

Trial Fishing Policy October 2001

Background

Recently, the National Fisheries Authority (NFA) has issued a number of Trial fishing licenses in the; 1) Live Reef Food Fish Trade, 2) Scad mackerel fishing and Gulf of Papua Prawn (New grounds (Torres Strait/Western) and Dory (Gulf)). New applications are constantly being received for various trial fisheries or methods. While a policy paper was prepared in 1997 "Development of Fisheries Through the Provisions of Trial Fishing", the NFA has not adopted and followed a process for assessing proposals and managing trials. In the past, fishing trials have often been poorly monitored by NFA; even when little information was known about the resources or methods being proposed.

Papua New Guinea has a diverse marine resource that is one of the few renewable resources available for food at the subsistence level or for commercial exploitation. Government policy is to ensure natural resources are fully utilised within sustainable levels. It is NFA's role to ensure opportunities are available to develop potential fish stocks into fisheries. This means actively managing the resource through research and development to determine if a fishery or aquaculture development is viable. It also includes managing development so that a sound understanding of the fishery is pursued and not developed through commercial and political interests. The following Policy sets out procedures for NFA to follow when developing fisheries or aquaculture projects and trialing new gear, which will ensure thorough management, monitoring and assessment.

Overview

This Trial Fishing Policy sets out a policy and procedural framework for the controlled exploration of PNG's fisheries resources (see Figure 1). The NFA will actively manage trial fishing to determine if exploitation should proceed, and if so, how it should best be regulated. The Policy applies where research or anecdotal information suggests that a fish resource may exist but the magnitude of the resource is unknown or uncertain. It also applies to aquaculture developments¹, where NFA is unsure whether the operation will have an impact on the surrounding environment, and to fishing methods previously not tested in PNG waters.

This Policy outlines:

- NFA's approach to exploratory fishing;
- Factors to be taken into account, and the process to be followed by NFA when assessing applications for trial fishing;
- A process for the development of fishing trials; and
- The steps to be followed when developing a new fishery.

The National Fisheries Authority recognises the importance of continuing to develop fisheries and understands the need to preserve PNG's marine resources for future generations. NFA will endeavour to achieve sustainable development of PNG's

¹ Aquaculture refers to any form of culturing of fish including mariculture, ranching and farming.

resources. To do this when opening up new fisheries, a thorough assessment of their economic, social and environmental viability will be carried out.

Exploration of new fisheries will be undertaken with constant monitoring and within a strong regulatory framework. In accordance with the *Fisheries Management Act 1998* management objectives, where information is uncertain, unreliable or inadequate, NFA will take a precautionary approach to the development of new fisheries. In doing so, it will ensure that a fishery is sustainable and that risks to the environment and other resource users are minimised.

NFA's strategy for developing new fisheries includes:

- Careful assessment of the proposed venture;
- Adopting a low risk approach to the exploitation of new resources;
- Ongoing monitoring and review; and
- Consistent consultation with all involved and affected stakeholders.

To clearly distinguish “Trial fishing” from “fishing” in an established fishery under a fishing licence, ‘Trial fishing’ will be conducted under ‘Trial fishing’ Permits. Management Guidelines, setting out how the “Trial” will be conducted, may be prepared and attached in lieu of permit conditions. Trial fishing permits will be issued for a predetermined period, usually for one year. The trial process will assess the potential for establishing a fishery and NFA will decide whether development should continue or cease.

NFA will aim to ensure that ‘Trial fishing’ is not used as an excuse to exploit marine resources for short-term gain or on a boom and bust fashion. In this regard, all “Trial fishing” shall have 100% observer coverage. ‘Trial fishing’ Permits will not be approved for some fisheries or aquaculture operations if they are already established, well developed, fully exploited, or based on fragile resources or endangered species. ‘Trial fishing’ will not be allowed for giant clams, turtles, dugong and whales. The National Fisheries Board will determine if a ‘Trial’ is appropriate based on the information received in the permit application.

Consultation

All participants involved in a fishing trial must be made fully aware of the biological, economic and social implications of the proposed activity. NFA will actively inform all stakeholders about what is involved in trial fishing and the management of the fish resource.

NFA will inform permit holders and other stakeholders prior to the commencement of the trial, of the process that will be followed for assessing and developing a ‘Trial fishery’. This will include whether any surveys or data collection will take place and an explanation of why these must be undertaken and what their results may mean for the trial. Information on the methods used and results of surveys will be made available to all stakeholders.

Most trials will require the development of management guidelines which will set out how the trial will operate, including any restrictions and prohibitions. When these are drawn up, the permit holder and other stakeholders will be given the opportunity to comment on them before they are attached as ‘Conditions’ to the ‘Permit’. NFA will

also discuss, with the 'Permit' holder and other stakeholders, management measures being used in the trial and explain their purpose.

NFA will ensure that applicants for 'Trial fishing' Permits and other stakeholders understand that a trial does not mean a fishery will be established. It will be made clear that a trial is a period of assessment to determine if a fishery can be developed and sustained.

Access Rights

Access for trial fishing may be limited to avoid overexploitation as a fishery, while any aquaculture development or fishing technique is assessed for development potential. NFA will determine an acceptable level of fishing effort for each proposed 'Trial fishery'.

To gain a 'Trial fishing' Permit, applicants will need to demonstrate a real interest in developing the fishery and preference will be given to applicants whose operations will provide maximum benefit to PNG through employment, onshore processing, and development opportunities for local communities. NFA will ensure that applications for trial permit are consistent with the provisions of "*Fisheries Management Regulation 2000*" in particular section 4.

NFA will give priority to operators that participate in the trial of a fishery over those that join the fishery as it develops. If, following a trial period, a fishery is found to be economically viable and suitable for sustainable development, the permit holder will be granted automatic access to the fishery for a further two years as the fishery develops. This right will be based on an assessment by NFA of the permit holder's compliance with all conditions, regulations and the *Fisheries Management Act 1998* during the trial.

Trial Fishing Fees

Significant resources will be used to assess whether a fishery should be developed. While NFA does not want to deter people from trialing new fisheries, it needs to be sure that applicants are committed to the trial and genuinely interested in developing the fishery. As a result, 'Trial-fishing' Permits will incur the standard application fee and a permit fee. The permit fee will be set by NFA and be based on the type of trial to be conducted on fishery-by-fishery bases.

Permit holders may also be requested to contribute to observer and survey fees if NFA considers it appropriate. All anticipated costs to the permit holder would be stated by NFA prior to the commencement of the trial. When setting permit fees and requesting contributions for fishing trials, NFA will ensure that the development of fisheries in PNG is not restrained by them.

NFA recognizes that the nature of Trial fishing will vary according to factors such as the nature of the resource, the activity proposed, the gear or the characteristics of the environment. It is not possible to prescribe in detail the specific process for any given fishing trial. This Policy provides guidance to support the sustainable development of new fisheries through Trial fishing in PNG.

STEP 1: Assessing Trial Fishing Permit Applications

Applicants need to understand what is required from them when they apply for a 'Trial fishing' Permit. NFA will develop guidelines setting out what information should be provided in an application for trial fishing. This will be attached to 'Trial fishing' Permit applications and will help applicants think through their proposed operations.

The Fishery Manager responsible for assessing the 'Trial fishing' Permit application must consider the economic, social and environmental implications of each proposal for trial fishing. The Fishery Manager should not assess a proposal in great detail; however, key information needs to be provided by the applicant to ensure that NFA and the applicant consider all the implications of the trial. There is little point investing time and resources in a trial that has no potential or where there is no serious intention to develop a fishery.

Before the trial goes ahead, the Fishery Manager should research the target species, aquaculture techniques or new methods to be used to understand what is being proposed. Where possible, information should be gathered on the:

1. Biology of the target species including the geographic, estimated stock size in the trial area, depth and temperature range, general growth parameters, fecundity, age (or size) at maturity, and abundance;
2. Fishing methods to be used, estimates of gear efficiency and levels of effort to be used in the fishery, potential bycatch (particularly of vulnerable or endangered species), and any potential environmental impacts of the gear;
3. The steps in the aquaculture operation, including citing of the facility, waste management, production quantities, feeding, containment of the species, disease controls, and processing of fish products.

Research, fisheries in other countries, and previous trials, are good sources of information and data. The more that is known about the proposed trial the easier it will be for NFA to make a sound recommendation to the Board about the trial.

As a general rule, anyone embarking on a new business venture should have considered all aspects of their operation - if not, there is a good chance the business will be unsustainable. While NFA should not undertake a detailed assessment of the business plan, the Fishery Manager should be satisfied that the applicant has considered all elements that will contribute to the trial's success.

While information requirements will vary with each trial proposal, the following information should be provided.

1. Target species and area to be fished, depth range
2. Fishing methods and who will fish (i.e. are they buying from local fishers)
3. What bycatch is expected and how will it be disposed of
4. How the catch will be processed and where
5. Markets for the product, including transport and storage if frozen/fresh product
6. Any expected effects to the environment
7. Consultations undertaken with relevant resources people/ groups and governments
8. A business plan including investors, shareholdings and financial information
9. Standard information required in a licence application (ie. Audits, inspections)

Application Assessment Checklist

- Is the applicant a citizen of Papua New Guinea? If not, are there any Papua New Guinean citizens interested in developing the fishery or is foreign involvement the best option or joint venture?
- Have transportation, freight and logistics, domestic and international, been considered?
- Have all costs been included - processing equipment, gear, boats, fuel, staff, tax, insurance, electricity, rent, license fees, audits
- Are suitably trained and qualified staffs available – do they expect to hire local people or bring in foreign expertise?
- If buying from local fishers, has an assessment of fishing frequency/ supply quantities been made? Is there a threshold below which the project will fail, is it likely to be exceeded?
- Is there an understanding of markets for their products?
- Does it appear that they understand the business environment in which they will operate?
- Have they run a business before or undertaken any business training?
- Have they procured any funding or a loans eg, donor and government grants or bank loans?
- Are there any benefits to the wider community ie. buying from or training for local communities, supply of ice, boats or ice boxes to local fishers ?
- Have all target species been identified?
- Do we know anything about the target fish stocks? If so, should they be fished?
- How much fish has to be caught for the business to remain sustainable particularly as there will be a decline in CPUE as virgin biomass is removed?
- Has bycatch been considered? Will it be utilised?
- Has management of waste products and wastewater been considered and planned for?
- Have any negative environmental impacts been identified and planned for?
- Have seafood safety issues been considered ie. is their mention of HACCP ?
- Has clean up of lost/damaged fishing gear and equipment been considered?
- Have they researched the fishery and methods they are proposing to use?
- Has it been done it before? If so, what are the lessons learnt and problems encountered?
- Have they contacted other domestic or international operators or experts?

Has the applicant consulted?

- Local resource owners in the area of the operation and fishing grounds?
- Provincial, district and local level governments in the area they intend to operate?
- Other industry operators the trial may impact upon ie. other fishing, dive & tourism industries ?

For aquaculture developments:

- Has containment of the farmed species been considered? If so, is a plan in place if it fails?
- Have disease outbreaks been planned for?
- Is the site for the development suitable?
- Is access to the land or sea area secure?

**If any of these questions are not addressed -
request further information from the applicant.**

Application for Board

Following assessment of the trial fishing application, if it is to be recommended for approval, the Fishery Manager should prepare an outline of the process for the trial. The outline should include a rough timeframe and plan for: stock surveys, consultations, development of management guidelines, monitoring and reviews.

Once the Fisheries Management Adviser is satisfied that the proposal has been properly assessed, and the Manager, Enforcement and Monitoring, has also undertaken the relevant checks, the application with comments and the process outline should be submitted to the License Review Committee (LRC). The LRC should agree on the outline of the process for the trial (as suggested by the Fishery Manager) and decide whether to advise the Board to approve the trial (see Figure 2).

If the LRC agrees to advise the Board to proceed with the trial, the Fishery Manager should prepare a Board paper providing details of the assessment, the outline of the trial process and the LRC recommendation.

Recommendations to the Board should be for in-principle approval only pending the outcomes of any stock surveys or other on-ground assessments

This is so that NFA does not go ahead and approves a 'Trial fishing' permit prior to undertaking important surveys or ground truthing. For example, if a survey indicates that the fish stock would be unable to support a trial or a fishery, it would be poor management practice to allow a fishing trial to go ahead. By requesting in-principle approval from the Board, NFA is able to proceed with preliminary ground assessments without committing to a trial.

STEP 2. Preliminary Assessment and Consultation

It may be necessary to carry out stock surveys or surveys of spawning grounds or nursery areas before proceeding with a fishing trial. This is particularly so for a fishery based on specific areas or sedentary species. Information gathered during such surveys may form the baseline for future data collection. It will be providing NFA with information about the effect of commercial harvesting on the biomass of the targeted species and also data with which NFA will protect areas that are important for the species survival during the fishing trial. For an aquaculture development (particularly ranching or farming), NFA may decide that it is important to conduct surveys of the surrounding environment so that the impact of the trial can be measured as the trial proceeds.

If the trial is located in an area used for customary fishing, NFA should explain how and why, surveys are being conducted as an introduction to a possible trial. At this stage, NFA should contact the provincial fisheries officers and discuss the trial and their potential participation. It is important to emphasize that the surveys being conducted will determine if the trial fishing would eventuate. There is no guarantee that a fishery will be developed. Analysis of any data collected should be carried out and consultative meetings held with all interested stakeholders to discuss the results within a reasonable timeframe. NFA should consider including local fishing industry associations, local tourism and dive operators, provincial fisheries officers, local resource owner groups, conservation and other non-government organisations in these meetings.

If it has been decided that a trial will eventuate, these meetings should be used to explain the trial fishing process, its limited time frame, experimental nature and the need for good management and monitoring. If the preliminary assessment had indicated to NFA that a trial would not be sustainable, the consultative meeting should be used to explain why NFA would not implement a fishing trial.

If the findings of the survey indicate that the trial will not go ahead, the Board should be notified with an explanation as to why.

STEP 3. Development of Management Guidelines

Before a 'Trial fishing' Permit is issued, NFA needs to put in place Management Guidelines to ensure that; data is collected, environmental impacts are minimised, and the trial is well monitored and controlled. The Management Guidelines are very important, forming the basis for the trial's operation and should be reviewed every quarter and amended as necessary.

The Management Guidelines need to be discussed with the applicant and any other interested stakeholders. Any comments they make must be taken into consideration when preparing the Guidelines. It is very important that other stakeholders understand what is required of the permit holder during the trial. This provides further oversight and monitoring of the operator's compliance. The Management Guidelines will be attached to the permit as conditions.

Management Guidelines for the Permit Conditions will include:

1. Trial objectives
2. Data collection forms
3. Reporting requirements
4. A program for 100% observer coverage
5. Gear, season and area restrictions
6. Catch and bycatch limits, if necessary
7. Measures to protect the marine environment
8. Consultative mechanisms to involve other stakeholders
9. Prohibitions
10. Provision for review and amendment by NFA as needed

Only after the management guidelines have been finalised by NFA, following consultations with stakeholders, should the trial permit be issued.

Management Guidelines Checklist

Data collection

- What data observers should collect? eg. Catch composition, catch/effort, bycatch, length, size, sexual maturity, age, sex - units to be used
- What data should the operator report, catch and exports?
- Should buying data be collected?
- Any special data requirements? eg. Diseased fish, mortality on capture, interactions...
- How frequent should reporting be eg. Weekly and quarterly, monthly?
- What extra information does the permit holder in quarterly progress reports submit?
- What penalties apply for late reporting and not submitting reports
- Is an ALC mandatory?
- How will reports be submitted, fax, mail, email?

Observers

- Is program for 100% observer coverage organized?
- Clarify who pays for observers?
- Do the observers' need special training, if so, what for, when and how?

Management and Conservation

- Can adverse environmental impacts from the fishing methods/processing/gear be minimised? ie. lost gear, bycatch, specify site locations for fish cages
- Do gear restrictions need to be put in place? ie. Hook numbers, net size/ length?
- Do standards need to be set for fish processing or transport?
- Do catch TACs/quota or size restrictions need to put in place?
- Do you need no-go areas to protect spawning, nursery grounds or a fragile ecosystem?
- Are closed seasons needed?
- How will waste products be managed (ie. run off, discard disposal and rubbish)?
- Who cleans up if the fishery doesn't go ahead?
- Does the operator need to devise a plan to deal with escaping or diseased fish?
- Should the operation be restricted to a certain area, ie. 6 nm from any land or reef?

Trial Fees

- What fees will the applicant need to pay - observers, survey costs, other?

STEP 4. Quarterly Progress Reviews

To make sure that the trial is on track and that no unforeseen impacts are occurring to the stock or environment, the Fishery Manager should conduct quarterly progress reviews to check the progress of the trial. At this stage, the responsible Fishery Manager needs to consider whether the trial should continue and to deal with any issues or impacts that have arisen. The management guidelines should be examined at each quarterly review and revised as necessary.

The operator must be involved in each quarterly progress review, which should include a broad assessment of their conduct in the trial. Permit holders should submit quarterly reports summarizing the data they have collected, commenting on their operation and setting out any new issues. This report should feed into the quarterly review.

Quarterly progress reviews give NFA the opportunity to take a precautionary approach and suspend, or even cancel the trial, if there are significant reservations about the progress of the trial. Reasons for suspending a fishing trial may include:

- 1) frequent take of endangered species,
- 2) an unexpected reduction in stocks,
- 3) major pollution issues,
- 4) significant interactions with other fishers,
- 5) conflict with resource owners, or
- 6) non-compliance by the operator with the Management Guidelines or the Fisheries Management Act 1998 or the Fisheries Management Regulation 2000 or other regulations as approved by NFA.

In the event where a trial is suspended or cancelled, the fishery manager responsible shall notify all stakeholders of the decision and provide explanation for the suspension or cancellation of the trial.

A quarterly progress review should include:

1. A broad analysis of data collected to check for anomalies or unexpected results
2. Review of any problems or difficulties that may have surfaced during the trial
3. Adjustment or addition of new management measures to the Management Guidelines
4. A review of the operator's compliance with the Management Guidelines
5. Consultation with key stakeholders on progress of the trial
6. A decision if the trial should continue, be suspended or cancelled

Quarterly Progress Review Checklist

- Is the data indicating unhealthy trends? E.g. too many juveniles caught, very few target species, etc.,
- What is the ratio of bycatch to catch? Does it seem too high?
- Have any adverse impacts to the environment been observed?
- Have any negative interactions with other fisheries occurred?
- Have there been any other major interactions ie. land, FADs, whales, seabirds, endangered sp.?
- Are there any data gaps? Are the data forms appropriate, do they need modification?
- Is the reporting frequent enough?
- Have any other significant problems been identified during the trial? Can they be addressed?
- Is the financial position of the operation still sound?
- Is there still support for the trial by all participating parties?
- Is the operator's reporting accurate and complete?
- Has the operator complied with all other conditions and regulations?

At this stage, the Management Guidelines should be amended to incorporate management measures dealing with problems that have been identified.

STEP 5. Assessment of the Trial after One Year

After a one-year trial, a detailed review of the data and state of the resource should be conducted by NFA. This review should be undertaken in consultation with the operator and other stakeholders. A similar assessment should be made as in the Quarterly Progress Review, although in greater detail. The aim of this review is to determine whether a fishery should be developed. Consequently, the data that has been collected over the year trial should be analysed and a complete assessment of the viability of a fishery made. At this stage, the Fishery Manager may decide to carry out further stock surveys to determine the impact of the trial.

In addition to undertaking a similar assessment as a Quarterly Progress Review, the following should be considered:

1. Is the data indicating a healthy stock that could be sustainably exploited?
2. Are all stakeholders still supporting development of the fishery?
3. Are markets for the fish products available or developing?
4. Is the business financially viable?
5. Are the environmental impacts acceptable and being minimised?
6. Does the trial period need to be extended?
7. Should the current permit holders continue to fish in the fishery?
8. Should other operators be permitted in the fishery? If so, how many?

Developing a Fishery

If a decision is made to proceed and develop the fishery, the fishery will be classified a **developing fishery**. The one year review will be used to determine management arrangements for the developing fishery, to decide if there needs to be a continued high level of observer coverage and to operate under specific license conditions. These should be drawn up into a developing fishery management plan that will apply for at least two years. As a rule, **limited access** should be granted to a developing fishery based on a conservative estimate of the productive capacity of the fishery, as determined by NFA, in consultation with the stakeholders.

Developed Fishery

Once a developing fishery has operated for two years another detailed review should be undertaken to assess whether the fishery should be fully developed. During this review consultation should also be carried out with stakeholders to gauge support for the opening up of the fishery. If it is decided that the fishery will be established, a fishery management plan should be prepared.

If NFA decides that a trial should not proceed to the next stage of development or a developing fishery should not continue, permits and licences will automatically be cancelled and there will be no right of access to any fishery participant.

Figure 1. The Development of a Fishery

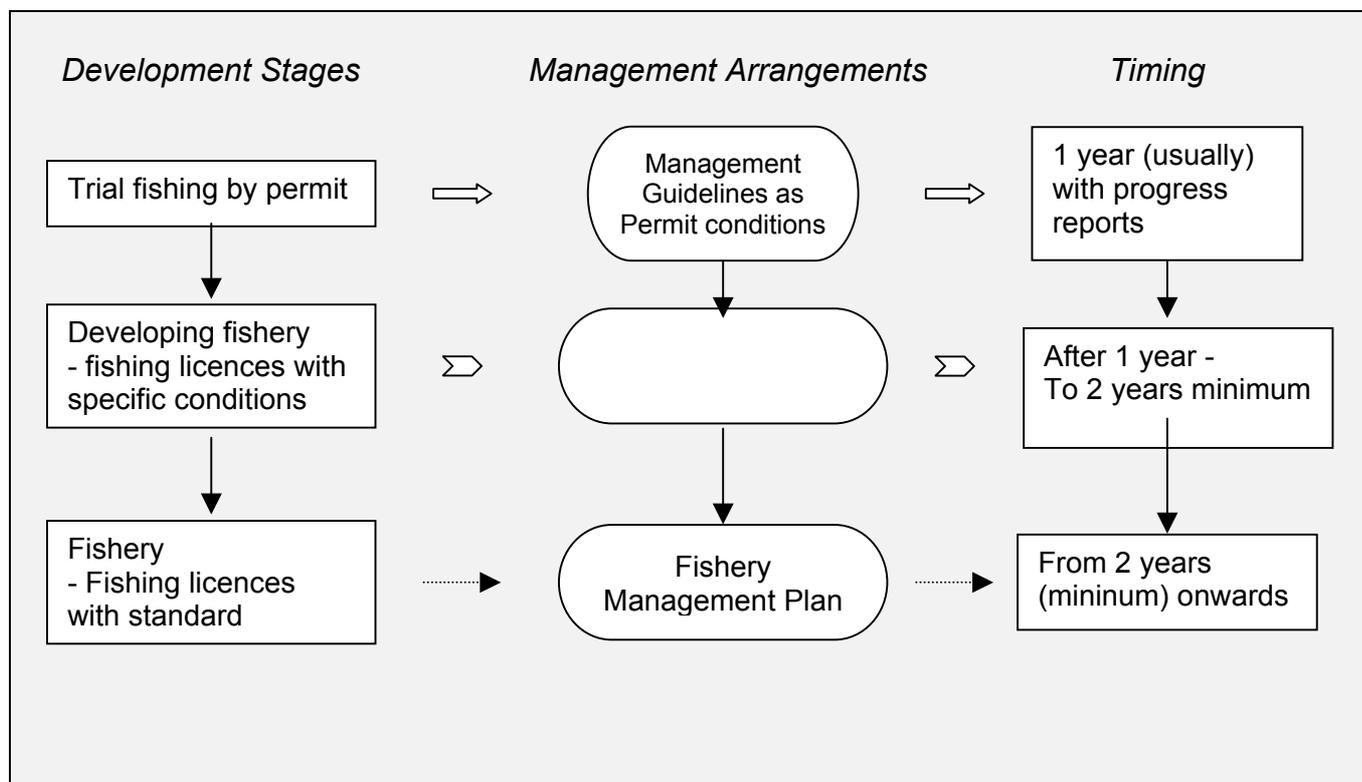


FIGURE 2.

TRIAL FISHING PERMIT APPROVAL PROCESS

