

**Devising Effective Remote Sensing Communication Strategies:  
A Case Study of Mapping Coastal Resources Surrounding Bunaken Island,  
Indonesia.**

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Spatial representations of submerged coral reef features are widely represented using remote sensing technologies that offer the benefits of large spatial coverage and timely data acquisition. With most remote sensing research of coral reef ecosystems being devoted to potential applications, often experimental in nature, the operational realities receive little attention. It is becoming increasingly evident that the interpretation of remotely sensed imagery is dependent on the widely shared languages of biology, chemistry, geomorphology, and physics, as well as metaphorical qualities and traditional concepts of local communities. It is these communities whose interpretations will ultimately guide the structure of their coastal management plans. Therefore, in order to secure effective interpretation of remotely sensed information and promote optimization of its use, appropriate remote sensing communication strategies must be implemented.

In this study, we examine how effective IKONOS satellite imagery is at communicating information of value to local communities inhabiting Bunaken Island, North Sulawesi. These communities are faced with a deteriorating coral reef ecosystem that is influenced by anthropogenic impacts from local island and mainland activities. Following the validation of the location and health of spatially distinct submerged features using field data, collected concurrently with image capture, we extracted socio-cultural information at the local level through experiential observations. We conclude that IKONOS satellite imagery can be used to effectively communicate valuable coral reef ecosystem information to local communities. When the communication process does involve input from local peoples and incorporates their metaphorical qualities and traditional concepts, the final image is of greater use to managers and management plans.