

SUSTAINABLE INTERVENTIONS FOR NEGRIL FISHER FAMILIES

Summary, Conclusions and Recommendations

Prepared for:

**USAID/Jamaica
Development of Environmental Management Organizations (DEMO)**

By

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LIST OF ACRONYMS AND TERMS

CIDA	Canadian International Development Agency
C-WIP	Coastal-Waters Investment Project
DEMO	Development of Environmental Management Organizations
EAST	Environmental Audits for Sustainable Tourism
EFJ	Environmental Fund of Jamaica
ENACT	Environmental Action Program
EU	European Union
IRR	Internal rate of return
JCDT	Jamaica Conservation and Development Trust
MBMP	Montego Bay Marine Park
MBMPT	Montego Bay Marine Park Trust
NCRPS	Negril Coral Reef Preservation Society
NEPT	Negril Environmental Protection Trust
NFC	Negril Fishermen Cooperative 1992, Ltd.
NGO	Non-Government Organization
NIBJ	National Investment Bank of Jamaica
NPV	Net present value
NRCA	Natural Resources Conservation Authority
NRM	Natural resources management
RRA	Rapid rural appraisal
SDC	Social Development Communication
SO	Strategic Objective
SCCF	South Coast Conservation Foundation
TA	Technical assistance
USAID	United States Agency for International Development
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. Summary

This report presents the results of analyses carried out (during September - October, 1997) on possible alternative livelihood opportunities for fishermen in the Negril area who may be affected by the declaration of the area as a marine park. It is perceived that the fishermen will be displaced to some extent as some areas will be closed and the fishermen will be obliged to travel further to fish on more congested banks. Anticipating these impacts, USAID/Jamaica is considering an extension of the Development of Environmental Management Organizations (DEMO) project to provide support for the fishermen in Negril in finding and promoting acceptable alternative livelihood options. The major objective for USAID is to stop and eventually reverse the degradation of the coral reefs (to be included in the marine park) by addressing one of the perceived causes for the degradation—over fishing.

The approach consisted of conducting several rapid rural assessments of fishing communities in the Negril area to elicit the social and cultural characteristics of the fishing communities, and to obtain information on fisher family perceptions on fishing, the environmental integrity of the coral reefs and the area in general, tourism, and alternative livelihood opportunities. In addition, an overview was provided on the biophysical characteristics of the area, including the fishing and land-based resources and tourism.

Based on the information obtained, three alternative livelihood options were considered: a) fresh water fish farming (aquaculture), b) seamoss farming (mariculture), and c) sustainable tourism. The main premise of the study is that the proposed alternative livelihood options are financially feasible from the fishermen's perspective. If the options do not make financial sense to the fishermen participation will not be forthcoming unless direct subsidies and/or financial incentives are offered. The analyses carried out in this report do not count on such subsidies or incentives in order to attain financial feasibility.

The results indicate that all three interventions are financially feasible from the perspective of the individual fisher families based on conservative assumptions. This is to say that participating fisher families are likely to be financially better off with the interventions than without them. The harmful ecological impacts on the coral reefs will presumably decline in accordance with the reduced fishing effort. USAID/Jamaica is, therefore, encouraged to pursue an extension of the DEMO project with a view to supporting the Negril fisher families in acquiring the necessary skills and funding to implement the interventions. Several conclusions and recommendations that USAID can incorporate into the terms-of-reference for the extension of the DEMO Project follow.

B. Conclusions and Recommendations

Conclusion 1: The coral reef ecosystem off the Negril area has been severely degraded over many years, due to natural and anthropogenic causes. Excessive land-based nutrient inputs from coastal development, particularly tourism, are major current sources of stress on these reefs. The health of the reefs will continue to deteriorate unless nutrient inputs into the coastal waters are drastically reduced.

Recommendations pertaining to Conclusion 1:

1. The Project should conduct an audit on the effectiveness of Negril's wastewater and sewage management systems in order to determine the areas for priority remedial action, concluding with the identification of and recommendations for the best available practice(s) for long-term containment and treatment. The recommendations should then be presented to key individuals and institutions involved or concerned with wastewater and sewage management systems in series of meetings and workshops with a view to identifying funding sources and securing funding to implement the recommendations. A detailed economic analysis should be an integral part of the effort.
2. The Project should determine the carrying capacity of the Negril area for tourism related development so as to guide coastal resource management. Factors to be considered should include beach degradation, use intensity, shore/marine flora and fauna, water quality, utilities and services, waste management, and socio-cultural impacts.

Conclusion 2: There is no active management of the fishery in the coastal areas utilized by Negril fishermen. The size and type of catch has declined over the last two decades mainly through habitat degradation and increased fishing pressure. Fishery stock will continue to decline if there are no appropriate management interventions.

Recommendation pertaining to Conclusion 2: The Project should fund an effort to define the most effective control mechanisms for the local fishery in order to minimize the rate of stock depletion and to assist in stock recovery. The Plan for Managing the Marine Fisheries of Jamaica, the Draft Provisional Management Plan for the Portland Bight Sustainable Development Area 1997-2000, and broad based consultation with researchers, fisher families and local authorities, should be utilized in the development of a fisheries management plan for the Negril area.

Conclusion 3: Unsustainable and destructive fishing techniques such as spear fishing, seine nets and dynamiting are also negatively impacting the coral reef and contributing to the degradation of breeding grounds for juvenile fish. This has been exacerbated by the increasing intrusion of fishermen from other parishes now fishing in the Negril Watershed. It is, however, a sensitive issue as many local spear fishermen, aged 17-25, who lack assets such as boats and engines, will suffer from a ban on these activities. It is

anticipated that, without other means of income, many spear fishermen may turn to crime or harassing tourists.

Recommendations pertaining to Conclusion 3:

1. The Project should target young spear fishermen participation in any proposed alternative income-generating initiatives to reduce the dependency on this type of fishing effort as a main livelihood activity. This should include workshops to enlighten the fishermen on the ramifications of proposed marine park regulations as few fully understand the conservation issues and perceive the regulations as in conflict with their rights.
2. The Project should fund a study for the purpose of identifying the legislation needed to address sea tenure rights in order that local fishing communities can be protected from external fishermen using destructive fishing techniques in local fishing grounds.

Conclusion 4: The proposed marine park zoning restrictions, intended to prohibit fishing activity within one mile of the shoreline, will displace an estimated 70 percent of fishermen currently active in these areas. As fishermen without boats (as is the case of spear fishermen), and those with boats but no engines, will not be able to fish in waters beyond one and a half miles of the shoreline. These fishermen represent the poorest fishermen in Negril as unlike trap fishermen who can attend to land-based activities once their traps are set, fishing is the mainstay of their livelihoods.

Recommendation pertaining to Conclusion 4: The Project should target the displaced fisher families for support in terms of alternative livelihood opportunities. This should include training for any of the alternative livelihood opportunities discussed in this report, as well as retraining in areas that would provide fishermen with the needed skills to compete for employment in the marine park or in park-related activities. Some fishermen (at least one member from every community) are presently employed in marine park initiatives and reflect a greater understanding of environmental and management issues than other fishermen.

Conclusion 5: Though unrelated to the results presented in this report, it is concluded that the key institutions involved with or on behalf of the Negril fishing communities (NRCA, NEPT, and others) are lacking in economics or financial expertise. The focus of any effort intended to improve the economic conditions of the Negril fishermen cannot be done without rigorous economic input and analysis.

Recommendation pertaining to Conclusion 5: Solid economic and financial analysis expertise should be added to Project portfolio of technical assistance as well as to the staffs of NRCA and NEPT.
