What is the Coral Coast ICM Project?
The Coral Coast ICM (Integrated Coastal Management) Project has been ongoing now for 2 years and aims to work with all stakeholders to make appropriate decisions for the protection and development of coastal areas and resources of the Coral Coast area. Tikinas involved include Korolevu-I-Wai, Conua, Komave and Sigatoka. The Institute of Applied Sciences at USP is working closely with the Nadroga Provincial Office and the Coral Coast ICM Committee to address the critical coastal issues on the Coral Coast. The ICM Committee consists of the following groups: Nadroga/Navosa Provincial Office, IAS, OISCA, Coral Cay, Warwick Hotel, Kula Ecopark, Sigatoka Health Office, Sigatoka Agriculture Office, Sigatoka Fisheries Office, and Tikina Reps from Sigatoka, Conua, Korolevu-i-Wai and Komave. The committee meets regularly to discuss ICM activities and important coastal issues such as pollution and coastal development. Meetings this year were conducted in February at the Provincial Office, April at the Sigatoka Health Office, June in Vatu o Lalai village and October in Sigatoka village.

Locally Managed Marine Area (LMMA) Management Plan for Komave Tikina
A one-day workshop was held on 25th February to develop a community marine management plan for the Tikina of Komave. Since then biological monitoring has been carried out and tabu areas set up in Namatakula, Navola and Komave.

Peace Corps Comes to Coral Coast
Peace Corps volunteers have been posted to sites along the Coral Coast to work with local organizations and to take part in ICM activities along the Coral Coast. Kimberly Coleman has been posted to the Sigatoka Agricultural Office, Katrina Herbert to the Sigatoka Hospital, Mike MacMillan to the Nadroga/Navosa Provincial Office, and Alyson Venti to Komave Village.

How bad is the water and coastal erosion?
Postgraduate students at USP are currently collecting information on the amount of beach erosion at the villages of Tagaqe and Votua. They are also gathering information on water quality, including bacteria levels in rivers and the ocean along the Coral Coast. This information will help the Tikinas Councils, Provincial Office and Local Authority for future planning for their coastal areas.

OISCA Continues Mangrove and Coral Restoration Activities
OISCA is continuing their assistance to villages by providing mangrove seedlings for planting e.g. for Votua and Tagaqe. They have also planted corals on racks in 10 villages along the Coral Coast including Namaqumaqua and Navutulevu in Serua, and Namatakula, Navola, Komave, Votua, Tagaqe, Namada, Malevu, and Tore to assist with coral reef restoration.
**Getting Women Involved in LMMA and ICM**

A workshop was organised in July in Namatakula to provide women from the villages of Namatakula/Vucilevu, Navola, Komave, Biausevu, Votua, Tagae, Vatuolalai, Namada, Malevu, and Vatukarasa with information on the LMMA and ICM projects and to discuss with them which activities they could be involved in. The women decided that waste management in the village is an activity that they could be involved in and many have started activities in their villages. Examples of these activities include provision of bins for the pickup of rubbish, and plans to make cloth bags to use for shopping instead of plastic bags.

**Villagers Improve Waste Management**

In August, another workshop was organised for the Tikinas of Komave, Korolevu-i-Wai, Conua, and Sigatoka on waste management. The workshop was run by IAS, Nadroga/Navosa Provincial Office and Sigatoka Health Office. It covered solid waste (rubbish) and liquid waste (sewage and piggery waste) and came up with activities to improve the management of waste in each village. Later in September, some participants went on a fieldtrip to Vunisinu village in Rewa and the Fiji School of Medicine to see a composting toilet, composting piles and proper septic tanks.

*Figure 7. A composting pile for organic waste*

**Nadroga Provincial Office leads Awareness on Environmentally Friendly Piggeries**

Erami and Maikeli from the Provincial Office have been surveying the piggeries in the villages along the Coral Coast and providing awareness on the best way to manage piggeries so that they do not pollute the environment. It is recommended that piggeries are placed at least 30m from a creek or the ocean. Larger commercial piggeries with proper waste management will be constructed soon in Namada and other villages.

*Figures 8, 9, & 10. Some of the piggeries and pigs along the Coral Coast*

**Other News in Brief**

A SOPAC workshop was held at the Nadroga/Navosa Provincial Office in June to determine information needs of communities in the province. As part of an EU project, research will be carried out to try and meet the information needs.

*SPC is currently funding a piggery project in Votua on proper management of piggery waste. The piggery is nearly complete and waste is to be discharged into a fish pond before it is discharged to the creek*

For any information related to development in the coastal area or to report incidents of pollution you can contact Luisa at the Sigatoka local authority on Phone: 6500341 or Fax 6500444.
Komave Takes the Lead in Composting Toilets

Following the recommendation that composting toilets are a good option to reduce pollution of coastal waters, Alisi, the PCV at Komave, together with Maikeli, constructed a composting toilet at Komave. The toilet does not use water and requires leaves or grass to be put in it after it is used. All the wastewater goes into a wetland. If this works well it could be used in other villages as well.

Head of Korolevu-i-Wai Environment Committee Visits U.S for Coastal Management Training

In June, Ratu Timoci Batirerega, the head of the Environment committee of Korolevu-i-Wai, went to the University of Rhode Island in the U.S for a month-long training course in coastal management. He went with representatives from Fijian Affairs Board and Lands Department and is using the knowledge to improve management of the coastal area of his Tikina.

Village-based Tourism to Take-off

Eight villages will soon be involved in developing village-based ecotours as part of an NZ Aid funded project to increase tourism earning to resource owners. The first part of the study has been completed where villages and hotels were visited to determine what type of tours would be successful. The villages involved are Namatakula, Vucilevu, Biausevu, Votua, Vatuolalai, Namada, Malevu, and Korotogo. The contact person is Isoa Koroivaqa at USP.

GIS Maps For All!

Maps showing land tenure, habitats, coral reefs, tabu areas, and forest cover have been developed for the Coral Coast and can be printed out by IAS for a Tikina or organisation for use in planning and decision-making.

Coral Cay Conservation Condu

Coral Cay, a conservation group from the U.K which does scienti Coral Coast and have done 100 transects from Namatakula to T surveys up to Sigatoka. Information they collect will tell us about amount of algae, abundance of different types of fish and inverteb Rowlands is the project person for Coral Cay and is based at Sigatoka.

Figure 13. Map showing percent live coral cover

Legend: % Live Coral Cover
Red - very low (0.1-2%)
Orange - low (2.1-6%)
Yellow - medium (6.1-8%)
Green - high (10-16%)
Wastewater Experts Visit Villages and Hotels
In May, two experts, Chris Tanner from NZ and Art Gold from the US, visited villages and hotels along the Coral Coast to investigate what was causing the high level of nutrients in coastal waters which is causing the algae to grow and coral reef to die. They found that most of the nutrients is coming from village toilets and piggeries and some from hotel wastewater. They recommended the use of proper septic tanks with gravel or wetlands, composting toilets in villages, for piggeries to be moved away from creeks and the ocean, and the trial of composting piggeries that use sawdust. These will be trialed soon in a few villages.

Walt Smith Intl. Funds Monitoring of Live Rock
Monitoring of the i qoliqoli areas being harvested for live rock is being carried out by IAS in Namada, Vatukarasa and Malevu. This is part of the CAMP (Collection Area Management Plans) for these areas and will give us information to monitor for any impacts and will ensure that the harvest is not detrimental to the reef.

Hideaway Leads Way in Establishment of Coral Farm and Reef Walk
The Hideaway Resort in 2004 continued its coral walk and coral farm project for tourists. As part of the project, tourists pay a small amount of money to plant a coral in the farm. In addition to assisting in restoring the reef, some money goes back to Korolevu-i-Wai Tikina for environment activities. A relationship is thus developed between the hotel and nearby village.

Getting the Next Generation Involved in Marine Conservation
A volunteer in Tagaqe, Katrina has got the young kids of Tagaqe interested in their environment and have done activities including beach clean ups, tree planting and other environmental activities. Alisi, the Peace Corps volunteer at Komave is also undertaking marine awareness activities with kids of the village.

TPAF and Nadroga Provincial Office conduct hospitality training for villagers
Hospitality training for the villagers of Namada and Vatukarasa has been conducted by Training and Productivity Authority of Fiji twice this year in January and June. The training will allow the villagers to have skills so that they may be able to get jobs in the nearby hotels. Certificates were also presented on completion of the course.

Planned Future Activities
• Construction of demonstration site of a proper septik tank with a wetland at a village and a small wastewater treatment plant at Crusoes Retreat
• National ICM Workshop in Suva on December 8 & 9 2004, which will be attended by participants from the Coral Coast
• Opening of the Information Centre at Tagaqe village
• Expansion of ICM project in 2005 to include the Tikinas of Malomalo and Serua towards Suva

Thank you to all the stakeholders and communities on the Coral Coast for their involvement in the ICM initiative in 2004 and for working together to better manage the coastal resources. Happy New Year.
Quiz!
1. Do fish drink?
2. How many arms does an octopus have?
3. True or False: Fish sleep.
4. Sharks lack which of the following: A. Fins    B. Bones   C. Gills

See Answers at bottom

Fun Facts!
Did you know?

Squids can move up to 20 miles and hour and they can also fly through the air for distances of up to 200 feet!

The teeth of a shark are actually modified scales!

Help Alifereti Collect All the Life Savers by following the Lines Before He Sails Out to Sea!

Quiz Answers:
1. Marine fish do, but fresh water fish get water through osmosis.
2. 8
3. True
4. Bones