

# Fishing Line



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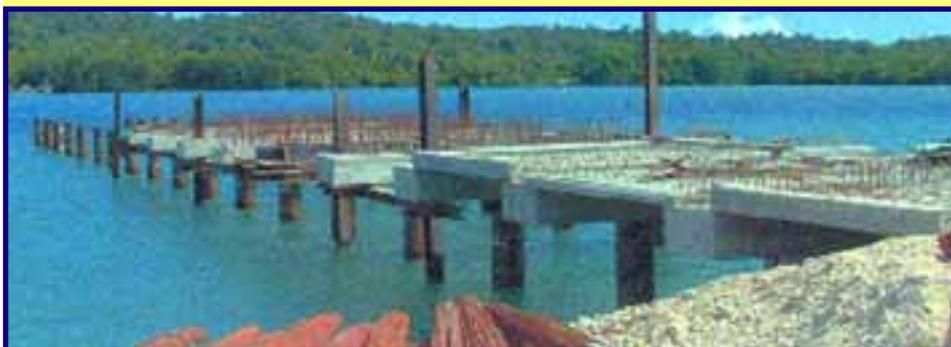
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## Successful Fisheries Development Project Nears Completion



### Latest Development on the Manus Fisheries Wharf

The Manus Fishing Wharf is slowly getting into shape as can be seen from the above photo with completion now expected in June.

The PNG Fisheries Development Project (FDP) funded under ADB Loan 1656-PNG commenced in July 1999 and runs until June 30th 2003.

The main project components include the strengthening and reorganization of the National Fisheries Authority, and the construction of dedicated fishing wharves at Kavieng and Manus (Lombrum). The project has helped NFA change from an overstuffed inefficient bureaucracy to a small, focused organization, which will generate over K40 million in revenues for the government this year.

The introduction of systematic, transparent fishery management and administration procedures to NFA has also contributed to increased confidence and investment in the fishing industry, and a consequent growth in fishery landings, exports and jobs. Further

export-oriented growth will occur when the two new wharves become operational later this year.

The development of commercial fishing operations at the wharves will also result in market opportunities for small-scale fishers and processors in the areas.

Technical assistance services to the project are being contracted by NFA from the fisheries consultancy firm Gillett, Preston & Associates Inc. A meeting of the Project Steering Committee in February 2003 recommended that the firm's consultancy contract be extended by three months up to June 30, which will coincide with the end of the FDP. This will allow the firm to continue supporting NFA in a number of key areas, including finalizing management arrangements for the two wharves, further development of NFA's Licensing database, and staff succession planning for critical operational areas within the Authority.

## Fisheries in Focus at National Development Forum

NFA was an invited participant in the National Development Forum on March 28th in Port Moresby, to present a paper entitled "*Fisheries: Opportunities and problems for export-led growth*".

The Forum, with the theme "*Removing obstacles for successful export-driven recovery strategy*", covered issues in many key sectors, including economic management, agricultural development, obstacles in growth sectors, law, order and good governance, and maintenance of infrastructure. It was well attended by high level Government and private sector representatives.

The NFA paper, presented by Dr. Antony Lewis, was well received, drawing attention to the great potential for onshore tuna processing in particular to generate up to one billion Kina of exports in the medium term, on a sustainable basis. Various other opportunities for export-led growth in the sector were identified, as were problems and constraints, with creating a conducive business climate for investors and good governance essential. The sector was likened to a cinderella industry waiting to be awakened but with no magic wand and progress to date hard-won and fragile.

## From the Managing Director's Desk

After nearly four years since its inception in July 1999, the ADB-funded Fisheries Development Project concluded on March 31st, although it is likely to be extended for another three months, primarily to allow completion of delayed infrastructure projects. The main task of the FDP was the establishment and institutional strengthening of the NFA as an efficient effective non-commercial statutory authority, to manage our fisheries for sustainable benefit. The time now seems right, as the FDP winds down, to compile the report card on the National Fisheries Authority.

The relatively small staff of 70, just over one third the size of the previous Department of Fisheries and Marine Resources, have, in large measure, made the successful transition from Government Department to streamlined statutory body. They visibly take pride in their work and their organization. A business-like approach to NFA's core functions is maintained by business units delivering these functions. Service standards to clients are maintained at a high level, and the work of the authority in areas, such as licensing, enforcement and surveillance, audit and certification, project evaluation and access negotiations is widely regarded as efficient and transparent; technical skills of the staff in their areas of competence are solid and are continually being upgraded, often through their own efforts. Governance of NFA has been provided by a committed and effective Board working alongside the Managing Director, and a sound Fisheries Management Act and associated Regulations provide a good legislative basis for the functions and powers of the Authority. The relatively small operational budget is well managed and disbursed, and substantial remittances regularly made to Government. Consultation with a range of stakeholders is maintained on a regular basis, through advisory committees and direct contact. In a short time, the Authority has become recognized nationally and increasingly in the region as a possible model for a responsive fishery regulatory and management body.

These achievements are beginning to make an impact on the sector, along an under-performing one in the PNG economy. Direct sectoral revenue,

in the form of access and other fees, continues to increase each year, and is remitted, for the most part, to the State, for the people of PNG, in the form of dividends. Domesticated export-oriented fisheries such as tuna longline, prawn and lobster are growing or at least sustainable, and most fisheries of wider national interest are sustainably managed under well-constructed management plans. Long dormant coastal fisheries are beginning to benefit from the provision of necessary infrastructural and marketing support as well-designed large scale development projects begin to kick in. Support is also being provided to Provincial authorities to enable them to play a meaningful role in this development. The onshore processing of tuna is booming and promises to develop into a major contributor to national export earnings.

The report card would thus appear to be quite acceptable, maybe even an "A", but there may be threats to this otherwise healthy situation. As NFA is increasingly seen as a source of potentially available funds, signs are already there that this is attracting unwanted attention as a funding source less subject to the usual strictures. As the sector expands, demands on NFA are growing and there are signs that it may be undermanned in some areas. The loss of just a few key people could seriously undermine the progress so far. The Authority thus far has been relatively free of political interference, and has generally benefited from constructive policy guidance, but this can change rapidly as economic imperatives arise. Good governance within the Authority itself needs to be sustained - three successive Managing Directors have brought different but complementary skills to this transitional phase, working closely with NFA staff. These efforts now need to be consolidated, and the strong commitment of the staff nurtured as the Authority continues to evolve and new challenges addressed.

In short, whilst the achievements in a short time have been impressive, NFA remains fragile. It may take another two years at least before the graduation report card can be written and NFA is secure as a stand-alone.

## New Style Tuna Fishing on Trial in PNG

Trials involving a new style of tuna fishing, well established in the Philippines for many years, commenced in PNG waters in December last year. The method involves handline fishing for tunas from narrow outrigger vessels called pumpboats (after the pumping noise of the diesel engine) or bancas usually around fish aggregating devices or payaos. This method of fishing, with its lower initial vessel cost and operating cost may offer better opportunities for Papua New Guineans.

Initial results of the trial fishing have been promising, with the two vessels (Jherwen and Markdel, operated by local company Popiyacop) operating around FADs in the southern Bismarck Sea and catching several tonnes of fish per weekly trip. The crew of ten or more use baited handlines weighted with stones to fish at the required depth, usually down to 100-200 metres. The fish, mostly medium-sized yellowfin and bigeye, but also some billfish and other species, are wrestled to the surface, and stored after initial handling in ice holds onboard. The fishing is not without its excitement and risks - one of the vessels was recently holed by a very large yellowfin tuna and engine damage sustained as water rushed into the engine room.

The catch was initially destined for air freight export to high value sashimi markets but the quality and size of the fish has not always met the required standard. The vessels also require large quantities of

ice, not readily available in Lae where the fish have been unloaded so far, and will continue to be obtained from Madang until the planned Frabelle (PNG) iceplant and cold storage opens in Lae.

There is growing interest in this type of fishing, especially as new developments with frozen smoked tuna processing may provide a ready well-priced local market for the catch. No more licences will however be issued until the outcomes of the current trials have been fully evaluated and guidelines established for the development of the fishery.



A Fair Well purse seiner berths for the first time at Fairfax Harbour, Port Moresby. Insert: Fisheries Officer, D. Karis checks equipment.

## Staff Profile



Name: Rainol Gibson  
Age: 44  
Marital Status: Married with seven children  
Qualification: Science Degree (Fisheries Technology) UNITECH  
Current Position: Property Manager

Mr Gibson hails from Avatip village, East Sepik Province. He graduated from the University of Technology in Lae with a Science Degree in Fisheries Technology in 1981. He has been employed with the Fisheries Division of the Department of Primary Industry since that time up to now.

He had worked in several provinces in the country with Fisheries. During the mid 1980s, he undertook further studies in New Zealand, Japan and Fiji. He acquired a Diploma in Fishing Gear Technology in Japan and a Diploma in Biodiversity at the University of South Pacific, Fiji.

Being the Property Manager, he is responsible for the general management maintenance, and development of existing NFA properties and assets located in Port Moresby and throughout the country.

He also liaises and maintains daily consultation with the Property Management Agency of Deloitte's Tower, which accommodates the current National Fisheries Authority.

## Kavieng Wharf Opens for Business

The Kavieng fisheries wharf and jetty were officially opened by the Minister for Fisheries, Hon. Andrew Baing on 21 February 2003.

The facilities were funded under the Asian Development Bank - Fisheries Development Project. The wharf and the jetty are expected to boost both commercial and small-scale fishing in New Ireland Province.

Meanwhile, a seafood processing plant is also under construction near the wharf site.

## New Prawn Research Scientist Joins NFA



The commencement of another Australian International Agricultural Research (ACIAR) project with NFA has led to another worker joining the work force. Ms Luanah Koren, a science graduate (Fisheries major), from Manus Island has joined the Fisheries Management Group. Miss Koren will serve as the prawn project scientist. The project looks at the biology and status of the prawn stock and trawl fishery in the Gulf of Papua, economic aspects of the fishery and its future.

The Gulf of Papua is one of the most valuable fisheries in PNG, with a total catch of about 1,000 metric tonnes (all species) and a value of K20 million (AUS 10 million). Concerns on its sustainability have raised the need for research to determine the status of the prawn stocks and fishery in the Gulf of Papua and assess appropriate management actions to help sustain and manage the fishery. The project will be carried out in collaboration with CSIRO Marine Research, the Tasmanian Aquaculture & Fisheries Institute and NFA.

# A National Management Plan for Fish Aggregating Devices in Papua New Guinea

The National Fisheries Authority has developed a National Management Plan for the setting up and use of anchored Fish Aggregating Devices (FADs) in the Papua New Guinea Purse-seine Tuna Fishery, which has recently been approved by the Board and is being implemented.

## Background

FADs have been used since the beginning of the purse-seine fishing in Papua New Guinea and are now used mainly by Philippine fishing vessels.

Fish Aggregating Devices are floating objects deployed on fishing grounds to attract schools of tuna and other fish. How they actually attract tuna, why and how long tunas stay associated with them still remains something of a mystery. The FADs vary in shape and size, and can be either anchored or drifting. Typically they can be bamboo rafts, strings of fishing floats or metal cylinders, all with appendages (branches, ropes, or disused netting) suspended beneath to provide shelter for small fish. In some cases, fishermen have tied together floating natural logs and bamboos to act as FADs.

Anchored FADs are set in position by use of an anchor and a mooring line, whereas drifting FADs are deployed without mooring lines. The number of fish gathering beneath are monitored by the fishing vessel, either visually or with sounders and sonar. The FADs can also be fitted with radio beacons, call-up buoys and sensors, which relay information on the buildup of fish underneath the device.

FADs known to be holding fish are then set on by purse-seine vessels at night or early morning, depending on the size and state of the aggregations and the fish. The large purse seine net encircles the whole school of fish then closes beneath it.

## Some Problems With the Use of FADs

Anchored FADs that have broken away may have their mooring ropes tangled up with longline gear, which discourages longline operators from fishing in areas where large numbers of FADs are being used, which may result in no fishing in that area. FADs may also be a navigational hazard if placed in sea lanes where vessel movements are frequent. Most importantly, FADs can attract smaller juvenile tunas in large numbers, and their large scale capture, especially bigeye and yellowfin tuna which are very valuable as adult longline-caught tuna, may threaten sustainability of the stocks.

## Licensing & Limit on Use of FADs

Only companies whose purse-seine vessels and support vessels are licensed to fish under the Fisheries Management Act 1998 may deploy



and use anchored FADs. Drifting FADs are not included at present in the Plan.

The number of anchored FADs allowed to be deployed in the Papua New Guinea DFZ for the commercial tuna fishery shall now be not more than 1,000. NFA may allow individual fishing companies to set up 30 FADs per licensed purse-seine vessel and up to 40 FADs per vessel for companies processing at least 75% of their FAD associated catch onshore in PNG. Companies must report regularly on the location of FADs which must meet some minimum design standards and be clearly marked and numbered. All

FAD deployments need to be monitored by a fisheries observer. The Plan also limits the number of vessels which work in support of FAD fishing vessels (light boats, ranger boats) to three per purse seine vessel.

## Who Owns the Fish Attracted by the FADs?

The Plan makes clear that there is no exclusive right to fish attracted by FADs by companies or vessels which deploy them, nor shall exclusive areas be designated. Where disputes arise, the Plan proposes mechanisms for the settlement of such disputes.

## Restrictions on Use of FADs

All FADs for purse-seine fishing should not be set within 12 miles from any land or island, and excluding the Torres Strait Protected Zone, the Morgado Square, the whole Solomon Sea, and any other areas that may be restricted from time to time.

All Foreign licensed vessels are not allowed to set FADs and fish on FADs in the Archipelagic Waters of PNG. FADs set for game fishing activities and artisanal fisheries are not affected by this management policy and may be set inside 12 miles with proper approval.

## Monitoring FAD Catches

Under the Plan, NFA will be required to monitor catches on FADs, both in terms of size and species composition of the catch. Landing and disposal of the often significant amount of by-catch taken during FAD fishing will also be encouraged.

In summary, the Plan attempts to sensibly regulate the use of FADs in the important purse-seine fishery, as it recognized that there are positive and negative aspects to their use.

**For more information, please contact Mr Ludwig Kumoru, Manager Tuna Fishery on Ph: 309 0444, Fax: 320 2061 & Email: lkumoru@fisheries.gov.pg**

## NFA Netballers Enter Grand Final

A valiant NFA netballers went into the netball grand final in Division 5, this season.

They displayed excellent netball at the Bisnis courts last month only to go down narrowly by a mere two points to PNG Power. The score was 22-20.

They surely did NFA proud with their performance throughout the Public Service Netball season.

The line up was:

*Ovi Hatagen (Captain) - WA, Cathy Solomon - GA, Margaret Areni - GS, Pau Kagena - C, Loahs Kini - WD, Inia Kini - GD, Ernest Kini - GK, Urai Ora - Coach*



GPA NFA Goal Shooter, M. Areni runs through the banner at start of game.



GPA NFA Netballers assemble on the court before the game.

## Training for Senior Observers

The first of three senior observers data quality training courses was held in Port Moresby in early April and will move to other centres of the country during the month.

Ms Deirdre Brogan, a long-serving observer and specialist on data quality from the Secretariat of the Pacific Community (SPC), New Caledonia had conducted training with NFA Observer Manager, Noan Pakop.

It is a higher level training for selected senior observers working at all ports in the country. The knowledge and skills gained will be passed onto junior observers working under their supervision.

The training involve mainly how to collect quality data and following entry onto data forms, subsequent checking for common errors. The training started in Port Moresby and is continuing in Madang for the Momase region and then in Kavieng for the New Guinea Islands region. A similar program was held in Kavieng in 2002.

This training is necessary for the observers because in future, Papua New Guinea observers will have to check their own data instead of sending it to SPC for checking.

At a small closing ceremony, the

NFA Observer Manager thanked Ms Brogan for the training, which he described as very successful.

"We had a very successful week and it was an opportunity to be taught the techniques", he said.

National Fisheries Advisor, Dr Antony Lewis told the observers that they are the most important people to NFA because of the reliance on information gathered during the course of their job.

"It was an honour for you to have access to Ms Brogan's skills because she has been working for a very long time on observer data. You have a critical role to play in the data information you collect. The observer data tells the truth and it is important for NFA to have those data for management plans. People are watching and value what you are doing. It is an important task and NFA will be relying on your data and I encourage you all to continue doing the good job. You are, in a way, the eyes and ears of NFA" Dr Lewis said.

Dr Lewis concluded that the observers' data recently provided to NFA had greatly assisted with a series of access negotiations, and had indirectly contributed gains worth around K1 million to PNG this year.



• Ms Brogan conducting training for senior observers at Granville Motel, Port Moresby.

## Space-age Tags to Unlock Secrets of PNG Tuna

After a weeks' productive longline fishing onboard the FTV Leilani in waters near Kavieng, in a cooperative exercise between NFA and SPC, Noumea based biologist Bruno Leroy was able to release two large and very lively yellowfin tuna and one bigeye tuna, all around 50kgs in size, with state of the art pop-up satellite tags attached.

These computer chip tags, about the size of a large cigar, will record information on the fish's position (by recording light intensity), swimming depth and sea temperature every 30 seconds as these powerful mobile fish cruise PNG waters and possibly beyond. After a predetermined interval, in this case two months, the tag will detach itself from the fish then transmit the stored data via satellite (Argos system) to land bases in Europe and USA, from where it will

be passed to SPC scientists for analysis.

These pop-up tags, and similar archival tags which store even more data but require that the fish be recaptured to enable the necessary information to be downloaded, are yielding a wealth of information on tuna behaviour and habitat requirements, leading to better understanding of their ecology and eventually improved management of the resource. Little or no tagging of this type has been carried in the waters of the western equatorial Pacific, which provides the bulk of the regional catch. With these efforts, PNG has hopefully played its small part in providing our understanding of these remarkable fish. Watch this space for more news when the data from the tags are recovered.

## European Union Relocates to Madang

The European Union-funded Rural Coastal Fisheries Development Programme (EURCFDP) has moved its office to Madang town.

The move to Madang coincided with the beginning of the implementation phase of the project, which began on 1 April 2003. Until then the project was housed with the National Fisheries Authority, Deloitte Tower, Port Moresby.

The RCFDP office officially moved to Madang on 31 March 2003 when the Project Manager, Sean Marriott joined the Field Coordinator, Roboam Paka who had moved earlier in March. The relocation also saw the employment of a Project Administrator, Barbara

Gigimat. The project office is located on the 1st Floor, Beckslea Plaza, Madang.

The Madang Provincial Government and provincial administration officially launched the project in Madang on 11 April at Siar village.

Guests to this important development project included representatives from the European Union, national and provincial leaders, officials from the National Fisheries Authority and members of the local community.

The RCFDP is for a period of five years and is being funded by the European Union at a cost of K24 million.

## NFA Donates to UPNG Marine Studies

The National Fisheries Authority (NFA) has assisted the relocation and housing of the fish collection to the School of Marine Sciences, Biology Department, University of Papua New Guinea (UPNG).

During a small handover ceremony in which the NFA's Managing Director, Dr Antony Lewis presented the key to the collection room to the Executive Dean of the School of Natural and Physical Science, Dr Cecilia Nembou, said that NFA has been keeping a collection of different fish species at its former Kanudi office but that it needed a permanent home.

The important collection contained 4,600 fishes that represented 1,373 species dating from when it started collecting in 1957. The collection was preserved in alcohol and formalin in jars, bottles and 20 litre drums. A decision was made to relocate the collection to UPNG when NFA was restructured in 1998 and recognized that the collection had fallen into disrepair. It went into disrepair through the loss of preservatives such as alcohol and formalin in the sample containers.

The Authority then rebuilt on the old collection which now contains about 3000 species of fresh and

saltwater fish representing about 1200 species in 140 fish families and several hundred prawns, lobsters, crayfish, crabs, shells, starfish, sea cucumber, sea weeds, corals, etc.

This collection is the oldest of both fresh and marine resources from all parts of Papua New Guinea and contains some of the world's rare marine species. Dr Lewis said PNG should be proud of accommodating a high number of various unique marine species in the world.

This collection drive also received assistance from international organizations, such as the Australian Centre of International Agricultural Research (ACIAR), Food and Agriculture Organisation (FAO), United Nation Development Program (UNDP) Forum Fisheries Agency (FFA), and the Asian Development Bank.

Dr Patricia Kailola was the consultant employed with ACIAR and under its funding enabled the transfer of the collection. Dr Kailola was responsible for the repair of the fish collection, which involved the actual transfer, recataloging and training of UPNG technicians to care for the collection.

## New Board Chairman for National Fisheries Authority



The National Fisheries Board has a new chairman. He is Mr Bamake Rumbam appointed by the National Executive Council on 19 December 2002.

Mr Rumbam comes from the Morobe Province and is a civil engineer by profession. He was managing his own consulting engineering firm, Rumbam Engineers in Port Moresby until his appointment.

Mr Rumbam had also served Kinhill Kramer, a consulting engineering firm for 15 years, which he worked as director, responsible for all projects throughout PNG.

He had served on many boards, such as NCD Commission for Liquor Licensing, Building Board, National Housing Commission Board, NCD Physical Planning Board, ICDC Board, National Physical Planning Board and a trustee to the Gulf Oil Trust.