



## Ecosystem Situational Awareness

Real-time insights and geospatial management for conservation



### REALTIME GEOSPATIAL VISUALISATION

Best-of-breed open source Geographic Information Systems tools and interfaces

### MULTI SENSOR DATA STREAMING

Distribute in real time any environmental sensor or source information to interfaces and data stores

### GEOSPATIAL REEF SURVEY MANAGEMENT

Management, planning and monitoring of reef surveys anywhere on the globe

### REEF SURVEY CONTENT MANAGEMENT

Manage all related information such as reef survey maps, species inventories, shape files and documentation and geospatial data

### VISUAL ANALYTICS & BIG DATA ANALYSIS

Integration with Big Data Tools and Visual Analytics allow for the display of real-time data within a historical pattern context

### The “Uniti” System

Suritec Geospatial supports the development of advanced situational awareness and geospatial analysis tools for frontline environmental agencies and non-profit organisations.

Mapping, tracking and analysing the information space in threatened ecosystems is just as beneficial for environmental protection efforts as it is in supporting informed decision making in conflict zones, disaster areas and in driving socio-economic development in marginalised areas. Real time insights into the situation on the ground and the tracking of effects of various environmental threats and interventions offers an undeniable advantage to change managers in any activity-based environment.

In one such engagement, Suritec Geospatial has been working with Reef Unite, a non-profit organisation focused on community-led coral reef conservation solutions. The alarming increase in the destruction of coral reef ecosystems threatens not only marine biodiversity, coastal protection and ocean greenhouse gas absorption, but also the food security and welfare of more than a billion people who are directly dependent on the ocean for their daily sustenance and livelihoods. With global climate change set to greatly affect agriculture outputs over the next 25 years, these life giving ecosystems are going to become more and more important to mankind's very survival on earth.



# Coral Reef Conservation

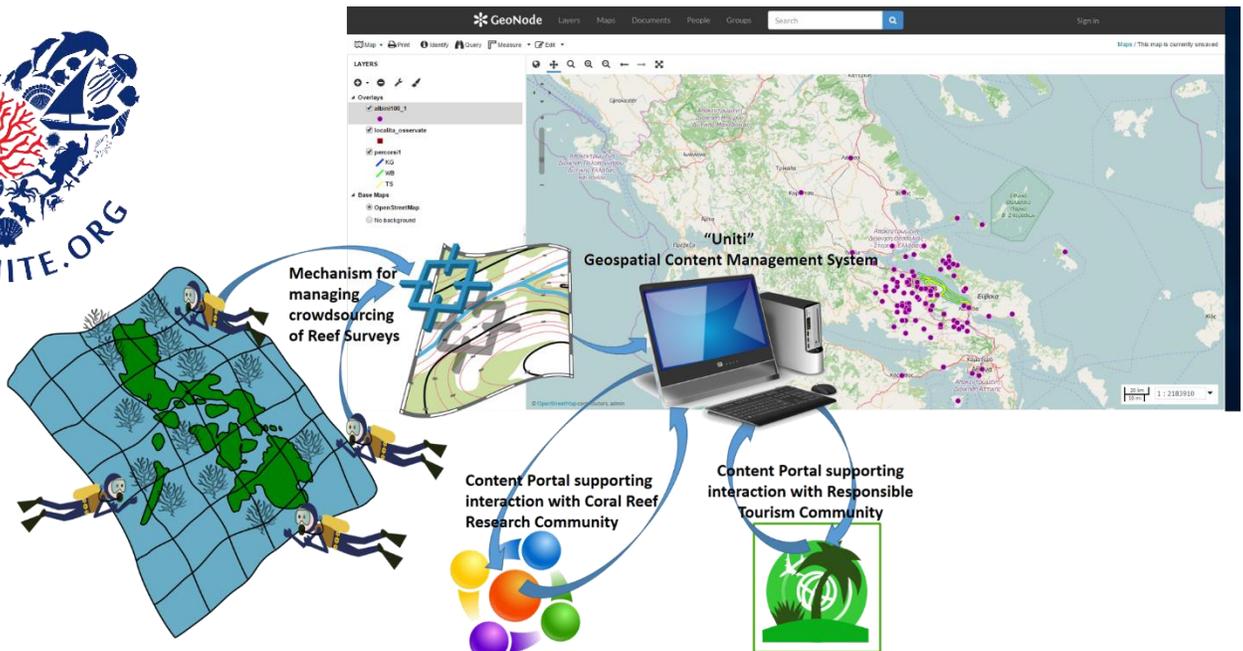
According to [WRI Reefs at Risk](#) 58% of the world's coral reefs are at risk and threatened by human activity. Close to 450 million humans live in close proximity to reefs and most derive some form of subsistence value from them in the form of food and income ([Seaweb](#)). Southeast Asia and surrounds is a focal point in reef conservation efforts due to being home of close to 600 of the 800 reef-building coral species. This in one of the main reasons why Reef Unite.Org are focusing their reef surveying, conservation and rehabilitation efforts in this region.



Reef Unite - Coral Reef Surveying

## “Unity” Case Study – Geospatial Support for Corral Reef Conservation

Reef Unite works to enable mutually beneficial partnerships between coastal fishing communities, the coastal tourism sector and regional maritime industry to build sustainable value in protecting local coral reefs. By creating community-level skills and capacities in coral reef monitoring, surveys and marine habitat restoration, such as coral gardening, Reef Unite creates sustainable employment and revenue streams for local communities by turning them into conservation service providers. By enhancing coastal tourism attractions, supporting local fisheries management and in creating biodiversity offset credits for maritime industry, these conservation solutions are designed around long-term socio-entrepreneurial sustainability.



Marine scientists are confirming that the higher the level of custodianship and dependence there is between humans and reef ecosystems, the healthier and more resilient the reefs seem to be. Suritec Geospatial helps Reef Unite to develop online information sharing tools and innovative stakeholder management platforms that empower greater levels of unity between local interest groups and reef ecosystems. The ability for conservation project managers to access a range of useful data sets in user-friendly, visualised formats and to map and track local interventions against credible marine habitat survey data, offers all stakeholders a shared resource to manage and market their conservation programs and to leverage the positive environmental outcomes.

