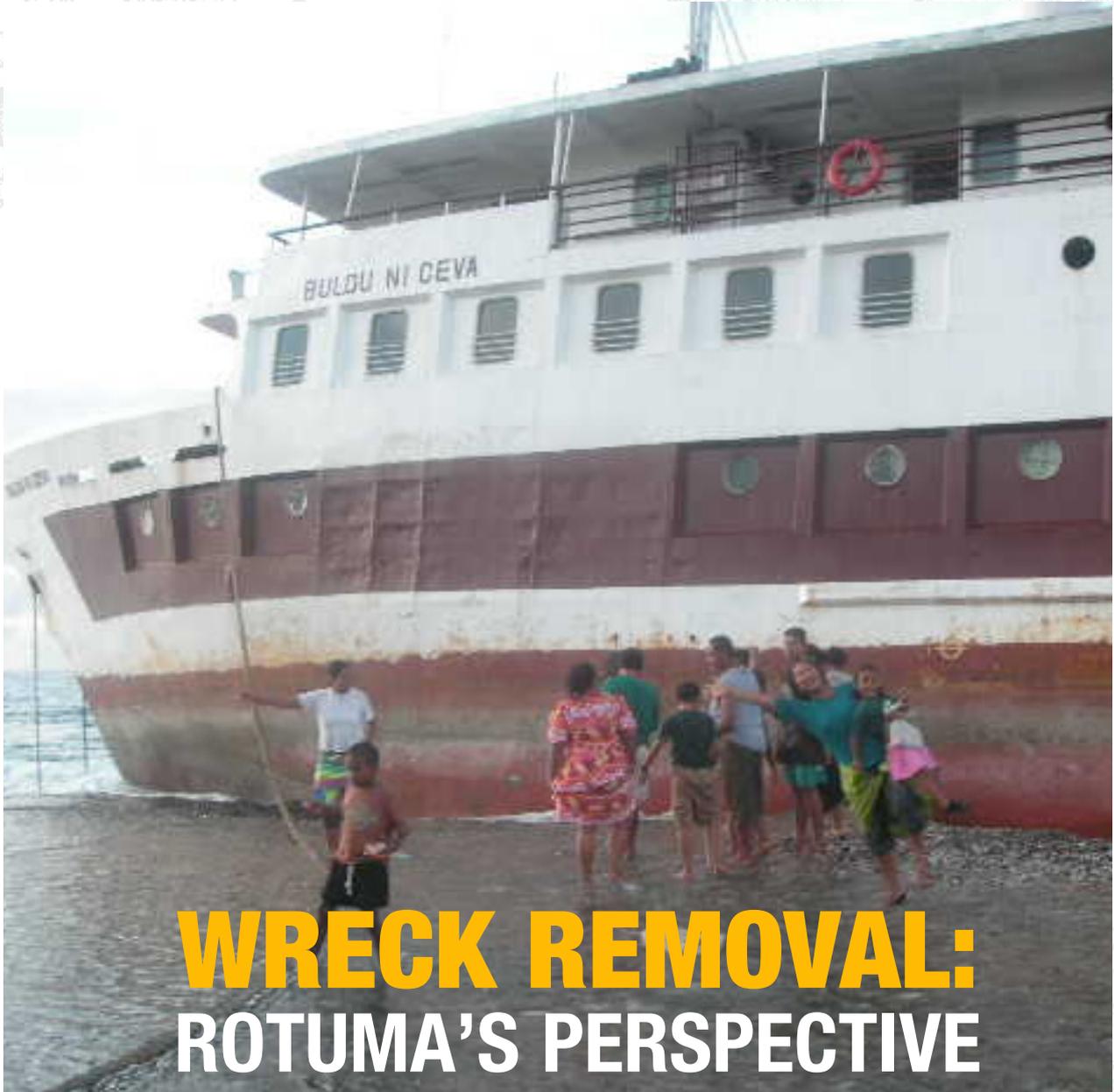




## LäjeRotuma Initiative

*"Mobilizing community to manage well their natural resources"*



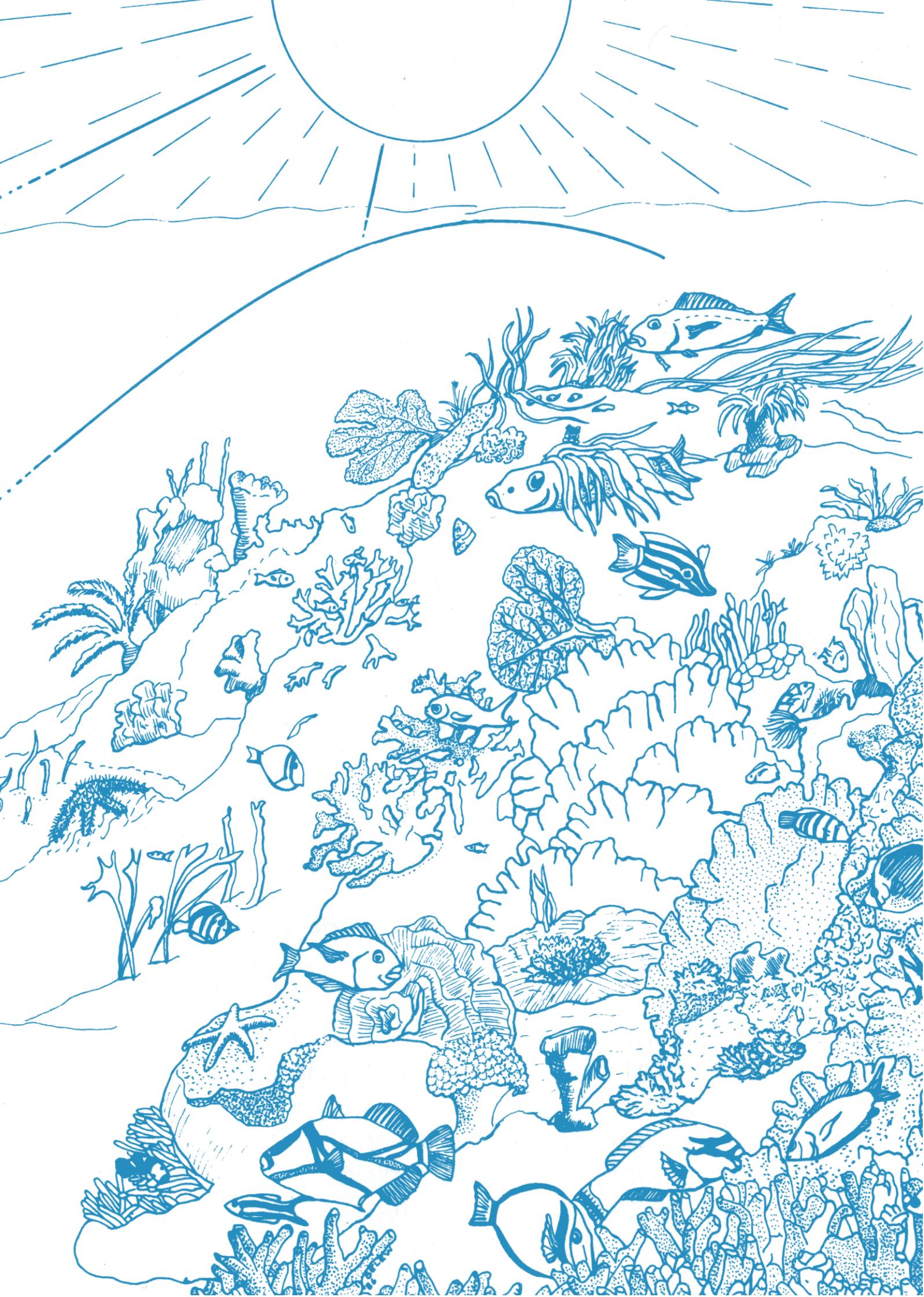
# WRECK REMOVAL: ROTUMA'S PERSPECTIVE

**Photograph 1:** Island passengers remove their luggage from the grounded M.V. Bulou-ni-Ceva at Lopta fringing reef.



### Other Partnerships:

- The Council of Rotuma
- Fiji Rotuman Association
- Rotuma Website community
- PADI Foundation
- SeaWeb
- Ministry of Youth, Employment, Opportunities & Sports



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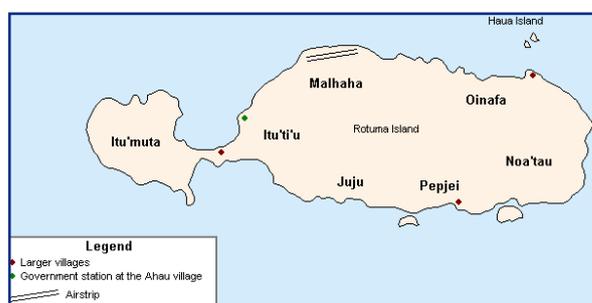


**Photograph 2.** The risks posed by proximity of grounded vessel to shore and fringing reef at Lopta .

## I. SCOPE OF THE GROUNDING ISSUE:

On the 14th of June 2006 when the M.V. Bulou-ni-Ceva grounded on a reef fringing Lopta village, there was widespread concern of an environmental disaster which threatens the ecological balance of an isolated, relatively pristine island environment. Rotuma is a 43 square kilometer island with a population density of 61 people per square km (Fiji Census, 1996). Rotuma is situated in the SW Pacific, about 465km North of Fiji.

Its geographical isolation and an economy that is externally influenced from mainland Fiji, illustrates the high dependence of island community on its natural resources. Like other rural settings in the Fiji group of islands, Rotuma also experiences shipping and inter-island difficulties thus reliant on the monthly boat visits serviced by provincial-owned boats.



Shipwrecks are difficult to categorize and generally there are three classes of vessels including 1) Historic wrecks, 2) Contemporary wrecks, and 3) Derelict vessels. The legal, technical, engineering and cost-recovery challenges vary significantly depending on the type of vessel and circumstances that led to the grounding or abandonment.

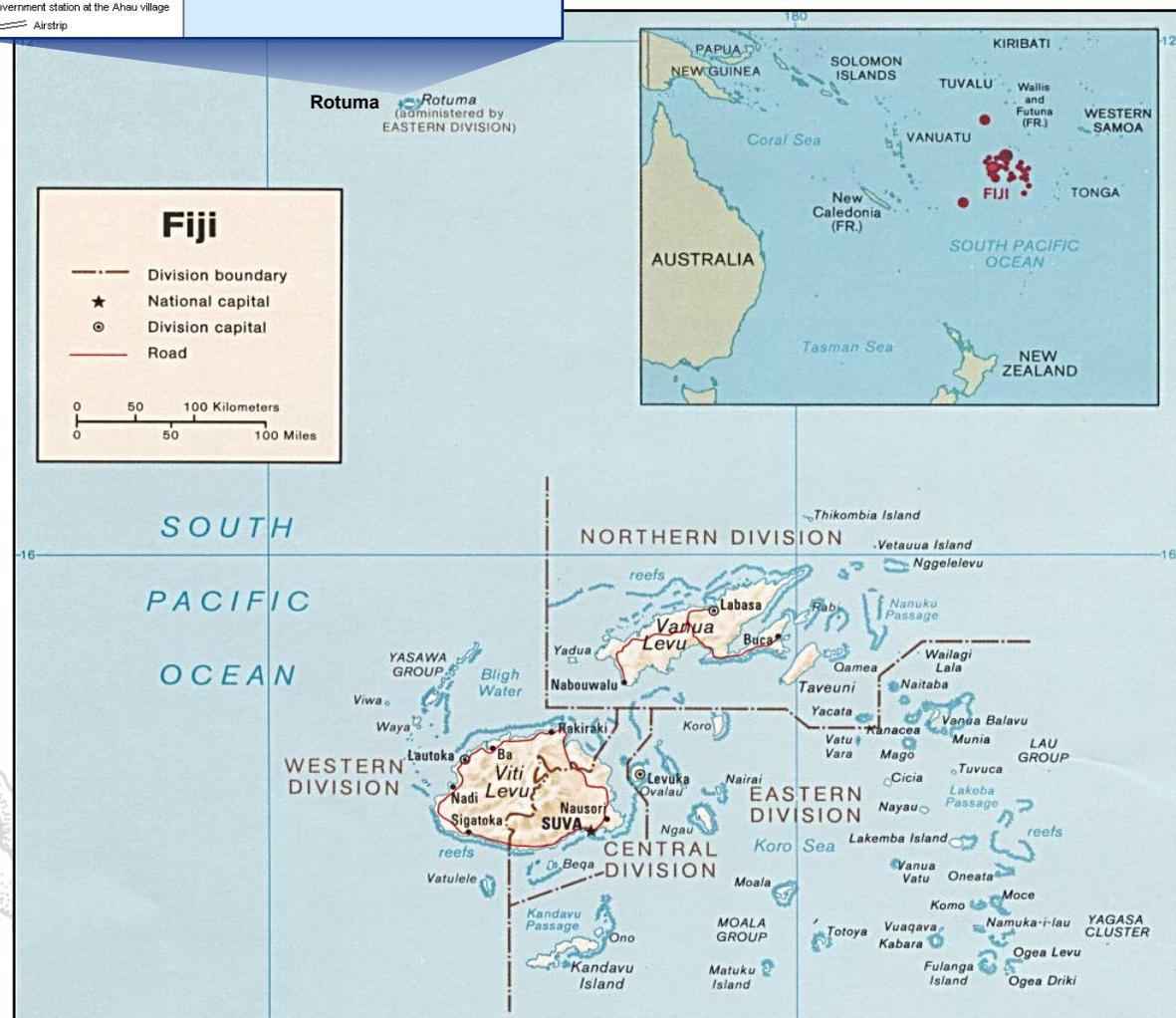


Figure 1: Rotuma in the Fiji map

## II. LOCATION OF THE GROUNDING & WRECK SITE:

The district of Oinafa is located on the North-eastern part of Rotuma and has three main villages namely Lopta, Oinafa and Paptea. Like all coastlines on Rotuma, Oinafa's beaches are subjected to constant wave action and exposure to North-Easterly winds.

On general geography, Lopta has a rugged volcanic coastline and the fringing reef is closest to the coast by less than 50 meters in most places. Oinafa beach is sheltered from prevailing winds by an artificial rock wall that also serves as a land bridge to the jetty. Less than a kilometer north of the jetty are the Houa islands, which host a great number of seagulls and other marine life. The reef from Oinafa towards Paptea is further away at between two to four hundred meters distance from the coast.

According to coral reef surveys monitoring health of selected reef areas around Rotuma Island, there was minimal algal coverage for Oinafa and Lopta indicative of increased grazing by a larger population of fish and other herbivores (plant eating marine organisms) for the past two years. The grounding site is an important fishing area for seaweed collection and feeding area for reef fish and turtles.



Map Courtesy of Google Earth.

**Figure 2:** Shows the present location of the Bulou-ni-Ceva wreckage berthed at Oinafa Jetty since September 2006. Houa Me'me'a (small) is the smaller of the set of islands off Oinafa point and Full'ti'u in Lopta is a popular swimming hole. Black arrow points to the original site of the wreck on 14 June 2006. Yellow arrow points to the Lopta deep reef site surveyed and monitored by LRI. The red arrow points to the Oinafa shallow reef site. Both sites were resurveyed in November 2006

### III. ROTUMA AND HER PEOPLE'S PERSPECTIVE:

Island community concerns regarding the grounding of the M.V. Bulou-ni-Ceva are diverse and include both threats and opportunities.

- Oil pollution
- Navigation threats
- Cargo threats
- Habitat threats
- Public safety
- Recreation
- Habitat
- Government managed land
- Local resource (fishing ground) ownership & rights

Government response and assistance to such grounding incidents are limited by resources and expertise readily available as well as legislation and national policies that governs shipping and maritime activities. This may include direct oversight and operational capability, regulatory or enforcement responsibility, permitting, technical assistance, administration of coastal lands, or management of natural resources. With the different agencies and interests, there is no single perspective on this issue as there is bound to be difference in opinion amongst various departments of environment, marine and provincial. However, major concerns regarding the removal of the grounded M.V. Bulou-ni-Ceva from Oinafa jetty area will include:

#### **Oil pollution from wrecks.**

In this scenario, the risk of an oil spill was prevented when the ship-owners siphoned the remaining oil from the M.V. Bulou-ni-Ceva, approximately 2 months after the grounding before any action was taken to remove the oil.

#### **Navigation threats.**

It was no threat as the grounding occurred away estimated 500metres from the anchorage although there could have been real danger by movement during storms and strong wind which could deposit it further into the anchorage area.

#### **Cargo threats.**

M.V. Bulou-ni-Ceva is an inter-island ship that services maritime domestic routes between distant islands and main urban centres transporting mainly construction materials, grocery store-stocks, agricultural produce, livestock and people. There is no carrying of harmful or hazardous matter in such boats.

#### **Habitat threats.**

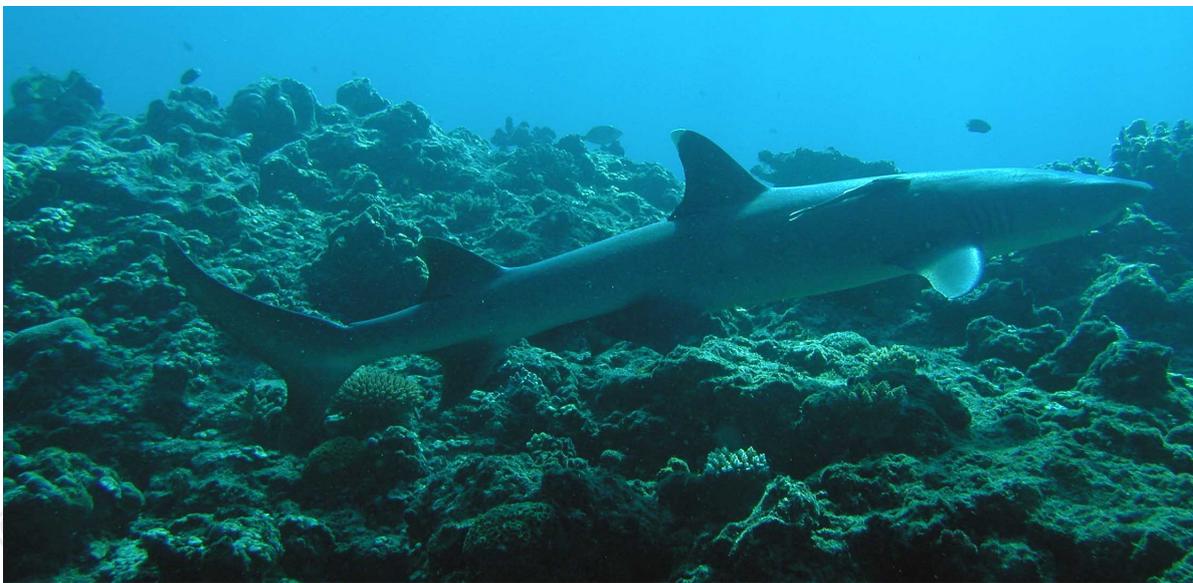
The grounded M.V. Bulou-ni-Ceva crashed on the upraised fringing reefs at Lopta may have caused damage to the solid reef structure that provides protection of adjacent coastline from incoming strong wave action. Salvage activities may inadvertently result in added injury. Other threats include antifouling paints of the hull, introduced organisms in ballast waters, nutrient enrichment from rusting steel and dispersal of loose material from the grounded boat (fishing gear, rubbish parts) that could pollute and endanger marine life such as turtles and threaten health of edible seaweed popularly collected in the local area.



Photograph 3: Rotumans awaiting the docking of the M.V. Cagi-mai-Ba.

### Public safety.

Two and a half months later since the date of grounding, the M.V. Bulou-ni-Ceva was towed to the shallows of Oinafa bay area. To date, the vessel sits on the sandy bottom of the infamous swimming beach area and may pose entrapment, slip and fall hazards to the public. It has now been 10 months and the grounded vessel remains in the shallows and a potential derelict that disrupts the scenery of Oinafa bay.



Photograph 4: Malhaa reef scene.

### Recreational resource.

Provided the derelict vessel is towed away and sunk some 10 miles and at least at the standard depth of 1000metre, the sunken form of the M.V. Bulou-ni-Ceva can create artificial reefs and potential dive sites. However, there is need for the state permits to create such dive sites as well as approval from the Fiji Islands Maritime Safety Authority (FIMSA).

### Marine habitat

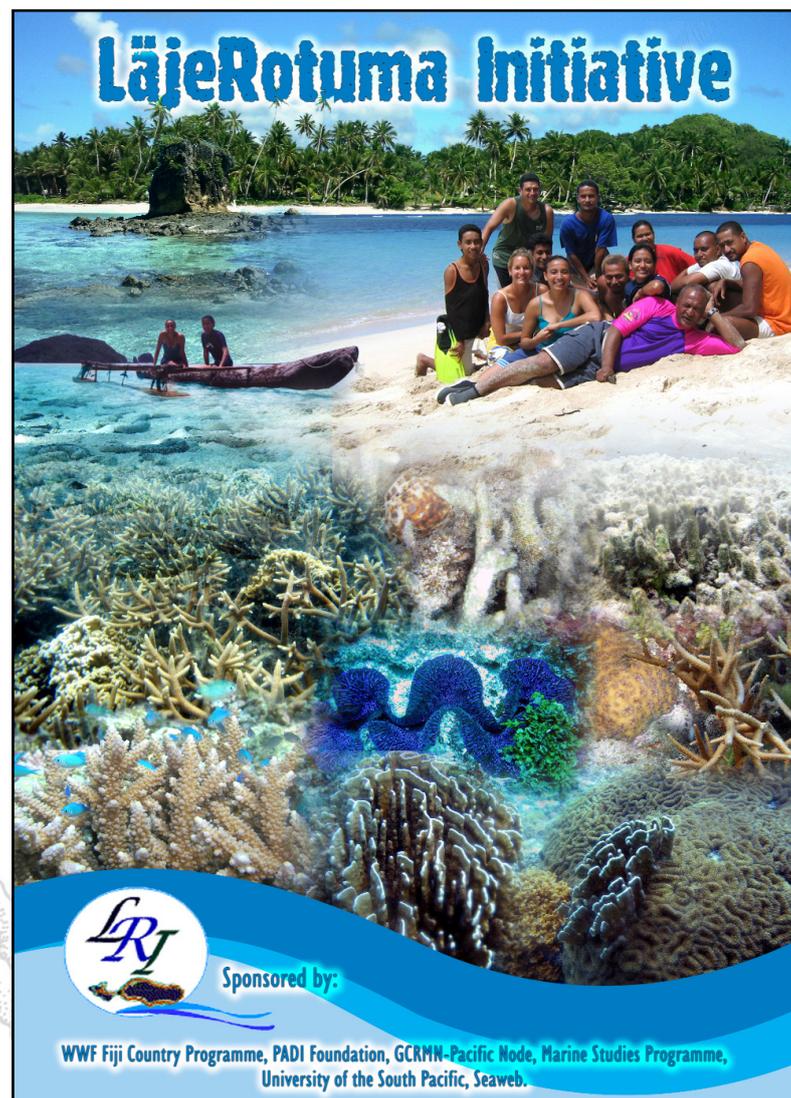
Wrecks provide habitat for a variety of marine life and are often popular fishing sites from such artificial reefs.

### Government managed land & local resource (fishing ground) ownership & rights.

#### IV. RESPONSE OPTIONS:

Action does not necessarily imply wreck removal. Given the high cost of wreck removal and limited budgets, agencies/ departments may take other actions to reduce the threat and wreck removal is the last alternative.

Upon consideration of the potential risk outlined there must be effective attention paid to the removal of the wreck from Oinafa bay area to ensure that there is no ecological risk and potential future impact to the nearshore marine resources of Rotuma Island. For instance, immediate health and public safety issues must be addressed as the derelict vessel is rusted and easily accessible from land to the local populace. Another major concern is risk of compounds found in antifouling paint such as Tributyltin (TBT), a toxic chemical and a highly persistent organic pollutant that is resistant to environmental degradation through chemical, biological, and photolytic processes. TBT has been observed to persist in the environment, capable of long-range transport, bioaccumulate in human and animal tissue, biomagnify in food chains, and to have potential significant impacts on human health and the environment. In other words, there is risk of marine life poisoning that could potentially lead to toxicity of marine food sources that the island community greatly depends on such as fish and seaweed.



Since the grounding incident, there has been a lot of reaction at all levels particularly from the Rotuman community. The chronology of events describes responses by the relevant authorities as well as media lobbying carried out by interested parties and Rotuma representatives in government.

**Photograph 5:** LRI Poster illustration of its marine awareness and Rotuma Coral Reef Conservation Project (RCRCP).

## CHRONOLOGY OF EVENTS

- 14 June 2006 - After prior engine trouble, strong wind and current puts Bulou-ni-Ceva on Lopta reef.
- 10 July - no oil siphoned from boat. Lopta villagers continue to accommodate for 5 crew members left behind by the visiting Government boat.
- 8 September 2006 - Bulou-ni-Ceva is salvaged from the Lopta reef and later towed to the Oinafa Bay (see Fig. 3) where she sits on the sandy bottom, partially submerged.
- 27 Sept 2006 - Director of Government Shipping Services, Captain Seci Waqa reported in the Fiji Times that cost of salvaging the vessel off the Lopta reef and removing oil was over \$54,500. Kadavu Shipping Company declares to the Fiji Island Maritime Safety Authority (FIMSA) that they are unable to pay towing costs back to Suva.
- 29 October 2006 - The Fiji Times reported (FT, Company to sell ship) that the Fiji Government had spent \$60,000 in successfully removing the oil from the Bulou-ni-Ceva in early September. Bulou-ni-Ceva is now in the custody of Workboats Fiji because of a claim that the Fiji Government still owes them \$169,000.

*.....to date the grounded vessel remains at the shallows of Oinafa bay and is developing into a derelict state!*

**Before**



**Photograph 6a**  
Oinafa view before and after the grounded vessel was towed to its resting spot by the Jetty.

**After**



**Photograph 6b.**  
View after the grounded vessel was towed to its current resting spot by the Jetty.

## V. RECOMMENDATIONS/ Next Steps:

### 1. Funding Wreck Removal

- **Vessel owners:** The primary responsibility for wreck removal lies with the vessel owners or insurer. In this case, the Kadavu Shipping Company and the insurer has disclaimed ownership and insurance coverage.
- **Salvage company:** Workboats Fiji claims ownership of the derelict vessel at Oinafa bay area. The question is how long before the local people (and the Council of Rotuma) can legally claim the wreck and take appropriate action.
- **Fiji Government-FIMSA?** There is no such form of "Oil Spill Liability Trust Fund" to respond and if necessary provide funding to remove wrecks and derelicts.
- **International Salvage Union:** Submit proposal and lobby to an international body for funding to respond appropriately in protecting the ecological integrity of the local reef and marine environment that sustains the livelihood of an entire island community and protection of its biological diversity.



### 2. Proposed site for an environmental resource centre

There is opportunity to strip the boat's remaining metal and sell it to recycle waste metal companies at mainland Fiji. The boat frame could be used as structural support for an environmental resource centre, provided it has been surveyed and assessed to be solid and safe for occupational purposes.

### 3. Local Conservation effort

LäjeRotuma Initiative (LRI) is a community-based environmental education and awareness development programme started in February 2002 on Rotuma Island. LRI is mainly voluntary that encourage island youth to actively participate in activities aimed at informing and strengthening the capacity of the island community to make informed decisions on sustainable management of its natural resources.

Photograph 7: LRI poster illustrating its different activities involving youth, culture, diversity and education.

In its environmental education and awareness development program, LRI carries out in plan of action on Rotuma Island under the following programmatic themes:

- **Community Outreach** includes 4 project activities that range from the environmental education at schools, coordinated annual coastal cleanups and facilitation of communities' development plans through awareness of sustainable practices of their natural resources. There is recognition of the value of local resource knowledge and customary practices.
- **Building Community Resilience** to Climate Change includes 3 project activities that encompass a range of adaptation measures to coastal erosion (i.e. coastal replanting of trees), monitoring health of local reefs and climate witness awareness activities that would enhance island community's understanding of building resilience to adverse impacts of climate change.
- **Integrated Fisheries Management** currently focuses on revival of the traditional use of the canoe. Such tradition is fast disappearing, replaced by the use of outboard motors and becoming totally dependent on external supply of fuel and engine parts. This is an added cost also foreseen to create an adverse impact on the island ecosystem in terms of engine parts disposal and fishing intensity.
- **Sustainable livelihoods** options are currently being explored. According to baseline information collected by LRI, there is need for alternative income options in order to persuade communities to make informed decisions on the development and proper management of their natural resources.
- **Research and Capacity Building** includes 3 project activities that range from the experimental removal and reuse of the coral resources (kama), informal education training and internship opportunities for local youth as well as the protection of Rotuma's biological diversity.

LRI is part of a diverse network of the island communities, Rotuma Council, government departments and ministries, donor agencies, institutions, conservation non-governmental organizations, professionals of varied backgrounds that range from energy, agriculture, business, environment, fisheries, diving and sustainable development.

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