## **Trip Report**

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University of Hawaii

Training workshops on forest nurseries, reforestation, and weed control

Timor-Leste Agricultural Rehabilitation, Economic Growth, and Natural Resources Management Project

May 26 – June 11, 2004

### **Schedule**

May 26 Leave Honolulu

May 28 Arrive in Dili. Met by Francisco Soares, UH program staff. In the afternoon met with Shane McCarthy and his staff at the Coffee Cooperative Timor at his office, then visited the CCT nursery in Dili and finalized arrangements for the workshop.

May 29. Continued with arrangements in Dili. Met with Richard Stoll, Associate Peace Corps Director, on involvement of Peace Corps volunteers in the UH project. Purchased materials for workshops.

May 30. Sunday. Met informally with Kim Jones and Shane McCarthy. Finished preparation of presentations for workshops.

May 31 Met with MAFF staff to follow up on previous written invitations to workshop. Met with Mr. Mario Nunes, Forestry; Mr. Carlos, interim Livestock director; and Mr. Laurencio Fontes, Extension and Research. Each promised to send 4 to 5 staff to nursery workshops. PM met with Frances Ruddick, Peace Corps Country Director. Met with others who assisted in translation for workshops, including Teresa Michael, Michael Jones, Charles Attarzadeh, and Aracely Leiva of the US Peace Corps and Carlos dos Reis, UH student.

June 1-3. Nursery workshops in MAFF offices in Dili. Afternoon demonstrations and practical sessions at CCT nursery in Dili.

June 2. Special demonstration session on herbicide application at the CCT nursery in Dili.

June 3. PM Travel to Baucau.

June 4. Nursery workshop at Baucau MAFF office. Afternoon demonstrations at the MAFF nursery in Triloca. Visited the rearing facility for the insect biocontrol for the coconut scale.

June 5. J. B. Friday spent the day with forester Pascoal Belo (MAFF-Baucau) visiting tree planting sites in the Baucau area. John Powley visited the Don Bosco agricultural technical school in Los Palos.

June 6. Sunday. Planned future cooperative work with Andre duToit.

June 7. Travel to Venilale. Visited sites where three varieties of UH-supplied Leucaena trees from CCT nursery outplanted. Visited project sites (community gardens, green manure trials) in Fatulia.

June 8. Nursery workshop in Venilale.

June 9. Travel to Viqueque, Ossu to visit nursery and reforestation site of Domingos Periera,

MAFF district forester for Ossu district. Visited Viqueque MAFF office with Bob Alexander.

June 10. Return to Dili. Met with Angela Rodrigues of US AID for debriefing.

June 11. Prepared reports for Carlos dos Reis to work on, met with Carlos, departed for Hawaii.

June 11. Arrived in Hawaii.

## What went well

The nursery and weed control workshops were designed to meet needs expressed by MAFF staff and community members during the PRA. All three nursery workshops were well attended. We had 32 people at the Dili workshops, including staff from MAFF forestry, livestock, and extension, plus students from UNTL and staff from the CCT forestry program. In Baucau we had 12 MAFF staff, including forestry, livestock, fisheries, and irrigation. In Venilale we had again 12 participants, but these were farmers and school teachers, plus the liurai (the traditional leader.) Most were from suco Fatulia, including the liurai. We gave out evaluation forms and had the comments translated in country by the Peace Corps Volunteers. Results are summarized below. Generally the training was seen as being on target, while some people thought it was too technical and some not technical enough. Most said it was valuable, although a significant number probably won't use the information or knowledge gained. Most people would like more detailed or longer training sessions and more follow-up, and written materials (I brought ten sets of Indonesian-language agroforestry books, but these were not enough as people tend to keep them as personal copies and not share them.)

The support from the UH team, especially Francisco Soares, was excellent and greatly appreciated. Francisco thought of many needs, for example for refreshments and certificates, and took care of them. Andre's help in budget matters and in preparing for the next steps was also invaluable. We were very impressed by how much Andre has made happen in a short time and how well he is working with the communities and applying what was learned in the PRA.

Shane McCarthy of the CCT told us how valuable our training was to his staff at the CCT forestry project. Our cooperation has saved him from being a one-man show and we have been able to supply him with valuable training and reference books (I have brought over many references in my past two trips.) Shane hosted parts of the training at his nursery, and this was the first time most of the Dili MAFF staff had seen his nursery operation, so we were able to foster good communication there.

Six students from UNTL attended. Although they do not speak English, they are learning in Portuguese and were able to converse with me in Spanish. They were young and enthusiastic and very interested in any training opportunities in forestry, as they have none at their university.

Forester Pascoal Belo from Baucau and forester Domingos Periera from Viqueque were enthusiastic participants at the Baucau and Venilale training sessions. They are earnestly trying to improve their skills. I left them with some good, concrete things they can do to improve their nursery production and management of their reforestation areas. I have also supplied them with some good reference and extension materials in Indonesian. I left sample materials, including pots and root trainers, for them to try out. It was also gratifying to see the participation of the local community members from Venilale and especially Fatulia.

We further cemented a good relationship with the US Peace Corps. The current Peace Corps leadership in Timor is new since the January PRA. One assignment of the volunteers who were with us was to scope out future sites for volunteers, and we thought of four possible sites in the Baucau district. The next batch of volunteers will be in agriculture and so would be ideal people to link between our projects and the local communities. The four volunteers who accompanied us, although not working in agriculture, were invaluable as translators and cultural informants. The new Peace Corps country director and associate country director are strongly supportive of working with our project.

Carlos dos Reis, a Timorese UH student, accompanied us almost constantly for the two weeks we were in country and helped us out when the translation got difficult or when translation into Indonesian was needed. He is currently working on translating the PowerPoint presentations into Indonesian.

John and I met Angela Rodrigues at the end of the trip and she was very pleased about how the project is going. Kim Jones did not attend our meeting and we met no one else from US AID or the embassy.

The supplies we sent from Hawaii all arrived in time. The weather was good, rainy at night and warm during the day, like Hawaii. We ate well, especially fish at the seaside restaurants.

#### What could have been done better

Although the MAFF in Dili had previously been notified by the UH staff through letters, visits, and calls, they did not seem to be expecting us and did not seem to have notified anyone in advance nor to have notified any of the district foresters. Only the district forester from the Dili district attended. Many of the MAFF staff who attended were office workers who are not involved with actual on the ground projects. Mr. Mario Nunes said he'd invite those who were "not busy", which selected out those actually working on projects. In the future, if we offer training sessions, we will have to make sure we invite the people who can use the training. Communication between the MAFF office in Dili and the district offices is poor, as it is with most institutions, UH not excepted. Perhaps future workshops could be repeated in several districts, with district MAFF staff explicitly invited to the workshop nearest them. The degree of participation of MAFF staff from Baucau and Viqueque was much higher. It would also have been easy to include the staff from the Los Palos district, as it is near to Baucau.

MAFF is working with Charles Darwin University in Australia to introduce an insect for biocontrol of Chromolaena odorata. Laurencio Fontes has the entire program mapped out. I have been in contact with Tanya Paul from Australia on this project and we may be able to help set up a demonstration release site in the Baucau area.

Although the training sessions we ran invited audience participation and had hands-on demonstrations, more intensive training was needed. What people really needed was to work

with a forester side by side over a period of several weeks to set up a nursery and start seedlings. People need to be shown how to make compost, build a structure, collect seed, and so forth. While many of the MAFF staff has had some forestry training, the community people in Venilale had had none and needed more hands-on work. The program as currently structured cannot provide long-term in country training in the basics. Ideally this is the role of the MAFF staff in the districts, with our role being technical backstopping. In some localities Peace Corps volunteers could also take the role of doing the on-the-ground extension.

The Leucaena trees which were planted in February are mostly dead or damaged beyond recovery. The trees had been given to Father Virgilio of the Minor Seminary, who gave them to school teachers in Venilale. Students planted several hundred, but no care was taken to preserve the labels or protect the trees from goats, and as a result most have been browsed. While many are still alive, I do not think there is useful data to be gotten from them. The trees which were left with the CCT nursery were mixed up when they were outplanted, so there is no possibility of testing which variety did best. The paradigm that it is the forester's job to produce and give away tree seedlings is very strong, even though it is obvious that generally this is an exercise in futility, as almost all trees are killed by drought or livestock. We were able to find only a dozen or so of the 12,000 seedlings that I saw in the MAFF Baucau nursery in January. While I had hoped to work with community tree-planting programs, it is now clear that our project needs to much more closely manage the trees. Only those trees planted in actively-maintained gardens survive. We saw healthy seedlings in the school garden in Fatulia, and along the borders of some farmer's fenced garden plots in Baucau and Venilale.

We found that the local professionals have a near total lack of math skills. No one was able to follow simple calculations of percentages. People use calculators to perform simple addition.

## Where to go from here

I did not produce handouts, as clearly these need to be in Tetun or Indonesian for people to understand. All the foresters wanted any technical material in Indonesian. I am currently working with Carlos dos Reis to translate the text that goes with the PowerPoint presentations into Indonesian. While our oral talks were translated into Tetun, technical points needed to be made in Indonesian for lack of specific, technical Tetun vocabulary. Unfortunately the current crop of University students are not learning Indonesian, so they will be hampered in communicating with current MAFF staff.

I have planned with Andre and Pascoal to set up demonstrations of fodder banks along with the community gardens that the project has established and fenced. These trees will be planted along and inside the fences and so will be safe from goats. Pascoal will be able to produce the seedlings and I have committed to getting him some materials and some seed (some he can collect for himself.) We will set up trials of several species (and varieties of Leucaena) at three sites in the watershed. Andre's cooperation has been invaluable here. I would like to return to Timor at planting season to outplant the trials.

No one we talked to actually knew how to make compost but everyone was interested. Compost is the best material available for nursery potting mix, and there are supplies of animal manure and high carbon materials such as rice hull to be had. The CCT is introducing the idea of composting coffee pulp but this is also apparently a new idea. One of the CTAHR manuals on composting could be easily translated into Indonesian or Tetun, but really the project should do demonstrations at the project sites. Andre is already doing demonstrations of using Chromolaena as green manure tilled into the soil.

The foresters were very interested in learning how to propagate bamboo. I could follow up on this in a future workshop.

The MAFF staff in Baucau has modern computers. I am not sure how much they know how to use them, though. Pascoal says they use MS Word and Excel. Computer training would be valuable to them. I gave them a database of information on forestry tree species published by ICRAF. It is in English but they can understand some.

Regarding the economics workshop, it is clear that with a few exceptions people do not understand or use math, so concepts need to be explained in quantitative terms. It is also essential that the participants are selected, and self-selected, before the workshop. Certainly Bob Alexander's help in setting up the workshop is essential, and he is doing a good job.

# **Summary of Evaluation Responses**

(Dili n=22, Baucau n=12, Venilale n=12)

(Note: the actual evaluation form was translated into Tetun and presented to the trainees in both Tetun and English)

1. I have grown trees in nurseries in the past. (Hau kuda ai-oan iha viveros tiha ona.)

Dili: 18 Yes, 4 No Baucau: 5 Yes, 7 No Venilale: 3 Yes, 9 No

2. I will make a nursery next year. (Iha tinan oin mai hau sei halo viveros.)

Dili: 18 Yes, 4 No Baucau: 9 Yes, 3 No Venilale: 10 Yes, 2 No

3. How much will you use what you learned about nurseries? (Ita atu uza information ita foin apprende iha viveros workshop nee?)

Dili: 15 A lot (Beibek), 5 Some (Uituan), 1 Not too much (Ladunn)

Baucau: 7 A lot, 4 Some

Venilale: 2 A lot, 8 Some, 1 Not too much

4. Can you get herbicides for your work? (Bele hetan herbicide hodi halo servisu?)

Dili: 1 Yes, 20 No Baucau: 7 Yes, 4 No Venilale: 2 Yes

5. How much will you use what you learned about spraying herbicides for weed control? (Ita atu uza information ita foin apprende iha herbicide workshop nee atu hapara doot?)

Dili: 2 A lot (Beibek), 13 Some (Uituan), 6 Not too much (Ladunn)

\*Baucau: 5 A lot, 5 Some, 1 Not too much

\*Venilale: 1 A lot, 2 Some

(\*Note: Herbicide training was not offered in Baucau or Venilale)

6. Were the presentations (Presentasaun nee sei...)

Dili: 4 Too technical (Specific demise), 14 Just right (Loos), 4 Not technical enough (La to'o)

Baucau: 2 Too technical, 4 Just right, 6 Not technical enough Venilale: 0 Too technical, 5 Just right, 7 Not technical enough

(Note: perhaps participants understood question to mean whether the training was long and detailed enough)

7. How well did you understand the translators and presenters? (Komprende ema mak tradus...)

Dili: 15 Well (Komprende), 6 Moderately (Ladunn komprende), 0 Not well (La Komprende)

Baucau: 9 Well, 3 Moderately, 0 Not well Venilale: 10 Well, 2 Moderately, 0 Not well