



"Mobilizing community to manage well their natural resources"

Rotuma Turtle Conservation

Final Report

November 2006-July 2007

This Project was undertaken with funding from the Australian Government through the Regional Natural Heritage Programme".

"The views expressed herein are not necessarily the views of the Australian Government, and the Australian Government does not accept responsibility for any information or advice contained herein".



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Gagaj Fikitua' of Malha'a
Kafoa Olsen and family
Tua, Fonorito and family
Susau, Hapmak
Mamatuki Tomasi, Hapmak village

LäjeRotuma also acknowledge the Council of Rotuma and the island communities of Fapufa, Losa, Motusa, Itu'muta, Oinafa, Noa'tau, Tua'koi, Savlei, Juju and Pepjei for which the drafted strategic action plan was based on community sessions.

LäjeRotuma recognizes the team of Suva-based volunteers, Anthony, Paul, Sumasafu led by Jacob Itautoka, who conducted the beach surveys and community consultations with the help of island youth volunteers.



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I. Turtle Project Background- Regional implications

Name of Activity:

07-045 Marine Turtle Conservation in Fiji, Tuvalu and Vanuatu

Description of Activity

This project will focus on training and capacity building in turtle conservation research for three species of marine turtles; hawksbill, green and leatherbacks in Fiji, Tuvalu and Vanuatu.

Project Objective:

Assist with the conservation of endangered marine turtles in Fiji, Tuvalu and Vanuatu.

Project Outcomes

- To initiate the collection of baseline data in order to determine long term trends.
- To assist in identifying nesting beaches, documenting numbers of turtles, determining current harvest and other threats, and determining and mapping feeding areas.
- To implement capacity building of local monitors and researchers to continue to carry out the turtle conservation activities after the project is completed.

Rotuma Context- Turtle Conservation issues

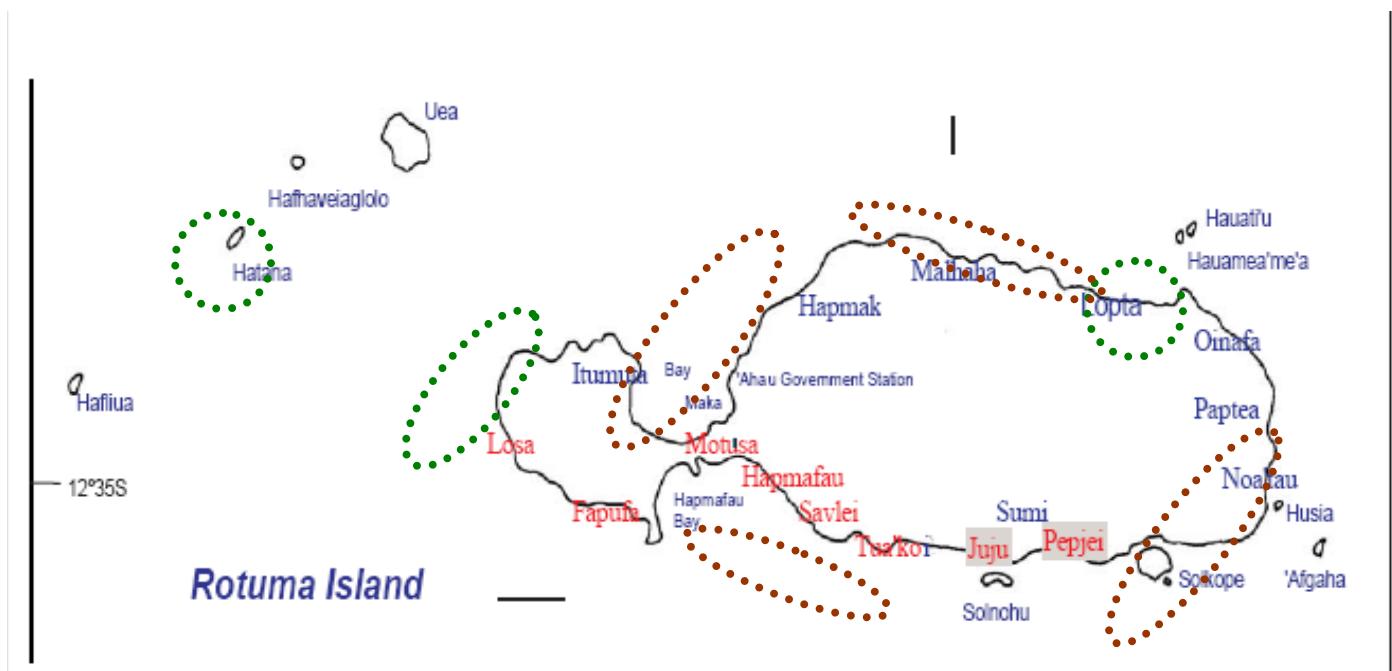
Outcome 1. Increased knowledge of marine turtle status in Fiji

Output 1.2 Survey of marine turtles in Rotuma

The turtle focused-field activities conducted by LRI included the turtle nesting beach surveys, household surveys of turtle shell-ownership and community (schools) awareness outreach. Results indicate a significant number of green turtle-population at one of the known traditional heritage sites, Hatana island; between the period of 2002 to date, turtle shell collection size range (measured by CCL) from 30-94.8cm at which hawksbill and green turtles most common; the number of turtle sightings were observed around Rotuma for which there was no above average population at one area except for Hatana island where nesting beach survey identified more than 500 crawls which was identified as 60% green turtles and 40% were those of hawksbill turtles.



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Source: N'Yeurt et al. 1996 : Bibliography of Rotuma

Figure 1. Map of Rotuma. Key : Red marked village names indicate project sites after consultation and assessment of environmental conditions. Juju, Pepjei district are coastal rehabilitation sites.

Note: Green dotted circle indicate known turtle nesting beaches. Brown circles indicate foraging areas and popular sighting of turtles.
The area marked X on the image below, Maka Bay is the only seagrass meadow found at Rotuma.

Source: Image is extracted from Google Earth.





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Outcome 2. Development of marine turtle conservation and awareness plans for Fiji.

Output 2.1 Development of the Rotuma Conservation Plan.

This second phase of addressing turtle conservation issues in Rotuma is integrated to the overall LRI Strategic Action Plan that is not separate from the overall scope of protecting natural biodiversity and raising the community awareness to mobilize resource owners to manage well their natural resources.

II. Field Update:

SCHOOLS OUTREACH

The Team visited Rotuma High School for a turtle conservation awareness program, on how marine turtles spend their lives in the ocean. In terms of response to the type of information presented to them, most interesting to the students were the types (species) of turtles found locally, the kind of food turtles eat as well as where turtles go and lay their eggs (nesting and foraging areas).

School group sessions were conducted in class groups with the lower classes exhibiting more enthusiastic participation compared to the older classes (aged 16-17 years).

The teacher utilized the turtle awareness session as part of a classroom activity whereby, students were to report on the session as their lesson on environmental education.



Photograph a. Jacob with the lower class students.



Photograph b. Rotuma High School students



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COMMUNITY SESSIONS

Community outreach and consultation indicated the following: the lack of understanding of the consequences of not abiding by the turtle ban; the lack of enforcement and unclear role of who is responsible, the police or the district officer; lack of awareness about the turtle ban (2004-December 2008) and the need/rationale behind the proposed extension of the 5-year ban of catching turtles. The latter point was echoed by majority of the community sessions who questioned the period of the turtle ban extension, policing and enforcement issues at village level whereby, turtles continue to be caught by few for some good reason or another.



Photograph c. The Background could be a possible nesting sight for turtles and the girl holding the shell of a recently caught turtle.

CHALLENGES

The erratic schedule of inter-island boating to Rotuma proved difficult to match with availability of community, however, the five years of community engagement in consultation, planning and awareness outreach on natural resources management as well as fact finding surveys, enabled better turtle issues consultation which resulted in the integration of turtle conservation issues to the overall long-term LRI strategic action plan. It was important to mainstream turtle conservation issues in Rotuma to LRI's island level strategic action plan as well as contribute to the Fiji National Turtle Conservation Strategy currently under review.

LRI's role in raising awareness is important to addressing turtle conservation issues in Rotuma, for being the agent on the island focused on environmental issues with the capacity, resources and time.



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OTHER PARTNERSHIPS

During the World Oceans Day on the 8th June coinciding with the national Fiji Environment Week, LRI joined WWF, IMR-USP, line ministries of Environment and Fisheries in the "Save the Turtle Fiji Campaign" in an organized exhibit to raise the awareness of turtle conservation issues to the public. LRI volunteers also participated in the WWF Turtle Ball preparations as well as sponsored a school prize (worth \$300FJD) during the launch of the national schools' turtle essay/poetry competition at the WWF Turtle Ball.

LRI is also represented in the Fiji National Turtle Conservation Strategy working group.



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III. Fiji National Turtle Conservation Strategy -Rotuma Case Study

The following table is adapted and revised according to circumstances for addressing turtle conservation issues in Rotuma. A tracking matrix of evaluating and monitoring for how LäjeRotuma has contributed to the overall review of the Fiji National Turtle Conservation Strategy (FNTCS) in May 2006, the progress of activities outlined reflects the various objectives under 4 main components.

COMPONENT 1: Research & Monitoring

Objective:

By 2026, all nesting sites are mapped; all sea grass beds, feeding areas are mapped; number of turtles caught as by-catch within Fiji waters is known; number of turtles found in Fiji and caught as by-catch outside Fiji is known.

Planned Result	Specific Activities	Who	When	Partners	Comments/Follow up
1.1 All major nesting beaches are identified & mapped. Publication of a national map of all nesting sites.	* Sites identified & mapped by LRI field team of volunteers and community members	LRI field team- Jacob Itautoka; Paul Wong; Sumasafu; Anthony IMR-Neema	* Jan - July 2007	Villages: Oinafa, Losa, Fapufa, Itu'muta, Malha'a, Noa'tau	(GPS locations of all beach nest/foraging areas to be conducted in the Sept. 5 follow up 2007 trip.
	* Training of community facilitators to enable/train community members how to map sites USP-IMR turtle training workshop...	LRI field team- Jacob Itautoka; Paul Wong; Sumasafu; Anthony		IMR/WWF SPP	
1.2 All major foraging sites are identified & mapped.	* Incorporate a foraging assessment component into the existing biological surveys conducted in the locality	* Department of Fisheries/SPREP forms		SPREP, WWF, IMR-USP, GCRMN, Seagrass Watch	* Incorporate not only turtle sighting during surveys but to interview for local turtle use information, into the annual coral reef monitoring of Rotuma's reefs.



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					The Rotuma Seagrass Watch which surveys annually the only seagrass meadow (at Maka Bay, Motusa) on Rotuma.
1.4 Empower communities to embrace the value of their turtles & marine resources by revitalizing & documenting Traditional Environmental Knowledge (TEK).	* Provide publications (vernacular if available) of traditional practices and turtle stories to improve knowledge and increase awareness on the value of traditional turtle practices	LRI	July 2007-June 2008		To engage a translator with an education background to translate a compiled report of local marine resource knowledge (that also include turtle usage history).
1.5 Creating & Strengthening partnerships & networks for effective collaboration.	* Establish the Fiji Sea Turtle Steering Committee (FSTSC) with working groups through voluntary basis & a revolving Chair.	LRI		IMR-USP WWF	
	Through Steering Committee, organisations synergize their efforts through regular meetings to share data collected and analysis of data and make this available to all stakeholders to incorporate				Under the RNHP Grant which LRI was given a sub-grant to carry out turtle work in Rotuma, agreement to share data as well as support for existing environmental work on the island.



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	into their natural resource management activities (turtle inclusiveness)				
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COMPONENT 2: Policy – Development, Enforcement, Monitoring.

Objective:

By 2026, the threat of over-harvest through non-compliance with applicable Fisheries / Environment regulations has been significantly reduced.

Planned Result	Specific Activities	Who	When	Partners	Comments/Follow up
2.1 Mapped nesting & foraging sites are legislated as protected areas and listed as Sites of National Significance.					
					This is a national priority, LRI will only provide Rotuma site profile for the mapping exercise.
	* Create monitoring database to store permit information.	* Dept. of Fisheries	* Dec. 2006	* NGO's	
	Create a network of focal contacts from the village level which will then monitor the exemption permits provided to village level issuee- collection of data	Police, Districts Office Ahau, Council of Rotuma			



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	can be done by a designated village contact.				
2.5 Translation of the Fiji Turtle Conservation Strategy	* Translate the strategy into Fijian, Hindi & Rotuman	LRI	July 07- Feb 08		LRI will engage an educator to translate the Fiji Turtle Conservation Strategy
	* Distribution to all main points of contact of public/ community	LRI Council of Rotuma District Office		7 Mata of the districts Youth group leaders Trained environmental educators/turtle monitors	This orientation exercise will be incorporated into the Refresher (2nd) training of environmental educators to be held in Sept 5 07.

COMPONENT 3: Awareness, Education & Communication

Objective:

By 2026, several threats to marine turtles including over-harvest, pollution and by-catch have been significantly reduced through targeted awareness raising events.

Planned Result	Specific Activities	Who	When	Partners	Comments/Follow up
3.1 School Outreach Programmes where school children are	* Class room activities designed around turtle conservation developed and implemented in selected				LRI is organizing a schools marine camp in Dec 2007 for which a turtle tagging



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seen as levers for change in reducing illegal turtle harvest.	schools on Viti Levu and Vanua Levu				exercise is explored.
	* Satellite tagging of turtles for schools to learn first hand where turtles feed, sleep, nest and go. Use the satellite pictures as basis for lessons.	LRI Fisheries	* Nov/Dec 2007	WWF Fisheries IMR-USP	LRI to submit a request for at least 2 turtle tagging exercises to be conducted in Rotuma during the December marine camp.
	Create turtle watch schools.				
3.2 Education & Awareness toolkit developed.	* Collation of existing material as basis for all stakeholder activities * Toolkit also available in Hindi, Fijian, Rotuman. * Toolkit used by partners to generate awareness within their working areas.				LRI 2007 calendar (x500) feature turtles prominently which was distributed to all the schools and for each child and his/her household.
3.3 Adopt-a-Beach Programme	* Identify nesting beaches with neighboring communities as 'adopters'	LRI		WWF Fisheries IMR-USP	LRI implements an "Adopt-a-habitat" program in partnership with the 4 primary schools on Rotuma, and Motusa District School adopted the seagrass meadow at Maka Bay near the school. Christ the King Mission School



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					adopted a beach near the school.
3.4 National events used to raise awareness	* Establish calendar of events where turtle issues can be highlighted eg: Environment Week; Arbour Week; Earth Day; Ocean Day etc.				

COMPONENT 4: Community Engagement

Objective:

By, 2026 communities (village, religious, urban, tourism etc.) have been empowered to effectively manage their activities in relation to their impacts upon turtles, their nesting beaches, feeding grounds and migratory routes.

Planned Result	Specific Activities	Who	When	Partners	Comments
4.1 <i>Traditional Resource Use</i> decisions based on biological data and current threats.	<ul style="list-style-type: none"> *Training of traditional leaders to become conservation champions. * To review current QMP for qoliqolis that already have a plan to include CRC. E.g using turtle as an indicator for MPA effectiveness; setting catch quota guideline 				LRI in its next phase (2008-2010) will be conducting community fisheries workshops whereby, local marine resource knowledge and practices will be documented; as a step towards reviving sustainable fishing practices and of cultural value to



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					resource management.
4.3 385 + R (385 qoliqoli + Rotuma) Turtle Monitors Network established.	* Revitalize Goneda'u's roles as 'Turtle Monitors' through training/workshops and exchange visits to Vanuatu (equivalent to <u>Vanua Tai'</u>	* FLMMA Executive; FSTSC		* Dept. of Fisheries; Dept of Environment; NGO's; 385 qoliqoli's; Native Lands & Fisheries Commission; Rotuma Council; Wan SmolBag; IMR	
	* Expand the suite of plays by local drama groups (e.g Navukavu Drama Grp; Cuvu Youth Drama Grp etc) to include turtle conservation through portraying explicitly the threats they currently face in Fiji and to enable their participation as widely as possible in Fiji	Community Drama Grps			A drama/theatre training with WAC is currently being planned for early 2008 for LRI island volunteers.
4.4 Communities empowered to manage turtles nesting beaches / feeding grounds.	* Conduct select community awareness workshops	LRI conducted turtle awareness community sessions at Malha'a, Oinafa, Motusa, Hapmak, Losa.	Jan-June 2007	LRI, IMR-USP	
	* Communities set up 'Warning' notices on nesting beaches / feeding grounds.	* Communities; Fish Wardens			



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	<ul style="list-style-type: none"> * Assist communities in exploring eco-tourism projects eg: in turtle-calling communities; adopting a user-fee rule for access to potential nesting beaches, foraging areas 	<ul style="list-style-type: none"> * Min. of Tourism; communities; 		<p>This eco-tourism concept is till being explored by the Rotuma elders.</p>
	<ul style="list-style-type: none"> * Provide incentives for communities to protect / manage turtles and their associated habitats (eg: through grant programs like Fisheries granting of boats to communities) 	<ul style="list-style-type: none"> * Dept. of Fisheries 		<p>This will be an ideal option for encouraging turtle conservation, contrary to LRI's efforts to mobilize resource owners to manage well their natural resources - fostering community pride and ownership.</p>
	<ul style="list-style-type: none"> * Highlight turtle conservation by communities through various forms of media 	<ul style="list-style-type: none"> * SeaWeb 		



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IV. Mainstreaming turtle conservation into LRI Strategy Action Plan.

The relevant components to be addressed under the turtle conservation issues are extracted below and illustrates how such species-specific action needed to be integrated to the overall LRI plans and actions.

Draft LRI Strategy and Action Plan

LäjeRotuma Initiative (LRI) is a community based environmental education and awareness development programme in Rotuma. It is a voluntary initiative and is part of a diverse network of the island communities, the Rotuma Council, government departments and Ministries, donor agencies, institutions and conservation non-governmental organizations.

Vision The vision of the Initiative is to maximize the future environmental and sustainable options for the island of Rotuma and its people.

Goal To strengthen natural resource management and conservation, with particular emphasis on marine life, of communities on Rotuma.

Objectives a) To raise awareness and understanding of the importance of environment conservation and provide access to information for the island community. b) To encourage the creation of sustainable livelihood options for the improvement of standards of living; c) To promote and/or maintain the health of Rotuma's marine biodiversity d) To build the capacity of communities in management and conservation of their resources e) To facilitate research activities to better understand Rotuma's biodiversity .

Programmatic Themes

To achieve these objectives, LRI has focused its activities under five thematic areas:

- a) Community Outreach
- b) Building community resilience to climate change
- c) Integrated Fisheries Management
- d) Sustainable livelihoods
- e) Research and Capacity Building



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Focus	Objectives	Expected Outcomes	Actions
Community Outreach	Promote community support for biodiversity conservation and ecologically sustainable development through improved understanding, awareness and appropriate action	1. level of awareness in communities raised 2. Community conservation strategies developed 3. Importance of traditional conservation methods and ethnobiological knowledge raised	1. Initiate a coordinated awareness, educational and training programme for communities' emphasis on the benefits of biodiversity conservation and its links with sustainable management of natural resources. 2. Encourage and assist landowning communities to document their traditional knowledge of biodiversity and its uses and develop their own local strategies. 3. Coordinate clean up campaigns for communities 4. Produce simple but comprehensive biodiversity manuals for use in the primary and secondary school system. 5. Collate, develop and promote information on the benefits of biodiversity conservation for distribution to communities and other stakeholders



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Focus	Objectives	Expected Outcomes	Actions
Integrated Fisheries Management	Minimize the loss of marine resources of importance to local communities	<ol style="list-style-type: none">1. Destructive fishing practices reduced or phased out.2. Community awareness of effects of land based activities on marine environment raised	<ol style="list-style-type: none">8. Document 'tabu' and other traditional conservation and protection measures of marine resources;9. Promote community awareness of the destructive influences on marine biodiversity of land-based activities and unsustainable harvesting practices;10. Encourage and assist communities to actively manage their marine areas through appropriate traditional conservation measures
	Promote sustainable fishing methods	<ol style="list-style-type: none">1. People reverting to traditional fishing practices	<ol style="list-style-type: none">11. Revive traditional value of canoes



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Focus	Objectives	Expected Outcomes	Actions
Research	Implement a programme of ethnobiological and traditional conservation practices enquiry.	1. Ethnobiological and traditional conservation practices documented. NB: This documentation is seen as one solution to curb biopiracy	1. Review current published ethnobiological knowledge and undertake a co-ordinated nationwide programme of collection of oral knowledge; 2. In a collaborative project with selected communities research traditional conservation practices with a view to clarifying their applicability and/or evolutionary potential in the modern context;
	Clarify the causes of and the rehabilitation needs of	1. 80% of Rotuma's degraded ecosystems are rehabilitated	3. Undertake a survey of current status of biological resources, specifically those of
	community-owned degraded biological resources.		subsistence and economic importance and those that are threatened or in need of some form of protection. 4. Encourage and support initiatives to restore degraded ecosystems, in particular, those that are community-based.



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	Achieve a detailed knowledge of the occurrence and status over time of Rotuma's biodiversity resources, in particular the threatened, endemic forms	4. Inventory of Rotuma's resources are completed and its status monitored	5. Undertake a comprehensive marine biodiversity resource inventory; 6. Draw up an appropriate framework and mechanism for monitoring the status of rare and endangered species;
	Establish mechanisms which encourage and facilitate biodiversity research and enable Rotuma to access relevant international findings and developments.	5. A process for providing consent to research proposals developed 6. Researchers respect and conform to local protocol	7. Identify priority research requirements for biodiversity management and opportunities for developing national expertise; 8. Adopt a National Protocol drawing on the current USP Guidelines for Biodiversity Research and Bioprospecting regarding conduct and publication of research, and the export, buying and



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			<p>selling of biodiversity materials and findings; 9. Establish a central professionally administered facility to house and manage the various existing biodiversity collections and to actively encourage the collection and deposition of new materials;</p>
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V. Recommendations

It is recognized that traditional local marine resource use knowledge and practices is fast disappearing with the few remaining community elders. An important activity would be to document marine resource uses and knowledge for both sustaining best practices in subsistence fisheries as well as part of a wider collection of natural resource use knowledge. However, a crucial issue to be considered is the aspect of intellectual property rights of the people of Rotuma for which LRI is still exploring the potential and risk of reporting on resource use knowledge with permission from 'resource owners and custodians of that body of knowledge'.

Other recommended actions /activities proposed to expand on existing awareness effort include the following:

- From the highlighted nesting beaches, foraging and feeding areas, it was recorded from community interviews that when there is turtle nesting (such as the Oinafa example), near a village, individuals were collecting hatchlings for rearing. Survival rate of these reared hatchlings were known to be very low. Therefore, it is recommended that a list of nesting beaches on Rotuma be adopted as community-watch beach areas with 'beach-best-practice training provided to select community turtle monitors on how to handle and survey turtles particularly during nesting period.
- Considering the geographic isolation of Rotuma and the high recorded number of green turtles (from crawling evidence at Hatana Island) in the area, it would be useful to tag a few turtles from Rotuma to monitor the path route of turtles



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journeying from Rotuma. This would be an opportunity to track turtle movement from Rotuma, thus enhancing the knowledge of turtles' movement variation.

- The documentation of local marine resource use knowledge.
- The translation of all documents such as the LRI turtle survey reports and the Fiji National Turtle Conservation Strategy, to be used during further consultation with the Council of Rotuma and District Office for endorsement and compliance effort for the conservation issues of turtles as well as general management issues of natural resources.

VI. References Cited

1. LRI Strategic Action Plan (Draft 2007).
 2. LRI Rotuma Turtle Conservation Report I.
 3. LRI Annual Rotuma Coral Reef Survey Report 2006.
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