

Global Environment Facility

MOHAMED T. EL-ASHRY
CHIEF EXECUTIVE OFFICER
AND CHAIRMAN

June 30, 1999

Dear Council Member:

I am enclosing a medium-sized project proposal entitled, *Federated States of Micronesia: Community Conservation and Compatible Enterprise Development on Pohnpei*. The GEF will contribute \$748,244 towards the total cost of \$2,200,904.

The project will assist the State of Pohnpei, one of the Federated States of Micronesia, to address key threats to biodiversity of global significance through a suite of key, targeted community-based intervention. The project will engage government and local communities to

- incorporate biodiversity conservation into natural resource planning and management;
- improve kava cultivation in lowland regions and other environmentally-friendly enterprises to help reduce pressures on key upland, biodiversity-rich forests;
- strengthen local capacity; and
- develop a sound monitoring and evaluation scheme and strengthen policy and regulatory frameworks

The proposal is being sent to you for your information. We would welcome any comments you may wish to provide by July 20, 1999, in accordance with the procedures approved by the Council.

Sincerely,

Enclosure:

Federated States of Micronesia: Community Conservation and Compatible Enterprise Development on Pohnpei

cc: Alternates, Implementing Agencies, STAP



Convention on
Biological Diversity

Secretariat

Date: 12 April 1999

To: **Kenneth King -For Operations Co-ordination**
GEFSEC (Fax: 202 522 -3240)

Lars Vidæus, World Bank/GEF (Fax: 202 522 -3256)

Rafael Asenjo, UNDP/GEF (Fax: 212 906 -6998)

Ahmed Djoghlaif, UNEP/GEF (Fax: 254 2 520 825)

From: **Hamdallah Zedan**
Acting Executive Secretary
CBD Secretariat



Subject: **Comments on project proposals**

Please find enclosed the comments on the following project proposals:

Global: "Promoting Best Practices for Conservation and sustainable Use of Biodiversity of Global Significance in Arid and Semi-Arid Zones" (MSP, UNEP)

Micronesia: "Community Conservation and Compatible Enterprise Development in Pohnpei, FMS" (MSP, UNDP)

Peru: "Collaborative Management for the Conservation and sustainable Development of the Northwest Biosphere Reserve" (MSP, World Bank)

Hope these points are useful in your consideration of these proposals.



United Nations
Environment
Programme

Tel: 1 (514) 288 2220
Direct: 1 (514) 287 7022

Fax: (1-514) 288.65.88
E-mail: Secretariat@biodiv.org

World Trade Centre
393 St. Jacques Street, Office 300
Montreal, Quebec, Canada H2Y 1N9

2. Micronesia, F.S.: "Community Conservation and Compatible Enterprise Development in Pohnpei, FMS" (MSP, UNDP)

Comments:

1. Country eligibility

Ratification: 20 June 1994

2. National priority status

Endorsement attached. First national report not available at the Secretariat. According to page 2 of the proposal, there is a NBSAP indeed. The Secretariat would appreciate if any copy of this NBSAP could be made available.

3. Relevance to COP guidance

(1) Category II (Principal):

COP-1: 4(j) Projects that strengthen the involvement of local and indigenous people in the conservation of biological diversity and sustainable use of its components

(2) Category I (Significant)

COP-1: 4(d) Identification and monitoring of wild and domesticated biodiversity components, in particular those under threat, and implementation of measures for their conservation and sustainable use

COP-1: 4(e) Capacity-building, including human resources development and institutional development and/or strengthening, to facilitate the preparation and/or implementation of national strategies, plans for priority programmes and activities for conservation of biological diversity and sustainable use of its components

4. Additional Points

What is the status of the Watershed Management Strategy? It appears to include a subtitle "building a sustainable future: 1996-2000".

Is there any checklist for international NGO-executed projects? Perhaps, a local counterpart's participation (local government or local NGO, if not national government) could facilitate the implementation.

The section on project linkages to IA programs could be completed.

Some components could be made clearer. For instance, on page 9, it is proposed to establish MRMC, but on the same page, it also indicates that MRMC was newly formed. The second column of the Logframe Matrix appears to be "indicators", not "verifiable indicators".



Global Environment Facility

1818 H Street, N.W., Washington, DC 20433 USA
Tel: (202) 473-0508 - Fax: (202) 522-3240 / (202) 522-3245

Facsimile Cover Sheet

DATE: April 21, 1999 No. of Pages: 3
Inc. Cover sheet

TO: Rafael Asenjo PHONE:
ORGANIZATION: UNDP/GEF Executive Coordinator FAX: (212)906-6998

FROM: Mario A. Ramos PHONE: (202) 473-3297
Program Manager FAX: (202) 522-3240

CC: E. Fuentes, K. Birr, T. Boyle (UNDP), K. Kumari, H. Acquay, R. de Mesa (GEF)

SUBJECT: MSP: Micronesia: Community Conservation and Compatible Enterprise Development on Pohnpei

Message:

Dear Rafael:

As requested, we have reviewed the above project document and would like to offer the following comments:

Although the project concept was ruled eligible by the Secretariat, upon review of the project document the Secretariat finds a number of issues of relevance that merit discussion with your staff as follows:

- (a) Looking at the project as a whole, it is not immediately clear that it should be eligible for GEF funding. There is some mention of the biodiversity on the island at the start of the proposal, but it is not clear how the proposal will conserve/consolidate this biodiversity and secure the suggested global environmental benefits;
- (b) In essence the project as presented seeks to alleviate the pressure on upland forests due to the planting of kava, by shifting this to lowland forests, apparently through further forest clearance. The idea then is to use 'green' (environmentally friendly) planting approaches for this lowland kava. All of this is consistent with the watershed strategy the government is trying to implement. The Secretariat has two major reservations: (i) that kava is an economically lucrative crop, and hence there is all the incentive for the country to do it nationally, or with their import clientele (US are major importers). Given this, the incrementality of proposed activities seems questionable; and (ii) that the GEF would apparently be funding, directly and indirectly, forest clearance to plant 'green' kava: which in effect could mean loss of more biodiversity than will be conserved through any 'green kava'. That is not to say the country should not undertake this economically attractive option,

it is just that it is not clear what the biodiversity conservation inputs will be. This is neither agro-biodiversity, nor biodiversity conservation in a conventional sense, and the Secretariat has difficulty in reconciling the strategy of the project with the eligibility issue.

- (b) the communities are major players, and will be from the project be fully consulted. However, it is not clear what level of consultation has gone into the preparation of the proposal itself.
- (c) further, land tenure, resource rights issues are mentioned in a very cursory fashion but not clearly addressed. This is key as the proposal argues that bio-prospecting is likely to be a good alternative for this country. The Secretariat has requested UNDP to address the issue in the project brief.
- (d) TNC is one of the major players but the proposal seems to finance its regular work program in Pohnpei;
- (e) there is good co-financing, but not clear from whom. The list of other donors include: SPREP, the College of Micronesia, the Pohnpei State Government, the Japanese government; US, Japanese and local private corporations, and TNC. What project components are these donors financing? How are project costs shared? In addition, the proposal gives the impression that as major donors are departing (e.g., US government) the GEF is being asked to step in and assist. It should be kept in mind that GEF funding is incremental not substitutional.
- (f) government financial contribution is mentioned in the text but not indicated in the budget. As the project basically proposes to finance key components of the national sustainable development agenda, the government contribution should be quite substantive.
- (g) project proponents propose to use approximately 68 percent of GEF resources on recurrent costs (personnel and indirect costs). What measures are proposed so these costs are internalized in government programs?
- (h) the issue of compatible development is mentioned several times, but again it doesn't get addressed in-depth. UNDP has been asked to address this issue in detail in previous upstream consultations (was something that the Secretariat had asked for details during concept clearance, together with tenure issues);
- (i) some of the proposed M&E indicators are not quantified and/or focus on processes not results and impacts on the ground. This should be corrected.

Given these concerns, and other is raised by the reviewing IAs, it may be worth scheduling a brief phone conference with your staff to discuss them. Thanks.

GEFSEC Project Tracking System

Response Due Date: 04/09/99

Correspondence Description

Addressed to: <u>Mr. Kenneth King</u>	Correspondence Date: 03/04/99
Date Received: 03/19/99	Organization: UNDP
From: Rafael Asenjo	

<i>Assigned To: K. Kumari</i>	<i>Re-Assigned to: M. Ramos</i>
--------------------------------------	--

<i>Status: Open</i>

Type: Fax Topic: MS PROJECT: MICRONESIA: Community Conservtion and Compatible Enterprise Development on Pohnpei
--

Action Instructions

- For Bilateral meeting
- For information only. No action needed.
- Please handle/respond on behalf of Mr. Kenneth King and provide a copy.
- Please handle/respond on behalf of Mr. Mohamed El-Ashry and provide a copy.
- Please prepare a draft response and return to Program Coordinator
- Please reply directly and provide a copy.
- Please review and/or technical comments

Special Instructions

Kanta, please enter your review in the PRS database.
GEF staff, please send your technical comments to Kanta by April 7.

Information Copies Sent To:

A. Merla, H. Acquay, M. Ramos, M. Cruz, J. Taylor

<i>Projects File Room Location:</i>
--

Note: A copy/original of the document is being sent directly to your attention.

Please return this page with a copy of the incoming correspondence and the reply/action taken to Program File Manager (GEFSEC Project File Room) before or by due date with the original copy of the correspondence and the reply/action.

GEFSEC Project Tracking System

Response Due Date: 04/09/99

Correspondence Description

Addressed to: <u>Mr. Kenneth King</u>	Correspondence Date: 03/04/99
Date Received: 03/19/99	Organization: UNDP
From: Rafael Asenjo	

<i>Assigned To: K. Kumari</i>

<i>Status: Open</i>

Type: Fax Topic: MS PROJECT: MICRONESIA: Community Conservtion and Compatible Enterprise Development on Pohnpei
--

Action Instructions

- For Bilateral meeting
- For information only. No action needed.
- Please handle/respond on behalf of Mr. Kenneth King and provide a copy.
- Please handle/respond on behalf of Mr. Mohamed El-Ashry and provide a copy.
- Please prepare a draft response and return to Program Coordinator
- Please reply directly and provide a copy.
- Please review and/or technical comments

Special Instructions

Kanta, please enter your review in the PRS database.
GEF staff, please send your technical comments to Kanta by April 7.

Information Copies Sent To:

A. Merla, H. Acquay, M. Ramos, M. Cruz, J. Taylor

<i>Projects File Room Location:</i>
--

Note: A copy/original of the document is being sent directly to your attention.

Please return this page with a copy of the incoming correspondence and the reply/action taken to Program File Manager (GEFSEC Project File Room) before or by due date with the original copy of the correspondence and the reply/action.



United Nations Development Programme



GLOBAL ENVIRONMENT FACILITY

FACSIMILE

To: *Kenneth King*

Fax: *(202) 522-3240 / 522-3017*

From: Jane W. Jacqz
Senior Adviser
UNDP/GEF

Tel: (212) 906-6076

Fax: (212) 906-6998

Email: <jane.jacqz@undp.org>

Date: *19 march*

Subject: *Fiji MSP: Community Conservation
and compatible Enterprise
Development*

Pages to follow:
46



United Nations Development Programme
GLOBAL ENVIRONMENT FACILITY



Date: 4 March 1999

To: Mr. Kenneth King
Assistant CEO

Attention: Program Coordination

From: Rafael Asenjo
GEF Executive Coordinator

Subject: *Submission of FSM's Project Brief entitled "Community Conservation and Compatible Enterprise Development in Pohnpei, FSM"*

Enclosed is a project brief for "*Community Conservation and Compatible Enterprise Development in Pohnpei, FSM*" submitted to UNDP by *The Nature Conservancy and the Federated States of Micronesia*. Please note that the project has been endorsed by the GEF national operational focal point in the Federated States of Micronesia.

In accordance with the operational guidance for the preparation and approval of medium-sized projects, we are submitting this to the GEF Secretariat for action by the Chief Executive Office (CEO). We understand that the Secretariat will recommend to the CEO that the project be submitted to the Council for approval, that it be returned for revision or that it not be developed further.

We are simultaneously circulating copies to UNEP/GEF, World Bank/GEF, STAP and the Biodiversity Convention Secretariat for comments to the GEF Secretariat. We expect to receive these comments within 15 working days. Therefore, we look forward to receiving the CEO's decision on or before 9th of April 1999 but understand that the project will not be formally approved, even if the CEO has endorsed it, until the Council has reviewed it within the following 15-day period, namely by the 30th of April 1999.

Thank you and best regards.

cc: Ahmed Djoghlaif, UNEP
Lars Vidaeus, World Bank
Madhav Gadgil, STAP
Rohit Khanna, UNEP/GEF
Mark Griffith, UNEP/STAP
Calestous Juma, CBD

PROJECT SUMMARY

<p>1. Project name: Community Conservation and Compatible Enterprise Development on Pohnpei, Federated States of Micronesia</p>	<p>2. GEF Implementing Agency: UNDP</p>
<p>3. Country or countries in which the project is being implemented: Federated States of Micronesia (FSM)</p>	<p>4. Country eligibility: The FSM ratified the CBD on April 26, 1994 and meets all other eligibility requirements.</p>
<p>5. GEF focal area(s): Biodiversity</p>	<p>6. Operational program/Short-term measure: Forest Ecosystems and Coastal, Marine, and Freshwater Ecosystems (including wetlands).</p>
<p>7. Project linkage to national priorities, action plans, and programs: This project is designed to assist the Government of the FSM in meeting its obligations under the Convention on Biological Diversity through protecting Pohnpei's globally significant terrestrial and marine biodiversity. It will also develop and implement an innovative model for community-based biodiversity conservation based on <i>Pohnpei's Watershed Management Strategy: Building a Sustainable Future: 1996-2000</i>, which was jointly developed over the last four years by the Pohnpei state government, The Nature Conservancy (TNC), and local communities, with the support of the Asian Development Bank (ADB), the South Pacific Regional Environment Programme (SPREP), the U.S. Forest Service, and others.</p>	
<p>8. GEF national operational focal point and date of country endorsement: Department of External Affairs of the Federated States of Micronesia, December 4, 1997. Contact: Ieske K. Iehsi, Acting Secretary. Letter of endorsement on file with UNDP, Fiji.</p>	
<p>PROJECT OBJECTIVES</p>	
<p>9. Project rationale and objectives: Pohnpei Island in the Federated States of Micronesia (FSM) is a globally important site for biodiversity with some of the highest levels of species diversity and endemism in the entire Pacific Island realm. This project is expected to have substantial global benefits through protecting Pohnpei's biodiversity, and developing model community-based conservation strategies and methods which can be transferred to other FSM states and Pacific island countries. The specific project objectives are to:</p>	
<ol style="list-style-type: none"> engage local governments and all communities on Pohnpei in incorporating biodiversity conservation into natural resource planning and management by providing support the development and implementation of Community Action Plans, and disseminating innovative methodologies to other FSM states and island nations; control destructive <i>kava</i> cultivation in upland forests with the highest biodiversity through developing a "green" lowland <i>kava</i> industry and other environmentally compatible enterprises designed to reduce pressures on upland forests; 	

3. build the capacity of community-based organizations, Community Conservation Officers, and the Conservation Society of Pohnpei to help protect targeted upland forests and marine areas of high biodiversity value;
4. build a community-based conservation monitoring and enforcement program to improve community resource management and related decision-making; and,
5. support the development of state and local conservation laws, policies, and financing mechanisms that promote effective, long-term, community-based conservation of the island's globally significant biodiversity.

Indicators:

- Pohnpei's globally significant forest and marine resources protected;
- effective community-based resource management established in Pohnpei, and adoption of methodology begun in other FSM states and Pacific island countries;
- sustainable lowland *kava* industry established, and development of other compatible forest and marine enterprises begun;
- local capacity of community-based organizations and NGOs increased for resource management and compatible enterprise development;
- monitoring and enforcement programs conducted by local communities and data used by decision-makers;
- community-based resource management legislation and policies formulated and adoption begun by national and state governments; and,
- long-term conservation financing mechanisms established.

10. Project outcomes:

1. support of biodiversity conservation components of programs for Community Resource Management Committee formation, Community Action Plan development, and other planning activities;
2. dissemination of a model community-based natural resource planning and management methodology to other FSM states and Pacific island countries;
3. implementation of program to reduce upland *kava* cultivation in areas of high biodiversity value;
4. development of other compatible enterprises designed to reduce pressures in areas of high biodiversity value;
5. develop and implement capacity-building program for community-based organizations and NGOs targeting areas of high biodiversity value;
6. enforcement of regulations in areas of high biodiversity value;
7. monitoring biodiversity status and trends in select biodiversity plots;
8. adoption and implementation of policy and legal reforms that remove barriers and provide a stronger supporting framework for community-based conservation; and,
9. assessment of a wide range of long-term resource management financing options, and promotion of the most promising mechanisms for supporting biodiversity conservation.

Indicators:

- key species protected in community-managed forest and marine reserves;
- Community Action Plans completed, community-managed conservation areas established, Community Conservation Officers appointed and trained, and, adoption of community-based resource management begun by other Pacific island states and countries;
- destructive cultivation of *kava* in the upland forest controlled through increased public awareness and promotion of a sustainable, lowland *kava* industry and other alternative compatible enterprises;
- Resource Management Committees established at the community, municipal, and state levels; community-based organizations and NGOs established, capacity-building needs identified, and assistance provided;
- communities trained in monitoring and enforcement methods; monitoring data used in decision-making, adoption of monitoring and enforcement programs begun by other FSM states and Pacific island countries;
- legislation and policies formulated to support community-based resource management, and adoption begun by national and state governments; and,
- proportion of national and state budgets allocated to natural resource management and compatible development, amount and diversity of long-term conservation funding available after Compact expiration in 2001.

11. Project activities to achieve outcomes (including cost in US\$ or local currency of each activity):

1. expansion of community planning process island-wide, including formation of Community Resource Management Committees and development and implementation of Community Action Plans with strong conservation components (\$234,000);
2. dissemination of model methodology to other FSM states and Pacific island countries (\$184,000);
3. development of a model "green" lowland *kava* industry (\$783,000);
4. development of other compatible enterprises (\$102,570);
5. development and implementation of a model capacity-building program to strengthen conservation capacity of community-based organizations and NGOs (\$285,600);
6. development of effective community-based enforcement and monitoring program island-wide (\$508,034);
7. adoption and implementation of policy and legal reforms providing a stronger supporting framework for community-based conservation (\$43,350); and,
8. assessment of a wide range of long-term resource management financing options, and promotion of the most promising mechanisms (\$60,350).

Indicators:

- number of Community Action Plans, number of community-managed protected areas, adoption of community-based resource management begun in other Pacific island states and countries;

- public awareness of the negative impacts of *kava* cultivation in the upland forest increased, new forest clearing halted or rate of clearing greatly reduced, number of farmers moving *kava* cultivation from the upland forest to the lowland agroforests, cultivation of lowland *kava* increased and upland *kava* decreased, production of other crops increased, number of persons employed or deriving income from compatible forest and marine enterprises and total value of enterprises as a contribution to GDP;
- effectiveness of local conservation community-based organizations, NGOs, and Resource Management Committees, and conservation projects initiated;
- quality and quantity of monitoring data collected by local communities, quality and dissemination of annual data for the sustainable indicators monitoring program; and,
- legislation and policies formulated, and adoption begun for community-based resource management, proportion of national and state budgets allocated to natural resource management and compatible development, amount of long-term conservation funding available after Compact expiration in 2001.

12. Estimated budget (in US\$ or local currency):

PDF: -0-
 GEF: US\$748,244
 Co-financing: US\$1,452,660
 TOTAL: US\$2,200,904

INFORMATION ON INSTITUTION SUBMITTING PROJECT BRIEF

13. Information on project proposer:

The Nature Conservancy is an international non-governmental organization. Its mission is to preserve the plants and natural communities that represent the diversity of life on earth by preserving the lands and waters they need to survive. Operating in the United States for over forty years, the Conservancy also has Latin America/Caribbean and Asia/Pacific regional programs that focus on the conservation of living resources outside of the United States. In the Federated States of Micronesia, The Nature Conservancy has worked for six years with national and state governments, traditional leaders, communities, and regional and international organizations to protect Pohnpei's globally significant biodiversity through community-based resource management.

14. Information on proposed executing agency (if different from above):

Same as above.

15. Date of initial submission of project concept:

July 5, 1997

INFORMATION TO BE COMPLETED BY IMPLEMENTING AGENCY:

16. Project identification number:

17. Implementing Agency contact person:

Tim Boyle, GEF Regional Coordinator BD/TW, RBAP. <tim.boyle@undp.org>

18. Project linkage to Implementing Agency program(s):

TABLE OF CONTENTS

I. BACKGROUND AND CONTEXT	1
II. PROJECT BASELINE.....	2
1. Major Threats to Biodiversity	2
2. Past and Current Initiatives to Address Biodiversity Threats	2
3. Lack of Technical Capacity and Financial Resources.....	6
III. THE GEF ALTERNATIVE	6
1. Project Rationale	6
2. Goal and Objectives.....	6
3. Expected Outcomes	7
IV. PROJECT ACTIVITIES	7
<i>Component 1: Support Community-based Resource Planning and Management.....</i>	<i>8</i>
1. CBD Articles Being Implemented.....	8
2. Background	8
3. Proposed Activities.....	9
<i>Component 2: Promote Alternatives to Unsustainable Kava Cultivation</i>	<i>10</i>
1. CBD Articles Being Implemented.....	10
2. Background	10
3. Proposed activities.....	11
<i>Component 3: Build Local Leadership Capacity for Conservation and Sustainable Development</i>	<i>12</i>
1. CBD Articles Being Implemented.....	12
2. Background	12
3. Proposed activities	13
<i>Component 4: Develop and Implement a Community-Based Monitoring and Enforcement Program</i>	<i>14</i>
1. CBD Articles Being Implemented.....	14
2. Background	14
3. Proposed activities	15
<i>Component 5: Develop Conservation Policy, Legislation, and Financing Mechanisms.....</i>	<i>16</i>
1. CBD Articles Being Implemented.....	16
2. Background	16
3. Proposed Activities.....	17
V. PROJECT IMPLEMENTATION PLAN	18
VI. SUSTAINABILITY ANALYSIS AND RISK ASSESSMENT	19
1. Project Risks.....	19
2. Sustainability.....	19
VII. STAKEHOLDER INVOLVEMENT	19
1. Stakeholder Identification	19
2. Stakeholder Involvement	20
3. Social and Participation Issues	20
VIII. INCREMENTAL COSTS AND PROJECT FINANCING.....	21
1. Incremental Costs	21
2. Project Financing	25

LIST OF FIGURES AND TABLES

Figure 1: Pohnpei Forest Conversion.....3
Table 1: Incremental Cost Matrix.....22
Table 2: Project Budget by GEF Component.....23

LIST OF ANNEXES

Annex I: Project Implementation Plan.....27
Annex II: Logical Framework Matrix29
Annex III: Root Cause Diagram36

LIST OF ACRONYMS

ADB	Asian Development Bank
CBD	Convention on Biological Diversity
CBO	Community-based organization
CCO	Community Conservation Officer
CRMC	Community Resource Management Committee
CSP	Conservation Society of Pohnpei
DRMD	Department of Resource Management and Development, Pohnpei State
EIA	Environmental Impact Assessment
FSM	Federated States of Micronesia
GEF	Global Environment Facility
GIS	Geographic Information System
IWA	Important Watershed Areas
MERIP	Marine and Environmental Research Institute of Pohnpei
MRMC	Municipal Resource Management Committee
NGO	Non-governmental organization
PCSF	Pohnpei Council for a Sustainable Future
PRA/CPP	Participatory Rural Appraisal/Community Planning Program
PRMC	Pohnpei Resource Management Committee
SPREP	South Pacific Regional Environment Programme
TNC	The Nature Conservancy
UNDP	United Nations Development Program
WFR	Watershed Forest Reserve
WKS	Woahun Koahpin Soamwoai area of Kitti Municipality, Pohnpei

PROJECT BRIEF

I. BACKGROUND AND CONTEXT

Oceanic islands are home to some of the most biologically diverse and threatened forests and coral reefs in the world. Due to their geographic isolation, these islands also exhibit extremely high levels of species endemism. Of the world's oceanic islands, many scientists believe the islands of the Pacific have the highest levels of biodiversity and related global benefits.

Insular forests on Pacific islands, however, are being lost at an alarming rate, mainly as a result of rapid population growth and economic development activities that have accelerated dramatically in recent years. Coral reefs are also being rapidly degraded through sedimentation and pollution, dredging, destructive fishing practices, and other activities. Conventional western approaches to conservation -- government management and enforcement of large-scale protected areas -- have been ineffective in the Pacific, due to land tenure conditions, the scale of landscapes, and the capacity of government natural resource agencies.

The Federated States of Micronesia (FSM) is widely regarded as one of the "biological jewels" of the Pacific island group. Of the four FSM states, Pohnpei has particular biological significance. Pohnpei is one of the few central Pacific high island "bridges" enabling terrestrial and marine biodiversity to migrate from the Indo-Malay region out into the Pacific. This characteristic, along with its relative geographic isolation, has led to high levels of species diversity and endemism on Pohnpei as compared to surrounding islands.

Unlike its neighbors, Pohnpei's terrestrial and marine ecosystems are still relatively intact. Pohnpei is one of only three islands in the Pacific more than 5 million years old that still has substantial natural forest cover. In fact, Pohnpei has the largest intact native upland rainforests and mangroves in all of Micronesia, with some of the most diverse and unique vegetation and wildlife in the Pacific region (Paulay, 1994). Pohnpei's forests contain over 700 species of plants, of which 110 (16%) are endemic to Pohnpei. Sixteen percent of the island's 50 bird species are also endemic to Pohnpei. In addition, there are at least 25 species of terrestrial tree snails, three species of fish, and a skink species that are endemic to the island. Pohnpeians depend on many of these species for subsistence and income.

Pohnpei's extensive lagoon (492 sq. km) features a wide diversity of productive and relatively intact natural habitats, including barrier reefs, fringing reef flats, reef passages, sea grass beds, and mangroves. These habitats support a remarkable abundance of fish, soft and hard corals, and other species (Gawel, 1993; Maragos, 1993; SPREP, 1993). Even though Pohnpei's marine biological diversity has not been comprehensively assessed, already 471 species of fish have been recorded.

In 1986, the FSM became a sovereign nation and maintains a "Compact of Free Association" with the United States. Although the Government of FSM ratified the Convention on Biological Diversity (CBD) in 1994 and is committed to the conservation of its rich biodiversity, efforts to implement the CBD have been hindered by a lack of technical and financial resources,

complicated land and sea tenure systems, insufficient baseline data on the country's biodiversity resources, and lack of public awareness.

The proposed work will serve as a major pilot project under the National Biodiversity Strategy and Action Plan, and is designed to develop, field test, and demonstrate a range of model approaches to community-based resource management, biodiversity-compatible community enterprises, local capacity-building, and biodiversity monitoring. The approaches that prove successful will be disseminated to other FSM states and in other island countries.

This project will assist the FSM government in meeting its obligations under the following CBD articles: 6 (planning and integration of biodiversity), 7 (identification and monitoring), 8 (in-situ conservation), 10 (sustainable use), 11 (incentives), and 13 (public education/awareness).

The activities outlined below will also assist the FSM in meeting its commitments under other international agreements to achieve sustainable development in the future, such as: Agenda 21; the Kyoto Protocol; the Non-binding Principles for the Conservation, Use, and Sustainable Management of Forests; and, the Barbados Action Plan for Sustainable Development in Small Island Developing States.

II. PROJECT BASELINE

1. Major Threats to Biodiversity

Pohnpei's forest biodiversity faces growing threats from:

- agricultural conversion, especially due to cultivation of *kava* (*Piper methysticum*);
- increased inland settlement;
- road construction;
- over-harvesting of key species;
- inappropriate economic development activities;
- introduction of invasive alien species; and,
- pollution of surface water.

In addition, in recent years, bio-prospecting by foreign companies without adequate benefit-sharing with the local populations has become an important issue.

Comprehensive forest resource assessments using aerial photography mapping documented a dramatic 66% decline in natural forest cover from 1975 to 1995 (Figure 1: Pohnpei Forest Conversion). Natural forest loss has likely continued since 1995 at a similar pace, although a comprehensive assessment has not been conducted since then.

2. Past and Current Initiatives to Address Biodiversity Threats

The Pohnpei State Division of Forestry and the U.S. Forest Service cooperated closely to facilitate the passage of The Pohnpei Watershed Forest Reserve and Mangrove Protection Act of 1987. The Act designated the central upland forest and coastal mangrove areas making up about one-third of the island to be managed and enforced by the Pohnpei Department of

Resource Management and Development. Attempts by government officials to map the boundaries of the Watershed Forest Reserve (WFR) were opposed by local villagers who

considered the reserve a government "land grab" in direct conflict with traditional Pohnpei resource use and authority.

This and similar incidents led to the formation of the Watershed Steering Committee in 1990, an interagency task force made up of representatives of government agencies, community leaders, and NGOs. In over 200 meetings, local communities unanimously requested that the Watershed Steering Committee institute two major changes:

- Paramount and Village Chiefs (*Soumas*) need to be partners in the resource management process; and,
- environmentally sustainable resource management must be extended beyond the watershed reserve to encompass the entire island, from the mountains to the reefs.

In 1994, The Nature Conservancy, SPREP, and the Asian Development Bank began working with government agencies and communities to develop a detailed watershed management plan focused on community-based approaches to natural resource management. The plan was entitled *Pohnpei's Watershed Management Strategy: Building a Sustainable Future: 1996-2000*. In the past two years, the island's government and traditional leaders have begun implementing the Strategy with assistance from The Nature Conservancy.

In the municipalities, traditional and contemporary groups of *kousapws* (villages) sharing common resources are forming cohesive management units. Over a period of several months, each unit participates in a facilitated process of addressing key development and environmental issues with locally generated solutions. These solutions are documented in Community Action Plans for Conservation and Development which set forth the community's vision of its future and how the community members will achieve it. Plans for several communities are then consolidated into Municipal Action Plans for Conservation and Development. These plans serve as an agreement within communities and municipalities, and between communities and the government, on the specifics of resource use and management in that area, and include establishment of forest and marine reserves, and regulations on biological resource use. Through their direct involvement, Pohnpeians outside the government are brought into the resource planning process.

To date, *Pohnpei's Watershed Management Strategy* has been piloted in a limited number of areas. In these areas, local chiefs have designated voluntary Community Resource Management Committees (CRMC) comprised of Community Conservation Officers (CCOs) to implement Community Action Plans. Their duties also include community education, compatible development, monitoring, and enforcement of community restrictions. Community Resource Management Committees are linked to each other and to the government through the Pohnpei Resource Management Committee (PRMC), a state-wide advisory body that includes government resource management agencies, traditional leaders, NGOs, and private sector representatives. The PRMC has developed a more specific strategy to halt the single most important cause of forest loss -- *kava* cultivation in the upland forests, a growing problem in all *kava*-producing Pacific islands, including Fiji, Tonga, Western Samoa, and Vanuatu. This strategy proposes to replace upland-grown *kava* with sustainably-grown lowland *kava*.

Over 30 rural villages have completed Community Action Plans in four areas of Pohnpei, covering approximately one-fourth of the island's watersheds. However, implementation of these Community Action Plans, and implementation of *Pohnpei's Watershed Management Strategy* more generally, has been very slow due to several key impediments:

- inadequate financial and technical capacity of the local government and communities to develop and implement Community Action Plans;
- poor enforcement of biodiversity protection laws and lack of monitoring programs; and,
- inadequate state and local laws and policies.

3. Lack of Technical Capacity and Financial Resources

While some very promising initiatives have been advanced, governmental agencies and community-based organizations lack the technical capacity and financial resources to carry them out. For example, only three state government staff are responsible for overseeing upland and mangrove forest management. The Office of Marine Resources and Coastal Management maintains a staff of only ten, only one of which is responsible for enforcement. Communities lack capacity in the fundamentals of resource planning and management, and governmental funding under the U.S. Compact of Free Association has declined significantly. Given these constraints, increasing emphasis is being placed on external sources of funding for community-based resource management programs. In this regard, the Global Environment Facility is viewed as a principal potential source of support to help ensure the maintenance of the global biodiversity benefits provided by Pohnpei's rich biological resources.

III. THE GEF ALTERNATIVE

1. Project Rationale

To address the threats to Pohnpei's globally significant biodiversity outlined above, a GEF alternative is proposed to provide a suite of targeted interventions. The proposed project falls under two GEF Operational Programs: Forest Ecosystems; and Coastal, Marine, and Freshwater Ecosystems. This project is intended not only to result in substantial global benefits through protecting Pohnpei's biodiversity, but also to serve as a model for community-based approaches to biodiversity conservation for other FSM states and other Pacific island nations. As such, successful project elements could be replicated in such countries as the Republic of Palau, the Solomon Islands, Fiji, Vanuatu, Western Samoa, and the Marshall Islands.

2. Goal and Objectives

The overall goal of the project is to ensure long-term conservation of Pohnpei's globally significant terrestrial and marine biodiversity. *Pohnpei's Watershed Management Strategy* will serve as the over-arching framework for pursuing the following specific conservation objectives:

1. engage local governments and all communities on Pohnpei in incorporating biodiversity conservation into natural resource planning and management by providing

- support for the development and implementation of Community Action Plans, and disseminating innovative methodologies to other FSM states and island nations;
2. control destructive *kava* cultivation in upland forests with the highest biodiversity value through developing a "green" lowland *kava* industry and other environmentally compatible enterprises designed to reduce pressures on upland forests;
 3. build the capacity of community-based organizations, Community Conservation Officers, and the Conservation Society of Pohnpei to help protect targeted upland forests and marine areas of high biodiversity value;
 4. build a community-based conservation monitoring and enforcement program to improve community resource management and related decision-making; and,
 5. support the development of state and local conservation laws, policies, and financing mechanisms that promote effective, long-term, community-based conservation of the island's globally significant biodiversity.

3. Expected Outcomes

Upon completion of the four-year project, the following outcomes are expected:

1. support of biodiversity conservation components of programs for Community Resource Management Committee formation, Community Action Plan development, and other planning activities;
2. dissemination of a model community-based natural resource planning and management methodology to other FSM states and Pacific island countries;
3. implementation of program to reduce upland *kava* cultivation in areas of high biodiversity value;
4. development of other compatible enterprises designed to reduce pressures in areas of high biodiversity value;
5. develop and implement capacity-building program for CBOs and NGOs targeting areas of high biodiversity value;
6. enforcement of regulations in areas of high biodiversity value;
7. monitoring biodiversity status and trends in select biodiversity plots;
8. adoption and implementation of policy and legal reforms that remove barriers and provide a stronger supporting framework for community-based conservation; and,
9. assessment of a wide range of long-term resource management financing options, and promotion of the most promising mechanisms for supporting biodiversity conservation

IV. PROJECT ACTIVITIES

Five major areas of activity ("project components") will be carried out under the proposed project, with The Nature Conservancy (TNC) serving as the principle executing agency responsible for coordinating a Project Team, which will consist of on-island and expatriate TNC staff, government staff, local NGO staff, and key community leaders. For each component, the CBD articles being implemented are cited, pertinent background information is provided, and specific proposed activities are outlined. The timing of these activities are set out in the Project Implementation Plan in Annex I. *Pohnpei's Watershed Management Strategy* provides additional details relevant to these activities (attached).

Component 1: Support Community-based Resource Planning and Management

Engage local governments and all communities on Pohnpei in incorporating biodiversity conservation into natural resource planning and management by providing support for the development and implementation of Community Action Plans, and disseminating innovative methodologies to other FSM states and island nations.

1. CBD Articles Being Implemented

- CBD preamble
- Article 6 - national biodiversity plans and strategies and integration of biodiversity into relevant sectoral and cross-sectional plans, programs, and policies
- Article 8(j) - involvement of local organizations and communities in biodiversity conservation

2. Background

Since 1994, The Nature Conservancy and the Pohnpei state government have been working with communities to strengthen natural resource planning and management through a Participatory Rural Appraisal/Community Planning Program (PRA/CPP). The program is designed to:

- identify and address key natural resource issues and problems;
- develop guidelines for the sustainable management of forest watershed and lagoon resources;
- reach consensus on resource use restrictions; and,
- build the capacity of communities to manage common property resources.

Approximately 80% of the island's population (27,000 people) live in rural communities in extended family groups on their own lands. Most are engaged in subsistence farming and fishing. Education levels are generally low, and per capita income averages just over \$US250 per year (Dahl, 1997).

Villages (*kousapws*, meaning "groups of lands"), are headed by the Village Chief (*Souma*) who is usually the senior member of the main family or clan lineage, and a "Working Chief" (*Peliendahl*). Nearly all other village adults hold ranked titles that carry with them certain obligations to the Chief and the community. The *Soumas* in turn serve the Paramount Chiefs, the *Nahnmwahrki* and *Nahnken*. While this system has been weakened by nearly a century of centralized colonial government rule, it still strongly influences decision-making, particularly in rural areas. Combined with other changes brought on by rapid modernization, most rural villages are suffering a decline in cooperation and leadership (Petersen, 1982).

To mobilize local communities and re-invigorate traditional resource management institutions and leadership, the Pohnpei state government and The Nature Conservancy have collaborated on a highly successful, innovative Participatory Rural Appraisal/Community Planning Program that focuses on grassroots involvement and support from the Paramount and Village

Chiefs, churches, women, and youth leaders. Results of this process are summarized in Community Action Plans for Conservation and Development that are endorsed by the communities, municipal governments, and the Pohnpei State Department of Resource Management and Development. Municipal Resource Management Committees (MRMC) will oversee the implementation of the Community Action Plans.

In early 1998, the first Community Action Plan covering an entire municipality (Nett) of nearly 5000 citizens was completed. In October, after six months of community workshops, government and traditional leaders of another municipality (Madolenihmw) finalized a broad Community Action Plan for their 54 villages and 6000 citizens.

3. Proposed Activities

Through a collaborative effort coordinated by The Nature Conservancy and involving communities, government officials, NGOs, religious and business leaders, and other stakeholder groups, the Participatory Rural Appraisal/Community Planning Program will be extended to the remaining municipalities of Pohnpei Island which include approximately 120 villages in Madolenihmw, Kitti, U, and Sokehs. This extension effort will require the training of at least 120 new community organizers and ten government specialists, four of whom will be newly recruited. The project will also work with the newly formed Municipal Resource Management Committees to implement their Community Action Plans.

This work will entail the following specific steps:

- **Conduct introductory meetings.** Introductory meetings with the Paramount Chiefs and municipal leaders to explain the overall purpose of the program and garner their support.
- **Establish Municipal Resource Management Committees.** Upon their approval of the work, municipal leaders will select a MRMC comprised of local representatives from the Municipal Council, Section Chiefs, Village Chiefs, church leaders, women and youth groups, and other key municipal groups. The Committees will facilitate program activities and mobilize local community members to join in the planning process; assist local communities in developing Community Action Plans and consolidating them into Municipal Action Plans; support implementation of the plans in cooperation with local village leaders; and, recommend policy and other needed reforms to municipal government and Paramount Chiefs to facilitate community-based resource management and development.
- **Conduct MRMC training.** One week of formal training for MRMC members on a range of issues related to community-based planning and management.
- **Facilitate community meetings.** Facilitate, when appropriate, community planning sessions and related meetings, including provision of supplies, written materials, visual aids, and other logistical support.
- **Hold municipality-wide conferences.** Upon completion of the planning sessions in all sections of the municipality, help the municipal government and Paramount Chiefs conduct a three- to five-day municipality-wide Resource Management and Sustainable Development Conference where section plans will be consolidated into a Municipal

Action Plan for Conservation and Development that provides a clear vision for the future, major goals, and a detailed implementation plan.

- **Provide technical support for implementation of Municipal Action Plans.** Together with the state and national government, provide support for the implementation of Municipal Action Plans. This will include assisting with developing model legislation, providing legal support, mobilizing external technical and financial support, assisting with monitoring and assessing progress towards key goals, accessing specific technical training, and coordinating technical exchanges with other municipalities or islands.
- **Promote the development of community-managed and enforced forest and marine conservation areas.** As part of the Action Plan implementation process, provide technical and legal assistance to municipal governments and traditional leaders to identify and protect areas of high biodiversity value in a system of community-based conservation areas.
- **Institutionalize the planning process in Pohnpei.** Work with the state and national governments to institutionalize this community-based planning approach in the Pohnpei state and municipal planning processes on an annual basis.
- **Disseminate planning methodology.** Disseminate the planning methodology to other FSM States and other island nations through staff and community leader exchanges, training, and production of a handbook and training modules.

Component 2: Promote Alternatives to Unsustainable Kava Cultivation

Control destructive *kava* cultivation in upland forests with the highest biodiversity value through developing a "green" lowland *kava* industry and other environmentally compatible enterprises designed to reduce pressures on upland forests.

1. CBD Articles Being Implemented

- Article 8 (c and l) - regulate or manage biological resources important for conservation
- Article 10(b) - biodiversity use that avoids or minimizes adverse impacts
- Article 10(c) - customary use of biological resources
- Article 10(d) - remedial action in degraded areas where biodiversity has been reduced
- Article 11- economically and socially sound incentive measures for conservation

2. Background

In 1993, TNC conducted a threats analysis that found that the clearing of natural forest for upland cultivation of *kava* (*Piper methysticum*) was the single most important cause of biodiversity loss in Pohnpei. A 1995 aerial photography study verified this finding, documenting a conversion of nearly two-thirds of Pohnpei's native intact forests between 1975 and 1995, mainly for the commercial production of *kava*. The *kava* plant is used to produce a traditional beverage with a calming effect which has been widely consumed in Pohnpei and other South Pacific islands for centuries. Since 1995, the pharmaceutical demand for *kava* in Europe and the U.S. has risen rapidly as a natural and non-addictive alternative to valium and other addictive drugs in the treatment of stress and anxiety. Other *kava*-growing islands

through out the Pacific, such as Fiji, Tonga, Vanuatu, and Western Samoa, are also becoming concerned about increased deforestation due to this strong demand for *kava*.

In 1995, The Nature Conservancy published a report entitled "Compatible Development Opportunities for Pohnpei State", detailing viable alternatives to destructive upland *kava* cultivation and other marine activities. A "green" lowland *kava* industry was found to be the most promising option. Several other viable enterprises were also identified, including eco-tourism, vegetable production for local and export markets, processed fruits and vegetables for local markets, handicrafts (especially ivory nut carving), grass skirts, pandanus weavings, and production of black pepper and other spice crops.

In January 1997, The Nature Conservancy, the College of Micronesia, KEIDANREN Nature Conservation Fund (Japan), and the South Pacific Regional Environmental Programme (SPREP), launched a project to address the threat of upland *kava* cultivation by establishing a sustainable lowland *kava* industry. This strategy is supported by a growing interest among many farmers to relocate *kava* cultivation back to the lowlands, where plantings are more accessible, can be protected from theft, and produce a more potent, though slower growing product. These farmers will require support and assistance in the form of technical advice, nursery supplies, planting materials, and marketing.

Activities undertaken to date include:

- a survey of local *kava* experts resulting in a draft lowland *kava* extension manual;
- establishment of a "hot line" to connect lowland *kava* farmers with local *kava* bars;
- consultations with community groups, traditional leaders, government staff, businesses, and church groups on their involvement in limiting upland *kava* cultivation;
- radio programs, posters, and other educational and awareness activities;
- establishment of 300 community-based *kava* nurseries and initial trials of various propagation methods; and,
- monitoring of a three-year *kava* pilot project, yielding very promising results.

3. Proposed activities

Activities to continue and expand the work outlined above will include:

- **Raise awareness** of the upland *kava* threat through a multi-media campaign;
- **Strengthen partnerships** between resource management agencies, private business, and *kava* growers;
- **Conduct a community-based planting campaign** to significantly increase the supply of sustainably-grown lowland *kava*, along with other commercially viable commodities, including fruits, nuts, spices, and forest trees grown in already deforested lowland areas. The goal is to plant 3 million *kava* plants in Pohnpei's lowlands over the next three years to replace all upland grown *kava* and produce a large exportable surplus for the fast-growing U.S. pharmaceutical industry. Three hundred small nurseries are already established, and an additional 200 nurseries per year will be supported through training, supplies, and planting materials. Farmers will be encouraged to experiment with various nursery and field techniques, including traditional practices, and

- successful innovations will be passed to other farmers through an emerging "growers' network";
- **Launch a "green" kava corporation and certification program** by facilitating the establishment of a local corporation, and possible collaboration with an outside business partner, to produce, market, and export certified "green" kava to the rapidly growing overseas pharmaceutical market. The project will also help to catalyze investment in the construction and operation of an in-country processing plant.
 - **Promote a "green" kava model with other Pacific islands.** Since the rapidly expanding kava export market is also threatening natural forests of several other Pacific islands, including Kosrae (FSM), Tonga, Fiji, Western Samoa, and Vanuatu, the development of a model for a profitable and environmentally sustainable kava industry will be actively promoted at these other sites, increasing the global biodiversity benefits of this project;
 - **Support an expanded community-based monitoring program** to measure forest clearing for kava production in the three major forest watershed areas – Madolenihmw, Kitti, and Nett. This will include training in monitoring methodology for Community Conservation Officers, and analysis and dissemination of data by TNC and College of Micronesia staff; and,
 - **Test and promote other compatible enterprises.** In close partnership with the municipal governments, the Pohnpei Visitors Bureau, and the Marine and Environmental Research Institute of Pohnpei (MERIP), work with local communities to promote ecotourism, vegetable production for local and export markets, handicrafts production, and marine enterprises such as sponge farming and giant clam culture.

Component 3: Build Local Leadership Capacity for Conservation and Sustainable Development

Build the capacity of community-based organizations, Community Conservation Officers, and the Conservation Society of Pohnpei to help protect targeted upland forests and marine areas of high biodiversity value.

1. CBD Articles Being Implemented

- CBD preamble
- Article 10(d) - remedial action in degraded areas where biodiversity has been reduced
- Article 8(j) - involvement of local organizations and communities in biodiversity conservation
- Article 13 - public education and awareness of biodiversity conservation

2. Background

A. Community-based organizations (CBOs). Over the past two years, The Nature Conservancy has worked very closely with a number of CBOs to help build their capacity to carry out conservation. Two important success stories are the *Puailo*, the Community Resource Management Committee (CRMC) for six villages in Kitti Municipality, and *Senpehn Silepen Moar oh Sed* (SSMS), a CRMC representing five villages in Madolenihmw Municipality. With assistance in various capacity-related areas, the *Puailo* designated a large area of the lagoon as a

conservation area, established rules and regulations, and has begun enforcement activities. The SSMS has developed and begun implementing its Community Action Plan this year, including construction of a water distribution system, fencing of pigs, establishment of forest and marine reserves, and establishment of a central agricultural market for their farmers and fishermen. The Conservancy, in partnership with the government, has recently begun working to support the capacity of two newly established CRMCs in Nett and Madolenihmw Municipalities.

B. Community Conservation Officers (CCOs). Village Chiefs have appointed CCOs to help implement Community and Municipality Action Plans. Currently, there are over 140 young men and women who have been appointed as CCOs. They serve on a voluntary basis and are responsible for conservation education and awareness-building, promoting sustainable development activities, monitoring, and enforcement of community-approved restrictions. The Conservancy has worked closely with the program, helping to build the capacity of CCOs through technical training, mobilization of funding, and strategic planning assistance.

C. Conservation Society of Pohnpei (CSP). In early 1998, TNC worked with local leaders to help catalyze the establishment of the CSP, the first NGO devoted exclusively to the promotion of biodiversity conservation in Pohnpei. CSP is led by a board of 15 prominent Pohnpei political, traditional, and business leaders.

3. Proposed activities

A. Community-based organizations (CBOs) and Community Conservation Officers (CCOs). Capacity building for community-based organizations will center around delivering training and other support services to the CCOs. Working closely with the Municipal Resource Management Committees and the government, the following specific activities will be carried out:

- **Recruit new CCOs.** The Project Team will work closely with partner agencies and community leaders to help identify and recruit new CCOs in localities moving forward with Community Action Plans.
- **Develop training modules.** A series of training modules will be developed and used as the central tool for building CCO capacity. The Project Team will prepare the curriculum and materials, produce a CCO handbook, organize participation in training sessions, and identify and engage the most suitable instructors. Individuals that graduate from the training program will be "certified" CCOs, making them eligible for financial opportunities, such as guiding eco-tourists; assisting with research and monitoring projects; and, participating in overseas training and exchange opportunities.

Training modules will cover the following topics:

- Introduction to Community Conservation Officer Work;
- Women and the Environment;
- Participatory Rural Appraisal, Community Planning and Organizing;
- Monitoring;
- Ecological Principles;
- Defining, Establishing, and Managing Conservation Areas;
- Proposal Writing and Fund Raising; and,

- Compatible Economic Development (development options, feasibility analysis, business planning, etc.).
- **Provide general support for CCOs.** The Project Team will encourage and facilitate meetings of CCOs and community members to improve communication and feedback. The team will also provide other types of general support as requested, such as: transportation needs related to conservation management duties; purchasing of uniforms, field equipment, and supplies; and technical assistance to support legal work, communications and information management systems. The aim will be to transfer skills and establish systems that will lead to an eventual phase-out of CCO reliance on the Project Team.
- **Conduct annual CCO workshops.** The Project Team and the CCO Planning Committee will organize annual workshops for CCOs island-wide. These workshops will build working relationships between officers in different parts of the island and encourage cross-fertilization of experiences and transferal of successful approaches.
- **Provide strategic planning support for CRMCs.** The Project Team will assist CRMC with periodic strategic planning sessions as appropriate.

B. Conservation Society of Pohnpei (CSP). TNC will serve as the CSP's technical advisor in its start-up phase to provide capacity-building assistance in strategic planning, board and staff strengthening, operations, and fundraising.

Component 4: Develop and Implement a Community-Based Monitoring and Enforcement Program

Build a community-based conservation monitoring and enforcement program to improve community resource management and related decision-making.

1. CBD Articles Being Implemented

- Article 7 (b and d) - Monitor components of biodiversity, and maintain and organize data derived from monitoring activities

2. Background

A. Report on Watershed Monitoring Program. In 1997, SPREP and TNC assembled a team of external experts, local officials, and community members to design a cost-effective and practical monitoring program. The team produced "Monitoring to Manage: A Report for Pohnpei's Watershed Management Program Team and Partners". The report's recommendations include:

- demarcate the boundaries for the Watershed Forest Reserve (WFR) and Important Watershed Areas (IWA);
- increase the frequency of patrols of the WFR boundary by CCOs and maintain logbooks and photo documentation;

- focus greater attention on the monitoring, eradication, and prevention of invasive species. Several invasive plant species already well-established in the lowlands could threaten the upland forests;
- establish sustainable harvest levels for target bird species and ensure that harvesting does not exceed sustainable levels;
- encourage more rural women to volunteer as Community Conservation Officers; and,
- conduct regular monitoring events in each section of Pohnpei.

B. Pohnpei Council for a Sustainable Future (PCSF). In early 1998, a joint proclamation was signed by the island's Paramount Chiefs and the Governor to establish the Pohnpei Council for a Sustainable Future. The Council brings all the island's major leaders together for the first time to facilitate community-based resource management on the island. As their main priority for the coming year, the Council will develop a "sustainable indicators" monitoring program that provides feedback to the state and municipal governments' budgeting process.

C. Upland Forest Clearing - Preliminary Monitoring Results. Over the last few months, in partnership with the Pohnpei state government, TNC has trained and supported four CCOs in Nett and Madolenihmw Municipalities to begin measuring and recording upland forest *kava* clearings. Initial findings show a clear correlation between the 1995-1998 pilot community resource management program and a very significant decline in forest clearing. With SPREP, MERIP, and the Pohnpei Environmental Protection Agency, we have also instituted pilot water quality monitoring programs in two Madolenihmw villages.

3. Proposed activities

The Project Team will support a variety of monitoring-related activities by CCOs. These will include:

- **Finalize monitoring protocol and train CCOs.** A data collection protocol for the quarterly monitoring of forest clearing activities will be finalized, disseminated, and built into training modules for CCOs;
- **Facilitate CCO monitoring and semi-annual reporting.** Together with government staff, the Project Team will provide assistance to CCOs in conducting semi-annual forest monitoring patrols and producing reports to be presented to village leaders and community members. In addition, a series of permanent ground photo plots around the island will be selected and used to augment field measurement data. CCOs will be trained in the photo plot methodologies, including data analysis. This work will be piloted in the Senpehn community in late 1998, adapted as needed, and carried out on an island-wide basis starting in 1999.
- **Conduct and analyze aerial photography.** Aerial photography of the island will be conducted in Year 3 of the project, and analyzed in partnership with the state government. As in 1995, TNC will arrange for low-cost -- yet high quality -- island-wide photography and digital mapping using GIS software. This low-cost aerial photography methodology will be refined further and will be disseminated as a replicable model for other small island developing countries to improve monitoring of their biodiversity resources.

- **Develop Sustainable Community Indicators program.** Working with the Pohnpei Economic Planning Commission, other state and national government agencies, and PCSF, the Project Team will assist in a new pilot program to adopt and implement a set of "Indicators of a Sustainable Community". This will entail establishing a set of measurable, national indicators on the status of Pohnpei's environment, economy, and culture, allowing the island's leaders to assess the current quality of life and adjust policies and programs to ensure a sustainable future for all Pohnpeians. The project will provide island-wide data on the most important environmental indicators, including forest loss, water quality, key species population trends, number, size and integrity of conservation areas, and development of environmentally compatible enterprises. This data, along with economic and cultural indicators, will then be fed back into the government's annual budgeting process to better address overall development needs. If successful, this indicators program could serve as a replicable model for other small island nations.

Component 5: Develop Conservation Policy, Legislation, and Financing Mechanisms

Support the development of state and local conservation laws, policies, and financing mechanisms that promote effective, long-term, community-based conservation of the island's globally significant biodiversity.

1. CBD Articles Being Implemented

- Article 6(a) - national biodiversity plans and strategies and integration of biodiversity into relevant sectoral and cross-sectional plans, programs, and policies
- Article 8 (c) - regulate or manage biological resources important for conservation
- Article 20 - provide financial resources to achieve CBD objectives
- Article 15 and 16 - genetic resources access and benefit sharing

2. Background

A. Conservation-related legislation. At the state level, the key legislation is the "Pohnpei Watershed Forest Reserve and Mangrove Protection Act of 1987", which established a Watershed Forest Reserve in the center of the island, and transferred management authority to the Pohnpei Department of Resource Management and Development (DRMD). This law, however, was developed with minimal community input or recognition of the importance of local community institutions in natural resource management. Further, the law has been unenforceable since it is highly dependent on a centralized planning and permitting process that is largely non-existent.

In 1996, TNC sponsored a legal team which revised the law, placing much greater emphasis on community-based planning, management, and enforcement, and giving greater authority to community-based institutions such as the CRMCS. The draft bill, the "Pohnpei Rainforest, Watershed, and Mangrove Cooperative Protection Act", has been held up in the state legislature for the last two years due to the controversy surrounding management control of

“public” lands and waters and the proposed use of the international airport departure fees to provide for sustainable funding of resource management activities.

B. Foreign investment. Current foreign investment laws and regulations are generally viewed as ineffective in protecting Pohnpei from unsustainable, foreign-financed development activities, such as recent commercial fisheries projects targeting sea cucumbers, tuna, and in-shore fisheries.

3. Proposed Activities

A. Develop municipal-level conservation legislation. Recent legal analysis and community consultations indicate that the most effective legislative intervention for improving resource management is likely to be at the municipal rather than state level. Working closely with the nine municipalities of Pohnpei, and drawing upon the major concepts incorporated in the Cooperative Protection Act, the Project Team will support the development and implementation of model municipal legislation to address municipal-level conservation of forest, mangrove, and lagoon areas.

B. Strengthen foreign investment policy. The Project Team will provide legal analysis and technical advice to support communities in their efforts to strengthen foreign investment policy. At present, communities have advocated the following reforms: expanding the foreign investment board to include a representative of a government resource management agency and a traditional leader; requiring detailed environmental impact assessments for all foreign investment permits; and, improving the public hearings process to ensure adequate input on proposed projects from communities in the vicinity, including consideration of alternative sustainable development options.

C. Provide support for other policy- and law-related activities. Policy-related technical support will be provided to communities and government agencies including:

- **Develop bio-prospecting policy.** Development of suitable standards and agreements for future terrestrial and marine bio-prospecting activities to ensure sustainability and equitable benefit sharing;
- **Develop destructive fishing practices policies.** Development of regulations prohibiting destructive fishing practices (e.g., cyanide and dynamite fishing) and requiring the monitoring of the live reef fish trade. Destructive live reef fishing practices have already been recorded in the neighboring Chuuk State and the Marshall Islands.

D. Develop Conservation Finance Mechanisms. One of the most important activities will be to assess and help create long-term conservation financing mechanisms to support the recurrent costs of community-based conservation efforts beyond the completion of the proposed, four-year GEF-funded project. This will include the following specific activities:

- **Conduct conservation finance mechanisms study.** An in-depth assessment of options for long-term conservation financing and related benefit sharing will be carried out, including such options as: building conservation earmarks into the re-negotiated

Compact of Free Association with the U.S. Government to be completed in 2001; community conservation trust funds; airport departure fees; levies on profits from sustainable *kava* sales; and, a general water user fee.

- **Promote conservation finance mechanisms.** Following the in-depth assessment, the Project Team will present the findings to major stakeholder groups throughout Pohnpei and will work with these groups to develop the most promising financing mechanisms. This will entail providing technical assistance related to the mechanisms outlined above.

V. PROJECT IMPLEMENTATION PLAN

The Nature Conservancy will serve as the principle executing agency for the project. TNC's Pohnpei Field Office will be responsible for coordinating a Project Team that will carry out most of the activities outlined above. TNC has worked on biodiversity conservation issues in Pohnpei for seven years, and has played an instrumental role in developing *Pohnpei's Watershed Management Strategy*, creating Community Action Plans and capacity-building programs, and mobilizing external funding for conservation and development activities. TNC's FSM Director, Bill Raynor, an 18-year resident of the FSM, has built outstanding working relationships with community leaders and other stakeholder groups. As a result, the Conservancy was invited to serve as one of two NGO representatives on the Pohnpei Council for a Sustainable Future, reflecting the key role TNC plays in supporting Pohnpei's efforts toward sustainable resource management.

At present, the Conservancy is the only NGO with the capacity, relevant experience, and technical expertise to effectively execute the proposed project. However, key medium-term objectives are to build the capacity of the Conservation Society of Pohnpei in the next three to five years to take over the facilitation and coordination aspects of implementing this initiative, and to build the capacity of CBOs to effectively mobilize their respective communities to implement their own Community Action Plans for Conservation and Development.

The Project Team will be responsible for facilitation, coordination, and management of the activities described in Section IV, including:

- facilitating project planning exercises;
- recruiting experts and trainers;
- procuring and distributing project supplies and equipment;
- providing direct technical assistance;
- securing co-financing; and,
- administering grant funds.

The Team Leader, Bill Raynor, will work closely with all major stakeholder groups, state and national government agencies, participatory rural management committees, the Pohnpei Council for a Sustainable Future, community-based organizations, Community Conservation Officers, and the Conservation Society of Pohnpei. The PRMC will function as the steering committee for this project, overseeing activities and making major decisions regarding project design and implementation. Each community, through its CRMCS, will develop and implement its own Community Action Plan. Monitoring and evaluation will be carried out by

the CRMC and volunteer Community Conservation Officers with the guidance of project staff. A detailed Project Implementation Plan is included in Annex I.

VI. SUSTAINABILITY ANALYSIS AND RISK ASSESSMENT

1. Project Risks

One project risk is the possibility of future government administrations resisting the central role of traditional community leaders and community-based organizations (CBOs) in managing public land and marine resources. To address this risk, the project will facilitate on-going dialogue involving government and traditional leaders, CBOs, and NGOs to reach a consensus and develop policy and law recognizing joint management authority over public resources.

Another risk is the possible lack of coordination between government-sanctioned development activities and community-initiated activities. To address this risk, the project will seek to foster more transparent participatory development permitting processes that are more responsive to community input and needs, and to support more coordination between different levels of government and community leadership in project planning and development.

2. Sustainability

Many of the activities outlined in Section IV are specifically designed to help ensure the project's long-term sustainability. These include:

- **Local ownership.** Fostering local ownership of conservation programs through implementation of the project's innovative community-based methodology based on Community Action Plans developed at the grassroots level;
- **Broad stakeholder involvement.** All major stakeholder groups are being engaged in the resource planning process, and the PRMC will serve as the steering committee for the project;
- **Strengthening capacity of CBOs and CSP.** A major focus of the project will be to build the capacity of the CBOs and the Conservation Society of Pohnpei to direct all project activities themselves;
- **Sustainable kava.** A sustainable lowland *kava* industry will alleviate long-term pressures on upland forest watershed; and,
- **Conservation finance mechanisms.** Long-term financing mechanisms to cover the recurrent costs of this initiative will be identified and actively promoted.

VII. STAKEHOLDER INVOLVEMENT

1. Stakeholder Identification

The major stakeholders in the project are:

- national, state, and municipal government agencies who are concerned with sustainable resource management and reducing the loss of biodiversity;

- Pohnpei state government and PRMC who are concerned with the project's implementation and impact;
- traditional community leaders and institutions who are concerned with the effective management of natural resources for the benefit of their people;
- local CBOs and NGOs concerned with conservation of biodiversity; and,
- sub-populations of vulnerable groups, such as women, youth, outer islanders, and poor households that depend on access to the island's natural resources to maintain and improve their quality of life.

2. Stakeholder Involvement

This project will provide an excellent model of strong stakeholder involvement. Hundreds of community planning meetings were organized over the past two years to solicit community input for *Pohnpei's Watershed Management Strategy*. Upon completion, traditional leaders from each municipality in the state met with the Governor to pledge their support for the Strategy, particularly the community planning process at its heart. In addition, the PRMC and the Pohnpei State Department of Resource Management and Development have agreed to collaborate actively in implementing the major elements of this project. Each activity will be undertaken with the full participation of all sectors of Pohnpei society, and capacity-building will be emphasized so that outside assistance will be minimized at the end of project.

As described in Section IV, while the Conservancy will facilitate and coordinate this effort, implementation of all the major activities will involve the active participation of stakeholder groups. For example, it is the communities themselves throughout the island that are undertaking planning exercises to formulate their Community Action Plans for Conservation and Development, and selecting the Community Conservation Officers to help implement these plans. Communities will also collaborate to consolidate Community Action Plans into Municipal Action Plans. Finally, the entire project is being directed by the PRMC, which is mandated to solicit regular input from its constituencies.

Other stakeholders who have contributed to the design of this project and will be involved in its implementation include:

- Pohnpei Council of Traditional Leaders;
- FSM Department of Economic Affairs;
- College of Micronesia;
- Pohnpei Agriculture and Trade School;
- The FSM Development Bank;
- Pohnpei Visitors Bureau;
- Marine and Environmental Research Institute of Pohnpei;
- University of Hawaii Sea Grant Extension Service; and,
- local businesses.

3. Social and Participation Issues

Based on seven years of community consultations and experience leading to the development and initial implementation of *Pohnpei's Watershed Management Strategy*, the anticipated social and participation issues are: (i) traditional resource rights versus government resource rights regarding public lands and waters; (ii) under-representation of women and youth in community decision-making; and, (iii) unrealistic community expectations for project outcomes and monetary returns, especially for compatible enterprise development.

The proposed project has incorporated elements that are specifically designed to help address these issues. For example, the project will facilitate a dialogue among communities and governmental agencies on resource rights regarding public lands. Participatory Rural Appraisal techniques will be used to involve women and youth and to solicit their input into Community Action Plans. The CRMC will include participation by women and youth. Finally, the community "visioning" step in the Community Planning process will help communities identify their values, develop their conservation ethic, and set reasonable and attainable objectives for project outcomes and monetary returns for any enterprises.

VIII. INCREMENTAL COSTS AND PROJECT FINANCING

1. Incremental Costs

Section II describes the project baseline, which includes governmental funding for limited implementation of *Pohnpei's Watershed Management Strategy*. Building on this baseline, the proposed project is centered around supporting a comprehensive "conservation overlay" to the Strategy, providing a special focus on conservation of the island's globally significant biodiversity. Most of the conservation overlay costs of this project are incremental, covering measures to achieve global biodiversity objectives that are above and beyond the national sustainable development activities outlined in the Strategy.

Baseline resources will be provided by the FSM and Pohnpei state governments to carry out boundary surveys of community-managed protected areas, assist with the Participatory Rural Appraisal/Community Planning Program, provide some technical and financial assistance to implement Community Action Plans, and assist local communities with monitoring and enforcement activities. However, despite these baseline resources, fragmentation and conversion of natural forests on Pohnpei continues due to many barriers, including:

- lack of effective community resource planning;
- inadequate training, technical expertise, and related capacity to implement Community Action Plans;
- lack of effective conservation models;
- insufficient enforcement and monitoring programs; and,
- inadequate laws and policies.

GEF funds will complement baseline resources by supporting interventions that remove these barriers to effective conservation planning, conservation area establishment and management, and alternative development activities designed to reduce pressures on the island's globally significant biodiversity. These interventions will entail incremental costs which would not be

expected to be covered through FSM or Pohnpei state government budgets. Indeed, to oversee all upland and mangrove forest management, Pohnpei State maintains a small, three-person staff within the Office of Agriculture and Forestry. Management of the island's in-shore marine areas is the responsibility of the Office of Marine Resources and Coastal Management, which has a staff of just ten, only one of whom is charged with monitoring and enforcement.

GEF funding will cover the incremental costs of:

- expanding the community planning process island-wide, including formation of CRMCs and development and implementation of Community Action Plans with strong conservation components (\$234,000);
- disseminating a model methodology to other FSM states and Pacific island countries (\$184,000);
- developing a model "green" lowland *kava* industry (\$783,000);
- developing other compatible enterprises (\$102,570);
- developing and implementing a model capacity-building program to strengthen conservation capacity of CBOs and NGOs (\$285,600);
- developing an effective community-based enforcement and monitoring program island-wide (\$508,034);
- adopting and implementing policy and legal reforms providing a stronger supporting framework for community-based conservation (\$43,350); and,
- assessing a-wide range of long-term resource management financing options, and promotion of the most promising mechanisms (\$60,350).

Table 1: Incremental Cost Matrix

Global Environmental Benefit	Baseline Activities	Alternative	Increment
Effective, Community-based Natural Resource Planning System in Place to Conserve Globally Significant Biodiversity	<ul style="list-style-type: none"> • <i>Pohnpei's Watershed Management Strategy</i> completed, with limited implementation proceeding (\$250,000) • CRMCs established for a limited number of communities, with limited number of <i>Community Action Plans</i> completed (\$175,000) • Watershed Forest Reserve boundary survey completed (\$91,000) 	<ul style="list-style-type: none"> • Expansion of community planning process island-wide, including formation of CRMCs and development and implementation of <i>Community Action Plans</i> with strong conservation components (\$234,000) • Dissemination of model methodology to other FSM states and Pacific island countries (\$184,000) 	<ul style="list-style-type: none"> • Biodiversity conservation components of support programs for CMRC formation, <i>Community Action Plan</i> development and other planning activities (\$90,000) • Dissemination of model methodology to other FSM states and Pacific island countries (\$21,000)
Viable Biodiversity-Compatible Enterprises Established	<ul style="list-style-type: none"> • Limited rural enterprises supported by UNDP-sponsored Micronesian Entrepreneur Development Program (MEDC), but without clear environmental sustainability component. (\$430,000) 	<ul style="list-style-type: none"> • Development of a model "green" lowland <i>kava</i> industry (\$783,000) • Development of other compatible enterprises (\$102,570) 	<ul style="list-style-type: none"> • Program to reduce upland <i>kava</i> cultivation in areas of high biodiversity value (\$74,400) • Development of other compatible enterprises designed to reduce pressures in areas of high biodiversity value. (\$147,204)
Adequate Domestic NGO and CBO Capacity to Conserve Globally Significant Biodiversity	<ul style="list-style-type: none"> • No technical and financial capacity programs for CBOs and NGO (\$120,000) 	<ul style="list-style-type: none"> • Development and implementation of a model capacity-building program to strengthen conservation capacity of CBOs and NGOs 	<ul style="list-style-type: none"> • Capacity-building program for CBOs and NGOs targeting areas of high biodiversity value (\$143,040)

(\$285,600)

Global Environmental Benefit	Baseline Activities	Alternative	Increment
Effective, Community-Based Program in Place for Enforcing Regulations and Monitoring Globally Significant Biodiversity	<ul style="list-style-type: none"> Very limited monitoring and enforcement programs carried out by State Government (\$430,000) 	<ul style="list-style-type: none"> Development of effective community-based enforcement and monitoring program island-wide (\$508,034) 	<ul style="list-style-type: none"> Enforcement of regulations in areas of high biodiversity value (\$26,000) Monitoring biodiversity status and trends in select biodiversity plots (\$181,000)
Effective Long-Term Conservation Laws, Policies, and Finance Mechanisms in Place	<ul style="list-style-type: none"> Policy/legal framework providing inadequate support for community-based conservation (\$80,000) No long-term conservation financing mechanisms (\$0) 	<ul style="list-style-type: none"> Adoption and implementation of policy and legal reforms providing a stronger supporting framework for community-based conservation (\$43,350) Assessment of a wide range of long-term resource management financing options, and promotion of the most promising mechanisms (\$60,350) 	<ul style="list-style-type: none"> Adoption and implementation of policy and legal reforms that remove barriers and provide a stronger supporting framework for community-based conservation (\$24,800) Assessment of a wide range of long-term resource management financing options, and promotion of the most promising mechanisms for supporting biodiversity conservation (\$40,800)

2. Project Financing

The total cost of baseline activities is estimated at US\$1,576,000 for the next four years. The total cost of the GEF alternative is US\$2,200,904. Of the total cost, US\$748,244 is requested from GEF, and the remaining US\$1,452,660 will be contributed through co-financing by SPREP; the College of Micronesia; the Pohnpei state government; the Japanese Government; US, Japanese, and local private corporations; and, The Nature Conservancy.

TABLE 2: PROJECT BUDGET BY GEF COMPONENT

Component	GEF	Other Sources	Project Total
Personnel	379,500	590,600	970,100
Subcontracts	78,000	155,000	233,000
Training	108,000	255,000	363,000
Equipment	0	264,000	264,000
Travel	40,000	56,000	96,000
Evaluation missions	8,000	0	8,000
Indirect project costs (1)	134,744	132,060	266,804
Project total	\$748,244	\$1,452,660	\$2,200,904

(1) Includes rent, utilities, and communications.

IX. MONITORING, EVALUATION AND DISSEMINATION

Monitoring will be an integral part of this project and will be carried out at the state and community levels. At the state (island-wide) level, TNC will work with the Pohnpei Resource Management Committee to monitor biological, economic, and demographic indicators (listed below) through aerial photography, vegetation change analysis, forest bird and other types of surveys. Community-based monitoring programs will record forest clearing extent and rates, intensity of homesteading, intensity of hunting and other illegal activities, invasive species occurrences, and other changes in natural areas. Permanent photo plots will be established and used to monitor changes in forest cover and condition.

On the socio-economic front, CRMCS will record demographic changes and trends in settlements, road extensions, new businesses, and other key variables. Selected communities will also collect and analyze water quality data.

The following preliminary set of indicators has been developed and will be refined during the project:

Community Involvement:

- number of communities completing Community Action Plans and percent of total communities participating
- number of Community Conservation Officers trained

- number of CCO person-days of patrols held and logbooks turned in
- membership in and number of meetings by Community, Municipal, and State Resource Management Committees

Biophysical:

- rates of forest clearing
- water quality variables for selected rivers
- vegetation change (from aerial photography) - Yr 3 only (5 year interval)
- forest bird population trends in abundance and distribution - Yr 2 only (5 year interval)
- number, size, integrity and status of community-managed forest and marine reserves (number of reserves that are officially declared, have boundaries demarcated, have threats identified, have management and monitoring plans in place)
- number of illegal fishing and forestry incidents reported by CCOs
- population trends of key marine species within designated conservation areas

Economic:

- number of lowland *kava* plants established
- volume of lowland vs. upland *kava* produced
- relative market price difference between upland and lowland grown *kava*
- number of biodiversity compatible enterprises established
- total gross income from compatible forest and marine enterprises established through project
- proportion of national and state government budgets allocated to natural resource management

Other:

- number of other FSM and other Pacific island states that have adopted community-based management methodologies developed through project
- number of trained staff and budgetary growth of local conservation NGOs and CBOs
- adoption of legislation and policies to promote effective community-based conservation

Approximately half way through the project, a mid-term progress report will be produced, including a summary of monitoring results, an evaluation of progress and recommendations for mid-course corrections.

X. REFERENCES

- Chatterton, P. 1997. Community Conservation Officer Training in "Community Planning and Monitoring, Pohnpei Watershed Management Program". South Pacific Regional Environment Program, Apia, Western Samoa.
- Dahl, C., and B. Raynor. 1996. Watershed planning and management: Pohnpei, Federated States of Micronesia. *Asia-Pacific Viewpoint*, Vol. 37, No. 3, pp. 235-253.
- Dahl, C. 1997. Senpehn Household Income and Expenditure Survey. Unpublished manuscript. The Nature Conservancy.
- Gawel, M. 1993. The Federated States of Micronesia: State of the Environment Report. South Pacific Regional Environment Program, Apia, Western Samoa.
- Glassman, S. 1952. The flora of Ponape. Bulletin No. 209. Honolulu: Bernice P. Bishop Museum.
- MacLean, C., T. Cole, C. Whitesell, M. Falanruw, and A. Ambacher. 1986. The vegetation of Pohnpei, Federated States of Micronesia. Resource Bulletin PSW-18. Albany, CA: US Department of Agriculture, Forest Service.
- Maragos, J. and P. Holthus. 1996. A preliminary status report on the coral reefs of the insular tropical Pacific. *In: Marine and Coastal Biodiversity in the Tropical Island Pacific Region. Volume 2: Population, Development and Conservation Priorities.* East-West Center, Honolulu.
- Paulay, G. 1994. Biodiversity on Oceanic Islands: Its Origin and Extinction. *American Zoology* 34:134-144.
- Petersen, G. 1982. One man cannot rule a thousand: Fission in a Pohnpeian chiefdom. Ann Arbor: University of Michigan Press.
- Raynor, B. 1994. Resource Management in Upland Forests of Pohnpei: Past Practices and Future Possibilities. *ISLA: A Journal of Micronesian Studies*, 2:1. Rainy Season, 1994. pp. 47-66.
- Raynor, B. 1996. Senpehn Case Study: Developing a Community Approach to Watershed Planning on Pohnpei. T.A. FSM No. 1925 "Watershed Management and Environment".
- SPREP. 1993. The Federated States of Micronesia: Nation-wide Environmental Management Strategies. South Pacific Regional Environment Program, Apia, Western Samoa.
- The Nature Conservancy. 1996. Pohnpei's Watershed Management Strategy 1996-2001: Building a Sustainable and Prosperous Future. 121 pp. + maps and appendices.
- The Nature Conservancy. 1997. Monitoring to Manage: A Report for Pohnpei's Watershed Management Program Team and Partners. Unpublished report to the Rodney Johnson/Katherine Ordway Stewardship Endowment.
- Trustrum, N. 1996. Pohnpei's watershed spatial plan and management guidelines in The Nature Conservancy. Consultant's Reports: T.A. No. FSM-1925 Watershed Management and Environment. Manila. The Asian Development Bank.
- Van't Slot, J. and B. Raynor. 1995. Compatible Development Opportunities for Pohnpei State, Federated States of Micronesia.

ANNEX II: LOGICAL FRAMEWORK MATRIX

<u>Code</u>	<u>Narrative Summary</u> <u>Goal</u>	<u>Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
	Conserve globally significant terrestrial and marine biodiversity on Pohnpei, Federated States of Micronesia.	Adoption of effective community-based approaches to forest and marine resource management.	Assessment of community participation in resource management. Review of existing and new legislation.	National and state governments will remain committed to increasing the role of traditional community leaders and CBOs in managing local land and marine resources.
<u>Component 1: Support Community-based Resource Planning and Management</u>				
<u>Component Objective</u>				
Engage local governments and all communities on Pohnpei in incorporating biodiversity conservation into natural resource planning and management by providing support for the development and implementation of Community Action Plans, and disseminating innovative methodologies to other FSM states and island nations.				
<u>Code</u>	<u>Narrative Summary</u> <u>Output</u>	<u>Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
1.1	Facilitate development and implementation of community action plans for conservation and sustainable development in all Pohnpei communities.	Number of communities with action plans for community-based natural resource planning and management.	Monthly and annual progress reports by the Pohnpei Resource Management Committee.	Landowners, private sector and stakeholders will support and participate in sustainable forest and marine management practices.

Output

1.2 Promote the development of community managed and enforced forest and marine conservation areas.

Number, size, and integrity of community-managed forest and marine reserves.

Quarterly and annual progress reports of municipal and community resource management committees.

Traditional leaders and community institutions are capable of managing their natural resources sustainably and enforcing community-sanctioned policies.

Output

1.3 Document community planning and management process and extend to other Pacific island states and countries.

Adoption of community-based management begun by other Pacific island states and countries.

Manual detailing Pohnpei-style community planning and management program produced and distributed.

Governments in other countries are committed to increasing the role of traditional community leaders and CBOs in managing local land and marine resources.

Component 2: Promote Alternatives to Unsustainable Kava Cultivation

Component Objective

Control destructive *kava* cultivation in upland forests with the highest biodiversity value through developing a "green" lowland *kava* industry and other environmentally compatible enterprises designed to reduce pressures on upland forests.

<u>Code</u>	<u>Narrative Summary</u>	<u>Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
2.1	<p><u>Output</u></p> <p>Implement a public awareness campaign highlighting the importance of the forest, negative impacts of upland <i>kava</i> cultivation, and benefits of lowland sustainably-grown <i>kava</i>.</p>	<p>Increased public awareness of negative impacts of <i>kava</i> cultivation in upland forests.</p> <p>New forest clearing halted or rate of clearing greatly reduced.</p> <p>Number of farmers moving their <i>kava</i> from the upland forest to the lowland agroforests.</p>	<p>Annual public awareness poll.</p> <p>Quarterly Watershed Forest Reserve boundary patrols, annual photo point records, and periodic aerial photography (Year 3).</p>	<p>Local people will support conservation measures if adequate value to their livelihoods can be perceived.</p> <p>National and state government will recognize that unsustainable resource exploitation comes at high social and environmental cost, and will support small-scale, community-based, sustainable development.</p>
2.2	<p><u>Outputs</u></p> <p>Increase commercial crops, including <i>kava</i>, in the lowlands through implementation of a community nursery program.</p>	<p>Increased production of sustainably-produced lowland <i>kava</i> / decrease in upland grown <i>kava</i>.</p> <p>Increased production of other cash crops.</p>	<p>State agricultural production statistics.</p> <p>State agricultural production statistics.</p>	<p>Export markets for agricultural and marine products in the region (Guam, Marshall Islands, CNMI, Nauru) continue to expand, and transport is improved.</p>

Outputs

2.3 Promote the development of other compatible enterprises in local communities.

Number of persons employed or deriving income from and total value of compatible forest and marine enterprises/ contribution to GDP.

State employment statistics, national census data, community surveys.

National census data.

Job creation and sustainable livelihood is compatible with sustainable forest and marine resource management.

Compatible enterprises can be identified that can generate enough income to replace current resource exploitative activities.

Component 3: Build Local Leadership

Component Objective

Build the capacity of community-based organizations, Community Conservation Officers, and the Conservation Society of Pohnpei to help protect targeted upland forests and marine areas of high biodiversity value.

<u>Code</u>	<u>Narrative Summary</u> <u>Outputs</u>	<u>Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
3.1	Establish and build capacity of Community, Municipal, and State Resource Management Committees around the island.	Number and effectiveness of Community, Municipal, and State Resource Management Committees established.	Quarterly and annual progress reports by the Pohnpei State, Municipal and Community Resource Management Committees.	Local stakeholders and government agencies are willing to form coalitions and decentralize decision-making to local levels.
3.2	<u>Outputs</u> Build leadership capacity of the Conservation Society of Pohnpei (CSP) through assistance with strategic planning, fund-raising, staff recruitment, and training.	Number and effectiveness of projects undertaken by CSP.	Annual report of CSP. Audited financial statements from CSP.	Local government, traditional, and business leaders will support CSP by serving as board members and providing funding assistance.

Component 4: Develop and Implement Community-Based Monitoring and Enforcement Program
Component Objective

Build a community-based conservation monitoring and enforcement program to improve community resource management and related decision-making.

<u>Code</u>	<u>Narrative Summary</u>	<u>Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
4.1	<p><u>Outputs</u></p> <p>With CRMCs and CCOs, implement forest clearing monitoring program.</p>	<p>Quality and quantity of monitoring data (forest clearing, flora and fauna status, water quality) collected by local communities.</p>	<p>Quarterly Watershed Forest Reserve boundary patrols, annual photo point records, and periodic aerial photography.</p>	<p>Local decision-makers will be able to use monitoring information to improve community-based resource management.</p>
4.2	<p><u>Outputs</u></p> <p>Assist the Pohnpei Council for a Sustainable Future to develop and implement a sustainable indicators monitoring program for Pohnpei.</p>	<p>Quality and dissemination of annual data on indicators of sustainability.</p>	<p>Publication of annual report on indicators of sustainability.</p>	<p>Local decision-makers will be able to use monitoring information to improve community-based resource management and sustainable livelihoods.</p>

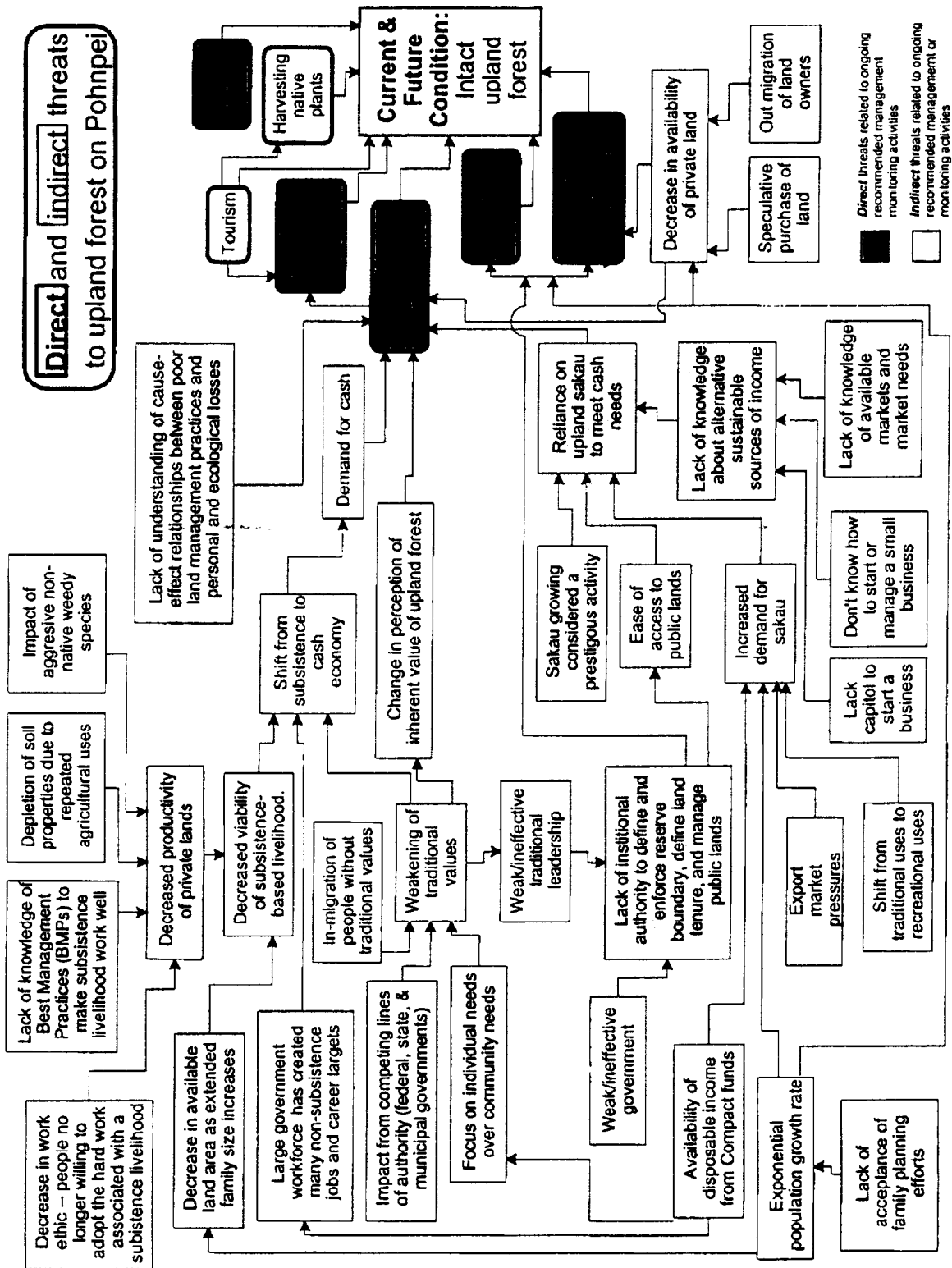
Component 5: Develop Conservation Policy, Legislation, and Financing Mechanisms

Component Objective

Support the development of state and local conservation laws, policies, and financing mechanisms that promote effective, long-term, community-based conservation of the island's globally significant biodiversity.

<u>Code</u>	<u>Narrative Summary</u>	<u>Verifiable Indicators</u>	<u>Means of Verification</u>	<u>Assumptions</u>
5.1	Strengthen legislation and policies supporting community-based management of public lands and waters and encouraging environmentally sustainable and culturally appropriate foreign investment.	Adoption of legislation supporting community-based management of public lands and waters and environmentally sustainable and culturally appropriate foreign investment.	Review of new state and national legislation.	National and state governments will support sustainable forest and marine management practices and policies.
5.2	Help government, NGOs, and other local entities develop a trust fund and other sources of sustainable funding to support natural resource management after Compact expiration in 2001.	Proportion of national and state government budgets allocated to natural resource management and compatible development. Amount of sustainable funding (trust fund, etc.) made available to support natural resource management after Compact expiration in 2001.	National and state annual economic reports and budgets. Amount of sustainable conservation funding secured by various collaborators.	National and state governments will dedicate or help secure sufficient resources for the support of natural resource management and sustainable development up to and after the Compact expiration. Project will be successful in securing additional collaborators and resources.

Anne:
ROOT CAUSE DIAGRAM



GLOBAL ENVIRONMENT FACILITY

COUNCIL MEETING

Washington, D.C.

May 5 - 7, 1999

REGISTRATION FORM

(Please print clearly)

Country/Organization: Afghanistan, Jordan, Lebanon, Pakistan, Yemen

Capacity: Observer Advisor Other (please specify) Alternate

Name(s): 1. E.M. SHAMSEDDIN

Title Advisor to Executive Director, WB

2. _____

Title _____

3. _____

Title _____

Address: World Bank, 1818 H Street NW

Washington D.C. 20433 MC12-125

Telephone: 202-458 1035 Fax: 202- 477 3537

Will you be attending the NGO Consultation on May 4? Yes No

Will you be attending the Reception on the evening of May 4? Yes No

Please return by fax to:

John Clyde, GEF Secretariat

Fax: (202) 522 3240

Phone: (202) 473 5098