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Economics and coastal resource management in the Pacific: the work of the International Waters Project¹

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ABSTRACT

The International Waters Project (IWP) is a seven-year project aimed at addressing the root causes of degradation in Pacific island international waters. The coastal component of the IWP supports the establishment of 'pilot' projects in each of 14 participating countries. Among other things, the project aims to address economic incentives that result in unsustainable practices.

Economic information is important to identify the constraints that communities are under and to identify what their priorities are in relation to resource use/management.

The IWP assists countries to use economic information in order to identify the causes of problems and assess the feasibility and suitability of solutions. Few countries have yet reached the point of assessing the feasibility of solutions. However, more assessments should occur in the next few months.

Understanding and application of economics to environmental projects is likely to be slow in many Pacific countries. However, it is hoped that experience gained under the IWP pilot projects will raise the profile of how economics can support environmental decision-making.

INTRODUCTION

The International Waters Project (IWP) implements the 'Strategic Action Programme for the International Waters of the Pacific Small Island Developing States'. Fourteen Pacific Island countries participate in the IWP2. The IWP is intended to address the root causes of degradation in Pacific island international waters. The project has two main components: (i) an oceanic component which focuses on the management and conservation of tuna stocks in the western central Pacific and (ii) a coastal component that focuses on integrated coastal watershed management. This paper is concerned with the implementation of the coastal component of the IWP only.

Objectives of the coastal component of the IWP

The coastal component of the project is aimed at supporting community-level actions to address environmental concerns relating to:

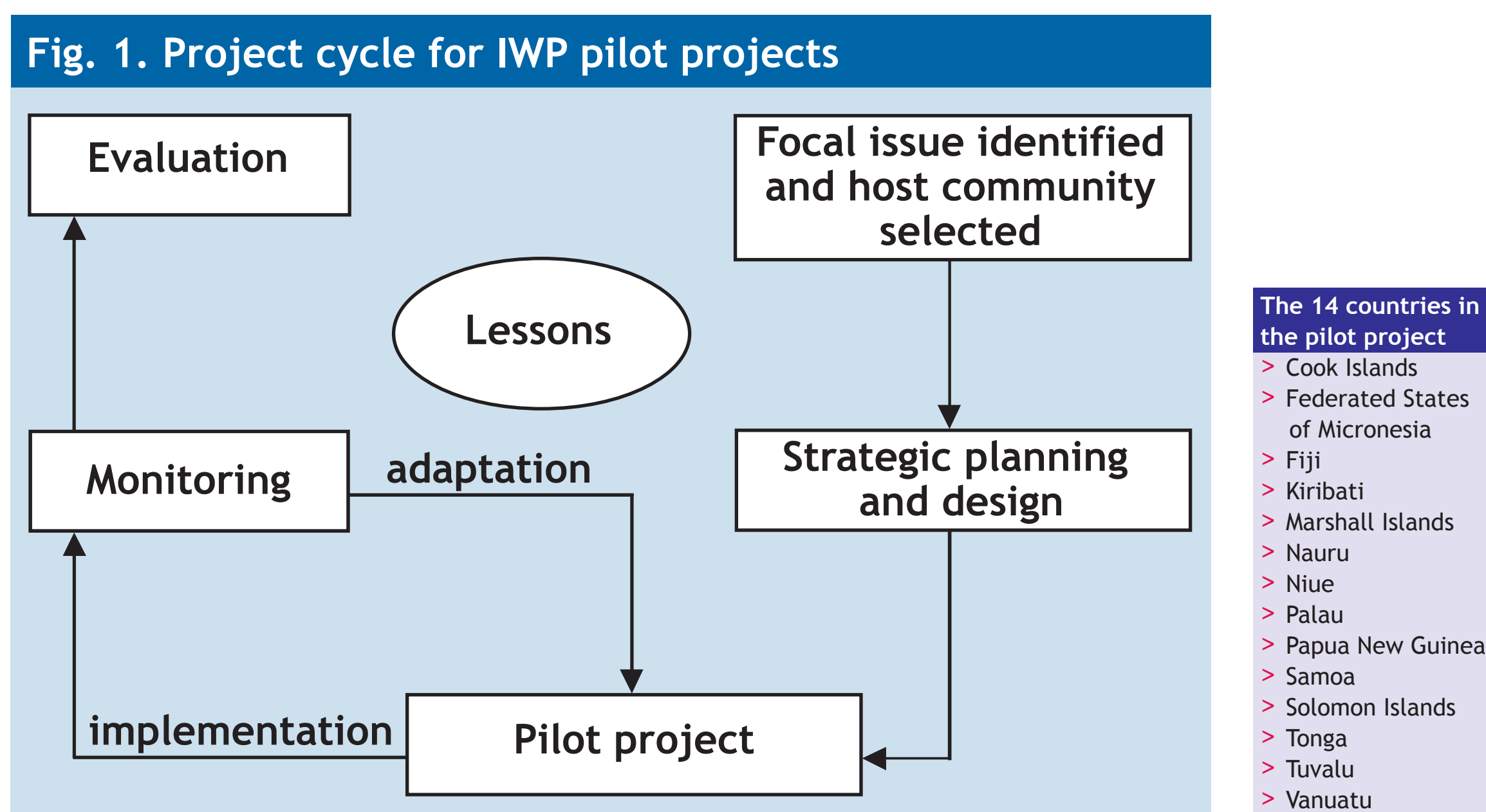
- >▫ marine and freshwater quality;
- >▫ habitat modification and degradation; and or
- >▫ unsustainable use of living marine resources.

To do this, the project supports the establishment of demonstration or 'pilot' projects in each of the participating countries. Each pilot project is intended to address the root causes of degradation relating to:

- >▫ marine protected areas;
- >▫ coastal fisheries;
- >▫ freshwater resources;
- >▫ and or waste.

ECONOMICS AND RESOURCE MANAGEMENT

Economics is seen as a critical element of resource management throughout the life of the project. The life of an IWP pilot project is summarised below as a standard project life cycle (Fig. 1) involving several stages.



ECONOMIC ACTIVITIES UNDER THE IWP

The IWP aims to support countries to incorporate economics to their pilot projects. Recognising that country familiarity with and capacity in economics work varies from country to country, advice is given and countries elect to undertake economic activities or not as they see appropriate. This means that countries have different experiences of applying economics to their projects and no one country is likely to be the same. Economic activities currently being conducted under the IWP are considered below.

Collection of information and identification of root causes

For solutions to resource problems to have a lasting effect, they should address the causes of those problems. Under the IWP, there is a dedicated push to support countries to consider the root causes of their resource problems. This is principally targeted through the collection of information relating to the problem and through the use of participatory problem analyses involving stakeholders contributing to or affected by the problem.

For instance, to support the problem analysis, a variety of economic (and social) information has been collected - or is targeted for collection - under the IWP. Economic information includes, for example, incomes, employment, social and cultural obligations and literacy levels. This information will provide critical information on root causes of environmental or resource management problems. It should indicate the constraints under which people are living (such as poverty, social demands) thereby highlighting the extent to which resource management is likely to be a priority for communities.

Identification of solutions to address root causes

Information on the root causes of unsustainable resource use is used under the IWP to identify potential solutions for problems. For instance, many communities are keen to introduce new rules to prevent members from overfishing or polluting waters by dumping waste. However, where economic information reveals low incomes and or high debt levels, people are unlikely to be deterred by the threat of fines where they are already unable to even buy essentials. Instead it may be more appropriate to consider non-financial fines that impact other things people value (such as time or prestige). Therefore, non-compliance with any locally instructed rules might be accompanied by, for example, community service or shaming.

A partial solution that is commonly emerging from pilot projects in the IWP is that of economic evaluations of resource uses. The purpose of these evaluations is principally to counter some perceived problems of low government priority, or low funding for, resource use problems. The information from economic evaluations would be used to lobby governments to increase support for protecting and investing in those resources.

The information generated from economic evaluations also has a number of other important roles in the Pacific. At the site level, the information can be used to raise the profile of the cost of resource degradation to individuals. For instance, waste problems can result in out of pocket expenses to families from medical expenses and days lost from work. This information, when highlighted to individuals as a genuine cost, will be used to encourage people to control waste with the reward being a reduction in personal costs.

Assessment and comparison of alternative solutions

For projects to be sustainable, solutions need to be financially and economically feasible. Under the IWP, support will be given to assist countries to conduct financial feasibility assessments of commercial activities that are introduced to support environmental management (such as ecotourism or privately established waste removal services). In addition, proposed solutions will be assessed in terms of their ecological, social and economic impacts. To date, a few countries have reached the point where they are considering the feasibility of solutions since few have identified detailed solutions. However, in Samoa, Fiji and Tonga, projects are looking at the cost effectiveness of renovating small local water reservoirs, establishing composting activities or establishing local level waste removal services.

SUPPORT FOR THE IWP IN ECONOMICS

In-country experience in resource economics varies across the Pacific. Some countries in fact have little experience of applying resource economics to their environmental situations. To address these challenges, the IWP attempts to support Pacific island countries in building their capacity in resource economics. First, the project cycle developed for the IWP should assist countries to implement their projects in a step wise manner. It should increase familiarity with certain economic issues (such as feasibility of solutions, economic evaluation) and hopefully lead to flow on benefits. Second, an economics course has been developed under the IWP to assist in-country staff in using economics to support community based environment and development projects. This course was very successful in raising the meaning and profile of economics in environmental projects, particularly at the local level. Consequently, many of the course participants are now attempting to incorporate more economics to their projects. Third, funding is available in in-country budgets to support the use of consultants in economic work where needed (such as in conducting some of the economic evaluations. Finally, the project employs a full time natural resource economist to support in-country staff with project design and implementation.

WHERE TO FROM HERE?

The IWP is currently focused on conducting root cause analysis and baseline information collection in its participating countries. Some countries are considering solutions to their problems but few countries have got as far as determining precisely what new rules, incentives or activities will be introduced. This means that there have not yet been any extensive assessments of solutions. When solutions have been assessed and selected, the IWP will support countries in designing the solutions within a management or action plan. Solutions will then be implemented and economic parameters will be used for monitoring as appropriate. Where practical, some form of benefit cost analysis of project contributions may be conducted under the IWP towards the end of the project (2006). At the moment, this is likely to be a qualitative exercise with benefits described and only costs considered in monetary terms. On the other hand, where economic evaluations of resource use are conducted, the information generated can be used to support the analyses.

An important issue for Pacific governments will be the need for additional resource economic support now and in the future. While the IWP can provide support in the context of its own objectives, there are other natural resource problems that the IWP does not address (such as climate change, for example). Further, the project finishes in December 2006 and yet there are likely to be on-going needs for support after then. It may be possible to address part of this need in a replication strategy for the project. Nevertheless, there is a need for on-going support generally.

¹The views expressed in this paper have not been endorsed by SPREP, its member countries or those 14 countries participating in the International Waters Project
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