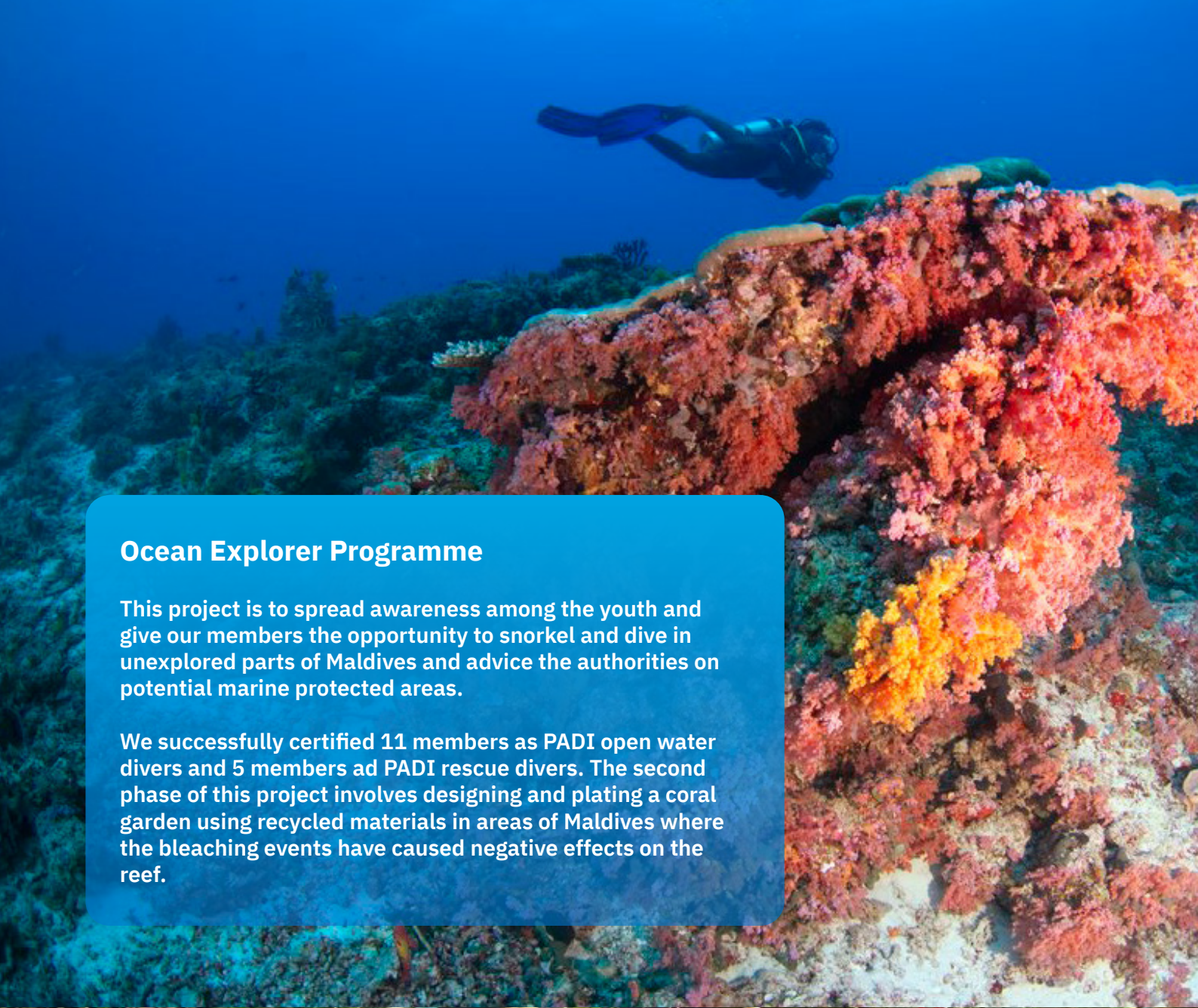
# PROGRAMMES

## Small Island Geographic Expedition

The expedition journeyed across Meemu, Thaa, Faafu, Alif Dhaal, and Kaafu Atoll on board Princess Hasina. The expedition carried out several activities. It included coral reef and marine environment monitoring at different sites in the central atolls including Veyvah corner, Muli corner, Five rocks, Kudarah Thila, and 7th Heaven.

During the expedition, two SIGS members were successfully certified as PADI Open Water Divers under the SIGS flagship programme 'SIGS Ocean Explorers'. We successfully tested an alpha version of an application developed by SIGS and Water Solutions to monitor the marine environment of the Maldives. The expedition piloted the application and the marine survey diving team provided feedback to the app development team. SIGS in partnership with the Water Solutions marine survey and research team, launched the use of DPVs in marine surveys in this expedition. The use of DPVs in marine surveys allowed marine biologists to cover larger areas during a marine survey dive to coral reefs.





## Ocean Explorer Programme

This project is to spread awareness among the youth and give our members the opportunity to snorkel and dive in unexplored parts of Maldives and advise the authorities on potential marine protected areas.

We successfully certified 11 members as PADI open water divers and 5 members as PADI rescue divers. The second phase of this project involves designing and planting a coral garden using recycled materials in areas of Maldives where the bleaching events have caused negative effects on the reef.



## SIGS Snorkel Rangers

A program targeted to primary school children to create awareness within children on the marine and coral reef environment. Students are encouraged to learn snorkelling and become comfortable in our clear blue waters surrounded by rich marine diversity. Experienced marine environment experts from SIGS volunteered to implement this program.

## Rooting for Raajje (National Tree Planting Programme)

On 22nd April 2022, Earth Day, SIGS pledged to plant 1001 plants across the Maldives within the year. This campaign aims to create awareness on the importance of trees. Trees are important for the Maldives both for mitigation and adaptation to climate change. They provide a line of protection for the low-lying islands of Maldives. Trees also provide benefits of cooling atmospheric temperatures and they are a carbon sink. The initiative was launched in HDh. Vaikaradhoo on the occasion of World Environment Day 2022.

The community with support from SIGS planted 101 trees which included sea almonds, an important economic crop for women and ironwood, which is a natural defence against coastal erosion. SIGS has also planted a frangipani plant in Hira School in Addu Atoll, making the total 102 trees planted so far. The programme is designed such that all trees planted under this programme can be monitored through the SIGS website where we will be updating the growth of the trees.

This is to encourage the long-term sustainability of the trees. The locations and type of trees are decided in consultation with the Island Council and community so that they are planted according to the island development plans and land use plans. Experienced marine environment experts from SIGS volunteered to implement this program.





## SIGS Mentorship

SIGS Mentorship programme is designed for high school graduates and university students and graduates. SIGS has a great team of mentors, who have over 20 years' experience working in the government, academia and private sectors.

It is a great opportunity for high school students who want to discover what their interests are and help them to choose a career path with endless possibilities. Graduate students from fields such as geography, environmental, engineering, geomatics, environmental economics and social sciences can take advantage to join and work with us to get more experience in their fields. Graduate students from fields such as geography, environmental, engineering, geomatics, environmental economics and social sciences can take advantage to join and work with us to get more experience in their fields.

The programme also offers university students and graduates interested in research to work on the many research projects of SIGS and get on-the-job training from the design of research to the dissemination of their work. Many students are faced with the dilemma of not knowing what topics to choose for their thesis or dissertation and this is a great way to help decide. SIGS Mentorship also provide youth with a useful learning experience to work in a professional setting and help them develop good work skills to meet work expectations. SIGS provides youth with a friendly, learning environment where we continuously learn from each other.



# PROJECTS

## Smart Farming

*June 2019 – June 2020, HDH. Hanimaadhoo*

“Smart Water Management as Climate Change Adaptation for Resilient Agriculture Farming” project by SIGS is aimed at addressing impacts on the groundwater due to climate change. Farmers in the Maldives use groundwater for irrigation of their crops and the high extraction will highly impact the thin freshwater lens in our islands. The project was piloted in Haa Dhaalu Hanimaadhoo in the north, which is an agricultural community.

This project aimed to develop and test simple smart tech devices to help manage water more efficiently through a device programmed to allow water to pass through at set intervals and up to a set time period. This has the added benefit of managing the farmers’ time more efficiently. This method ensures that only the required amount of water is provided to the roots at required intervals. As this is automated, it saves a lot of time for the farmers, allowing them time to concentrate on other activities. Farms that do not have electricity were provided with a small DC solar pump to withdraw water and convey it to the main distribution.

These devices have been successfully installed and operating in five farms in Hanimaadhoo. This has contributed to easing the process of irrigation and encouraging the sustainable use of groundwater for local farmers.



An aerial photograph of a modern, multi-story apartment complex with colorful facades (orange, green, and grey) situated on a tropical island. The complex is built on a sandy beach that meets clear turquoise water. In the background, there are more buildings and a small airport runway. The sky is a deep blue with some light clouds.

## HOME Project

*April 2021 – March 2023, Hulhumale*

The HOME project is funded by USAID's Clean Cities, Blue Ocean (CCBO) programme. CCBO is USAID's five-year, \$48 million flagship programme to respond to the global crisis of ocean plastic pollution. Our main objective of the HOME project is to bring about behaviour and social change through engagement with households to reduce their use of single-use plastics. We believe that behaviour change is a long process where people need continued information, awareness and support over a long period of time. In the HOME project, SIGS is working closely with 12 households on a journey to reduce single-use plastics (SUPs) in their homes over a one-year period.

This journey will be documented and shown as a docuseries in local broadcast media and social media to the public. The aim of the docuseries is to show the reality that different households, in their everyday lives, face as they try to reduce the SUP they use in their homes. The key message of the docuseries being behaviour change is not easy, but every little bit helps, we hope viewers of the series will be encouraged to even just change one behaviour that will reduce SUPs. In the project, SIGS is also engaging with businesses to increase availability of alternatives to SUPs in the market.

## Heylhi

*December 2021 – July 2022, HDH. Vaikaradhoo*

Heylhi is a mobile application that utilizes citizen science and crowd sourcing to gather data on coastal erosion and flooding in the Maldives. Heylhi is a project funded under a Climate Innovation Challenge from the Asian Disaster Preparedness Centre (ADPC).

SIGS developed and pilot tested a mobile application Heylhi that utilizes citizen science and crowdsourcing to gather data on coastal erosion and flooding. This project is a beginning and we plan to continue the Heylhi project to a second phase to develop capacity to analyse the data collected and use it for research as well as island development planning and support national policy making.

The island of Haa Dhaalu Vaikaradhoo, which experiences heavy erosion and flooding, was chosen to pilot the Heylhi application. Six locations along the coast of the island have been identified to measure erosion and markers with a photo frame stand were placed for people to record the shoreline length and upload to the application along with photos of the beach from 3 fixed frames.

In addition, users can upload free roaming images of beach erosion and information on flooding due to both coastal surges and heavy rainfall. The application also records damages to people, property and agricultural crops. Selected people from the community were trained initially to test the application so it can be improved before allowing access to the wider community. Though the activities under the ADPC grant has concluded in July 2022, SIGS is continuing with the Vaikaradhoo community to improve the application and start regular data collection through the community.

This project is a beginning and we plan to continue the Heylhi project to a second phase to develop capacity to analyse the data collected and use it for research as well as island development planning and support national policy making.



## BE.Innovative Challenge

*February – July 2022, Hulhumale'*

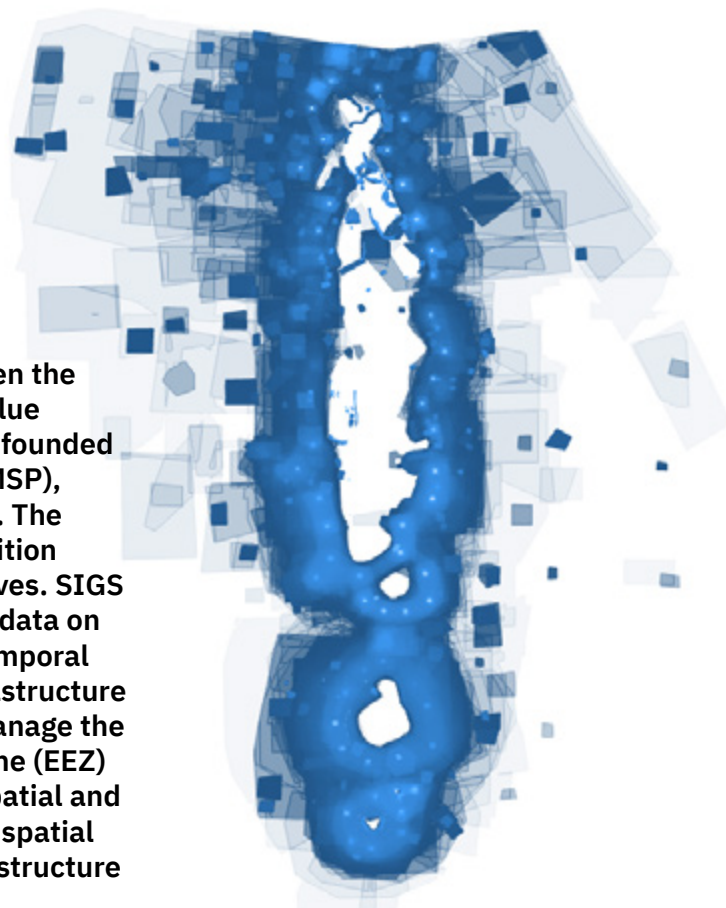
SIGS was one of the 10 grantees of the BE.Innovative contest organized by the PREVENT Waste Alliance, an initiative of the German Federal Government targeted to help members leverage insights from behavioural science and design thinking to design more effective approaches to waste prevention and circular economy. The SIGS project focused on designing a behaviour change intervention to reduce the use of polyethylene terephthalate (PET) bottles in restaurants/ cafes in the Maldives.

## Maldives Coastal Characterization

*March – December 2022*

The Noo Raajje programme is a partnership between the Government of the Maldives and members of the Blue Prosperity Coalition. The Noo Raajje programme is founded on three pillars of work: Marine Spatial Planning (MSP), Blue Economy (BE), and Sustainable Fisheries (SF). The Waitt Institute is a part of the Blue Prosperity Coalition supporting the Noo Raajje programme in the Maldives. SIGS is providing support to Waitt Institute in gathering data on Maldives Coastal Characterization - Spatial and Temporal Characterization of Coastal Development and Infrastructure in the Maldives will be used on the MSP pillar to manage the ocean resources within the Exclusive Economic Zone (EEZ) of Maldives. SIGS studied and characterized the spatial and temporal coastal development projects to create a spatial database of coastal development and coastal infrastructure in the Maldives.

As part of the work, SIGS manually classified and validated features that describe the coastal development and coastal infrastructure of the Maldives. The geodatabase developed as part of the project contains metadata describing the type, date of installation, and geographic footprint of each feature that describes the coastal development and coastal infrastructure of the Maldives. SIGS also digitized the coastal and marine development information that are in EIA reports which were made available to the project from EPA.



## Sustainable Livelihood Plan

*October 2022 – October 2023, Kulhudhuffushi City*

Sustainable Livelihood Planning is a project implemented under the Australian Government's Direct Aid Program. Working with Kulhudhuffushi City Council, the project aims to develop and implement a sustainable livelihood and economic recovery plan following the impacts of Covid-19. The project will contribute to long-term development planning of the city. The project will also enable the City Council to identify opportunities for livelihood development, capacity development needs and challenges for economic development and plan for sustainable livelihood development. The project will include capacity building and providing opportunities and support for various groups including youth, women, and disabled people for sustainable livelihood development. The process of developing the Sustainable Livelihood Plan was documented and a manual that can support other island and city councils in Maldives to develop their own plans will be produced.



## **Natural Resource Management Plan**

*October 2022 – Present, K. Guraidhoo*

Natural Resource Management Plan of K. Guraidhoo is a Corporate Social Responsibility (CSR) Project to develop a natural resource plan for the marine recreational areas with the jurisdiction of K. Guraidhoo. The Guraidhoo Island Council (GIC) took the initiative to sustainably manage 10 marine sites which are used for recreational activities such as diving, snorkelling and surfing.

SIGS is working in collaboration with Water Solutions Pvt Ltd to conduct baseline assessments to identify the current situation of these sites. Physical surveys were conducted by diving in the sites, while the social surveys included engagement with resource users, such as fishermen, divers, surfers and guesthouse operators. A workshop is being planned with IUCN for capacity building of GIC to assist in developing the management plan.

The long-term goal of this plan is to sustainably manage these areas by the GIC, and for this process to be documented in such a way that other councils can also replicate this process and manage the natural resources in their jurisdictions.



# Geospatial Analysis, Cartography and Data Management Support

October 2022 – Present

The Geospatial Analysis, Cartography, and Data Management Support project for the Waitt Institute is a comprehensive initiative aimed at providing critical technical assistance to enhance the efforts of multiple Blue Prosperity Coalition programs.







## **Resilient Retreats: Enhancing Sustainable Climate Adaptation PracticEs (ESCAPE)**

*June 2023 – Present*

Resilient Retreats: Enhancing Sustainable Climate Adaptation PracticEs (ESCAPE) is a project funded under USAID's Climate Adaptation Project and is focused on building resilience of local guest houses to climate change and natural hazards through development of climate resilient design responses and draft guidelines that developers can implement. The project aims to study the climate risks and conceive climate-resilient guesthouse designs that effectively address the distinct challenges by the Maldivian tourism sector.

By advocating for the diversification of the tourism sector through the implementation of resilient infrastructure, the project strives to guarantee the long-term sustainability of the Maldivian tourism industry. SIGS has conducted a baseline assessment survey to identify climate risks currently faced by guest houses. This data will be used in preparing climate resilient design responses which can potentially be implemented in guest houses and related infrastructure to combat the climate risks which were identified in the survey. A review of traditional and modern materials, techniques, methods used in climate adaptive design was also conducted to prepare these design responses.

# EVENTS

## Huraa Mangrove Research

*2018, K. Huraa*

We work closely with the local islanders by making frequent visits to K. Huraa to observe and record the changes that occur to its mangrove system. K. Huraa and its close proximity to the capital city makes it a perfect location for educational school trips for nature related projects.

During the first phase of this project, informational materials including posters were made which can be used by teachers to compile exercises for students during these field trips to Huraa.





## The Little Big Festival

2023, N. Kudafari

SIGS attended the Little Big Festival held in N. Kudafari on 10th June 2023 to commemorate World Environment Day and World Ocean Day. The festival brought together NGOs, local communities, and businesses in the country and provided a space to showcase their work and share ideas. The festival raised awareness about environmental issues and local culture and promoted sustainable practices in support of the environment.



## Sustainable Tourism Forum 2023

2023, Male' City

SIGS participated and presented at the Sustainable Tourism Forum (STF) in December 2023. The forum focused on challenges faced by the tourism industry such as sustainability issues and social aspects, and provided a platform for local communities, tourism organizations, NGOs, and academics to come up with feasible solutions regarding these challenges. SIGS presented their projects including ESCAPE, HOME and other relevant projects. SIGS also collaborated with other participants in a workshop to discuss how to foster sustainable economic prosperity through the tourism industry.



**SIGS also participated in:**



**Industrial Village Cleanup 2018**



**Saafu Raajje Cleanup 2018**



**Haveli Fair 2019**



**Presented research at the International Conference on Social Research and Innovation, 2021**



**Premierrnight of “Mikan Vaanetha?” docuseries of HOME Project, 2023**



**Environment day festival 2023**



**Presented research and participated as a panellist at the International Conference on Social Research and Innovation, 2023**



**Youth track to COP28 UNICEF Exhibition 2023**



**OEVARU Mental Health Conference, Villa Nautica, 2023**

# OUR PARTNERS



Empowered lives.  
Resilient nations.





**SCAN FOR ALL  
OUR LINKS**



**Small Island Geographic Society**

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