



## 第4章 トンガ第三国研修実施に係る国際機関との連携可能性（要約）

南太平洋地域では様々な地域国際機関が存在し、これらの機関を第三国研修に巻き込むことは、研修の質を向上させるという観点から必要不可欠である。

今回のミッションのひとつの目的は、a) USP、FAO、ICLARM及びSPCといった水産に携わる機関と協議を重ね、第三国研修の原案に対する助言・提言をもらう、b) これらの機関から第三国研修に貢献できる人材を捜すことである。

### 1) Dr. Robin South (University of South Pacific)との協議結果 (その1)

1. 実施期間が4週間であるが、計画策定者・上級行政官をこの期間拘束することは非常に困難であるという理由から今回は対象としない方がよい。
2. Tool basedな研修内容にすべきであるが、同時に南太平洋諸国の違いを考慮すべきである。
3. 資源保護のひとつのToolとして珊瑚礁調査を研修内容に組み込むことは重要。
4. 地域国際機関を研修に巻き込むべきである（特にSPC）。

### 2) Mr. Hideyuki Tanaka (FAO) との協議結果

1. プログラムが多岐に渡りすぎる。もう少し焦点を絞る必要がある。
2. 研修対象者の複数化（技術者と行政官）は避けた方がよい。
3. 地域に特化した現状・問題点・課題の把握が急務。
4. 本第三国研修は、夜光貝の種苗生産技術を周辺諸国へ移転できるといった大きなインパクトがある。
5. 資源管理に関してmonitoring手法が抜けている。
6. スキューバ・ダイビングでの実習は非常に有益である。
7. 本第三国研修は周辺諸国の機関を巻き込んだ参加型研修にすべきである。参加型研修に関してSPCがそのノウ・ハウを持っており、本第三国研修にSPCを巻き込むことの必要性は高い。
8. 研修実施国であるトンガも、研修を実施するにおいて何らかの利益を得るべきである。
9. 研修開始の1週間は、USP（フィジー）でPCMを実施し、トンガでの研修はPracticalな内容に焦点をあてるべきである。
10. 3年間にわたり本第三国研修の実施を予定しているということであるが、  
1年目・・・夜光貝の種苗生産  
2年目・・・珊瑚礁域の資源管理手法  
3年目・・・海中公園もしくは海洋保全  
と、年毎にテーマを変更するのも面白い。

### 3) Dr. J. Bell (ICLARM) との協議結果

1. プログラムが多岐に渡りすぎる。もう少し焦点を絞る必要がある。
2. 南太平洋諸国では、実施されている研修に関しては量的には問題はないが、研修のプログラムに合致した人材が研修に参加していないことが問題である。本第三国研修においても、対象とするグループを明確に規定し、人材をしっかりと選定する必要がある

3. トンガの水産研究センターでのPracticalな実習には賛成である。1年目：夜光貝、2年目：高瀬貝、3年目：シャコ貝と年毎にテーマを変更することも考えられる。
4. フィジーでのPCMの実施については賛成である。
5. フィジー及びトンガでの研修へ、ICLARMからResource Personを派遣することは可能である。

#### 4) Dr. Robin South (University of South Pacific)との協議結果 (その2)

1. 研修開始の1週間をUSP (フィジー) でPCMを実施するという案には賛成である。PCMの講師はDr. Kenneth Mackay (South Pacific Forum Secretariat) が適任者ではないかと考える。
2. USP, SPC, ICLARM, JICAの参加によって、PCMはより効果的なものとなる。

#### 5) Dr. Tim Adams & Mr. Michelle Blanc (SPC)との協議結果

1. SPCとしては、本第三国研修に対し多角的なサポートが可能であるが、JICAよりむしろトンガ及びフィジーからの両政府レベルから要請が出されて方が動きやすい。
2. 本第三国研修はトンガのプロジェクト・サイト (水産研究センター) からの要請であり、南太平洋諸国のニーズ調査に基づくものでないという点が懸案事項である。
3. 年毎にテーマを変更せず、夜光貝の種苗生産に一貫してもいいのではないか。
4. 研修の対象者となるfisheries officerは計画策定等に従事することはないため、PCMの実施はあまり重要でないと考える。

本ミッション終了後の5月13日にOttawaにあるCIDA本部を訪問し、本第三国研修への人的貢献 (PCM講師としてのDr. Kenneth Mackay の参加) の可能性について協議を行った。

#### 6) CIDAでの協議結果

1. 南々協力において本第三国研修の実施は非常に有益なものであり、Dr. Kenneth MackayをPCMの講師として参加させることに対しては賛同する。同氏の参加にかんしては、JICAの企画部連帯協力推進室からの正式な依頼文が必要となる。
2. しかし、研修実施にあたり実施機関であるトンガ水産局水産研究センターの研修実施運営能力に疑問が残る。
3. 本第三国研修を成功裡に完了させるためにも、JICAからトンガ水産局水産研究センターへの研修実施・運営面での技術移転及び支援が必須である。

**JICA Mission April 1999**  
**Results of discussions with International Organizations -**  
**USP, FAO, ICLARM, SPC & CIDA regarding JICA**  
**Tonga Third Country Training Program**

**Frank Chopin**

**Advisor for Training and Development**

**JICA Kanagawa International Fisheries Training Centre (KIFTC)**

**May 20, 1999**

## 1. Introduction

The Japan International Cooperation Agency (JICA) have the intention to support the development and delivery of a Third Country Training Program (TCTP) with the Kingdom of Tonga Department of Fisheries. The TCTP has its origins in a technical cooperation project between JICA and the Kingdom of Tonga that focused on production of shellfish using hatchery techniques, management of coastal resources and development of marine parks. This TCTP will utilize the existing technical skills of the fisheries department to deliver a program to other Island nations in the South Pacific with the following training components:

1. Production of hatchery reared Green Snail from the Tonga -- JICA aquaculture site in Tonga
2. Coral reef resource management - Techniques for surveying inner reef fish and shellfish resources
3. Development of Marine Parks

In addition to the practical training components to delivered in Tonga, the training program will also include a one week training program in Project Cycle Management (PCM) and Logical Framework Planning workshop. This workshop will be held in Suva, Fiji at the Marine Studies campus of the University of the South Pacific (USP).

Development and delivery of any Third Country Training Program is a difficult task. It requires appropriate planning and research to identify the needs of the region for additional workplace training skills. The host country must have the human resource capability (Core training group) with skills, experience and competence to deliver an effective training program. To take care of all matters related to participants' arrival, stay and departure with minimal duress requires an administrative support arm. Finally, it requires appropriate financial support to ensure that all in-house costs are covered.

In cases where the TCTP host does not have these minimum set of capabilities, it is important for JICA and host country to recognize the deficiencies and put in place a contingency plan that will provide on site support and enable the host country to "learn on the job" as the TCTP progresses from year 1 to year 3. This is not an easy task since it requires the donor to act as mentor and play a supporting role while the host country organization takes on the new role.

In the case of the Kingdom of Tonga, the fisheries department is a typical government organization that has the function of providing technical support to the development of the fishing industry. The Tonga fisheries department is not an international training organization and has limited human resources and experience in planning, developing, managing and delivering training programs. Hosting, managing and delivering a TCTP is a new task for the department and also an incremental workload. Therefore, it is critical to recognize the existing limitations of the fisheries department and take measures that will provide them with the opportunity for learning these new activities.

Traditionally, JICA has sought to support the TCTP on a purely bilateral basis with all human resources being provided by the host country. However, in the South Pacific region, various regional organizations have technical and managerial skills that if added to the TCTP, could make it more effective. However, lecturing in any training program requires a level of "ownership" by the trainers and acceptance of the merits of the program. To achieve this requires consultation with potential trainers and a forum for their input into the program curriculum.

Therefore, to meet the above mentioned objectives, JICA KIFTC set up a series of meetings with national and international organizations to discuss the development and delivery of the TCTP.

This section of the report deals specifically with the process of consulting with regional organizations and the results of the meetings. In summary, the following objectives are covered in this section:

1. To receive advice from international organizations on JICA TCTP based on a draft curriculum circulated prior to mission (see appendix I).
2. To ensure advice and experience of regional experts is reflected in JICA TCTP.
3. To seek participation of experts attached to regional and international organizations in the TCTP.
4. To identify constraints and areas of concern associated with delivery of TCTP.
5. To suggest a strategy for maximizing the possibility of successful South – South cooperation.

## 2. Agenda for consultation with regional organizations

### The Republic of Fiji Islands

- University of the South Pacific USP - South
- Canadian International Development Agency CIDA - CSPOD II -- Dr. Kenneth Mackay
- FAO - Tanaka

### The Solomon Islands

- ICLARM - Bell

### New Caledonia

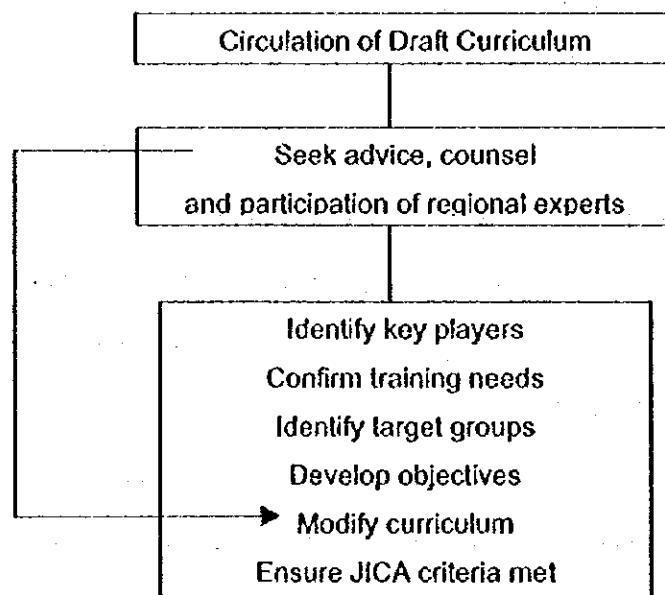
- Secretariat of the Pacific Community SPC -- Dr. Tim Adams, Michel Blanc

### Canada

- CIDA - Carroll, Ms Beaudry-Somcynsky, Mr. Larry Bennett

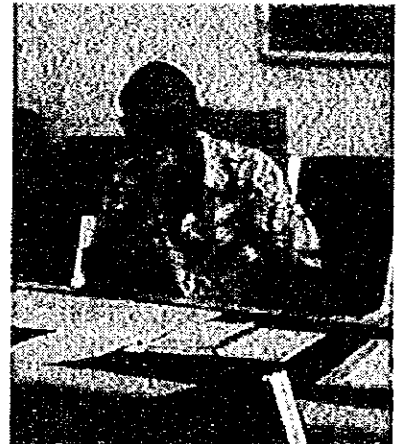
### 2.1 Process of consultation

The draft curriculum was circulated ten weeks prior to mission departure. The draft was followed with email messages identifying when we would visit, why we would visit and our dates of arrival.



## 2.2 Comments on Draft Curriculum

### 2.21 Dr. Robin South - USP



The draft program has the following advantages:

1. The draft program is very broad and can appeal to a wide range of users - Planners, Fishery officers, technicians etc Department of Environment, Department of Tourism and Department of Fisheries.
2. There is a need for line managers to discuss sustainable use of coastal resources.
3. The TCTP can build interdepartmental communication.
4. There is a need for coastal management plans to be developed.
5. There is a need for tools based training of fisheries officers, extension officers, site workers.
6. There is a need to do something regionally valuable with real output.

The draft program has the following disadvantages:

1. Senior government officers cannot attend for 4 week training period.
2. Middle level departmental directors not policy makers.
3. The TCTP does not allow two different groups to be trained at one time.
4. Countries in the region are at very different levels of development.
5. Technologies for practical training are still prototype level.

Summary of suggested modifications to curriculum

1. Remove planning and senior level government officers from "training"
2. Focus on tools based activity but also remember constraints of region
3. Should include coral reef surveys as one of the tools that needs to be developed for monitoring effects of enhancement
4. Encourage regional participation in the training, especially the Secretariat of the Pacific Community.



2.22 Mr. Hideyuki Tanaka - FAO



General comments:

1. The draft program too broad - Focus and develop objectives.
2. It is a problem that two different groups (technical officers and senior government officials) cannot enter same program.
3. The TCTP needs to identify the regional situation, the ideas for development, and the constraints to development and time frame for change.
4. Public awareness training is interesting but it is difficult to make this the focus for practical training.
5. Training in green snail production should be disseminated - already this has been started but it is early stage technology.
6. Monitoring and checking of enhancement of resources is a missing element of regional activities and needs to be done.
7. Diving survey techniques also very valuable.
8. SPC already developed an excellent participatory training manual on this topic. SPC can be good resource persons. This can be a good output.
9. Tonga should get some benefit from the training program and not just host the activity. It should be made interesting for them.
10. Collection of information from traditional owners and getting their involvement is also important.

The draft program could be modified as follows:

1. Make the training participatory
2. Make the first week of lecture based activity a PCM style type of training
3. First week for developing Log Frame could be the basis of an action plan for sustainable use of marine resources
4. Introduce case studies in the lecture based training in USP
5. Practical training in Tonga should focus on
6. Green snail production techniques -- Year 1
7. Coral reef surveys and monitoring of enhancement in Year 2
8. Marine Parks or marine reserves in Year 3

## 2.23 Dr. J. Bell - ICLARM



### General comments

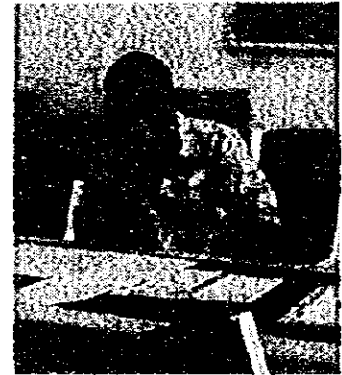
1. Draft program is very broad - More focus and clearer objectives.
2. The region does not suffer from a lack of training but training the right people.
3. Training must ensure that right people are selected and join the program.
4. The TCTP suffers because it cannot accommodate two different groups of participants for Fiji and for Tonga.
5. Many of the technologies and ideas for marine parks are still at a very age of development.
6. There is a real need to consider the long term reality of enhancement and the time for governments to be able to put in place mechanisms for implementing changes to policy etc.
7. The program should make best use of facilities in Tonga and be practical hands on training - ideally three years of seed production training Year 1 Green Snail, Year 2 Trochus, Year 3 Giant Clam.
8. The time frame of 3 weeks is good for training n seed production.
9. Coral reef survey techniques (and diver surveys) could also be a practical skill that is developed through training in the Tonga site.
10. The workshop in Fiji in log frame development could be a good idea as an output.
11. ICLARM could participate in both activities in Fiji and also in Tonga as training resource persons, well as sending a trainee to participate in the program.

### The draft program could be modified as follows:

1. Ensure regional inputs
2. Have the first week of training as a log frame output
3. Vary the subject matter by year for log frame development
4. Practical training in Tonga should focus on
5. Green snail production techniques – Year 1
6. Coral reef surveys and monitoring of enhancement in Year 2  
Marine Parks or marine reserves in Year 3

## 2.24 Dr. Robin South – USP

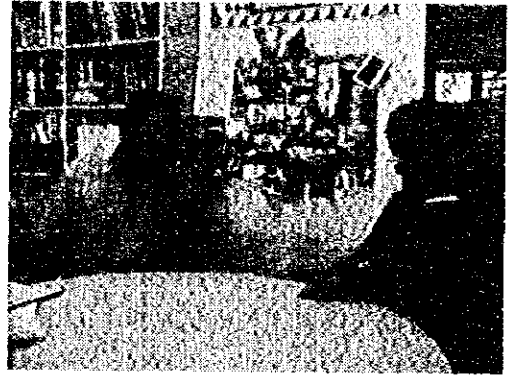
### Second meeting



The draft program could be modified as follows:

1. Three different practical sessions (year 1,2,3) is acceptable approach
2. Project Cycle Management (PCM) Log Frame good tool
  - ◆ Dr. Kenneth Mackay is PCM specialist and a possible resource
  - ◆ This tool should be for participants to use in their countries to help identify national plan
  - ◆ Can also be used in week 1 to identify regional plan
3. If USP, SPC, ICLARM, JICA participate in week 1 – a regional plan for aquaculture may be good output from course.
4. Document may be useful tool for future activities

2.25 Dr. Tim Adams - SPC



General Comments

1. SPC have several mechanisms to contribute
1. If requested directly from Tonga Govt. or Fiji Govt.. they can join the program to support its delivery. Under this scenario, it is cooperation with Fiji and Tonga rather than JICA
2. If JICA can contribute to airfares they may join the training program

SPC can possibly contribute to the delivery of the TCTP in several ways

1. SPC Marine resource adviser - can join USP workshop
2. SPC training adviser can join USP workshop or Tonga field site
3. SPC Marine resource adviser can join survey activity in Year 2

SPC welcome the chance to create a broader forum and open dialog with JICA.

Comments from Michelle Blanc - Training and education advisor

1. The TCTP program has been developed around Tonga project site and not based on a real analysis of the needs of the region.
2. The program should focus on Green snails for 3 years - 24 persons trained is not too many for the region and has the benefit of utilizing technical skills of Tonga staff.
3. PCM not always useful for fishery officers because they will never be involved in planning activities.
4. The South Pacific region needs experts - this cannot be achieved from short courses.

SPC concerns

- ◆ The course has been developed to suit output of technical cooperation project and not around real identifiable needs of the region.
- ◆ Logistical problems associated with planning and coordination can be serious.

### 3. Modified draft curriculum based on discussions

Many of the comments made by regional experts were very similar and there were no problems to accommodate these ideas into a modified draft. (See Appendix II).

The biggest modification to the program was the concept of utilizing the one-week in Fiji for a workshop on Project Cycle Management (PCM) and Logical Framework planning. However, a PCM workshop leader is required.

Several important questions were raised by the regional experts including:

5. Had an adequate survey of organizations been conducted to determine the needs for this training program?
6. Does the Tonga fisheries department have the capability to take on the role as a regional training organization?
7. Has adequate effort been made to avoid duplication with other organizations?
8. Have existing regional organizations been contacted to solicit participation?
9. Is there a mechanism within the participants departments to ensure that the training received can be put into practice?

Although JICA (this mission) conducted a straw poll of government departments in Fiji, Solomon Islands and Tonga, a detailed survey of the region has not been conducted. Later this year (August – October 1999), USP through CIDA will carry out a survey of the region to identify workplace training needs in marine fisheries. This document may provide a more comprehensive review of the regions needs for aquaculture, resource survey and marine parks training.

The capability of Tonga fisheries department to host, manage and deliver an effective quality three year TCTP with its present human resource capacity and funding is questionable. There is no doubt that Tonga can deliver some of the elements of the curriculum extremely well. However, South – South Cooperation is more than just delivering parts of a training program. It is about having the capability for self support to serve the region in a particular field of training. It implies a level of independence, self-sufficiency that in turn requires a high level of management and leadership skill.

Furthermore, the TCTP budget has no allowance for costs incurred by the host country. Therefore, there are few incentives to encourage the host country to work hard in offering the TCTP. It is quite likely that over time, the lack of a budget will be

a severe impediment to delivering a quality TCTP. Additionally, there appears to be a need for additional support (planning, curriculum development, administration and pedagogic skills) to level up the ability of Tonga Fisheries Department to deliver training programs. Therefore, one can say that without additional JICA support, the Tonga fisheries department does not have sufficient resources to deliver the TCTP.

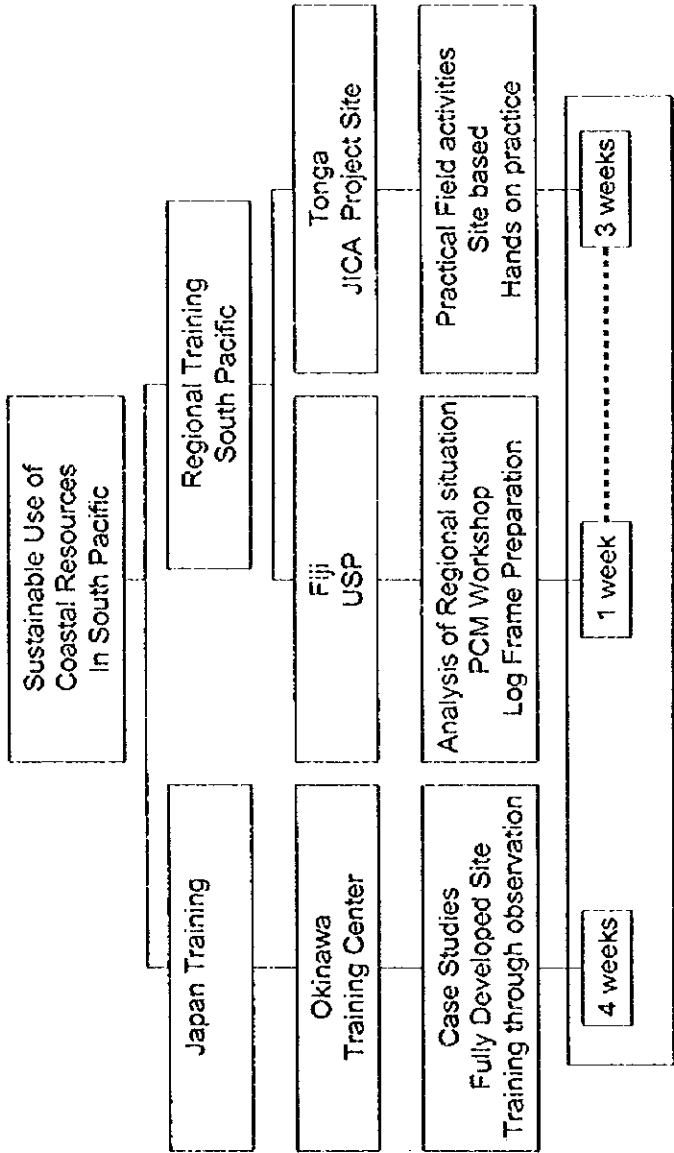
Concerning duplication with other organizations, JICA (this mission) did consult with regional organizations to determine if there was duplication of effort. It appears that for this TCTP, no other organizations are presently delivering this type of training program.

This mission also made contact with most regional organizations to solicit support for the training program (see section \_\_\_\_). In general, many of the organizations are facing cutbacks in operating budgets and have difficulty in covering their costs of participation. However, each organization (USP, ICLARM and SPC) verbally indicated it's possibility to join the program on a cost shared basis. Follow-up letters to each organization must confirm these possibilities.

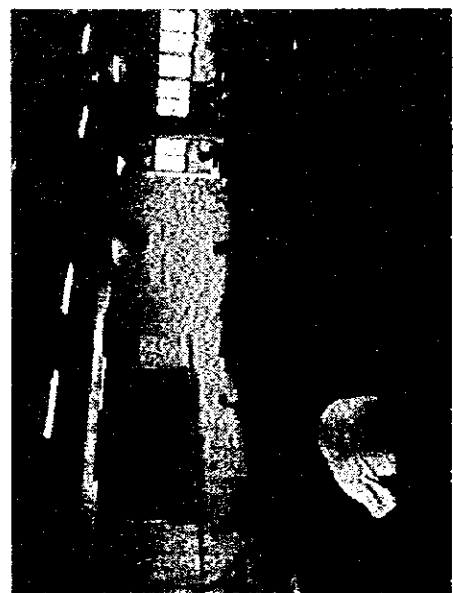
Regarding the question of whether the participants organizations can implement work place activities that take advantage of the training is unclear. Certainly, the government organizations in Fiji, Solomon Islands and Tonga indicated their willingness to send trainees, however, it is not clear what will be the result of training in their workplace. This is nearly impossible to determine in the absence of workplace action plans and identification of priority issues.

In summary, there are many outstanding questions regarding the success of the TCTP within a context of "South – South Cooperation". JICA should consider quite carefully, how it can maximize the possibility of success particularly in light of the excellent results of the technical cooperation project that JICA and Tonga worked so hard to materialize. It is important that the implementation of the JICA TCTP has the effect of maintaining the present high level of cooperation and friendship between the department staff and JICA.

Attached below is a summary of the draft training outline of the JICA TCTP.

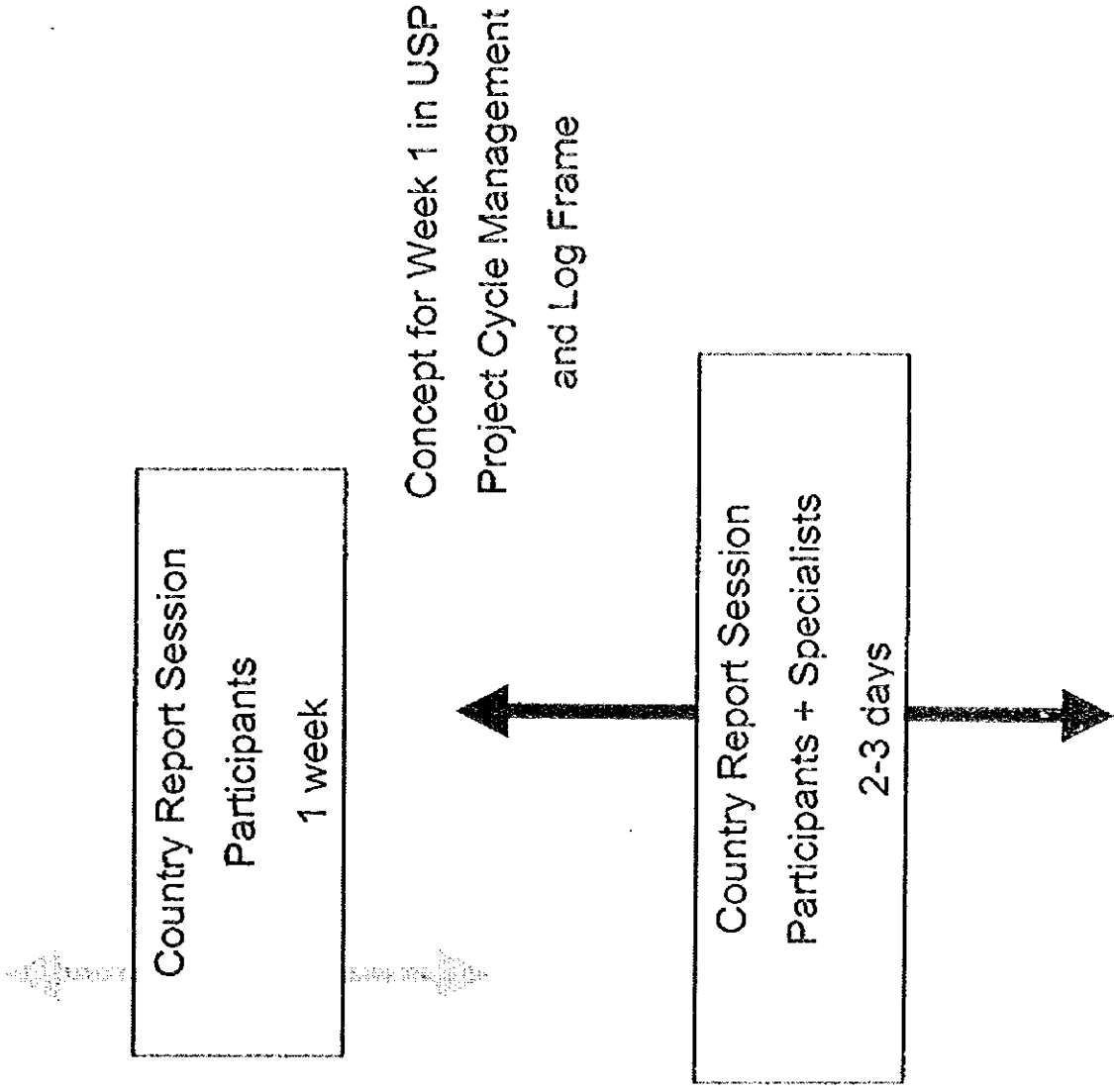
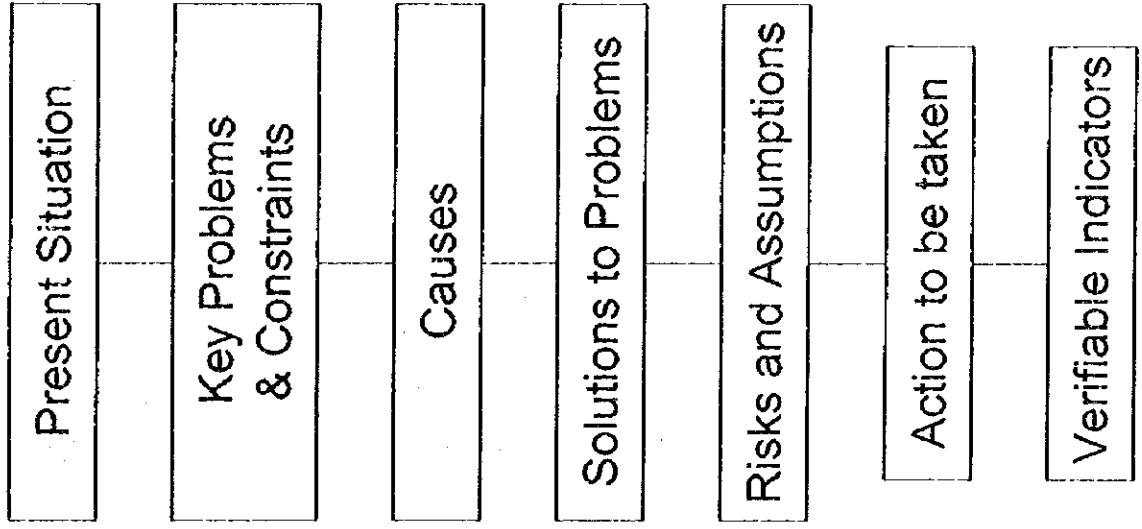


# Training period



Log Frame + PCM workshop	Green Snail Seed Production	Year 1
Log Frame + PCM workshop	Survey techniques Res. management	Year 2
Log Frame + PCM workshop	Marine Parks Marine Reserves	Year 3

# Logical Framework - PCM





#### 4. Results of visit to USP, ICLARM, FAO, SPC and actions required

##### 4.1 Participation of USP

- ◆ USP agreed to participate in the program
  - ◆ Use of facilities at USP
  - ◆ Participation in PCM

Action JICA or CL to confirm the role of USP by letter (See appendix IV)

##### 4.2 Participation of ICLARM

- ◆ Dr. Bell may join on cost shared basis (JICA pay airfares) but it requires approval of ICLARM - Dr. Merryl Williams

Actions JICA or CL to confirm Bell intention to participate by letter (See appendix IV)

JICA or CL to send letter to Dr. Merryl Williams (ICLARM) for request of Dr. Bell.

##### 4.3. Participation of SPC

- ◆ SPC may join on cost shared basis (JICA pay airfares and accommodation) as follows:

Dr. Tim Adams join PCM program

Training Advisor may also join if funded

Action CL to request their participation by letter (See appendix IV)

##### 4.4 Participation of CIDA specialist

- ◆ PCM specialist identified in Fiji.

Action JICA to approach CIDA directly - Chopin to visit CIDA – Ottawa

## 5. Visit to CIDA

The visit to CIDA HQ in Ottawa, Canada was primarily to seek their support to cooperate on the TCTP through provision of the services of a PCM specialist. Professor Robin South of USP had identified Dr. Kenneth Mackay working on a CIDA program as an excellent PCM leader. Because CIDA contracts out its projects, any agreement to obtain the services of Dr. Mackay must be cleared by CIDA HQ.

However, the visit to CIDA HQ presented an opportunity to discuss directly with CIDA other projects where CIDA and JICA might collaborate. Based on these two issues, the visit to CIDA had the following objectives:

1. To request CIDA support for participation of Dr. Kenneth Mackay in JICA training program for Feb 2000 Tonga TCTP
2. To gather information on CIDA priorities in fisheries
3. To learn about new CIDA initiatives in fisheries sector
4. To discuss constraints to collaboration on fisheries projects
5. To discuss recent mission to Fiji, Tonga, Solomon Is, New Caledonia
6. To identify some new initiatives regarding CIDA-JICA collaboration



Micheline Beaudry-Somcynsky

Lennox Hinds

Tom Carroll

Larry Bennett

JICA - staff

## 5.1 Results of visit to CIDA Ottawa

1. CIDA are willing to make Dr. Kenneth Mackay for JICA TCTP but this requires a contract modification (CIDA responsibility). Prior to making the contract modification JICA planning department must send formal request to CIDA.

Action JICA to send letter of request to CIDA for Dr. Mackay to join JICA TCTP.  
(see appendix IV)

2. CIDA are very interested to identify other opportunities for collaboration, however, there is no easy mechanism to achieve this result. There is in place an official mechanism to discuss potential projects for collaboration. This is the "Official Annual JICA – CIDA ODA Consultation (OAC)". The next meeting will take place September 27th 1999. Persons present include the President of CIDA, Dir. Gen. Bureau Economic Coop. MOFA and Beaudry-Somcynski (Senior Advisor).
3. The typical method of Procedure for cooperation takes place as follows:
  - Informal communication between staff & HQ - ideas stage
  - If idea ok then email or fax between CIDA - JICA
  - Original to appropriate regional desk
  - Copy of correspondence to Beaudry-Somcynski
  - Internal consultation made to proceed
  - Subject is raised as new initiative in agenda of OAC
  - Any agreement to proceed is recorded in the minutes of meeting
  - Exchange of letters CIDA - JICA

In order for JICA KIFTC to have any input into this process, it requires KIFTC to identify the specific projects for collaboration, the various field specialists in CIDA, the CIDA regional manager. Informal communication can take place between JCIA and the field staff and any informal correspondence should be sent to the regional manager and copied to Beaudry-Somcynski (CIDA Senior Advisor responsible for JICA relations).

The biggest problem is that at present CIDA does not have its own technical field staff. Rather, the specialists are recruited through outsourcing to consulting companies. To identify the appropriate projects and field staff requires a detailed

knowledge of present and future projects and the skills and experience of contract field staff. This could be achieved if JICA were to carry out a survey of CIDA projects and CIDA consulting field staff. It can only be achieved by working with CIDA in Canada. A short-term contract of 6 weeks set up under the JICA-CIDA cooperation agreement may be the only way to get CIDA cooperation. This would need to be approved through the official channels.

## 5. Conclusions

The Tonga Third Country Training Program is an excellent concept for South – South type cooperation. The strategy to seek advice from national and regional organizations in the region and to seek their participation displays a willingness on the part of JICA to “act in cooperation” with other recognized experts.

However, there are some serious questions that must be answered if the Tonga fisheries Dept is to achieve the objective of becoming an effective implementing agency for training in South-South type training.

1. Does the Tonga Fisheries Dept. have the experience to develop the curriculum and take a leadership role in bringing together experts from USP, ICLARM, SPC into the TCTP?
2. Does the Tonga Fisheries Dept. have extensive training in program development and delivery?
3. Does the Tonga Fisheries Dept. have experience in monitoring and evaluating training programs
4. Does the Tonga fisheries Dept have the staff or time to successfully plan, coordinate and deliver the TCTP as part of its ongoing activities without cost recovery? Under the guidelines of the TCTP, Tonga will not be a beneficiary of the program and yet they are expected to make most of the effort in developing and delivering the program.
5. Have the budgets for external lecturers (ICLARM, USP, SPC) and their participation been confirmed?
6. Has the Tonga Fisheries Dept. taken ownership of the training program? To date, JICA has led the development of the training program.

The duty of JICA regarding funding South – South cooperation is not just to provide a budget. JICA has a responsibility to create the conditions that will enable Tonga to carry out technical training effectively. The question JICA must ask themselves is

“Does Tonga have the required pedagogic skills as well as adequate technical, administrative and financial means for delivering a program of this type successfully?” If there is no adequate answer to this question, JICA should take measures that can minimize the risk of failure.

Maximizing the chance of success

- ◆ JICA should provide immediate on-going support to Tonga Fisheries Dept. to teach them the skills of planning, coordinating and delivering the TCTP program.
- ◆ JICA must provide Tonga fisheries staff with training in leadership, planning and managing technical training programs before the TCTP is delivered.
- ◆ JICA should provide pedagogic training to the course leader and other members of the fisheries Dept. involved in teaching the program prior to the commencement of the training program. A training of trainers program for Tonga fisheries staff is essential.
- ◆ JICA should provide training in course evaluation so the Tonga staff can identify any problems encountered in Year 1 and put in place a system for improvement.
- ◆ JICA must provide adequate logistical support to Tonga Fisheries Dept. to enable development and publishing of appropriate training materials. One possibility is to finance the Secretariat of the Pacific Community to carry out this work.
- ◆ JICA should develop a logical framework plan for the successful delivery of the TCTP as an integral component of South – South Cooperation.

## APPENDIX I

### DRAFT CURRICULUM

<b>Course Title:</b> Integrated Coral Reef Management in Tropical Seas	
<b>Sector:</b> Fisheries Third Country Training Program	
<b>Training Centers:</b> University of South Pacific/ Tonga JICA Research Station	
<b>Implementation date:</b> 1999	<b>Number of years:</b> Three Years
<b>Tentative date:</b> February 1 – February 28	<b>Number participants:</b> 12 per year
<b>Number of courses:</b> One per year	
<b>Entry Criteria:</b> This course is designed for persons involved in aquaculture, marine park and coral reef conservation activities either with the government or private industry.	
<p><b>Background</b></p> <p>The coastal region surrounding small island countries in the South Pacific are a valuable source resources that can contribute significantly to long term social and economic development provided the resources are utilized on a sustainable basis. The link which many Island countries have with the sea can provide the basis for a variety of Island generated industries including fisheries, mariculture and tourism. At the same time however, the fragile nature of tropical ecosystems requires a wise and harmonious approach to coastal area development to ensure sustainability.</p> <p>This course is designed for any persons involved in development of tropical inshore sea areas or related industries. Through lectures, case studies and discussion groups, participants will learn the basic concepts of utilizing and managing natural resources in tropical coastal areas. Field trips and practice sessions will allow participants to gain "hands-on" experience in coastal tropical mariculture and restocking activities. For persons who enroll in the program with previous experience in tourism, mariculture or fisheries, the program will provide opportunity to specialize in one of the following areas:</p> <ul style="list-style-type: none"> <li>• Formulation of plans for integrated and sustainable use of inshore resources</li> <li>• Planning and conducting public awareness promotion on environment and natural resources</li> <li>• Practice in managing stock enhancement and restocking programs</li> </ul> <p>Persons without previous experience will learn the concepts of integrated coastal area management and the relationship between coastal area industries and the environment. Because this program is only one-month duration, the area of specialization will vary according to the year of operation.</p>	

The curriculum focuses on four topics:

- Coastal environments and natural resources
  - Protection of coral reef and biodiversity
  - Coral reef research methods
  - Coastal fisheries management
  - Public awareness promotion
- Stock enhancement and restocking
  - Aquaculture in the S. Pacific region
  - Shellfish seed production
  - Restocking and the environment
  - Habitat surveys
- Marine tourism
  - Marine Park management
  - Marine tourism management
- Study Report
  - Participants will prepare a plan for integrated and sustainable use of inshore resources in their home country.

This program will comprise of lectures, case studies in fisheries management, marine parks and marine tourism and practice sessions in aquaculture seed production and restocking. Participants will also be allocated time for private study related to preparation of their study report and report presentation.

**Participating organizations (tentative)**

Japan International Cooperation Agency (JICA)

Secretariat of the Pacific Community (SPC)

International Center for Living Aquatic Resources Management (ICLARM)

University of the South Pacific (USP)

**Training Institutes (tentative)**

Mariculture Center, Ministry of Fisheries, Tonga – 3 weeks case study and practice

University of South Pacific – 1 week lecture program

**Resource Persons (tentative)**

JICA, SPC, ICLARM, USP, Mariculture Center Tonga



## APPENDIX II

### MODIFIED CURRICULUM

<b>Course Title:</b> Integrated Coral Reef Management in Tropical Seas	
<b>Sector:</b> Fisheries Third Country Training Program	
<b>Training Centers:</b> University of South Pacific (1 week)/ Tonga JICA Research Station (3 weeks)	
<b>Implementation date:</b> 1999	<b>Number of years:</b> Three Years
<b>Tentative date:</b> February 1 – February 28 2000	<b>Number participants:</b> 8 per year
<b>Number of courses:</b> One per year	
<b>Entry Criteria:</b> This course is designed for persons involved in aquaculture, coral reef resource management and marine parks and either with the government or private industry.	
<p><b>Background</b></p> <p>The coastal region surrounding small island countries in the South Pacific are a valuable source resources that can contribute significantly to long term social and economic development provided the resources are utilized on a sustainable basis. The link which many Island countries have with the sea can provide the basis for a variety of Island generated industries including fisheries, mariculture and tourism. At the same time however, the fragile nature of tropical ecosystems requires a wise and harmonious approach to coastal area development to ensure sustainability.</p> <p>This course is designed for any persons involved in development of tropical inshore sea areas or related industries. Through workshops, lectures, case studies and discussion groups, participants will learn the basic concepts of utilizing and managing natural resources in tropical coastal areas. Field trips and practice sessions will allow participants to gain "hands-on" experience in coastal tropical mariculture and restocking activities. The program will place special emphasis on one of the following areas in each year of delivery:</p> <ul style="list-style-type: none"> <li>• Year 1 – Practical training in Green Snail seed production</li> <li>• Year 2 – Practical training in survey techniques of coral reef fish and shellfish resources</li> <li>• Year 3 -- Planning and development of marine parks</li> </ul> <p>The program is particularly suited to persons currently employed in government organizations and private sector companies directly associated with tropical aquaculture, marine resource management and conservation. These include national fisheries departments, department of environment and tourism as well as private sector companies specializing in diver Eco tourism.</p>	

The curriculum focuses on four topics:

- Coastal environments and natural resources Year 1
  - Protection of coral reef and biodiversity
  - Coral reef survey methods including diver surveys
  - Coastal fisheries management
- Stock enhancement and restocking Year 2
  - Aquaculture in the S. Pacific region
  - Green snail seed production
  - Restocking and the environment
  - Habitat surveys
- Marine tourism Year 3
  - Marine Park management
  - Marine tourism management
- Project Cycle Management and Logical Framework Planning Workshop

A one-week workshop held at the University of the South Pacific. The theme of the workshop will vary each year
- Study Report
  - Participants will prepare a plan for integrated and sustainable use of inshore resources in their home country. This plan will be based on development of a logical framework that will be covered the first week of training.

This program will comprise of lectures, case studies in fisheries management, marine parks and marine tourism and practice sessions in aquaculture seed production and restocking. Participants will also be allocated time for private study related to preparation of their study report and report presentation.

**Participating organizations (to be arranged)**

Japan International Cooperation Agency (JICA)

Secretariat of the Pacific Community (SPC)

International Center for Living Aquatic Resources Management (ICLARM)

University of the South Pacific (USP)

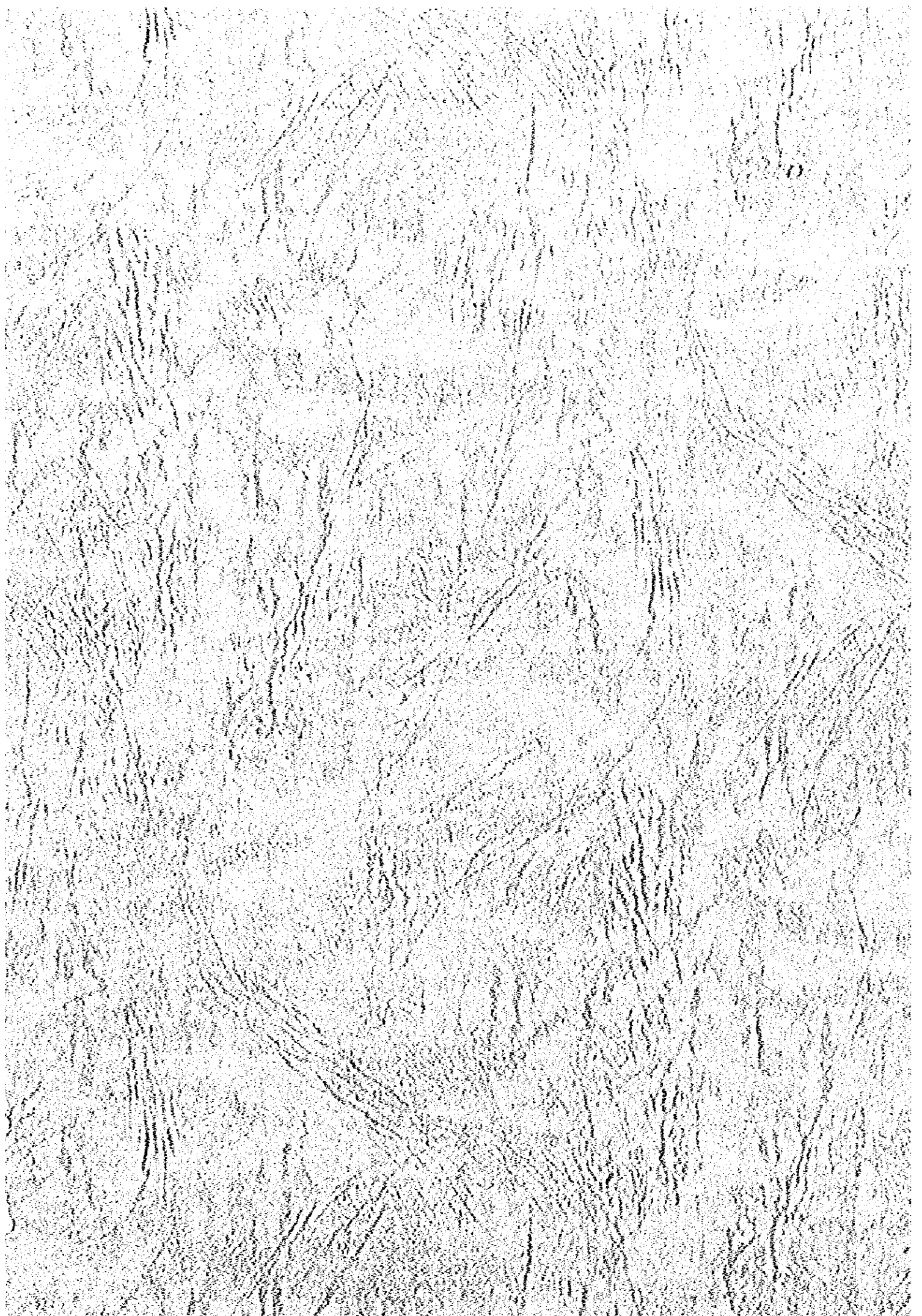
The Canadian International Development Agency (CIDA)

**Training Institutes**

Mariculture Center, Ministry of Fisheries, Tonga – 3 weeks case study and practice

University of South Pacific – 1 week lecture program

Resource persons JICA, SPC, ICLARM, USP, CIDA, Mariculture Center Tonga



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