Fiji Ecosystem Based Management (EBM) = Healthy People, Processes and Systems

Vatu-i-Ra Community Bulletin

Vol. 25. November 2012

Ni sa bula vinaka! Welcome to the twenty-fourth edition of the VATU-I-RA COMMUNITY BULLETIN. The bulletin brings together news and results from ongoing work by the Wildlife Conservation Society within the Vatu-i-Ra Seascape.

Sharing Weaving Skills

Edith Whippy is a skilled lady. She is capable of weaving all kinds of mats from *kuta*, but she loves most of all to make round *kuta* mats. Usually she collects *kuta* from just down the road from where she lives. *Kuta* harvesting is a job for all the family – the Whippys set off at 8am to make the trip worthwhile, and spend the day wading in knee-deep water to cut the plants. At times Edith has to go to Kasavu village to collect *kuta*, a long journey past Savusavu town, and she is charged F$400 for the return trip which she shares with the other women. The longer you keep dried *kuta* the better it is, because it softens and becomes easier to use – often it is kept under the mattress to keep the brittle stems soft. *Kuta* weaving is done only on rainy days or in cooler weather since it tends to break if woven during hot, sunny periods.

Above: Mrs Edith Whippy and her beautiful round kuta mat.

Edith's grandmother taught her the skills of weaving round kuta mats and she has been doing this for over 30 years. Her mats are usually made to order from friends and relatives, providing her main source of income.

Round *kuta* mats are generally charged by hand-span; at around $10 for every hand-span the mats can provide a good alternative livelihood for women. At the same time *kuta* weaving benefits the environment and local communities: by giving a solid reason to protect the important wetland habitats in which *kuta* thrives, essential ecosystem services such as clean water will continue to be enjoyed by the nearby villages.

"I conducted training in Natokalau and Dawara villages last year . I could see the passion in the ladies to learn the weaving skills quickly, but most of them who came had their small children with them, which made it hard for them to learn as a lot of time was spent attending to the little ones", said Edith. She is willing to help other women by sharing her special skills and experience from 30 years of weaving round *kuta* mats, making sure this tradition does not slip away. This will be made possible as part of a WCS Fiji project in Bua and Cakaudrove provinces, which will establish a cooperative selling round *kuta* mats, therefore giving communities a reason to maintain and manage their precious *kuta* wetland habitats. WCS Fiji have arranged *kuta* weaving workshops to share skills and establish cooperatives, to be held in November in Kubulau, Wailevu and Lekutu districts. We are delighted that Edith will be present to lead the training.

Key EBM Messages:

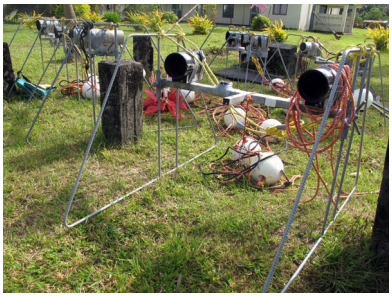
Preservation of functional integrity of Fiji's ecoscapes through community based management.

- *Successful 'ridge-to-reef' management depends on broad stakeholder input*
- *Inland and coastal communities need to manage their actions and resources together*
- *'Ridge-to-reef' management protects habitat for all stages of life*
- *The success of protected areas for conservation and livelihoods relies on combining bottom-up community engagement with top-down planning*
- *Public health and livelihoods depend on environmental health*
- *Healthy ecosystems are the best defense against climate change impacts to livelihoods*

Inside this issue:

HARVESTING KIOBO'S TABU AREA

WCS Fiji have just returned from Kubulau where we were evaluating how much you can harvest from an MPA and still have sustainable fisheries for the future. We recognise that MPAs in Fiji work best where cultural practice is strong – and if cultural practice demands occasionally opening an MPA, then we need to offer some better guidelines about how much can be harvested besides just "don't take all the biggest fish."



Above: Jordan's underwater survey methods needed some complex equipment!

In the field with us was Jordan Goetze from University of Western Australia, who is looking at the ecological impacts of harvesting MPAs as part of his research. Jordan tested out a range of survey methods to see which ones best document the impact of a week-long harvest from the Kiobo MPA. WCS staff collected our standard underwater visual census data, which he will compare with before and after harvest surveys of the reefs using his different survey methods. At the same time, WCS staff and a Masters student from the University of the South Pacific conducted household interviews to find out what the local people were expecting from the harvest in terms of food and monetary benefits—households were resurveyed after the event to see how these expectations were met.

Unfortunately, it looks as though the local reports of poachers encroaching on inshore fishing grounds may be true. We certainly did not see abundant fish life in the MPA, and invertebrates were few and far between. Yet, hopefully the men and women of Kiobo village were still be able to land a sizeable catch, which can provide them some income while allowing us to gather a piece of the puzzle about harvesting MPAs.

SURVEYING THE SEA CUCUMBERS OF KUBULAU

Recently WCS Fiji's Sirilo Dulunaqio was part of a team of researchers that went to Kubulau to receive sea cucumber survey training, conducted by Mr Kalo of the Secretariat of the Pacific Community. The team included nine Fisheries officers from all four corners of Fiji (Western, Central, Northern and Eastern Divisions), as well as three staff from the NGO Partners in Community Development Fund.

The team surveyed 57 locations with different methods, and each method was carried out both inside community-managed marine protected areas (tabu areas) and in open access areas. The surveys covered the marine protected areas of Nakali, Namuri, Nasue, Cakau Vusoni and Dromoninuku. Open access areas surveyed were the reefs in between Namuri and Nasue marine protected areas, and in front of Waisa village down to Kiobo village, and from Waisa north to Nadivakarua Bay.

Of the 24 commercially harvested species of sea cucumber present in Fiji, 18 were found in Kubulau during this survey. Previous surveys conducted by WCS Fiji have recorded 14 of these sea cucumber species, so we were happy to add four new species for Kubulau to the records.

For the high value species, we recorded only one White teatfish and few Stonefish during the day. However there were more high value species recorded in Navatu when we visited the buyer. These high value species were caught during the night. Long-handled spears were used to catch bigger ones in the deep, as clearly explained by the local fishermen.

Raw data were presented back to the Turaga ni Yavusas during the talanoa session, as requested by the Chairman of the Kubulau Resource Management Committee. These data were also made available to partner organisations as part of a national consultation process on Fiji's National Sea Cucumber Fishery, together with community recommendations about sea cucumber harvesting. The export value of sea cucumbers from Fiji is currently estimated at F$22 million annually.

Above: Curryfish (*Stichopus variegatus*) in its shallow water habitat.

SURVEYING REEF RESILIENCE IN BUA PROVINCE

In November the WCS Fiji dive team will be busy surveying the reefs of the districts around the western part of Vanua Levu. The districts of Vuya, Dama, Bua, Navakasiga and Lekutu are new to the Ecosystem-based Management approach, and we are very excited about starting to work with communities here.

The surveys will start in November and take 4 weeks to complete, with the team being kindly hosted in Bua village (Bua district), on Yadua Taba island, Yagaqa island, and in Nabouwalu. Divers and snorkelers will visit the reefs to record different aspects which make coral reefs resilient to climate change, for example recording the biomass (numbers and size) of herbivorous fish, the types of corals found, and the physical conditions at the site—whether the reef slope is facing the sun or shaded, the underwater visibility, and whether there are strong currents and upwelling areas which mix the water well.

The results of the surveys will be used to identify particular reefs which might be more resilient to future climate change, either because they can resist the change or because they can recover rapidly (or both). Then these findings will be taken back to communities to guide the selection of community-managed marine areas to be added to the network of tabu areas which is now already stretching from Wailevu East all the way westwards to Solevu district.

Left: WCS collecting reef resilience information in Solevu.

SAVING GROUPER SPAWNING AGGREGATIONS

Onlookers at Suva's Hibiscus Festival in August received a surprise performance: a flash mob of more than 120 people danced to the tune, Stayin' Alive by the Bee Gees. The dance, and the apt song, signified the launch of the Fiji Spawning Aggregations Campaign on the theme of *More Eggs, More Fish*.

Led by a diverse group of partners—from government agencies and non-governmental organizations to private sector companies and communities—the campaign aims to decrease fishing pressure on key grouper species from July through October, which is the time of year grouper reproduce in Fiji—the grouper spawning season. The ultimate goal of the campaign is to ensure that the fishery can continue to support communities and commerce in Fiji for the long-term.

The impetus behind the dance was to share a conservation message in a non-traditional format. "There are so many messages given to the public on a daily basis," said Sanivalati Navuku, manager of the SeaWeb Fiji program. "Instead of sharing another gloomy message that warned about our ocean's future, we wanted to reach out in a fun, engaging way that encourages others to join us in reaching our goal. We are people of the islands, made of music and dance, so this was a perfect way to kick off this campaign." The flash mob was a follow-up to the official launching of the campaign the day before. Speaking at the launch, Fisheries Permanent Secretary Inoke Wainiqolo said, "This is the time when most of our fishermen go and catch them [grouper] and when you catch them at this time you do not allow them to spawn and improve their population".
By decreasing fishing pressure on key grouper species during the peak spawning season, and thereby increase the health of the fisheries, the campaign will improve the ability of communities to meet their dietary and income needs.

A suite of activities is planned for the coming months, from raising awareness with decision-makers and resource-owners about the importance of spawning aggregation sites, to partnering with the business sector to pave the way towards a sustainable seafood market in Fiji.

Above left: The flash mob grooving for groupers. Above: Black saddle grouper, *Plectropomus laevis*, a valuable delicacy.

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Ongoing and upcoming events

- **November 5-12**: CEPF consultations
- **November 19-24**: Kuta weaving workshops in Lekutu, Kubulau & Wailevu
- **November 26-28**: Bua Provincial Learning meeting & first Yaubula Management Support Team (YMST) meeting (in Makolei)
- **November 19-December 16**: Reef resilience surveys in Vuya, Dama, Bua, Navakasiga & Lekutu
- **January**: CEPF re-visits

Wishing you a very Merry Christmas and Happy New Year 2013 from everyone here at WCS Fiji!

Plunging into Fiji's rivers

Stretching between Mt Navotuvotu in the west, past Mt Kasi and towards Mt Sorolevu are large tracts of native forest. Beneath these canopies run crystal clear rivers and streams with abundant fish and invertebrate life. WCS Fiji's Kini Koto led a small team to explore previously un-surveyed rivers and record the biodiversity found there. The team of 2 Fisheries Officers, aquatic ecology consultant Aaron Jenkins and Kini carried out their surveys in July—August this year.

Kind hospitality was provided by Nakawaga, Navakasali, Daria and Driti villages. In total nine sites were visited, some inside freshwater tabu areas and some in rivers open to fishing. These surveys found the state of upper catchments to be very variable between sites. Often gardening, livestock and forestry have already impacted on the fauna within these upper catchments.

The Dawacumu and upper Dama rivers possess the most unique biodiversity and intact fish populations, and the forests are in the best condition of the sites sampled. There is a clear need to do some awareness-raising on the impact of chemical fishing and herbicide use for clearing undergrowth prior to planting of timber trees. Both of these practices are having a severe impact on waterways in Fiji and even in some very isolated and remote upper watershed areas. These results will be presented back to communities in the coming months, as part of a project to help communities identify riparian buffer zones and areas of native forest for protection.

Left: The Upper Dama river was a haven for fish, including some rare species found only in Fiji. Above: This tiny goby is very sensitive—it was found in high numbers only in Upper Dama and Dawacumu, which is a good sign for the health of these sites and the river corridors below.

Please send your questions and letters to the Vatu-i-Ra Community Bulletin Editorial Team, using the contact details above.

Taqomaki ni noda veikabula

WILDLIFE CONSERVATION SOCIETY

The Wildlife Conservation Society (WCS) is a U.S. based international NGO, with conservation programs all around the world, including Fiji. Over the past century, the WCS has worked to establish more than 130 parks and protected areas on land and at sea as well as working on threatened species. WCS works to save wildlife and wild places by understanding and resolving the critical problems that threaten key species and large, wild ecosystems around the world.