APPENDIX A:

Timeline: History of Watershed Management on Pohnpei

1983 Joint vegetation survey conducted by the U.S. Forest Service and Pohnpei State Division of Forestry notes rapid forest clearings in the island's interior and upland forests.

1987 Passage of the Watershed Forest Reserve and Mangrove Protection Act which protects 5100 hectares of upland forest (through creation of a Watershed Forest Reserve) and 5525 hectares of coastal mangroves.

1990 Efforts by surveyors to mark the boundary line for the Watershed Forest Reserve are turned back by villagers wielding machetes and guns.

Formation of the Watershed Steering Committee (WSC). The WSC was an inter-agency task force assigned to 1) develop, manage, and implement the law; 2) represent the government when dealing with the municipal governments and communities; and 3) develop and implement long-term management strategies for the WFR. They began with an extension program in which education workshops were conducted with communities to educate about the 1987 law, the watershed areas, and gather feedback to revise the rules and regulations of the law.

Educational trips to the Philippines involving traditional leaders and other members of the communities were conducted. These trips showed participants the results of deforestation in the Philippines.

1994 Education workshops were completed with over 200 villages being visited. Revised rules and regulations were developed with watershed management, at the request of communities, encompassing a mountains to the seas approach. Communities also required involvement of traditional leaders in decision-making for watershed management. Community and traditional leader support for watershed management is gained.

The state receives a two year technical grant from the Asian Development Bank (ADB) to develop a long-term watershed management plan for the island. This grant marks the beginning of many activities from ecological assessments to piloting strategies for community-based natural resource management. One product from the ADB grant is a poster that compares a 1975 aerial photograph of Pohnpei's forests to another taken in 1995. This reveals a major loss of forest and helps to educate the public as well as policy makers about the importance of the watershed project, leading to a gain in support for watershed management activities.

1995 A pilot project with Senpehn village to develop co-management of their watershed area is begun. Senpehn, through participatory rural appraisal workshops, develops a Community Action Plan to co-manage their watershed areas.

The Community Conservation Officers (CCO) Program is created. CCOs are selected by traditional leaders from villages and act as natural resource educators, facilitators, and coordinators for communities.

At the advice of the State's attorney general, the revised rules and regulations developed during the education workshops is deemed infeasible by the governor.

With the revised rules and regulations rejected, the WSC disbands as one group pursues the community-based management approach (The Nature Conservancy and the Division of Forestry) while another pursues state management of the watershed areas through a Master Land Use Plan (Department of Lands). This results in a loss of coordination between agencies concerning watershed management activities and approaches.

1996 The long-term watershed management plan is completed. The plan focused on community-based sustainable natural resource management and improving coordination between communities and state government for co-management of watershed areas. However, due to rejection of the revised rules and regulations and state budget cuts, this plan was never officially adopted by the state. This rejection also critically affects the relationship and trust between communities (particularly the traditional leaders) and the state.

State budget cuts lead to inability of the Division of Forestry to effectively participate in watershed management activities as staff and working hours are cut.

1997 With a grant from the Keidenren foundation, TNC continues to build upon its work with communities and works to develop capacity for co-management of watershed areas. A shift from working at the village level to the municipal level occurs with the development of Watershed Area Management Committees (to be later replaced by Resource Management Advisory Committees).

As a replacement for the WSC, the Pohnpei Resource Management Committee (PRMC) is formed. Similar to the WSC, it is an inter-agency task force that also includes non-profit organizations focused on island-wide natural resource management issues. The PRMC is later joined by the lieutenant governor.

Drought on the island provides evidence to the general populace of the importance of watershed areas and galvanizes public support for the watershed management program. Similarly, a mudslide in Sokehs which kills a number of people also provides evidence of the results of deforestation.

1998 The Grow Low Campaign begins in which sakau planting is encouraged in lowland areas rather than in upland forests.

2000 Madolenihmw municipal government adopts a model conservation law empowering communities to nominate, designate, and manage protected areas with municipal governments. This law, adopted by the municipal government, created a precedent for co-management between communities and a government entity. Additionally, through an amendment to the 1999 State Protected Areas Law giving municipal governments authority to declare and protect conservation areas, Madolenihmw municipality creates a conservation area.

The Conservation Society of Pohnpei (CSP), the first local non-profit organization on the island, is launched. CSP will gradually assume the watershed management activities and role TNC had been playing as TNC moves to focus its attention on regional issues.

U municipality, through their community visioning, is the first on the island to lay the WFR boundary line for their watershed area. Madolenihmw municipality later joins U when it lays half of its boundary line for their watershed areas.

Cholera epidemic points to the need for clean water and leads to public support for watershed management activities.

2002 Results from the monitoring conducted in 2000 reveal few clearings had been created near the areas where community planning programs were in place and the WFR line had been surveyed and established.

The State legislature approves $120,000 for FY03 to finish the WFR boundary line.

The State Department of Lands is on its third draft of the island-wide Master Land Use Plan.

Efforts to finalize the rules and regulations of the 1987 law, with emphasis on increasing management and enforcement authority for municipal governments, are coordinated by CSP with the attorney general's office.

APPENDIX B:

The Pohnpei Watershed Forest Reserve and Mangrove Protection Act of 1987

FIRST POHNPEI LEGISLATURE
FOURTH REGULAR SESSION, 1987 L.B. No. 381-85

AN ACT

Relating to the dedication and vesting of use and management rights in certain public trust lands to the State Government for watershed forest protection purposes, to the protection of important watershed areas and to the conservation of mangrove forests on Pohnpei.

BE IT ENACTED BY THE POHNPEI LEGISLATURE:

Section 1. Short title. This act is known and may be cited as the Pohnpei Watershed Forest Reserve and Mangrove Protection Act of 1987.

Section 2. Purpose. The purpose of this act is to create and provide for the protection and maintenance of an effective watershed forest reserve, to protect important watershed areas, and to provide for the conservation and management of mangrove forests.

Section 3. Findings. The Legislature finds that:

(1) There are many thousands of hectares of public trust lands with highly erodible soils, that should not be cleared of forest cover and/or used for domestic and farm purposes because such uses endanger the watersheds of Pohnpei;

(2) There are in Pohnpei's forests unique and valuable plants and animals that require legal protection to assure their continued survival;

(3) Mangrove forests provide the basis for healthy fisheries, and are thus of benefit to all the people of Pohnpei; and

(4) The conservation, protection and wise management of Pohnpei's forests in perpetuity is of material benefit to all the people of Pohnpei.

Section 4. Definitions. Unless the context otherwise requires for purposes of this act:

(1) "Board" means the Pohnpei Environmental Protection Advisory Board or its successor in Pohnpei law.

(2) "Chief" means the Chief of the Division of Forestry of the Department of Conservation and Resource Surveillance.

(3) "Director" means the Director of the Department of Conservation and Resource Surveillance.

(4) "Watershed forest reserve" means a large, contiguous area of highly or very highly erodible soils that is protected from development and retained in forest cover to provide long-term water supply for Pohnpei.

(5) "Important watershed areas" means areas that, as of 1985, were already inhabited on highly erodible soils and that will require special care to avoid polluting river systems, or increasing other associated hazards.

(6) "Highly erodible or very highly erodible soils" means soils defined by the USDA Soil Conservation Service (SCS) in the 1982 report Soil Survey of Ponape, Federated States of Micronesia as having a high or very high potential for being eroded by water. Specifically, they are as follows:

SCS #	
301	Dolokei - Fomseng Association, 30-60% slopes
303	Dolokei - Fomseng Association, 30-60% slopes, cobbly
306	Fomseng-Dolokei Association 60-100% slopes
308	Fomseng-Varient silt loam, 30-60% slopes
318	Tolomier-Dolen Association, 30-60% slopes

319 Tolomier-Dolen Association, 60-100% slopes

These soils are shown approximately on the attached map bounded by a red line.

(7) "Permit" means a written instrument allowing a specified use in a Watershed Forest Reserve, or Important Watershed Area issued by the Director.

(8) "Mangrove forest" means a salt-tolerant tidal fringe ecosystem of trees, other plants and animals.

(9) "Solid waste" means any refuse composed of metal, plastic, glass, wood or wood fibers, synthetic material or any non-liquid substance deemed unsafe for the health of a watershed by the Director.

(10) "Polluting liquids" means any synthetic liquid substance which will or may get into ground or surface water, such as gasoline, oil, brake fluid, pesticides, laboratory chemicals or any liquid substance deemed unsafe for the health of a watershed by the Director.

Section 5. Establishment of a Watershed Forest Reserve. Pursuant to Section 5 of D.L. No. 4L-203-79, as amended, the Pohnpei Public Lands Authority is hereby empowered, authorized and instructed to dedicate and vest the control and use rights in the following delineated public trust lands to the State Government, Department of Conservation and Resource Surveillance, to be managed as a watershed forest reserve: all public lands within the green line on the attached USGS topographic map.

(1) Boundary marking and maintenance will be necessary to assure enforcement of this act. The Division of Forestry, with the assistance of surveyors from the Division of Lands and Surveys, will establish the boundary on the ground and

describe it in metes and bounds within 18 months following the effective date of this act. Maintenance of the boundary will be the responsibility of the Division of Forestry.

(2) Uses permitted within the watershed forest reserve, under permit from the Director, are as follows:

(a) Growing of certain crops;

(b) Research on plants, animals, and natural processes;

(c) Recreation such as hiking, camping in designated areas and sightseeing;

(d) Gathering of wild plants;

(e) Harvesting of timber, under supervision of the Chief; PROVIDED that watershed protection is the principal concern for use of the land, and any timber harvesting so permitted is planned and conducted so as to assure watershed protection; and

(f) Other such uses as may be deemed compatible with watershed protection as authorized in writing by the Director.

(3) Uses specifically forbidden within the Watershed Reserve are as follows:

(a) Permanent occupancy of any kind, or the building of structures such as houses, sheds, or barns;

(b) Any use of pesticides or other chemicals, unless specifically permitted after appropriate environmental review;

(c) Building of roads or trails unless permitted in writing by the Director after appropriate environmental review;

(d)Cutting of any trees, except as may be authorized under permit;

(e) Clearing by the use of fire, or any other use of fire not authorized by written permit; and

(f) Grazing of livestock.

Section 6. Important watershed areas. The Legislature finds that the lands lying between the green and red lines on the attached USGS topographic map are on soils designated as erodible or highly erodible by the Soil Conservation Service, are partly occupied by farms and homesteads, and are important watershed areas to all the people of Pohnpei.

(1) The Division of Forestry, with the assistance of surveyors from the Department of Land, will establish the boundary corresponding to the mapped red line on the ground and describe it in metes and bounds, assuring that the line is entirely on public lands, within two years of the date of final approval of this act. Maintenance of the boundary will be the responsibility of the Division of Forestry.

(2) In order to assure the future protection of these important watershed areas, the following restrictions shall apply within them:

(a) No additional building of roads or structures is permitted after the date that this act becomes law;

(b) No rebuilding or improvement of structures now in existence is permitted;

(c) The Board shall strictly enforce all regulations pertaining to location and design of toilets, septic tanks, drain fields, piggeries, fire, use of chemicals, and other pertinent regulations within these areas;

(d) All disposal of solid waste shall be at authorized dump sites located outside of the important watershed area; dumping of solid wastes within the area is forbidden;

(e) Any dumps currently existing within this area shall be cleaned up within one year of the effective date of this act, by those who created them or by the Department of Public Works; and

(f) It is at all times forbidden to dump polluting liquids on the ground or to dispose of them by any manner within the area.

(3) The Board shall monitor a representative sample of these areas to see how well the above restrictions, and the enforcement of them, work to protect the important watershed areas. Within three years of the effective date of this act, and ever, three years thereafter, the Board shall submit a report to the Legislature on the status of watershed protection in these areas, together with recommendations for any improvements deemed necessary. The Director shall concur in this report, or shall state in writing to the Governor any differences with it.

Section 7. Mangrove forests. Broad goals for the mangrove forests of Pohnpei are to conserve these forests for the maximum sustainable benefit to people, and to minimize those nonsustainable or conversion activities that lead to the destruction of the forests. Cooperation between the Department of Conservation and Resource Surveillance and the Board will be necessary to meet these broad goals.

(1) Within two years of the effective dale of this act, the Director shall make a study to determine which mangrove areas of Pohnpei, if any, should be designated as Pohnpei mangrove forest reserves. The Director's report will include recommendations for protection and management of any areas so designated.

(2) Upon passage of this act and filing of regulations, the following restrictions shall apply to all mangrove forests on Pohnpei:

(a) All cutting of trees is prohibited except as permitted in writing by the Director, through the Chief of the Division of Forestry;

(b) All dredging, road building and other major land disturbing activities affecting mangrove forests, whether privately or publicly sponsored, will require approval and a permit from the Director. Environmental review will be required for all such projects prior to approval;

(c) The building of new houses, sheds or other structures will be allowed only if the proponent can show a valid deed for the property to be built upon, or if the Pohnpei Public Lands Authority and the Director agree that a permit can be issued without significantly harming the mangrove forest. If either disagrees, the permit will be denied; and

(d) All use of chemical pesticides and herbicides, and the dumping of solid waste or polluting liquids is prohibited in mangrove forests except as may be permitted by the Director after appropriate environmental review.

Section B. Authorization for appropriation. There are hereby authorized to be appropriated annually from the General Fund of Pohnpei such sums as are deemed necessary to implement this act, the sums herein authorized for appropriation

shall be administered and expended by the Governor solely for the purpose of this act. The Governor shall report to the Legislature on or before October 15, following each fiscal year wherein sums are appropriated under the authorization of this Section. All sums appropriated for a fiscal year, remaining unexpended or unobligated for expenditure at the end of the fiscal year shall revert to the General Fund of Pohnpei.

Section 9. General Provisions.

(1) The Director shall make and prescribe rules and regulations for the use of watershed forest reserves, important watershed areas, and mangrove forests. Promulgation of initial regulations by the Director, for the implementation of this act shall be completed within 90 days after the effective date of this act. Copies of the Department regulations pursuant to this act shall be available for inspection at the offices of the Director and the Chief of the Division of Forestry.

(2) The Director and the Chief shall, to the maximum extent possible, cooperate and coordinate with The Board, the Marine Resources Division, water authorities, and with all other agencies or organizations, public or private, which are concerned with forest resources, and with the College of Micronesia.

(3) Public understanding and acceptance of the provisions of this act are important to the success of its objectives. The Director shall work with the College of Micronesia and; the Pohnpei Department of Education in curriculum development and training for grade school and high school level teachers, and in extension education for adults. Areas of education that need to be emphasized are:

(a) General conservation of soil, water and natural systems such as forests, mangroves, and lagoons;

(b) Watershed concepts and importance;

(c) Specific education regarding this act;

(d) Wildfire prevention and responsible use of fire; and

(e) The recognition, appreciation and protection of native species.

(4) The enforcement of the provisions of this act shall be as follows:

(a) Patrol of the areas and their boundaries established by this act, and reporting of violations, will be the responsibility of the Division of Forestry. All other law enforcement agencies on Pohnpei are also specifically authorized and encouraged to enforce the provisions of this act.

(b) Taking legal action against reported violators shall be the responsibility of the Pohnpei Department of Justice.

(5) Penalties for violation of certain provisions of this act are as follows:

(a) Anyone who violates Subsection (2) of Section 5 or Subsection (2) of Section 6 of this act shall be subject to a fine of not more than $500, a term of not more than six months in jail for each offense, and liability for restoration of the site(s) to as near original condition as possible.

(b) Violators of Subsection (3) of Section 5, regarding prohibited uses in a watershed forest reserve, and Subsection (2) of Section 7, regarding prohibited uses in mangroves, shall be subject to a fine of not more than $1,000 and a jail term of not more than one year for each offense, and liability for restoration of the site(s) to as near its original condition as possible; except that violation of Paragraph (d) of Subsection (3) of Section 5,

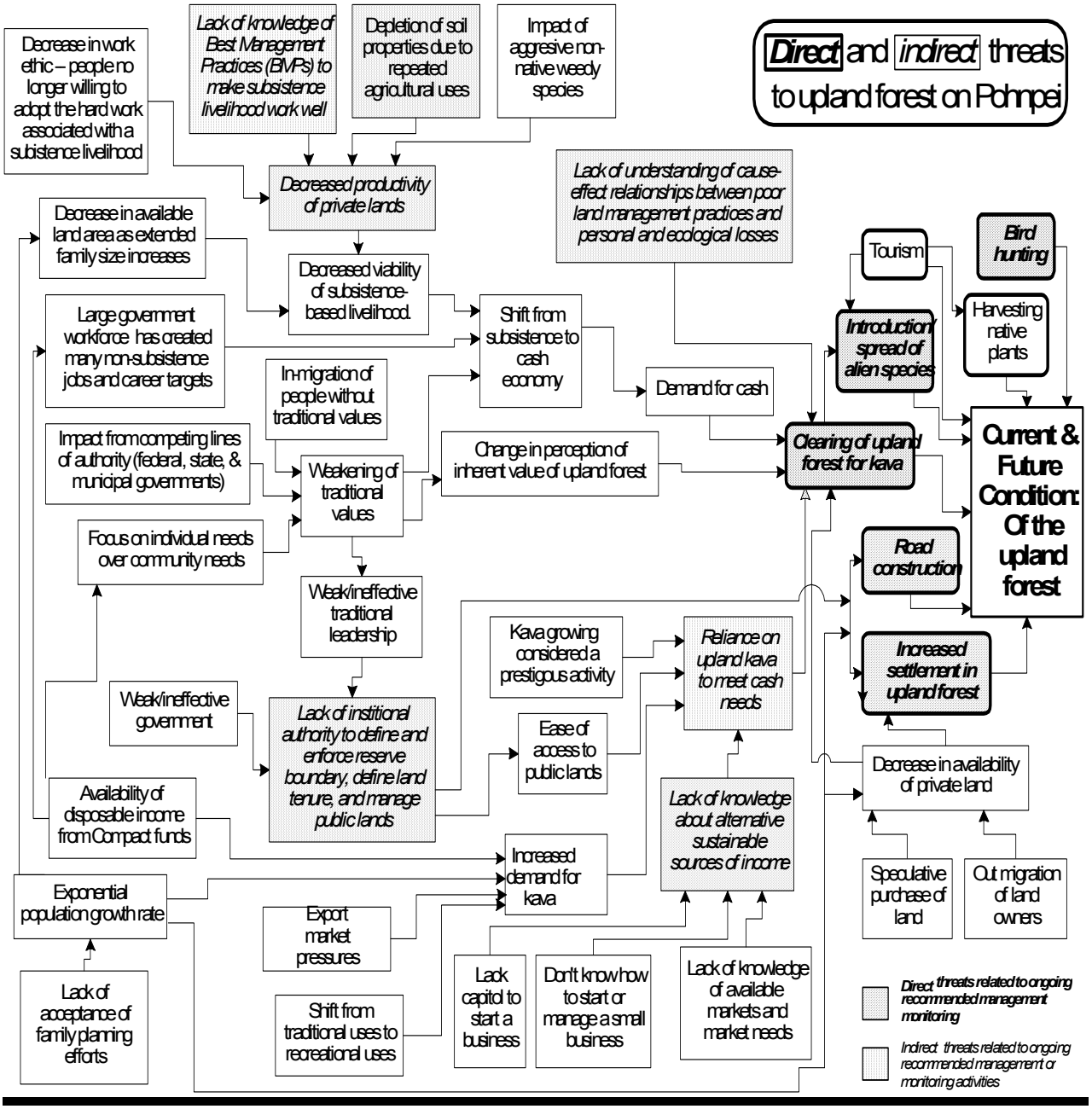
and Paragraph (a) of Subsection (2) of Section 7, shall carry a fine of up to $1,000 per tree so cut, consistent with D.L. No. 4L-203-79, as amended.

Section 10. Effective date. This act shall take effect upon its approval by the Governor, or upon its becoming law without such approval.

PASSSED BY THE POHNPEI LEGISLATURE ON 21 OF MAY, 1987.

APPENDIX C:

Diagram Outlining Both Direct and Indirect Threats to Upland Forests



Source: The Nature Conservancy

APPENDIX D:

Interview Questions (Both English and Pohnpeian Versions)

Interview Questions (1)[78]

I. Involvement in watershed program/management:
   a. How are you involved with the project?
   b. Why did you become involved?
   c. What did you like about being involved with the project?
   d. What did you not like about being involved with the project?
   e. What did you learn by being involved?

II. History:
   a. Were there any key transition points for the project?
   b. Do you think the watershed management project has changed from when it first began, why has it evolved this way?

III. Lessons Learned:
   a. What are the accomplishments of the project? a2. What made these accomplishments possible (what elements?)
   b. What didn't work and why?
   c. Looking back, what did the project do successfully and why?
   d. What were the challenges faced by the project; how were they addressed?
   e. If you had to do it over again, what would you suggest others do differently? e2. Same?
   f. What changed because of the project (e.g. what was the project's impact on the watershed/on how the state deals with watershed issues/on you or your organization/on how local people understand the watershed issues?)
   g. If the project did not happen, what would you think would have happened to the watershed management areas?

IV. Current Views:
   a. What are your current views on how watershed management is being handled (a2. If watershed management has improved, what evidence suggests this improvement)?
   b. What roles do you think the different groups should have in watershed management (e.g. NGOs, state and municipal governments, kousapws, farmers, etc.)? b2. Is this the role they have today?
   c. What are the current challenges facing watershed management in Pohnpei today? What do you think should happen in the next five years?
   d. What are the future challenges facing watershed management and how do you see them being addressed?
   e. Is there anything else we haven't covered that you would like to comment on?

[78] Interview Question 1 was designed for interviewees who had either been involved with or were supportive of the watershed management program.

Interview Questions (2) [79]

I. Understanding of the Project and Involvement:
   a. How did you become familiar with the watershed management project?
   b. What is your view towards the watershed management project and why?
   c. What do you feel the project is doing well? c2. What should it have done?
   d. What are some issues and challenges you think should be addressed in watershed management that are not being addressed by the project?
   e. If the project did not happen, what would you think would have happened to the watershed management areas?

II. Current Views:
   a. What is the current state of condition of the watershed today? (if good, what is the evidence/if bad, what is the evidence?)
   b. How do you think watershed management should be managed?
   c. What roles do you think the different groups should have in watershed management (e.g. NGOs, state and municipal governments, kousapws, farmers, etc.)? b2. Is this the role they have today?
   d. What are the current challenges facing watershed management in Pohnpei?
   e. What are the future challenges facing watershed management and how do you see them being addressed?
   f. Is there anything else we haven't covered that you would like to comment on?

* Questions Specifically for Resource Users:

III. Understanding Resource Use:
   a. How do you manage/take care of your land?
   b. Are there any changes you noticed with regard to natural resources and your land (how long have you been in this area)?
   c. Are there watershed areas in your area?
   d. Do you make use of public lands?
   e. How do you feel public forest lands should be used?

[79] Interview Question 2 was designed for interviewees who were not involved with or not supportive of the watershed management program.

Interview Questions (1) Pohnpeian Version

1. Duen omwi patehng program en watershed:

   A. Ia duen omwi tepin patehng program wet?
   B. Dahme karehda omwi patehng program wet?
   C. Dahme komw mwahuki de perenki ni omwi patehng program wet?
   D. Dahme komw sohte mwahuki de perenki ni omwi patehng program wet?
   E. Dahme komw koledi de alehdi ni ansou me komw patehng program wet?

11. Poadepen program wet:

   A. Komw kak kasalehda mwekid kei me karehiong aramas eh wekdeksang program wet, de mwekid kei me kareiong aramas eh utung program wet. Dahme karehda?
   B. Ni omwi kasawih, mie wekdekla en program wet sang ni eh tepda. Dahme karehda wekdekla pwukat?

111. Pweidahkan oh soh pweidahkan:

   A. Dahngeh kan me pwida nan program wet oh dahme karehda pweida pwukat?
   B. Dahme sohte pweida nan program wet oh kahrepen eh sohte pweida?
   C. Ma, program wet pahn pil ehu wiawi, Ia omwi pepehm me aramas me pahn katanga en wia? De en dueduehte?
   D. Dahngehkan me wekdekla pwehki program wet (karasepe: dahme koaperment wia ong program wet, dahme omwi pali wia, de iamwomwen wehweh rehn aramas?
   E. Ma program wet sohte wiawi dahme komw kupwukupwure me pahn wiawiong nan wasahn Nahk wet?

1V. Sapwelimomwi kesou ong ansou wet:

   A. Ia sapwelimowmi kesou ong epwelpen watershed me wiewiawi ansou wet. Ma mie pweida, dahme wia kasalepen pweida wet?
   B. Ia pwukoahn palihkan nan program wet nin duen omwi mwahngih? (koaperment, NGO, opis en wehi kan, kousapw, soumwet kan de mehteikan).
   C. Iangehkan kahpwal akan me program wet lelohng nan Pohnpei rahn wet?
   D. Iahngehkan kan kahpwal me pahn mie ong program wet nan rahn me pahn patodohkan oh iaduen omwi mwahngih kahpwal pwukat eh pahn kaweweh?
   E. Mie soangen ire me se sohte sair me komw men kasalehda?

Interview Questions (2) Pohnpeian Version

1. Wewehn program wet ong komwi:

   A. Ia duen omwi wewehkihda program wet?
   B. Dah omwi kesou de mwahngih duen mwomwen program wet?
   C. Dahme komw pepehm me program wet wia me mwahu? Dahme program wet kak wiada?
   D. Dahngehkan soangen ire de pesesong me komw kupwukupure me konehng en sansal nan program me saikinte sansalada?
   E. Ma program wet sohte wiawi, Ia kupwuromwi ong nan wasahn nahk wet?

11. Omwi kesou oh mwahngih:

   A. Ni omwi mwahngih, dahme ia mwomwen program wet rahn wet? Ma e mwahu komw kak ketkihda kasalepee, ma e sohte mwahu komw kak ketkihda kasalepe, oh dahme karehda mwahu oh sohte mwahu pwukat?
   B. Ia duen omwi kupwukupwure program eh pahn epwel?
   C. Ni omwi mwahngih dahme palihkan pahn pwukoahki: (koaperment, NGO, opis en wehi kan, kousapw akan, soumwet kan oh paili teikan. ihs me pahn pwukoahki koasoandien program? Ih pwukoah pwukat me pali pwukat pwukaohki ansou wet?
   D. Soangen kahpwal dah me samsalohng program wet nan Pohnpei. Rahn wet?
   E. Soangen kahpwal dah me pato pato mwohn program wet. Ia mwomwen eh pahn kasansalada?
   F. Miete ire me komw pehm me konehng en sansal me se sohte patowen sair me komw men kasalehda?

111. Wewehn doadoahki kepikipik kan:

   A. Ia duen omwi kin apwapwalih ninlimomwi et?
   B. Mie wekdekla me komw mwahngih ni limomwi et oh dipwisou kan?
   C. Mie wasa me wia watershed ninlimomwi et?
   D. Komw kin doadoahki sapwen public?
   E. Ia kupwuromwi ong sapwen weipokon kan eh pahn doadoahkla?

APPENDIX E:

An Assessment of Parties and Organizations for Effective Participation in a Collaborative Process

For any collaborative process to be successful, analysis must focus on the parties involved in the conflict. No collaboration can occur without having the right parties and all the related characteristics that make parties effective present. As such, analysis to understand the potential of collaboration in Pohnpei must first begin with a look at the parties and their appropriate fit for collaboration.

The primary parties affected by the 1987 legislation (and its rules and regulations restricting use and access to the watershed and its upland forests) are as follows: Division of Forestry (named by the legislation as the implementing state agency for the law), communities that are affected by the legislation, traditional leaders at the village and municipal levels as decision makers for the community, and commercial sakau farmers. Environmental non-profit organizations (namely The Nature Conservancy and the Conservation Society of Pohnpei) are also considered primary stakeholders in that they provide technical as well as financial resources and from past experience can serve as facilitators between communities and the state. Though not included in this assessment, secondary parties include other state agencies that deal with related watershed issues (e.g. EPA for water quality, agriculture department in dealing with subsistence farming methods and developing alternative methods for sakau planting), legislators and appropriate committees that have authority over amending the original legislation as well as providing funding for activities related to the legislation, the governor's office for similar reasons, municipal governments as they too deal with

natural resource management issues, and subgroups within the communities, such as women and the church, who may provide information and influence.

According to the 1987 legislation, the Division of Forestry has the authority over the watershed and is responsible for implementing the law (e.g. create the WFR, manage the area by regulating its uses, and enforcement). As the party responsible for implementation and having the legal authority over the resource, the Division of Forestry is a key participant for any collaborative process. However, the Division of Forestry suffers from several deficits that prohibit it from being an effective participant for a collaborative process.[80]

The first issue to address is capacity (e.g. infrastructure and human resources), or lack thereof, within the Division of Forestry to implement potential solutions developed by a collaborative process. Before the 1987 legislation, the Pohnpei Division of Forestry's main activities had revolved around developing nurseries for certain tree species and providing farmers with seedlings for agricultural products.[81] As such, the infrastructure of the organization, including its very limited budget, as well as the staffs' experience, reflects this very basic mission and still carries over to the present. There are only five staff in the agency and none have an education past the high school level. Though some have received some forestry training through the USFS, none are foresters

[80] The assumption here is that though a party may need to be at the table, the issue of effectiveness as a stakeholder must be addressed for it is the quality of participation that allows collaborative processes to move forward. An effective participant is defined as a party that represents its interests, is accountable to its constituencies, has the ability to contribute to the collaborative process and is considered a resource (e.g. generates ideas, provides information/expertise, provides funding, etc.), and has the authority to agree to the strategies or solutions devised by the collaboration as well as capacity to implement activities.

[81] One must also take into consideration that Pohnpei is a developing country and one that has only recently gained its independence from the U.S. as a trust territory. As such, the Division of Forestry does not have a long agency history as does the USFS nor does its mission have the same clarity in that Pohnpei's forests are not being managed for extraction and the issue of conservation is a new focus for the organization.

by institutional training. The absence of professionalism is not only reflected in the education but also in the work conduct as well. Before the arrival of a Peace Corp volunteer in 2001, the Division did not have any yearly work plans for the agency or its individual employees. There had been no monthly staff meetings to discuss activities or processes encouraging accountability for work goals. With regard to the work ethic, this too impedes the effectiveness of the organization. Employees do not consistently show up for work everyday and do not call in, including the director himself. When they are present at work, social activities are not considered inappropriate to conduct during work hours. With regard to the director, there are issues (e.g. trust, respect, and credibility related to the fact that he is an outer islander and not a Pohnpeian) that influence his effectiveness regarding work with other stakeholders. His ability to also persuade higher level agency officials (e.g. the governor and director of the Department of Lands, equivalent to the U.S. Department of the Interior) to support and implement any agreement reached is at issue as well. As a result of these concerns, the capacity for the Division of Forestry to be an effective participant and partner in a collaborative process is questionable.

Another key participant to a collaborative process must include the traditional leaders within communities as they are considered to be influential in setting the norms within communities and are perceived by Pohnpeians as advisors and decision-makers. Traditional leaders also see themselves as having authority over these lands, not in law, but more in practice as they and their communities work the lands and use them for subsistence agriculture. Often during interviews, many traditional leaders stated the reason they supported watershed conservation was because it was part of their duty and

responsibility as chiefs to take care of the land. However, there are many intricate variations to the role a traditional leader has within communities that make their effectiveness in a collaborative process problematic.

The role of a traditional leader in Pohnpeian society is not one of absolute authority, but a reciprocal relationship between people and leader. The relationship between the communities and these traditional leaders are tied to the political system of honorific titles and yearly agricultural tributes. Communities present nahnmwarkis and soumas with yearly crops of yam, sakau, and fruits to show respect and appreciation. These offerings are also linked with the giving of prestige titles by traditional leaders to reward the most productive farmer in recognition of his loyalty and industriousness. In this way, the relationship between communities and traditional leaders is reciprocal and as such co-dependent.

With regard to collaboration, there are several logistical issues which prove problematic for having traditional leaders at the table. The first deals with accountability to constituencies. Though traditional leaders would be in the best position to know the activities of his people and would ideally do what is best for them, there is nothing that ties the traditional leaders to a constituency relationship such as that of a non-profit organization or legislators. In other words, though traditional leaders can listen to the needs and wishes of his people, in the end, he is the decision maker and can make a decision that does not reflect the views of his community. His position also does not require him to report back to the community on the activities of a collaborative committee and to discuss the various options and justify his decision. In this way, it is questionable if traditional leaders can truly represent the views of the community. In

fact, there were several examples cited through interviews with community members concerning traditional leaders that did not support watershed conservation (even though their people thought it to be a good idea) or leaders that vocally supported watershed conservation but continued to plant sakau in the upland areas. This begs the question then of who can legitimately represent communities in a collaborative process. There are also issues of internal politics among the traditional leaders within the municipalities and between municipalities that prove difficult in having all traditional leaders involved in a collaborative process.

Another logistical issue has to do with the presence of a traditional leader at any meeting. People are very respectful of traditional leaders and this may prove problematic as collaboration is underlined by democratic theories of egalitarianism in which all parties are recognized as equal and opinions are treated as such. One wonders how candidly discussions would proceed in a collaborative process with traditional leaders in the room or how traditional leaders can be bound to agreements. The other related issue has to do with time spent on recognizing the presence of traditional leaders at the meeting, a formality that is accompanied by offerings of food and sakau. Another issue has to do with age and ability to be present at meetings. Most of the nahnmwarkis are elderly, in their 80s and in poor health. Some live in very remote areas where no paved roads exist. As such, their continual presence throughout a collaborative process is doubtful. In addition, with over 100 traditional leaders on the island, the issue of scale becomes problematic when considering their full involvement. Also, as Pohnpei moves from a subsistence to a cash economy, the future durability of this traditional political system is in question. Many interviewed noted that the younger people in villages do not

adhere to the traditional systems and practices leaving in doubt the ability of traditional leaders to influence this segment of the community that is most involved with commercial sakau farming.

Another group who has a stake in the conflict is commercial sakau farmers. The difficulty with commercial sakau farmers, however, relates to their willingness to participate in a collaborative process. When the law first passed in 1987, commercial sakau farmers may have had an incentive to participate as they might have been unsure of its affects on their business. However, over the years, this incentive has dissipated as the issue of enforcement has been problematic. For commercial sakau farmers, there is no penalty if they plant in the upland forests for two key reasons. With the exception of U and Madolenihmw municipalities, no boundary lines have been set for the WFR in any of the other municipalities, particularly Kitti municipality where most of the commercial sakau farmers operate. Consequently, commercial sakau farmers can profess ignorance if they are challenged regarding their actions. It is hard to enforce a boundary where none exists. Related to this, given that the Division of Forestry has only five employees, enforcement proves difficult as there are not enough people to patrol the area. In addition, the watershed area and upland forests are not easy to reach and require a hard hike and many hours to reach. As a result of this, though commercial sakau farmers are a key stakeholder, the incentives for them to participate in a collaborative process may not be present.[82]

[82] In the case of the commercial sakau farmers, the clash of cultures creating conflict is evident. As Pohnpei moves from subsistence to cash economy, sakau farming has moved to meet this demand and opportunity. Consequently, this situation has created the threat to the watershed and upland forests. This shift to commercialism is also reflected in the traditional system of tithe offerings where sakau farmers, instead of presenting the traditional agricultural items of sakau, yams, and animals, are now offering gifts of cash or luxury items such as refrigerators and cars to traditional leaders as a sign of their wealth and prestige.

The last party that must be considered for collaboration is the non-profit sector, namely The Nature Conservancy (TNC) and Conservation Society of Pohnpei (CSP). These two organizations have a very unique position as participants for several reasons. Given the dynamics and capacities of the parties involved, TNC and CSP are key participants because they offer many resources, whether they are in the form of technical assistance with scientific data and protected areas management, fundraising, or human resources. TNC and CSP are also well-respected by the communities, which are more trustful of these non-profits than they are of state agencies. Given these elements, TNC and CSP play a key role in facilitating a collaborative process.[83] However, one caveat to their involvement is tied to the same reason why their involvement is critical – their resource capacity. If the directors of both organizations were not so respected, others at the table might feel that the uneven distribution of resources and capabilities of TNC and CSP could undermine collaborative processes as these two organizations may be viewed as managing the process to their own strengths and abilities.

In addition to the fitness issues of the parties above, other issues to consider when attempting to apply collaboration have to do with cultural matters and different notions of process and progress. The first issue has to do with time and work ethics. As mentioned when outlining the challenges of the Division of Forestry, work is conducted very differently on Pohnpei than in the U.S. Meetings often start late in Pohnpei because time has a very laid-back element to it. Appointments are canceled or people simply do not show up. Developing work plans and strategies are not priorities or even practiced.

[83] Since TNC has relinquished watershed activities to CSP as it moves to focus more on regional issues, TNC may be in a better position to play a facilitating role in a collaborative process as they could be considered more neutral, despite their conservation mission as an organization and past watershed history.

These examples outline logistical difficulties to creating an efficient collaborative process.

Another example linked to culture has to do with the sharing of information. As anthropologist Glenn Petersen advised through a phone interview, there is a politics of information concealment on Pohnpei in which sharing of information is considered as weakening one's power or authority. As such, information is not shared outright or is concealed behind multiple meanings and interactions. This predilection for concealment is in direct contrast to a collaborative process, which encourages all parties to share information in order to develop mutual understanding of the issues and problems.

Another issue is related to the prerequisite of participating parties to recognize the necessity of other parties at the table. Due to historical distrust centered on struggles over legitimate authority, the Division of Forestry and traditional leaders may not recognize the necessity of each other's presence in a collaborative process, certainly not as co-equals. It is also questionable if other parties have sufficient power or influence to affect or constrain any unilateral action taken by traditional leaders.

The last issue that must be addressed before considering a collaborative process has to do with accountability. Though Pohnpei's political system is based upon the U.S. model of having a legislative, executive, and judiciary branch, the laws that govern the island are fairly young. As such, parallel laws, such as the U.S. National Environmental Policy Act of 1969, U.S. Federal Advisory Committee Act, and U.S. Administrative Procedures Act, that insure public review, deter co-option of the process by interest groups, and guide collaboration through an established process of accountability are lacking and therefore pose a challenge to its credibility and legitimacy.

APPENDIX F:

Towards Community Involvement in Watershed Management on Pohnpei: Some Lessons Learned

The following lessons resulted from the two years of education workshops conducted by the Watershed Steering Committee with various communities around the island. They reflect valuable insights gained concerning seven key points on working with communities and were compiled by Bill Raynor of TNC and Valentine Santiago of DoF.

1. Understand the community:

- Present concepts, ideas in ways that the community can easily understand. Learn general beliefs, local names/vocabulary, legends, stories – focus on the community's world view instead of expecting them to adopt yours. Avoid the Western approach of focusing solely on science.
- Through the community, learn all you can about traditional/past resource management, enforcement, and monitoring. Get the community to compare before and now (trends), and look for ways to revive local ways, since these are usually more easily acceptable. Involve and support local institutions (chief's councils, churches, youth groups, etc).
- Take the time to analyze the power structure in your target community, and work through it. Don't create a separate structure.
- Plan your education/participation program to maximize interaction by all groups, through offering separate forums to women, youth, etc., and involving all groups in every steps, from problem identification to solving.

2. Respect the community:

- Don't presume to know as much or more about a community than the people themselves. Do not come in as "experts".
- Don't try to control issues and problems to only those that you want. The community must be free to honestly and completely identify and prioritize issues important to them. It's important to understand the community's outlook, and being willing to work with them on all their problems builds trust and cooperation.
- Invite local leaders/experts to join your team.
- Don't pay local leaders – they have to believe that they are working for the good/future good of their communities. Paying them undermines their authority in their own community.

3. Be honest:

- Don't make promises you can't or don't intend to keep. Write promises down and fulfill them. The process of community involvement is based on building trust, and empty promises and forgotten agreements are the fastest way to destroy trust.

- Don't underestimate or exaggerate problems or situations. Local people need to know the truth so they can make good resource use decisions.
- Try to involve government agency representatives as much as possible. Concentrate on getting higher-level representatives, those with authority to speak for their agencies and make decisions. If you can only get lower level representatives, then try to arrange for some authority to be given to them.
- Don't misrepresent or overstate your authority or ability. You will need government support, and as thus must not commit the government unwillingly to things they can't or won't do. Don't openly criticize the government – remain upbeat and positive in focus. If you become too negative, you'll find yourself isolated from both community and government.

4. Concentrate on facilitation:

- Focus on your role as facilitator. You are there to help the community analyze their problems, generate alternatives and carry them out. You aren't there to make decisions for them. The goal of the process is to put communities back in control of their future.

5. Focus on the future:

- Focus on the future, especially future generations. Encourage enlightened self-interest – that is, how good resource management will improve the community's future. Convince people that change is possible, in fact, necessary. On Pohnpei, women seem to be especially focused towards the future, and all opportunities should be made to invite them as a voice in the proceedings.

6. Offer alternatives:

- Assist the village in identifying and describing major issues, problems, and needs. Then facilitate the villages' search for alternative solutions. Many solutions are probably already available in the local community, waiting only for clarification of the problem. Don't solve the community's problems for them. Outside solutions are bound to be less acceptable and successful, and failure can and will be blamed on outsiders (like you).

7. Be willing to learn as you go:

- Concentrate on listening instead of talking. Be willing to admit that you don't know everything, and are willing to learn from the local community members. Keep an open mind.
- Every community participation effort will have its flaws, and many of these will only become obvious once in the field. Don't dwell on the negatives. Be willing to make mistakes and accept criticism from the community. Involve them in evaluating the program.

APPENDIX G:

An Assessment of the Community Conservation Officers Program

Because CCOs are viewed by many groups involved in watershed activities as critical (due to their role as community organizers anchoring the community-based natural resource management approach), the program's effectiveness, particularly as The Nature Conservancy and others are currently reviewing future viability of the program, is of concern.[84] In an effort to assess the CCO program, CCOs were interviewed at the 2002 CCO conference in order to better understand the challenges and issues from the perspective of CCOs themselves. Participants were asked to comment on topics such as involvement (e.g. how and why, what has been learned, aspects enjoyed and not enjoyed), successes (e.g. impacts, aspects of success), challenges (e.g. problems, obstacles to effectiveness), and infrastructure support (e.g. what is needed to be a more effective CCO, who should be assisting in this capacity). By providing this perspective, the observations of the CCOs will be able to inform managers of the program of the obstacles hindering effectiveness of the program as well as motivations involving participation and successes that have been achieved, thereby helping to assess future viability of the program.[85]

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[84] In concept, the CCO program seems like an ideal candidate to take over many of the community-based natural resource management components that existed in the earlier phase of the watershed management program (e.g. CAPs, PRAs, education workshops, resource management committees). However, in practice, building the CCO program to reach this level of activity and role has been problematic. As such, the program is currently being reviewed by The Nature Conservancy and others such as CSP and DoF as to its effectiveness. At the heart of the matter lies the fact that the CCO program takes an enormous amount of staff time and financial resources to manage. As a result, TNC may be unable to continue housing the program, particularly as it's focus moves toward regional conservation activities. However, both the CSP and DoF do not have the funds or staff to take over coordination and management of 200 CCOs. As such, the future of the CCO program remains unclear.

[85] Though initially planned as an island-wide CCO conference with representatives from all five municipalities as well as those from outer islands, due to time constraints involved with planning, the conference was reduced in scope and size. As such, the sample interviewed is not representative of the larger CCO program in that it included only CCOs from one municipality, Madolenihmw (indeed, only ten people representing five villages were interviewed). The CCOs from this municipality are also not

Historical Perspective

The concept of Community Conservation Officers (CCO) was introduced in 1995 by a traditional leader and the subsequent program developed and managed by The Nature Conservancy (with additional assistance and involvement by the Conservation Society of Pohnpei). Usually selected by soumas, a CCO is a member of the village who is designated as a natural resource coordinator and educator for the community. CCOs also help with organizing and implementing CAPs (including monitoring and enforcement), developing alternative income generating activities, and serve as a liaison for their village with other groups such as DoF, NGOs, and municipal governments. As part of the analysis concerning roles and institutions involved in watershed management discussed in Chapter Four, a state agency official noted the CCO program as beneficial because it helped with education and enforcement. Recently, efforts to formalize CCOs through a certification program have begun (UNDP monthly report, March 2002). The certification program focuses on developing skills and knowledge to improve CCO effectiveness by providing continual training and education. Topics range from ecology,

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representative of the overall program in that they are one of the more better trained and organized groups because of its strong historical involvement with watershed management activities (e.g. ADB funded pilot programs such as PRAs, co-management agreement with state, GIS boundary line project) and the presence of Bill Raynor and other TNC staff as members of the community. As such, this analysis should be viewed as representing a very small segment of the CCO program and no strong conclusions about the program can be determined from it. However, despite this, the group mentioned several challenges and needs faced in order to improve effectiveness. As one of the more successful CCO groups, their perspective can still inform managers of critical issues hindering program implementation. Indeed, the issues outlined by this group could be even more revealing given their higher level of involvement, training, and organization.

It must also be noted that the interviews were not conducted by the researcher herself (though the questions were developed by her). The conference had originally been scheduled to occur during the time period of the researcher's stay in Pohnpei, however due to planning logistics, the conference was pushed to August, a time when the researcher would have already left the island. As such, an intern at the DoF (an undergraduate student at the University of Hawaii and local Pohnpeian) was recruited to conduct the interviews with the CCOs. The intern had already been conducting interviews with communities for his own research purposes and was therefore familiar with interview processes and methods. Additional training in group interview methods was also provided by the researcher. The intern was introduced at the CCO conference as an independent researcher and not as an intern with DoF as his time there had already ended and such an affiliation might have posed a problem with participants and the responses given.

roles and responsibilities of CCOs, conservation strategies and management, monitoring, and community planning and organizing. Efforts to also improve linkages of CCOs within and between municipalities are also beginning. In August of 2002, an island-wide CCO conference was held to facilitate networking among participants, strengthen community planning processes, and share lessons between different villages.

The progress outlined above resulted from some of the lessons that had been learned along the way. As revealed through interviews with various parties, two specific lessons involved termination of compensation and selection by traditional leaders. Similar to the effects already mentioned in Chapter Three, compensation of CCOs had attracted individuals only interested in the financial reward rather than helping communities to better manage their natural resources. As such, compensation was halted and the program today is based on volunteers. The other lesson learned dealt with credibility of CCOs within the community. Initially, the program had selected young individuals as some of the work involved strenuous activities such as hiking. However, due to their age, these CCOs were not taken seriously and respected by other members (particularly older members) of the community. As such, the current program relies on traditional leaders to select CCOs, thereby bestowing credibility to these individuals.[86]

Despite such progress, the CCO program as a whole has experienced varying degrees of success. Though there are close to 200 CCOs currently on the island, levels of involvement, activities, roles, missions, and effectiveness contrast greatly. Factors behind such divergences can be explained through different levels of support for capacity

[86] Selection by traditional leaders may have drawbacks as well since participation in the program may be based on prestige or because they are relatives of the chief or the chief is reciprocating a favor. As a result, similar to financial compensation, selection by traditional leaders may also engage individuals involved not for merit or interest.

building and training, leadership (lack thereof), quality of individuals involved (e.g. dedication, motivation, initiative), support by village infrastructure (e.g. communities, traditional leaders), funding for activities, and misconceptions or disagreements regarding their roles and responsibilities as well as mission. Some of these factors were revealed through comments made by NGOs, traditional leaders, and community members in the interview results, specifically the leadership section in Chapter Four. People cited the need for CCOs to be more active in their roles. Related to this was the need for assistance with coordination, increasing communication between traditional leaders, and involving individuals who did not treat the position as a job. The following comments, made by community members, traditional leaders, and state agencies, further underline these issues: "CCO leaders aren't doing what they are supposed to do, aren't going to soumas when there is a problem, very weak right now," "CCOs doing work like it is a business…[he] doesn't like the idea of CCOs going through the forest and citing farmers and reporting to municipal governments…they should report to soumas instead of municipal governments," "CCO program not working in every municipality because they have many things to do, not only conservation," "CCOs are doing the cutting and shooting, one problem is in their action plans, CCOs bring others from outside, do their own thing."[87]

Practitioners' Assessments and Perspectives

Appointments by Soumas. When participants were asked how and why they came to be involved with the program, most replied with appointments by their soumas. They felt they were selected for their interest in the program or ability to interact with the

[87] This last comment refers to a situation in Kitti where CCOs had developed community action plans that benefited themselves. As such, conservation was not the forefront of these plans and these CCOs proceeded to decrease sizes of conservation areas so they could clear cut certain areas for sakau.

rest of the community. People also expressed that they wanted to help their community to protect places in their areas and that the work seemed interesting. "I wanted to join so that I can help my community preserve the places that need to be preserved," responded one CCO. Most had been involved for at least three years.

Maintenance of communities. Roadside cleanings, removal of debris from the ocean, and proper garbage disposal were some of the examples given of maintaining communities when CCOs were asked what their responsibilities were. Other answers consisted of education and advising communities through workshops (e.g. working with youth to teach them how to care for plants, working with communities to share land management practices), meeting with soumas to coordinate activities, monitoring and surveying coastal as well as forested areas, and taking care of nurseries.

Opportunity to take care of their communities. When CCOs were asked what they enjoyed about their roles, they saw the program as providing them with the opportunity (by providing support and encouragement for activities) to fulfill their responsibilities to take care of their communities. The next most common response was the opportunity to visit other parts of the island and to see places they had never seen before. Such visits impressed upon CCOs the uniqueness of Pohnpei. Related to exploring other parts of the island, meeting and working with people from different places on the island and building a common understanding of the environmental problems faced by everyone was the next most common response. CCOs also enjoyed having a unified group in which people came together to share their skills and work together to take care of their communities. As one CCO noted, "When we work together to clean a certain place like the roadside, it is really amazing to see everyone working."

Working with others both within their communities as well as outside also provided opportunities to learn from one another, noted one participant.

Low participation by others. Despite the responses given above, when participants were asked what they disliked about being a CCO, half responded with the low involvement of other CCOs. These respondents felt that other CCOs were not as dedicated or did not spend as much time in activities or in meetings and were not concerned with their roles as CCOs. Similar to this was non-involvement in activities by others (non-CCOs) within their communities. As one person said, "the thing that we do not like…is when some people do not want to lend an ear or help out." Other responses revolved around the position itself. Some felt that given the title of a CCO actually impeded their effectiveness because it isolated them from community members. As one person commented, "when we become CCO, we are more like police officers and people fear us to a point where we can no longer interact or socialize with the community."

Personal skills and self-discovery. Similar to the responses outlined in the involvement section of Chapter Four, most CCOs expressed developing personal skills as what was most learned through involvement with the program. These skills mainly centered on how to interact with communities (e.g. working with youth, approaching traditional leaders, developing language skills for interaction) and learning, through exploration of different areas on the island, about various names for plants and animals and identifying invasive species. Other examples of personal knowledge gained were discovering the importance of conservation and saving certain areas for future generations, how to manage lands and conservation areas, how to work with other

Pohnpeians outside of their villages, and realizing that some people cared about such issues while others did not.

Projects as impact and change. When participants were asked what impact they had as CCOs and what had changed as a result of their work, most answers revolved around the creation of projects and implementing various activities. Examples included teaching people how to plant crops (e.g. bananas, sakau, black pepper), instituting weekly clean-ups to prevent littering, installing water pipe systems, setting up nurseries for different tree species, creating monitoring programs, conducting a census of the village to understand needs, and putting up signage to demarcate protected areas and welcoming people to their communities. Other impacts included teaching people the importance of reserve areas, that sakau can lead to deforestation, and seeing improvements in the watershed. Most of these accomplishments were possible because the groups had the unity and cooperation of their communities.

Support of the traditional leaders. "CCO can be really successful starting from cooperation of the traditional leaders. They should show the people and the CCO members that they are 100% supportive." Similar comments were made by other CCOs, placing support of traditional leaders as the most frequently cited answer as to what made CCOs effective in their work. Following closely was support of the community as a whole (e.g. elders, youth). Assistance from the NGOs was also a factor CCOs felt contributed to their success. Finally, CCOs felt they were successful because they did not just dispense advice, but also actively participated in projects by helping people to clean around their houses and getting directly involved with the work.

Poor involvement by others. Perhaps it is not surprising that if CCOs felt what made them most effective was the support of the community and traditional leaders, they felt that what hindered their effectiveness the most was not having this support, particularly in the quality of involvement and participation. The definition of support ranged from groups such as other CCO members to titled individuals to traditional leaders to members of the community. Said one individual, "one thing we believe that keeps a CCO from being effective is lack of cooperation among CCOs. The reason is that since CCOs do not get paid, some of us tend to slack off. For instance, when we call meetings, some of us won't come if there is no sakau." Such sentiments were prevalent as others mentioned absence or tardiness to meetings (which affected the value of the meeting by limiting what could be discussed), not having the involvement of traditional leaders, and lack of participation in project activities. The issue of direct incentives (or rather its absence), whether in the form of financial payment or sakau, was connected to these issues of participation and support (the issue of not getting paid as the reason for poor turn-out was cited by a majority of those interviewed). Still others noted not having enough time as hindering their effectiveness. CCOs cited family responsibilities as well as other work related responsibilities as impediments to fulfilling their obligations as CCOs.

Funds for activities and support by traditional leaders, state, and NGOs. When CCOs were asked what they needed in order to be more effective, most replied funds to purchase equipment (e.g. binoculars, boats to monitor, weedeaters, signs) to assist with activities and setting up conservation areas and monitoring programs. As one CCO noted, "we need grant to do these work. We cannot work on it by ourselves. We need a

sort of aid from outside to help us manage, preserve, and care for the environment." Participants cited needing more workshops and conferences (such as the one they were attending) to learn fundraising techniques such as proposal writing in order to gain such funding. (It is interesting to note that these funds were mainly sought from U.S. federal agencies rather than local NGOs and the state.) Other suggestions were to gain support of the communities and to get paid in order to increase involvement.

Traditional leaders, NGOs, and government departments working together was the answer given most by participants when asked who should be helping CCOs to be more effective. Specifically, NGOs and government departments were seen as entities to provide the tools to conduct activities, while traditional leaders were seen as advisors and entities to rally community support and involvement, "I believe the traditional leaders can bring the ears and hands of all people. With the help of these leaders, many youths and people from communities will work together."

Destruction of our environment. Overwhelmingly, all cited destruction of their environment (e.g. species, waters, islets) and increased environmental problems as a consequence if the CCO program had not been established. Others shared concerns that their children would not be able to recognize certain plants because they no longer existed. Perhaps this response reveals the biggest impact the CCO program has made through the work it has done and the awareness it has raised that individuals do have the power to manage areas either for devastation or sustainably through stewardship and conservation. Shared one individual, "If there is no CCO, then nothing will happen. Our environment will end up in disaster – endangered species will die out, unique plants will disappear, because we are not enlighten to what is needed to be preserved."

Recommendations. Additional comments made by participants revolved around recommendations and thoughts on their roles. Two CCOs recommended that education of youth, through support of traditional leaders and NGOs, should be increased through class activities such as field trips and workshops. Another felt it was their responsibility as CCOs to keep traditional leaders and NGOs informed of what was happening in their communities. Perhaps the most insightful recommendation regarding future steps for increasing not just CCO effectiveness but overall conservation efforts on the island came from a CCO who had been involved with the program for three years. He said, "I think that as long as we work together and put away our differences and our little selfishness, then we are able to concentrate on our problems that our environment is facing."