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REPUBLIC OF MOZAMBIQUE
INTERIM EVALUATION OF THE
NAMPULA ARTISANAL FISHERIES PROJECT
UNDERSTANDING AT COMPLETION POINT

Five Lessons Learned

This completion point reflects an **understanding** among the core partners in the evaluation process of the Nampula Artisanal Fisheries Project (NAFP) to **adopt and use** the lessons learned and recommendations from this evaluation exercise not only in the implementation of NAFP, but also in the design of new projects and programmes aimed at improving the livelihoods of artisanal fisheries communities. The core partners included the Institute for the Development of Small-Scale Fisheries (IDPPE), the Fisheries Research Institute (IIP), the Development Fund for Small-Scale Industries (FFPI), the Co-operative for Assistance and Relief Everywhere (CARE) and IFAD (represented by the Africa II Division and the Office of Evaluation and Studies).



I. COMMUNITY ORGANIZATIONS AND EMPOWERMENT

The picture below shows Marisa at a well built by IFAD's Nampula Artisanal Fisheries Project in Moma, a district in north-eastern Mozambique. The well is equipped with a water pump, its buckets are properly lined, and the area surrounding it is very clean and tidy. A five-member water committee, elected at a community meeting attended by all families sharing the well, is responsible for the day-to-day operation and maintenance of the well. Each family contributes mzm 1 000 per month to a special maintenance fund. The water committee was elected before the well was constructed, and members decided together with project staff where it should be located. This decision was based on their past experience and their intimate knowledge of local conditions and the water availability of the terrain. Marisa told the completion evaluation mission that the well and water pump have had an important overall impact on her own livelihood as well as her family's.



1. A total of 122 such water committees have been formed in 42 fishing communities, each managing and maintaining one of the 122 wells that the project has constructed or rehabilitated. Beneficiaries actively participate in the water committee's deliberations and contribute to pump maintenance expenses readily and willingly. Four other community committees, microproject committees elected in much the same way as the water committees, have actively contributed to the construction of health centres and schools. These committees not only are involved in the planning of each microproject and work closely with the project and the contractor in the implementation phase, but they also contribute 25% of the total project costs in the form of labour and local materials. In addition, the project promoted the formation of 14 local fisheries resource management and comanagement committees of boat and fishing-net owners. In close collaboration with the fisheries administration, these committees are striving to impose discipline on community fishing activities in order to ensure sustainability in the exploitation of the country's valuable marine resources.

2. The Nampula project facilitated the formation of community committees and organizations by: (i) creating enabling conditions that helped beneficiaries improve their household incomes, such as access to credit and savings facilities and the linking of fishing and other economic activities with markets through private traders and microenterprises; and (ii) creating conditions for the satisfaction of the communities' basic needs, including water supply and sanitation, primary health care and education, in accordance with the ideals of sustainable human development.



3. The experience gained shows that community development is a slow and difficult process that needs to be grounded in an understanding of the complex socio-political fabric of the communities in the project area. In their initial formative stages, groups go through an important phase of learning and adaptation that may be negatively affected by unrealistic expectations, overambitious targets and the lack of transparency. The project's extension staff have provided training to all committee members and continue to act in an advisory capacity to the committees. The involvement of project beneficiaries from the early planning and implementation phases of each microproject has fostered a sense of project ownership and provided a firm basis for sustainable participatory development. NAFP has progressively empowered the communities by promoting their awareness of development prospects and by building their capacity to participate effectively in decision-making processes that affect their well-being. The institutional dialogue and linkages established between community committees, fishermen's associations and formal management bodies, including the fisheries administration, have been an important part of the empowerment process and can serve as a model to be replicated in other communities and geographical areas of the country.



Recommendations:

- New associations and organizations require a significant amount of assistance in dealing with the bureaucratic process of formalization and registration. Institutional support and training to such bodies is considered important not only for capacity-building but also for the establishment of realistic goals and targets.
- Participatory activities should only take place when it is certain that the community has understood and endorsed every step of each project phase, from planning through implementation.
- Beneficiaries' participation in and ownership of project activities need to be enhanced through training, and through strong communication links and dialogue with extension staff, the credit agency and other institutions in the sector. Training the extensionists in effective communication skills, and improving the competence and overall capacity of the extension service are two prerequisites.
- The empowerment process still requires formalization, legal status and recognition by the authorities. Improvements are also needed in the institutional and legal framework for the establishment of comanagement organizations, including the definition of competence and authority.



II. PARTICIPATORY ADAPTIVE RESEARCH, EXTENSION AND MARKETING

“Before the project started, we didn’t know about trammel nets for fishing shrimps. Through the project, experienced fishermen came all the way from India to Mozambique and, in cooperation with IDPPE extensionists, introduced us to this new technology. Using trammel nets, we have improved our shrimp catches.” Saide is from the district of Moma and has been a fisherman all his life. When he used traditional nets, he hardly caught any shrimp at all. Now Saide catches between 20 and 30 kg of good-quality shrimp per day and has increased his daily income significantly. In the picture below, the Indian fisherman Anthony is showing Saide how to use trammel nets.



4. In partnership with fishermen at various fishing centres, the project has tested different types of fishing gear in an effort to find efficient and low-cost fishing technologies appropriate for the various commercial species found in the project area. It has also tested various approaches to fish processing and preservation in order to solve logistic problems in fish handling, collection and delivery systems. The overall aim of these efforts has been to encourage fishermen to adopt sustainable fishing practices and promote efficiency in fish production.

5. Participatory research trials benefited from the local fishermen’s knowledge and addressed their specific needs, contributing to an increased awareness of the potential for and constraints on artisanal fishery development in the area. The trials also provided vital feedback to technology design in response to fishermen’s suggestions. Even before the trials were completed, participating fishermen understood the results/benefits and began spreading the word among fellow fishermen, some of whom recognized the merits of this positive experience. Several examples cited by the project’s evaluation mission serve to illustrate this process. Trammel nets were successfully used for shrimp harvesting during the research trials, and many fishermen adopted this technology. A number of fishermen also took up gill nets and long lines, as appropriate and best suited to their fishing efforts. These nets catch different types of fish, and different sizes and amounts of pelagic fish from those caught by beach seines. Demersals are an additional catch type with the new fishing methods; they generally fetch higher prices than pelagic fish and can be sold in the 5–10% of urban markets in Nampula that target high-income consumers. Furthermore, a number of fish processors in Moma and the town of Angoche have expressed their appreciation of the smoking kiln upgraded by the project using the *chorkor* method, which is an easy-to-operate, low-cost smoker with higher production capacity and more efficient wood consumption than traditional kilns.

6. By integrating local fishing communities in research and technology development, NAFP has shown the validity of the participatory research approach and ensured the rapid dissemination and adoption of the technological innovations generated by the project. Participating fishermen not only



have helped make research more efficient and cost-effective but also have lightened the tasks of extension workers and contributed to the dissemination of research results. However, there is room for improvement in the dissemination process and in the rate at which beneficiaries adopt research results. In this connection, more attention needs to be paid to strengthening the extension service as a whole, including the development of technical extension messages in the project area.

7. The project has shown that the development and successful introduction of fisheries technologies and fishing practices is dependent on many factors beyond the technology itself, including access to inputs and financial services, the market opportunities for new products, and processing and storage techniques. With regard to market development, the project has improved access to fishing gear in the project area not by importing gear directly, but by influencing tax and tariff levels and linking private-sector marketing networks with the fishing communities. The experience gained by the project also shows the utility of establishing and maintaining a market information system to support associated project activities (especially fisheries technology and processing), but more needs to be done to ensure the sustainability of the system. Encouraging fishermen's associations to become involved in marketing activities – including the supply of fishing gear and other inputs, the marketing of fish and fish products, and gradually the development of shore marketing infrastructure – will be an appropriate step towards enhancing the sustainability of fishing operations.

Recommendations:

- Further attention and support should be given to disseminating research results in the project area and to strengthening the extension service as a whole, including the development of technical extension messages.
- Future project designs need to incorporate more active policy and planning roles for articulation with the Government, including support for further improvement of the macroeconomic framework for the trading of fishery outputs and inputs (taxes, tariff protection levels and imports) and the building of effective linkages between fishermen and the private sector either directly through project initiatives or indirectly through non-governmental organizations (NGOs).
- The project should promote additional market development initiatives such as the establishment of shore infrastructure, landing facilities and auction halls, the collection of market information and the provision of credit for the development of ice-making and cold storage facilities by the private sector.
- The project needs to provide institutional support to build the capacity of fishermen's associations to become involved in trade and marketing activities.



III. COMANAGEMENT OF MARINE RESOURCES AND SUSTAINABILITY

“We used mosquito nets for years. We thought we had good catches even though they contained many low-value juveniles and very small fish. We didn’t know that by catching the juveniles and the very small fish we were actually damaging our future fish harvests and incomes.” “Trawlers were another of our big problems. They came and destroyed our nets and we got nothing. We couldn’t get any compensation.” Fishermen Abaca and Abdalla from the coastal village of Larde began understanding the harm caused by mosquito nets when they joined the local fisheries resource comanagement committee. Now they use beach seines with 12-mm mesh and catch mostly marketable fish without harming marine resource sustainability. With legal dispensation to extend the trawler exclusion zone from one to three nautical miles from the shore, one of the important achievements of the project, Abaca and Abdalla are helping the fisheries administration reduce encroachment.

8. The project has made inroads into the marine resource management issue and has shown that through a comanagement partnership with the fishing communities, the fisheries institutions and the fisheries administration, the foundation can be laid for the long-term, sustainable exploitation of the valuable natural marine resources to the benefit of artisanal, semi-industrial and industrial fisheries. Resource management involves the development of strategies for fisheries resources research, the improvement of fisheries statistics, monitoring and surveillance activities, and the development of institutional arrangements to translate resource management information into operational management action. By creating awareness of fisheries management issues and convincing the community to discipline its fishing efforts, the project has shown how to develop fisheries management mechanisms and implement them in close collaboration with fishermen, fisheries institutions and the fisheries administration.



9. Surveillance and policing by the Ministry of Fisheries is necessary, but on its own is not sufficient to regulate the management of fisheries resources and achieve discipline within fishing communities. These ends can only be attained with the active participation of the fishermen themselves and their organizations. The fisheries administration acknowledged the importance of stakeholder participation, and made good use of the fisheries resource management and comanagement committees to create awareness of fisheries management issues and develop a comanagement framework for the judicious and sustainable use of local marine resources. The fishermen and their committees and associations agreed to cooperate with the project and play a role in the management of fisheries resources when they realized that this was in their own best interests. They would not have collaborated in the interests of the state or because the law required them to do so.

10. The participatory research trials on different types of fishing gear and practices that IDPPE conducted in partnership with the fishermen convinced the latter that the tested gear would ensure favourable economic returns to their fishing efforts, in the short term by enabling them to catch higher-quality fish that fetch better market prices, and in the long term by posing fewer risks to the resource base. NAFFP has also helped by providing incentives to borrowers, in particular, credit to purchase trammel nets, purse seines, drift nets, gill nets and long lines for open sea fishing, thus improving the efficiency of fish production.



11. The presence of trawlers close to the shore inevitably leads to conflicts because of the destruction of fishing gear, particularly gill nets and long lines. Their presence also harms the substrate and fish stocks to the detriment of the sustainable use of fisheries resources. The fisheries resource comanagement committees have now joined forces with the fisheries administration to control encroachment and enforce the trawler exclusion zone of three nautical miles from the coast, which gives them wider territory for fishing activities and reduces coastal harvesting pressure. The establishment of the artisanal fishermen's associations of Moma and Angoche has further empowered the fishermen, strengthening the comanagement arrangement of fishing initiatives and programmes.

12. The comanagement committees provide a forum where fishermen can discuss regulation issues with the fisheries institutions and the fisheries administration and reach a consensus on the measures to be taken. These committees discuss and deal with a wide range of subjects: awareness-raising among fishermen on the issue of protected species; regulation of the intensity of fishing activities, including the definition of the number of fishing units allowed migrant fishermen, the length of the fishing period and mesh sizes for fishing nets as well as control of exploitation based on projections of thresholds for amount of catch related to number of fishermen; prohibition of underwater spearfishing and of the use of toxic substances and explosives to harvest fish; delineation of areas of local jurisdiction; conflict resolution among artisanal fishermen and between artisanal and semi-industrial fishermen; confiscation of prohibited fishing gear; and licensing of fishing gear.

13. The project has helped IIP to establish a successful monitoring system for the collection of data from the many artisanal fishery centres in the area. A total of 250 aquatic species have been encountered in the catches. Three studies have commenced and others will be undertaken in order to assess the biological parameters of all commercial species, including maturity size, reproduction periods, spawning and migratory cycles, and estimates of the volume of the resource. Knowledge of resource characteristics is needed to guide development actions and resource management measures aimed at safeguarding the long-term sustainability of the country's marine resources. As a result of these studies, the project was able to convince the authorities to prohibit the use of mosquito nets and to extend the trawler exclusion zone to three nautical miles from the coast. The establishment and successful development of the fisheries data collection system is now being replicated in other parts of the country through a programme supported by French Co-operation.

Recommendations:

- The established institutional dialogue and the creation of a favourable environment for artisanal fisheries constitute a very sound activity in the process of regulation through empowerment of both fishermen's organizations and fisheries institutions.
- The project should continue its dialogue with local authorities in order to accelerate legal recognition of the comanagement organizations and associations, including the definition of competence and relevant powers.
- The development and establishment of a fisheries data collection system was successful, and the model is now being replicated in other parts of the country through a programme supported by French Co-operation. The stock assessment studies would be more accurate if the study area, presently limited to the narrow northern coast of Sofala, were extended southwards to cover other coastal areas of that province and those of the province of Zambezia.



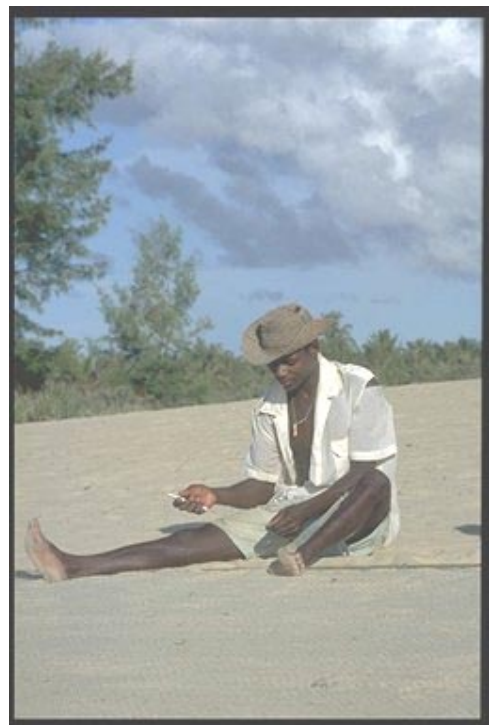
IV. ARTISANAL FISHERIES PROJECT TO SUB-SECTOR INVESTMENT PROGRAMME

Momade, a fisherman from the district of Angoche, had a boat before the IFAD project started, but his fishing gear was very old. He could not afford new equipment, nor could he repair what he had because fishing supplies and spare parts were very expensive. Even if he had the money, he could not buy what he needed nearby but would have to travel to Nacala, some 250 km away. Through the project, supplies of fishing gear and spare parts for boat rehabilitation are now stored in Angoche and sold at lower prices than before thanks to competition and to reduced taxes and tariffs. Momade received a loan through FFPI and has replaced his old gear. His fish catches have increased and his income has improved.

14. NAFP has evolved since it was first launched, both in terms of its components and the kinds of activities undertaken within each component. This process approach to planning has allowed the project to adapt itself in response to its own experience and to the changing economic and social conditions. In terms of its general approach, NAFP has sought to promote concurrently institutional, social, functional and commercial components, repeatedly showing the effectiveness of this kind of integrated cross-sectoral methodology.

15. The project directed **institutional** targeting towards strengthening the capacity and promoting the formation of community-based organizations, considered to be valid channels of self-mobilization for development purposes. The project has been instrumental in the formation of 142 community organizations (14 fisheries resource management and comanagement committees, 2 fishermen's associations, 122 water committees and 4 microproject committees). Their estimated 950 members actively participate in project activities aimed at improving living conditions in their communities.

16. **Social** targeting is aimed at the poorest segments of the communities. Through the FFPI credit scheme and the CARE/Rural Enterprise Microcredit Programme (CRER), the project has organized 131 savings and credit groups in the poorest strata, including women. This experience has shown that the microfinance programme is a very appropriate way of addressing the financial needs of the poorest target groups. This stamp-based scheme is simple, easily understood and more effective in reaching women than other types of schemes. The project maintains regular coordination meetings with CRER and FFPI in an effort to make further improvements in the targeting of the poor.



17. The project directed **technical** targeting towards eliminating critical constraints on artisanal fisheries development through the provision of credit, input supply and infrastructure development. The project has provided formal credit to small- and large-scale traders, improved marketing, and made fishing equipment and other inputs available in the project area. It has been able to access the whole target group through the rural infrastructure rehabilitation component and the microprojects of the community development fund. The water supply and road rehabilitation schemes, in particular, have contributed significantly to raising the standard of living in the targeted communities. Road rehabilitation has also benefited people living outside the project area. When infrastructure is developed, the implication is, in fact, that the whole population in the targeted area is benefiting from project inputs.



18. The fourth ingredient, **commercial** targeting, emphasized market linkages between the fishermen and the private sector, input distribution, and the marketing of fish and fish products. The establishment and maintenance of a market information system to support associated project activities (especially fisheries technology and processing) has proved to be relevant and useful. The project has also benefited traders living outside the project area, who now use the rehabilitated roads to market their goods in the fishing communities and buy fish to sell in inland parts of the country. Sustainable methods for information collection still need to be improved. The project systematically tapped local knowledge and experience, and combined these with “modern” expertise that was suitable to the environment and context in which the fishing communities live and operate.

19. Through careful targeting, not only has the project encouraged fishermen to develop and expand their fishing activities, but it has also promoted wider and more integrated development within the fishery sector. This experience shows that development investments have a far greater impact when strategies shift from a narrow focus on the project area to a multisectoral integrated programme approach. Such a shift in the artisanal subsector investment programme is consistent with IFAD’s current move towards a wider programme approach in development planning.

Recommendations:

- NAFP has repeatedly shown the effectiveness of multisectoral integrated methodology by targeting concurrently institutional, social, technical and commercial components. Future development activities should shift from a narrow project focus to a wider multisectoral integrated programme approach. Individual projects should address specific objectives within the larger programme.
- IFAD-supported projects based on the general programme approach should make best use of the experience gained by NAFP, emphasizing stakeholder participation and empowerment as essential parts of the development process.

V. WOMEN'S EMPOWERMENT

Anchita, a rather shy mother of five, is from Angoch. She has lived in poverty all of her life and until recently hardly had any savings at all. Anchita told the evaluation mission that she joined a savings club 18 months earlier, very reluctantly initially, and gradually learned how friends can get together and use savings to finance small income-generating activities. Borrowing from her group, she started a micro-business, trading small items such as soap, cooking oil and matches as well as cakes that she prepares herself. Anchita can now send her children to school and buy books for them.



20. The project has made a serious attempt to empower women, ensuring their integration in community committees and other project activities. In each of the 122 water committees formed by the project in the 42 communities, at least two members are women. In fact, in many committees more than two women were elected as members. Women have taken up duties of every kind, acting as controllers, mechanics, collectors and cleaners. Similarly, in the microproject committees for schools and health posts, women participate actively alongside men, carrying out all of the duties delegated to the committees. In the past, it was assumed that adult males should be responsible for decisions relating to borehole siting and the management of wells. However, a field survey revealed that within the family it was primarily children and women who had responsibility for issues relating to water. Therefore, it is not always precise to say that programmes have followed a participatory approach merely because adult males have been consulted in community meetings. Those most implicated in decisions about water – children and women – have often been excluded from deliberations. Recognizing this weakness, the Nampula project made sure that it took into account the full range of opinions and input and that its approach was truly participatory.

21. Women were also able to join credit and savings associations, and have been active particularly in savings. In fact, 75% of the membership of the 55 savings clubs is made up of women. Women members of the groups were able to save and borrow in order to buy food commodities to trade within



their communities. The active participation of all community members, including women, in these committees is a clear reflection of their sense of ownership of the social services. NAFP has fostered community awareness of development prospects through women's empowerment and has helped women in fishing communities to develop the skills needed to ensure their effective participation in decision-making processes that affect their well-being. In a society traditionally dominated by men, where women have no voice, the participation of women in water committees together with men is considered a very important and potentially far-reaching project achievement.

Recommendations:

- To further reduce the social and economic constraints encountered by women, a gender study should be carried out to review the current demand for services among women in fishing communities; assess the availability of these services from existing institutions and NGOs; and develop a programme to meet local needs, including initiatives in adult education and vocational training in preparation for income-generating activities.
- Strategies to accelerate women's empowerment should include building awareness of the economic and social benefits accruing from their participation in income-generating activities, including the need to provide women with access to employment opportunities and credit facilities and to satisfy their basic health, education and other needs.