

## REPORT ON VISIT TO THE SOLOMON ISLANDS FOR SRI INTRODUCTION – November 8-14, 2009

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The Government of the Solomon Islands through its **Ministry of Agriculture and Livestock (MAL)** invited me to visit this country in the Pacific region, to discuss the System of Rice Intensification (SRI) and to consider how it could benefit from the opportunities that SRI is creating in other countries. A full week of meetings and presentations was arranged by the Ministry. Initiative for the visit came from **Dr. Ravi C. Joshi**, senior adviser to the Ministry, whom I got to know during his previous work with the Philippine Rice Research Institute (PhilRice) where he had learned about SRI. Ravi, originally from northern India, has worked previously also with the International Rice Research Institute (IRRI) in the Philippines, the International Institute of Tropical Agriculture (IITA) in Nigeria, and the World Vegetable Centre (AVRDC) project office in Solomon Islands, giving him broad experience in the Asian, African and Pacific regions.

When I arrived Sunday afternoon, November 8, at Henderson International Airport, located west of the capital city Honiara, I was met by the Ministry of Agriculture's **Permanent Secretary Mr. Edward Kingmele [CBE]**, **Under Secretary (Technical) Mr. John Harunari**, **Director of Extension Mr. Michael Ho'ota** and other MAL officials, along with Dr. Joshi. As this was considered 'a state visit,' I was received in the airport's VIP lounge, and after being cleared through immigration and customs formalities I was taken to the Hotel Honiara to rest up from the trip, in a pleasant hillside room with a view of the ocean.



That evening, the **Minister of Agriculture Hon. Selwyn Riumana** hosted a dinner for me at the Iron Bottom Sound Hotel near the ocean to get acquainted with MAL officials and representatives from the donor community. In his welcoming remarks, the Minister spoke about the **National Rural Rice Development Programme** that had been launched by the Government to reduce the Solomon Islands' current heavy dependence on rice imports. These imports are costing about \$200 million (SI dollars, equivalent to US\$ 27.5 million). This is a lot of foreign exchange to spend on food that could be produced locally in a country with a population of 500,000.

Rice production, however, is something new in the Solomon Islands (SI). In addition to saving foreign exchange, producing rice locally could create livelihoods and raise incomes in the rural areas, reducing unemployment and poverty. Solomon Islands diets have for centuries been based on the production and consumption of **root and tuber crops** (taro, yams, cassava). However, demand for rice has been growing rapidly, and SI has the resources to grow much or most of its rice. SI soils are good, and in most areas, rainfall is well-distributed throughout the year. This makes upland rice production more feasible than in countries where precipitation is highly seasonal. In any case, irrigated agricultural areas in the Solomon Islands are rather limited at present, but increasing rainfed rice production appears quite feasible.

Coincidentally, I had read about the Government's rice program that afternoon at the hotel -- in the front pages of the Solomon Islands' telephone book! This directory had a big section with maps and statistics showing 43 rice projects distributed across all nine provinces of the country. Technical assistance for this initiative is being given by the **Taiwan Technical Mission (TTM)**, which is an important presence in this country. SI is one of the few countries still recognizing Taiwan as the government of China. Taiwan's economic and technical support over the 31 years since SI independence is appreciated.

The Taiwan technical approach has been considered to be 'state-of-the-art.' It has introduced an improved rice variety (TCS 10), that is used for both upland and lowland farming. The Taiwan advisers are recommending increased use of chemical fertilizers and agrochemical protection against pests and diseases. To promote rice production in Solomon Islands, through its TTM Taiwan is providing free seeds, as well as instruction in its recommended methods, to any SI farmer who wants to grow rice.

At the dinner, I talked with the Minister and also with the Taiwanese Ambassador, **H. E. George Chan**, who was seated next to him. Although the ambassador knew that SRI represents a different approach to rice growing from that being promoted by the Taiwan Technical Mission, he was quite cordial in our conversation. I sat across also from a representative of the European Union's delegation to the Solomon Islands, **Juan Carlos Hinojosa**, who oversees rural development support activities of the European Commission. He expressed interest in SRI methods, although his main involvement is in the education sector. The whole dinner was a very congenial affair and a nice way to start the visit.

### **Monday, November 9**

The first meeting of the day was at the Ministry of Agriculture and Livestock, meeting with the Minister of Agriculture after first seeing the Permanent Secretary again. **Minister Riumana** made clear his interest in rapid development of rice production in the Solomon Islands, with low-cost methods to the extent possible, so that small farmers would have easy access to the opportunities; and in upland areas as well as in the limited lowland fields, most located on the littoral fringes of the country's islands. He was also concerned that adverse impacts on the environment be minimized, particularly protecting soil and water quality. Agriculture in the Solomon Islands is by default mostly 'organic,' and there is an appreciation of, rather than an aversion to, the idea of minimum reliance on chemical inputs.

At 10 o'clock, Ravi and I met with the **Prime Minister Hon. Dr. Derek Sikua**, for almost an hour, discussing agricultural development situation in the Solomon Islands and what we knew about SRI that could be relevant to meeting these needs. He encouraged us to explore with donor agencies possible support for SRI demonstrations and extension. The importance of rice to further development of the agricultural sector, to the economy, and to the public, both for meeting food and employment needs, was evident. Expanding SI rice production quickly in simple, low-cost ways is a government priority.

At 11 o'clock, we went to the Taiwanese Embassy to meet with **Ambassador Chan**. He has had a fairly long association with the Solomon Islands (and a Master's degree from Georgetown University in the U.S.), so we found many things to talk about. We did not go much into technical rice issues as he leaves that subject to the staff of the Taiwan Technical Mission, whom we planned to visit in the afternoon. It was interesting to me that the term 'Taiwan' was used freely in conversation rather than 'Republic of China,' a term that was insisted on not many years ago.

After lunch, we went back to the main Government building where we had met with the Prime Minister, and at 2:30 we were ushered into a meeting of the **Cabinet**, which had spent most of the day on budget decisions. Most of the ministers were present for a short powerpoint presentation on SRI, which together with questions and discussion lasted almost an hour. A number of encouraging comments from the ministers confirmed that this visit was indeed welcomed by the Government.



From Honiara, we drove east out of town to the Taiwan Technical Mission farm not far from the airport. There we met with **Mr. David Huang**, TTM team leader and his rice specialists **Michael Hsu** and **Norman Y. Z. Tsai**. There was more curiosity than skepticism about SRI, perhaps because I showed them a picture of an SRI rice plant presented to me five weeks ago by rice farmers in East Java, Indonesia. This plant, grown from a single seed, had 223 fertile tillers, an unprecedented number, which few people have ever seen. In particular we talked about the problem of **lodging**, evident in the rice fields that we saw when we entered the TTM farm. There had been a big seasonal storm on Saturday before I arrived, and almost all the fields had swaths of matted rice blown down by the wind or knocked down by the rain.

Lodging is something that we seldom see when plants are grown with SRI methods. SRI crops are started by transplanting tiny young seedlings, singly and far apart. Their root systems grow much larger and stronger than those of conventionally-grown plants. SRI tillers (stalks) are sturdier, due at least in part to organic fertilization. Conventional methods of rice production, on the other hand, which require the use of chemical fertilizer and agrochemical applications affect the structure and functioning of soil, making the resulting plants more prone to lodging. Also, rice plants grow less vigorously when they are started as older seedlings which are also transplanted more densely than recommended with SRI.

Continuous flooding causes roots to remain shallow, and there is root degeneration (die-back) due to lack of oxygen. Tillers are also less able to withstand the force of storms. One can usually also see necrosis (blackening) of the base of the tillers of flooded rice plants due to hypoxia. While the application of chemical fertilizer contributes to the rapid growth of tillers, these are, unfortunately, also weaker than with plants grown using organic fertilization. Farmers' crop losses to lodging are doubly disastrous because they have spent a lot of money for chemical inputs and may have gone into debt.

We walked around some of the test plots on the farm. In one area, Ravi had planted multiple rice varieties that he and others on a MAL delegation to the Philippines had brought back from PhilRice and IRRI. Without setting up complete or explicit tests of SRI methods, in some of the plots the varieties being evaluated were transplanted as young, single seedlings, widely spaced, with alternate wetting and drying and no chemical protection. Not far away were other plots where the same varieties were being grown with conventional methods: older seedlings, in clumps of 4-6 plants, closer spacing, continuous flooding, and chemical protection. This created a de facto demonstration of SRI methods, which the Chinese advisors have been watching as the season progresses.

As noted already, the brown plant hopper is a major rice pest in Solomon Islands. Ravi was willing to gamble that natural protection would suffice if he did not spray the SRI plots. Indeed, he even installed bright lights which would attract BPHs at night. Everyone thought this was crazy, because the plants were soon infested with hundreds of hoppers. But, natural enemies rallied. Before significant damage could be done to the unsprayed plants, predators of the BPHs brought the infestation under control, with the sucked-out hulls of BPHs littering the ground and on the surface of paddy water. There was no lodging of the SRI-grown plants, whereas the same varieties with conventional management had suffered some lodging. The SRI plants are a week or two ahead of their conventionally-grown mates in maturity, less than 100 meters away. As we walked the bunds around these respective areas with Mr. Huang and his team members, the results of the difference in practices were quite evident.

At the end of this first day, Ravi and I visited the downtown office of the MAL's **Rural Development Program (RDP)**, supported by the World Bank. **Dr. Mark Johnston**, RDP advisor, and **Gabriel Hiele**, RDP coordinator, discussed the emerging rice sector in the context of SI agriculture more generally. Ravi and I suggested ways in which SRI could contribute to this development. That the World Bank Institute had



produced a very polished set of video presentations on SRI, one for policy-makers (12 minutes) and another for extension workers and farmers (16 minutes), made the conversation easier. The desirability of promoting rice-growing methods that are less dependent on external inputs was taken as a given.

### **Tuesday, November 10**

With Director of Extension Mr. Michael Ho'ota and a Ministry driver, Ravi and I left Honiara about 8:30, driving westward past the TTM farm and past the airport, reaching **St. Martin's Secondary School** at Tenaru an hour later. At the school we were met by Fr. Fred, school staff, and several extension workers who are managing a rice demonstration field where students were expected to learn modern rice-growing techniques and where people in the region can see rice production, some for the first time. It felt strange to be in a country where rice-growing was not second-nature to farmers.

The field that we had come to see was growing fairly well, but it could have been more vigorous. When we pulled up a rice plant to look at its roots, everyone could see that they were only 4-6 cm long. Problems with the irrigation system have limited the amount of water that could be maintained on the field, so the roots' color was not as dark as might otherwise have been expected with conventionally-grown, flooded rice.

The main problem seen with the field was that some areas of rice had been blown down and lodged by a storm three days earlier (see below). The school had hoped to earn money for its operations from the rice farm, and now the income would be considerably less than anticipated. If this field had been the sole source of a family's sustenance and income, the losses would have had more devastating.



We next drove to **St. Joseph's Secondary School**, also in Tenaru, to see its rice demonstration field. Here the lodging was considerably more serious (see below). It was instructive for everyone to see that all of the rice plants on **the edges of the field** were standing upright, not lodged. These roots of these plants, not being as crowded by other plants as were those growing within the field, could grow laterally away from the field and away from the other plants. Thus these 'edge' plants had larger and evidently stronger root systems. This was another demonstration of the merits of SRI recommendations right before everyone's eyes.



From St. Joseph's School, we had a 45-minute drive, much of it on a narrow rutted road through impressive tropical rain forest, with narrow bridges and many mud holes which the driver traversed with style. That this was the road to the Prime Minister's electoral constituency was impressive in that it suggested he was not using his office to benefit his own area preferentially.

When we arrived at **Tasiboko**, a large signboard showed this **Bolikolu/Lege Rice Project** to be a joint project of the SI and Taiwan governments (see next page). The rice crop had been harvested, but this enabled us to see how closely the plants had been planted together. We engaged several farmers in the area who came up to meet our group in conversation. I had expected to need some translation into and from Pidgin, the lingua franca in the Solomon Islands, but they showed impressive command of 'the Queen's English.' Indeed, the oldest farmer spoke English quite eloquently. When asked, they expressed both favorable and non-committal views on their first experience with growing rice here, on a field literally carved out of the jungle.





One of the best ways to assess a rice crop and to see how it has been managed is to inspect its roots. So I suggested that a plant be uprooted. The specimen chosen at random had roots that were unusually shallow, **only 3-5 cm**. We discussed why rice plants benefit from both wider spacing and less flooding (so there is more room to grow, and more oxygen for plant roots and soil organisms). The farmers could not tell us what the yield had been, or how much had been expended on the mechanical clearing of this area, or in the introduction of rice cropping. It was hard to imagine, however, that a benefit-cost calculation would show much profitability within a decade or more.



The head of the TTM, Mr. Huang, who was visiting the site with us, acknowledged that this was not a very impressive example of rice development. But he attributed the low productivity to farmers' inability or their unwillingness to invest the necessary effort and discipline to make the investments pay off. The farmers conceded that they had not followed all of the directions, but it seemed unlikely that the evident root growth and crop yields would have been much better if the irrigation had been better managed to maintain continuous flooding of the fields, or if more chemicals had been applied.

The shallow rooting could be influenced by soil characteristics such as iron toxicity that would be difficult to remedy unless large amounts of organic matter were put into or on the soil. As we had driven along the road to get here, I had noticed fairly large amounts of wild ginger (*Aframomum angustifolium*) growing freely in the jungle. I told the farmers (and others) that in Madagascar, we found this 'weed' to be very good material for composting, as it was unusually high in phosphorus. Farmers with whom our Cornell institute (CIIFAD) had worked in Madagascar -- on similarly 'poor,' often phosphorus-deficient soils -- who had been able to double their garden yields with compost made from straw and other vegetative matter, could triple their yields of vegetables and maize by using wild ginger compost.

A little after noon we made our way back along the jungle road and drove to Tetere, to the **Don Bosco Rural Training Center**, where a generous lunch was laid out for us. More and more persons assembled at the center for the next hour until there were about 60 students and visitors, some from donor agencies and NGOs, ready for a presentation on SRI that began at 1:30 (see below). This was an expansion upon what was presented to the Cabinet the day before. There was much interest indicated in the possibilities that SRI could open up for rice production, particularly by smallholders, in the Solomon Islands. About 4 o'clock we started the drive back to Honiara.





### **Wednesday, November 11**

The next day, Ravi, Michael and I had a series of meetings with donor agencies, starting at 8:30 with a visit to the **Australian aid mission**, the largest donor for the Solomon Islands. **Dr. Paul Greener**, who is an advisor for the Rural Development Program and the Community Sector Program of the ministry, met with us along with a counselor from the Australian embassy and an AusAid staff member who works on rural development. Although Australia might have some conflicting interests (most of the rice imported to the SI is purchased through Australian companies), there was agreement that the Solomon Islands has both potential and need to become more self-sufficient in rice.

Mid-morning we met with **Ms. Christina Carlson, U. N. Development Programme** deputy resident representative at the U.N.'s 'joint office' downtown. The UNDP serves as the lead agency for U.N. agencies in the Solomon Islands, with UNICEF, UNFPA and UNIFEM also having resident staff here. It was not clear how any of these agencies could get involved with SRI introduction given their programmatic focuses; but possibly some of the community development programs supported by U.N. agencies support could utilize the methods.

In the afternoon we first met with **Mr. Joe Weber**, country representative for **Oxfam International**, and Oxfam's livelihood program officer, **Ms. Alice Eric**, at their office at 1:30. Joe already knew something about Oxfam's support of SRI dissemination in other Asian countries. Oxfam Australia has played a leading role for SRI uptake in Sri Lanka and Laos. Oxfam America has given strong support for SRI expansion in Cambodia and Vietnam. Oxfam Quebec is funding some SRI work in Vietnam, and Oxfam Great Britain has assisted SRI demonstrations in Bangladesh. Ravi had a video on SRI in Cambodia produced by Oxfam America that he gave to Mr. Weber. It appears that SRI methods could be useful in some of Oxfam's community development initiatives in the Solomon Islands, not as a stand-alone activity but strengthening diversified smallholder agriculture, as is being done in Cambodia.

Then at 3 o'clock, we met with **Mr. Andrew Catford**, country program manager for **World Vision**, which has a community-based program in the Solomon Islands. We discussed the World Vision's initiative in Sierra Leone to get SRI introduced there as civil strife abated. Particular interest was expressed in the integrated livelihoods approach that CEDAC, our NGO partner in Cambodia, has developed. Households there, once they have raised their rice yields with SRI methods, are taking half of their paddy land out of rice production and diversify their farming system. They first construct a fish pond, and then start raising fruit, vegetables, legumes and some poultry. In this way, household incomes can be doubled or tripled on the same small land base.

### **Thursday, November 12**

This morning was devoted to a field trip focusing on organic farming experience in the Solomon Islands. First, Ravi, Michael and I met with **Mr. Jack Kalisto**, who is program coordinator of the **Kastom Gaden Association (KGA)**, and several of his staff, **Mr. Clement Hadosaia** and **Ms. Roselyn Kabu Maemouri**, at their training center not far from the Taiwan Technical Mission farm. The NGO's name is Pidgin for 'customary gardening.' KGA receives significant support from the Community Sector Program in Solomon Islands which is funded by Australian aid. Jack and colleagues expressed interest in how SRI methods could contribute to smallholder agriculture not dependent upon agrochemical and fertilizer inputs. Rice is a relatively new crop, so few farmers are likely to take it up as a monocrop. Thus, it would make sense to utilize SRI insights within a farming systems context, also adapting its concepts and methods to other crops where possible.

After this discussion, we visited nearby the **Zai Na Tina** organic research and demonstration farm of **Joini Tutua**, who is widely regarded as ‘the father of organic farming in Solomon Islands.’ Joini previously served as SI’s Minister of Education and twice as its Minister of Agriculture. He welcomed us heartily, with a bounce to his step that distinguished him from most ‘elders’ in the country. His demeanor was that of an enthusiastic farmer as we toured his garden and agroforestry plots.

Joini showed us where is growing out some 99 varieties of rice which Ravi and other brought back from the Philippines for upland production, to see which fare best under Solomon Island conditions. He delighted in showing us a large collection of different varieties of a green leafy vegetable known as ‘slippery cabbage,’ grown only in this region and a very tasty edible as I learned the following evening. The garden was fully organic and Ravi said had been producing well for decades without use of inorganic fertilizers. The ‘trick’ was intense use and recycling of organic matter.

It was an honor to receive from Joini an inscribed copy of his book: *Sapa – the Natural Way of Growing Food for the Solomon Islands*, written with Tony Jansen and published in 1994 by a program at the University of Technology in Sydney. Joini and I found ourselves in agreement on point after point in our discussion. Although he is devoted to ‘natural’ agriculture, Joini was pleased by a joke that I told him, about a man who bought a run-down farm, and after a year he had converted it from disrepair into an impressive, productive operation. One day a very religious neighbor stopped by the farm to admire the transformation, and complemented the farmer: ‘This is a pretty nice farm that you and God have here.’ To this, the farmer replied, ‘Yes, but you should have seen it when God had it all by himself.’

Joini was very interested in what I could tell him about SRI and said that he would work with Ravi and others to try to integrate upland, unirrigated SRI rice production with the growing of root and tuber crops that are the mainstay of SI farming and diets. This should be matter mostly of finding the best timings and spacings to use the same land area productively through intercropping or relay cropping of rice together with cassava, taro and/or yams. This should enhance both diets and income if done well.

In the afternoon, Michael, Ravi and I met with **Juan Carlos Hinojosa** at the **European Union** commission in Solomon Islands in an office building downtown across from the Parliament building. The EU program is fairly large but not focused on agriculture. Still, if there were requests from communities for assistance to introduce and support SRI methods for food security and livelihoods, this could get support from the EU’s community-based development funds.

The day’s rounds were concluded with a visit to the **Community Sector Program** office also downtown. We met with the CSP team leader **Mr. Peter Wood** and the manager of its agriculture and livelihood program, **Mr. Owen Hughes**, and specialist Dr. Israel Wore. It appeared that there was considerable scope for the use of SRI methods within CSP’s framework, provided they were integrated into existing farming systems.

There was little enthusiasm anywhere for attempting to expand stand-alone, monocropped rice production, given that there was little irrigated land available on the islands anyway and they have reasonably abundant rainfall. This preference suited Ravi and me because we are interested in how SRI methods can have their most positive and widely distributed impacts on livelihoods and food security. (However, several persons with whom we talked indicated interest in knowing more about the mechanized version of SRI that is being developed currently in Pakistan for larger-scale production.)

That evening, the Minister of Agriculture Hon. Selwyn Riumana organized a farewell dinner for me, again at the Iron Bottom Sound Hotel. This time there were about twice as many persons as at the welcoming dinner. There were several Ministers and the chairman of the Cabinet attending, along with Ministry of Agriculture officials and donor, NGO and other representatives. The dinner was held a day 'early' because the Minister was scheduled to leave for Rome on Friday, for a high-level meeting on food and environment at FAO preceding the Copenhagen conference on climate change.

It was a festive evening with many conversations flowing. Ultimately the Minister of Agriculture was unable to get there because of a family emergency, but he had prepared a plaque which was presented by the Permanent Secretary 'On behalf of the Government and People of the Solomon Islands in commemoration of your first official visit to Solomon Islands,' suggesting that there could/would be more. 'In recognition of your continued support to the System of Rice Intensification (SRI) for rice smallholders and farming systems throughout the world and especially to share the knowledge and experience on agroecological concepts and practices in Solomon Islands.' The latter reference was appreciated because it indicated that the message that 'SRI is about more than rice' was understood.

### **Friday, November 13**

Friday the 13<sup>th</sup> is often considered to be unlucky, but this was a fine day concluding the visit. Michael, Ravi, and I met at 8 a.m. with **Mr. Connelly Sandakabatu**, head of the **School of Natural Resources of SICHI, the Solomon Islands College of Higher Education**. Connelly quickly grasped the essence and opportunity of SRI and indicated that his School's staff and students would be ready to cooperate in SRI demonstrations and extension in different parts of the country.

Then at 9:30 we met with **Mr. Barry Chapman**, country director and staff of the **Adventist Development and Relief Agency (ADRA)**, which has a large program of development activities throughout the archipelago. ADRA's response to the SRI opportunity was very forthright, discussing where and when demonstrations could be started. Barry had attended both dinners and the presentation at Don Bosco Rural Training Center so he was by now quite versed on SRI. ADRA staff were keen on trying something that could bring quick benefits to the communities with which they work. Some of the places around Honiara where ADRA staff are currently improving agricultural production are close to areas where Ravi has been developing home gardens, so cooperation looked quite feasible.





Then at 11, we met with **Mr. Collin Rudebatu**, general secretary of the **Development Service Exchange**, an NGO dedicated to strengthening the effectiveness of the NGO community in the Solomon Islands. He described how a large number of NGOs, 44 at present, communicate and coordinate to try to get the maximum impact from available resources, such as not having several NGOs focus on the same communities while others are left unengaged. There are many with agricultural interests but beyond the international NGOs which we had met with, it was not clear which others might be able and willing to take initiative on SRI. We left a copy of the World Bank Institute's DVD on SRI with DSE to share with its member NGOs.

After lunch, there were a succession of interviews at the hotel which Ravi had arranged, first with **One News**, the national television station, then with the **Solomon Islands Broadcasting Corporation** (radio), and finally with newspaper reporters from the *Solomon Star* and *National Express*. The *Star* had already reported on my arrival and on the meeting with the Cabinet. That morning at 6:20 I had already talked with an interviewer for the **Australian Broadcasting Corporation** morning program for the Pacific Island region, which was broadcast several times during the day. So there was plenty of media coverage.

At 3 p.m. that afternoon, we had our last meeting of the week, at the **Japanese Embassy** with its Charge d'Affaires **H. E. Akira Iwanade**; a researcher/advisor for the Japanese Embassy **Dr. Akira Ichioka**; the resident representative for JICA, the Japanese International Cooperation Agency, **Dr. Tokuro Watanabe**; and **Ms. Yoko Asano**, project formulation advisor for JICA. This conversation was very friendly and substantive, with some interest indicated in supporting SRI applications. I suggested that one very good use of donor assistance could be to enable students and staff of SICHE's School of Natural Resources to get involved in SRI work as this would also contribute to the country's human resource development.

### **Concluding Thoughts**

All in all, the visit was very instructive for me, and I hope it will prove useful for the persons and institutions with whom I was able to get acquainted during the intense six days of visits and field trips. Saturday morning, Ravi took me to the airport where we reviewed the week's discussions and talked about next steps. The Minister had suggested that we think about another visit once activities get started. I would be glad to return, although possibly some SRI expertise from within the Southeast Asian region might be more usefully called upon, e.g., from Indonesia, where agricultural conditions have many similarities to the Solomon Islands.

This country should be able to benefit from the opportunities which SRI offers. In a broader context, the Solomon Islands could make some significant contributions to the further development of SRI and to agroecological knowledge and practice more generally: (a) by refining and improving methods for **upland SRI** under specific local conditions, and (b) by learning how to integrate SRI practices into **root crop-based farming systems**. It could set some good examples for other countries in the Pacific region.

SRI is not a technology and not a fixed 'thing,' as I reiterated throughout the visit. It is better understood as a set of insights and ideas that get manifested in specific practices which enable farmers to get more productive phenotypes from existing genotypes. This possibility of getting **more from less** -- with less reliance upon external inputs by capitalizing upon available biological potentials and dynamics -- will become important for achieving sustainable and more equitable development in this 21<sup>st</sup> century.