I visited the Secretariat of the South Pacific (SPC) from 25 to 28 September 2006 after my scoping study trip in the Solomon Islands. The purpose of my visit to SPC is to get more information on ACIAR projects in the Solomon Islands and other Pacific Island Countries (PICs). SPC was established by the 22 PICs and territories in 1947 as a regional technical, advisory, training and research organization. SPC has regional mandate for agricultural development and this is implemented through its Suva-based Land Resources Division, which includes the Plant Protection Service (PPS), Development of Sustainable Agriculture in the Pacific (DSAP), Pacific Agricultural Genetic Resources Network (PAPGREN), and Regional Germplasm Center (RGC). SPC is involved in the general coordination of most of the ACIAR-funded projects in PICs.

25 September – Monday
Arrived Suva, Fiji and checked in at Holiday Inn.

26 September – Tuesday
Meeting with staff at the Land Resources Division, SPC.
I met Mr. Aleki Sisifa, Director, Dr. Siosiua Halavatau, Participatory Extension Officer and Mr. Salend Kumar, Extension Assistant. Mr. Sisifa expressed great interest in working with AVRDC in the Pacific. He said that there is a great need for vegetable research and development in the region. There has not been many research and development projects on vegetables in the PICs since emphasis and focus are on the major staple starchy and root crops: taro, yam, sweet potato, cassava and breadfruit. There is a need to introduce new vegetable varieties and to improve local and indigenous
germplasm. Mr. Sisifa also mentioned their interest in participating in the indigenous vegetable project. They are aware of the coming First International Conference on Indigenous Vegetables and Legumes in India and would send a representative to attend the conference. Other potential areas of collaboration with AVRDC are research in organic vegetable production, seed production and varietal improvement for adaptation to local growing conditions in the island nations. Example, varieties tolerant to salinity for growing in the atolls of Vanuatu, Kiribati and Tonga. They welcome the new AVRDC proposed project on smallholder gardens for the Solomon Islands. This project could be a good entry point for AVRDC in the South Pacific.

Visit to the Regional Germplasm Center (RBC)
SPC-RGC was established in 1998, under TaroGen, the regional taro program. It holds a collection of indigenous vegetables (slippery kabis), taro and other edible aroids, yam, sweet potato and cassava. In addition, it also conserves germplasm for banana, coconut, kava and breadfruit. It serves as an international transfer center for coconuts and banana. Plants at the RGC are kept as small plantlets in tissue culture, rather than as full sized plants in a field or greenhouse. Plants are distributed from the RGC to the countries of the Pacific have been virus indexed, meaning they have tested negative for all known viruses of that crop.

At RGC I met Dr. Luigi Guarino, Plant Genetic Resources Adviser. Dr. Guarino is adviser to the Regional Germplasm Center (RBC) of SPC. He is focusing on the germplasm conservation of indigenous food crops in the South Pacific. He suggested that the smallholder vegetable garden project in Solomon Islands should emphasize the importance of indigenous vegetables since these are already utilized by local people and would need to be promoted. There are many technical problems that affect the production of indigenous vegetables. Among them are pests and diseases. Improved crop and pest management should be developed specifically for indigenous vegetables. For example, development of control options for the most destructive pest attacking the popular and common indigenous leafy vegetable ‘slippery kabis’ (Abelmoschus manihot) is the Nisotra basselae beetle which causes significant losses should be pursued.

I also met Ms. Valerie Tuia, Curator of RGC and Dr. Mary Taylor, RGC Adviser and TaroGen Team Leader. Ms. Tuia showed me the laboratory facilities of RGC. About 10 crops are being conserved in tissue culture. RBC has a wide collection of the germplasm and some materials come from Africa (yam and cassava). Dr. Taylor shared with me the concept note on a study of seed supplies in selected Pacific Island countries (see attachment). The purpose is to study changes in the seed supply situation in Papua New Guinea, Solomon Islands, Vanuatu, Fiji, Tonga and Samoa. This study will also identify opportunities and constraints, and develop practical proposals for future interventions and for consideration by regional leaders. She welcomes comments and input from AVRDC as this will provide AVRDC the opportunity to perhaps help in developing a sustainable seed supply for the PICs. In the past, many NGO and government supported seed production schemes have been attempted in PICs but success has been limited to a few special situations.
Meeting with Dr. S. Halavatau and Mr. Kumar

Dr. Halavatau is the Participatory Extension Officer of the Development of Sustainable Agriculture Project in the Pacific (DSAP). DSAP was initiated in mid 2003 working in 16 Pacific Island countries. It is actually the extension of the previous farming systems project under the EU-funded Pacific Regional Agricultural Program (PRAP). DSAP aims to demonstrate how farmers, researchers and extensionists can collaborate to solve agriculture production problems. Dr. Halavatau mentioned the potential of expanding and improving vegetable production not only in Fiji but also in other PICs. He said that Fiji is now exporting some vegetables to New Zealand targeting the ethnic community. The major constraints to vegetable production in PICs are sources of seeds, lack of good and adapted varieties for the environment (salinity, high temperature, drought, high soil pH, pests and diseases). There is need to evaluate cultivars with tolerance to some of these biotic and abiotic factors existing in small island environment. He also mentioned that other types of vegetables should be promoted including those that will meet the need of expatriates, foreign visitors and tourists.

The Taiwan Technical Mission has introduced some new vegetables to Fiji, but there is problem in maintaining seed availability. Vegetable seeds are imported from Hongkong New Zealand and Australia. There is potential for tomato, chili, lettuce, cucumber, broccoli, cauliflower and other cucubits. The Taiwan mission introduced watermelon and bitter gourd to Fiji and these crops are good sources of income for local farmers.

27 September – Wednesday

Visit to Fiji College of Agriculture

I was met by Mr. Ropate Ligairi, Principal of Fiji College of Agriculture. According to him the college was founded in 1954 under the Ministry of Agriculture. The college offers a two-year diploma in agriculture. There is a plan to upgrade this into a three-year degree. Of the seven faculty members (teaching staff) four have master’s degree including the school principal. One faculty member has just returned to the college after finishing his master’s degree in livestock at Pingtung National University of Science and Technology. The courses are accredited by the University of the South Pacific (USP). The curriculum consists of students taking science courses chemistry and plant biology, agricultural engineering as well as courses in mathematics, accounting and economics. These courses are taken during their first year in school. In the second year, students take courses in plant/crop science, livestock and practicum. Currently, there are 120 students and 45 are freshmen. The college can only admit 50 students out of 1000 applicants each year. It has limited facilities and there is a need to upgrade the college. Because it is under the Ministry of Agriculture, progress is a little bit slow due to limited funding. In contrast, the College of Agriculture campus by the University of the South Pacific in Samoa has advantage since it gets funding and support directly from USP. In fact, 70 per cent of the students in Samoa campus are Fijians.

The college has 73 hectares of land area and a portion is used for research plots where students conduct projects in vegetables and agronomic crops. Vegetables are grown by students in “kitchen plots” consisting of French beans, yardlong bean and salad crops.
(cabbage, lettuce). Students who finish the two-year diploma course find jobs in research and extension or start their own farm.

Visit to Koronivia Research Station

From Fiji College of Agriculture I went to visit the Koronivia Research Station in Nausori. I met Mr. Kamlesh Chand Puran, Research Program Coordinator and Ms. Irene Roshika Chand, Senior Technical Assistant-Horticulture. The research station is under the Fiji Ministry of Agriculture. It conducts research on cereal crops, pulses, indigenous vegetables, and salad crops (lettuce, broccoli, cabbage, spinach). Currently, the station has five projects with local funding and four projects with donor funding mainly from ACIAR. Projects with local funding include vegetables and plant propagation, food crops, biodiversity and conservation of germplasm, control of “yanuwua” disease of kava (suspected to be a virus disease – dieback), and upgrading of the chemistry lab. The donor funded projects are IPM for cabbage, taro beetle, and biocontrol of ‘mykipya’ a persistent local viny weed. Research in vegetable crops involves variety evaluation trial and crop management. The station has been receiving AVRDC tomato and chili pepper lines for evaluation, but no reports have been sent as to the performance of these lines. A total of 157 accessions from AVRDC have been received so far.

Fiji has all the climatic zones and elevations for growing temperate and tropical vegetables. Sigatoka is a good area for vegetable production. It is considered the ‘salad bowl’ of Fiji. The Sigatoka Research Station is the main station for vegetable research in Fiji. Mr. Poasa Nauluvula, Head of Research at Sigatoka mentioned that the Taiwan Technical Mission introduced many types of Asian vegetables in Sigatoka. The station is now promoting these vegetables in Fiji. He also said that the station needs assistance to improve its capacity. The staffs need some training in research methodologies, and data analysis. The station expressed interest in AVRDC’s activities in training, germplasm evaluation, seed production and crop management.
28 September – Thursday

I presented a seminar at SPC on the topic about AVRDC-The World Vegetable Center. The title was “The Role of AVRDC-The World Vegetable” in the South Pacific. Although attendance was low, many were interested and questions were asked about AVRDC’s germplasm collection and sustainable production of safe vegetables.

In the afternoon, I had a wrap up (debriefing) session with Dr. Halavatau and Mr. Kumar. Indeed, SPC is interested in working with AVRDC in the South Pacific. SPC will prepare a document indicating areas of possible collaboration. Four major areas of interest where AVRDC and SPC can work together are: 1. solving the salinity problem in vegetable production in the atolls, 2. indigenous vegetables, 3. capacity building/training, and 4. organic vegetable and seed production.

I considered my visit to SPC productive. SPC provided me some background information about ACIAR projects in Solomon Islands. I was able to get a copy of the participatory rural appraisals conducted by SPC in the Solomon Islands under the DSAP and IPPSI (Improved Plant Protection for Solomon Islands) projects. The information gathered will be used as reference in the writing of the full proposal on Smallholder Gardens for the Solomon Islands.

Prospect for AVRDC-The World Vegetable Center regional office in the South Pacific

Currently, there are no AVRDC formal activities in the South Pacific. In the early 1990s AVRDC participated in the PRAP on tomato variety evaluation and seed production. Since then, there are no on-going collaborative projects. The PICs would welcome the presence of AVRDC in the region. There are major constraints and challenges to vegetable production in the South Pacific where AVRDC can play a significant role. SPC would be interested to host AVRDC if there is a plan for establishing its presence there. The presence of Taiwan Technical Mission in most of the PICs would also help facilitate transfer of AVRDC improved vegetable technologies. In the past, the Taiwan Technical Mission through ICDF had sent several trainees from PIC to Taiwan and many of them received training at AVRDC. The prospect for establishing a regional office of AVRDC in the South Pacific is good.

29 September – Friday

Return travel to Taiwan via Brisbane and Singapore.

Acknowledgments

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