SAFT academic staff joined the bandwagon of agricultural scientists in IHC2014

Three respected academic staff of the School of Agriculture and Food Technology of USP joined the 3,000 delegates to the International Horticultural Congress Conference held in Brisbane, Australia from the 17th to the 22nd August 2014. Dr. Danilo Guinto (Senior Lecturer in Soil Science) and Dr. Rashmi Kant (Lecturer in Entomology) shared their significant research output to fellow scientists around the globe while Mr. Falaniko Amosa (Lecturer in Crop Science) ably represented SAFT in the pre-conference training on postharvest technologies together with Dr. Kant.

“It was a very fulfilling experience to rub shoulders with researchers and academics of the agriculture sector who have unwavering commitment to help countries meet food security needs, climate change resilience and increased rural income”, Dr. Guinto remarked. “We get to meet old colleagues and potential collaborating partners who can assist in lifting Pacific agriculture off the ground.” he further said. Dr. Guinto presented results of one of his postgraduate student’s research entitled “Influence of mucuna fallow crop on selected soil properties, weed suppression and taro yields in Taveuni, Fiji”. The research was undertaken by Rohit Lal who recently obtained his MAgr degree from USP Alafua. Dr. Mike Smith of the Department of Agriculture, Fisheries and Forestry, Nambour, Queensland, Australia co-supervised the research.

Dr. Kant presented an oral paper entitled “Feeding strategies of Giant African snail Achotina fulico on papaya in Samoa.” and a poster paper entitled “Rose beetle herbivory in Island cabbage (Pele)”.

The conference gathered scientists from around the globe who have a mutual and common stake in “Sustaining Lives, livelihoods and landscapes” which was the theme for the one-week event. The theme fits well in the mission of SAFT for the Pacific Island countries. The participation of SAFT in the training and conference was sponsored SAFT’s long-time and generous supporters, the Australian Centre for International Agricultural Research (ACIAR) and the Technical Centre for Agricultural and Rural Cooperation (CTA).
The strong team of the School of Agriculture and Food Technology (SAFT) of USP showcased their research initiatives in one of the parallel events for the delegates of the Small Island Developing States (SIDS) Conference held on the 2nd of September 2014 at its abode at USP Alafua Campus. The theme “Agricultural Research for Sustainable Development and Intensification in Small Island Countries” aptly describes SAFT’s research agenda.

The academic staff and the students tirelessly prepared oral and poster presentations which amused the Vice Chancellor and President of USP himself, Professor Rajesh Chandra. He congratulated the presenters for the amount of substantial information shared to the delegates and was astounded by the demonstrated capability of the students to present their research outcomes. He vowed to continue supporting SAFT in its research endeavours.

Four seasoned lecturers shared their respective discipline’s initiatives and recommended researchable areas which SAFT has capability of partnering with other institutions. Dr. Danilo Guinto (Senior Lecturer in Soil Science) briefly presented the Soil Health Project for Taro Improvement which he is managing. The project after a brief hibernation during the early stages managed to take off and produced significant results in collaboration with the Ministry of Agriculture and Fisheries (MAF) of Samoa. The project revolves around researches undertaken by postgraduate and undergraduate students. Other initiatives included collaboration with MAF’s USAID project funded sweet potato adaptation trials on problem soils using soil amendments. This is undertaken by one of Dr. Guinto’s PhD student.

The ecological benefits of integrated pest management (IPM) in valued crops was highlighted by Dr. Rashmi Kant (Lecturer in Entomology). Three postgraduate students are working on biological control of pests on cabbage. He also disclosed germplasm collection of taro, banana and yam. There are also studies done on vine cutting of yams.

Dr. Siaka Diarra (Senior Lecturer in Animal Science) talked about animal nutrition studies for pig and poultry. He emphasised the significance of feed efficiency and use of locally available raw materials in the Pacific region considering high costs of imported feed. These are the focus of his current researches and that of his students.

Senior Lecturer in Agricultural Economics, Dr. Jagdish Bhati, shared the strategies adopted by Vanuatu farmers to reduce climate change impacts on their farming systems. He discussed how farmers in the coastal villages of Fiji diversify by combining coastal and crop production to stabilise their incomes. He further noted the long-term trends in production and exports of farm products in Fiji as well as the problem of nutrition insecurity due to micronutrient deficiencies in diets leading to increasing incidence of non-communicable diseases in the Pacific Region.

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**USP Open Day offered career options for Samoan students**

It was not an ordinary day for USP Alafua as close to a thousand students and guests flocked through the gates to see for themselves what the campus has to offer. USP Alafua opened its doors to the public for its annual Open Day held on the 8th of August 2014.

Departing from the usual facility tour of the different sections of SAFT, the students were treated to interactive activities in one venue shared by the four disciplines of Agriculture: Soil Science, Crop Science, Animal Science and Agribusiness. Poster displays and interesting learning equipment, laboratory set-up and materials, insect and animal part artefacts were showcased to encourage students to look into the science of Agriculture and not just view Agriculture as a dirty profession.

The students swarmed around Dr. Siaka Diarra (Senior Lecturer in Animal Science) as he dissected a chicken and explained the different internal organs and their functions. At the end of the session, they realised the importance of proper feeding to ensure the nutritional quality of the chicken meat. They were also made aware of the potential to grow local chicken at lower cost and with better product quality.

Dr. Rashmi Kant (Lecturer in Entomology) treated the students for a chance to see parts of the insects under a microscope not normally visible on sighting an affected plant. His team also introduced vermicomposting as a beneficial way of managing wastes ecologically. To top it off, the team invited the students to a butterfly drawing contest to allow them appreciation of these small creatures and what they do to the environment.

The Soil Science Team demonstrated quick methods of analysing soils to find out what nutrients crops get from the soil. They also shared the significant research findings of students in this discipline.

The SAFT displays and sessions generated the most enthusiasm among the students and media reviews have proven that Agriculture in Samoa is already seen in a more positive outlook.

The newly built Animal Sanctuary also invited curiosity among the visitors and they were happy to mingle with the farm animals while learning how these animals behave apart from the importance of the livestock sector in Samoa.

The crop demonstration plots and research trials showed off the merits of diversifying to increase farm productivity.

All in all, it was a day of learning the fun way which enlightened the students to consider Agriculture as a potential career.
In his overview, Head of SAFT, Assoc Professor Mohammed Umar emphasised the importance of partnership to strengthen adaptation to climate change and long-term sustainability of agriculture in the SIDS. He expressed delight over the opportunity for SAFT to showcase its research initiatives and noted the partnerships SAFT and IRETA have established over the years. He welcomed more mutual partnerships for the school.

In a recently held IHC pre-conference post-harvest horticulture training held at Mapleton, Queensland, Australia from the 12 to 15 August 2014, the two lecturers in Crop Science of the School of Agriculture and Food Technology (SAFT) were successfully chosen to partake in the training. The participation of Dr. Rashmi Kant (Lecturer in Entomology) and Mr. Falaniko Amosa (Lecturer in Crop Production) were supported by the Australian Centre for International Agricultural Research (ACIAR) and the Technical Centre for Agricultural and Rural Cooperation (CTA).

In the same training, Dr. Kant emerged as the winner of the Post-harvest Horticulture Quiz Competition—a pride for the University of the South Pacific battling with other institutions around the globe.

The participants visited the facilities at Maroochy Research Station of the Department of Agriculture of the Queensland Government. In order to learn the post-harvest supply chain management, the trainees were also brought to the Brisbane Market.

Other site visits included the Macadamia Nut Farm and pack house in NSW where the participants were given a training on macadamis pest management and biological control through egg parasitoids. Dr Kant is carrying out a similar research on the use of natural enemy egg-parasitoids to manage cabbage pests in Samoa at USP.

A research conducted by a SAFT Master of Agriculture graduate revealed that taro grown after a six-month mucuna fallow crop significantly outyielded taro grown under grass fallow (11.8 vs. 8.8 tons/ha) with a significant gross margin of 52%. This was the finding of Rohit Lal who conducted his research entitled Influence of mucuna fallow crop on selected soil properties and taro yield in Taveuni, Fiji.

The greater biomass accumulation of mucuna fallow crop compared to grass fallow crop also contributed to the greater suppression of weeds. Tests also show that the longer fallow duration resulted in higher total organic carbon, total nitrogen and earthworm numbers regardless of fallow type.

The research was ably supervised by Dr. Danilo Guinto, Senior Lecturer in Soil Science at USP.
Exposure to high temperature triggers physiological mechanisms of sheep in Samoa

In a study conducted to assess factors contributing to low performance of sheep in Samoa, SAFT students Makelesi Butulovo and Luisa Saqusaqu tested the effect of ambient temperature on the physiological functions of sheep.

Preliminary results indicate that the rectal temperature of sheep did not significantly differ when subjected to unshaded and shaded conditions. Even with unshaded condition, the average rectal temperature is within the normal range (38.3 to 39.9°C).

On the other hand, respiration rate and scrotal circumference are higher when the rams are not shaded implying that physiological functions are triggered by higher ambient temperature. More energy, as manifested by increased respiration rate, is used by the ram to maintain its core body functions when exposed to higher ambient temperature. The use of shade reduced the effects of heat stress on breeding rams.

The undergraduate student research was supervised by Dr. Poasa Tabuaciri, Lecturer in Animal Science (Ruminant) at USP.

Organic farming may help address climate change

A regional department of agriculture in the Phillipines is urging farmers to practice organic farming to help mitigate the impact of climate change. “Organic agriculture works in harmony with nature rather than against it,” said DA-6 Regional Technical Director Dr. Joyce Wendam during the 2nd Regional Organic Agriculture Summit Opening Program held Monday at the Iloilo Provincial Capitol.

Wendam said that organic farming involves using techniques to achieve good cropping yields without harming the natural environment or the people who live and work in it. She said that going organic brings a number of advantages including the promotion of the healthy use of soil, water, and air, as well as minimizing all forms of pollution.

“Organic farming also helps in developing and promoting the use of biotechnology in agriculture,” she stressed. She emphasized that agricultural products are handled with emphasis in careful processing methods in order to maintain the organic integrity and vital qualities of the products at all stages.

She said that the rising concern about antibiotics and pesticide residues and the growing clamor for healthy and safe food are just two of the major reasons why there is a need to shift to organic farming. “There is also a bright and vast market potential for organic products that farmers here can take advantage,” she said.

In Western Visayas, a total of 11,692 hectares of land have been utilized for organic agriculture. The target for five years until 2016 is 33,345 hectares which is five percent of the 667,000 hectares total farming area in the region. The DA official said that there are 10,555 organic practitioners in Region 6 and these farmers mostly come from the province of Negros Occidental.

Wendam also posed a challenge to the provinces of Iloilo, Aklan, Antique, Capiz, and Guimaras to increase the number of organic agriculture practitioners. “We are asking for your cooperation and assistance, most specially the local government units and the farmers to go organic because this promotes practices that develop resiliency to vulnerabilities due to climate change,” she said. (Leonard T. Pineda, Samoa Observer)
FIFTEEN farmers are closely working with the marketing unit, agriculture planning division of the Ministry of Agriculture and Livestock (MALS) to export their local produce overseas.

Chief field officer Noel Roposi said, MALS had linked fifteen farmers with overseas interested buyers to kick off trading.

“Since MAL put out this privilege, many farmers approached us and about fifteen farmers have already been linked with interested buyers. “The farmers are excited about the new initiative and praised it. This is one way direct market can be secured for farmers.

Some of the countries and products they are prepared to take include
- Australia: Dried chilli, dry coconut and green (fresh) coconut;
- New Zealand: Fresh pineapple fruits, frozen slippery cabbage, Robusta and Arabica coffee;
- Canada: Frozen cassava;
- Vanuatu: Kava, copra, timber, artefacts, coconut oil, rattan chairs, noni fruit, frozen reef fish, snapper fish, king fish, lobster tail, sea shells and mud crab;
- Fiji: Sundried kava, frozen reef fish, timber, tuna, fresh pineapple fruit, green coconut, sun dried cocoa beans.

Mr Roposo said it is important that local farmers, small and medium businesses and private entrepreneurs take advantage of the opportunity and meet the demand for a conducive market trading.

“Our trade with other countries have been negative and one-sided because we import more, so it’s important for the country to utilise this opportunity to boost our trade.

For more information about the initiative, contact the Chief Field Officer (Marketing), Marketing Unit, Agriculture Planning Division, Ministry of Agriculture and Livestock on Tel: (677) 22143 ext 215; Mobile: (677) 7402370. (DENVER NEWTER, Solomon Star)

Today (Sept 26) begins a milestone for the Animal Production and Health Division (A.P.H.D) of the Ministry of Agriculture and Fisheries.

At Vaea, it is the opening of its headquarters recently relocated from Avele.

Worth $2.3 million, the centre was funded with assistance from China.

The Minister of Agriculture, Le Mamea Ropati Mualia said the centre located on 100 acres of property is far more beneficial for the work associated to A.P.H.D.

As for its old location, this will be handed to China.

“China wants to lease the old property for their new Headquarters,” Le Mamea said.

The centre also includes living facilities for expatriates and veterinarians working with M.A.F, as well as a meat processing operations where sausages and ham are made.

“This is where demonstrations to the private sector interested in this type of business will be held.”

The property will also include a fenced off area for all the livestock cared for by the division such as cattle, sheep, ducks, pigs and chickens.

The rest of the funding will go towards maintenance of the centre.

The centre took three months to construct and will house over 60 staff members.

The core function of A.P.H.D is to undertake Research and development and provide technical advice on Animal production and health and meat inspection services to improve livestock production for subsistence and commercial producers, processors and marketers. (Jasmine Netzle, Samoa Observer)

TRADITIONAL staple food crops such as yam, pana and taro once commonly found in abundance throughout the country but are slowly overtaken by other crops such as sweet potato and cassava are expected to find their way back into home gardens and on the dinner tables of many families.

For many years, yam, pana and taro were important staple food crops for most of the provinces in the Solomon Islands. But since the introduction of sweet potato and cassava, the planting of yams, pana and taro have drastically been reduced.

Not only are sweet potato and cassava easy to plant, it takes less than four months to mature and harvest compared to taro, yams and pana, which are being bulked in various bulking sites, take six to seven months.

Variable weather conditions due to climate change, the impacts of crop pests and diseases, and the importation of lesser quality convenient foods also influence local farmers’ decision in types of staple crop to grow. Most prefer sweet potato and cassava to yam, pana and taro.

Under the United Nations Development Programme (UNDP) - supported StrongemWakalo Community foKaikai (SWoCK) project, a variety of crops have been bulked and multiplied to enable sufficient planting materials are kept for further distribution.

This is being done to help revive the crops that are endemic to a particular area and have high tolerance to crop pest and diseases and are resilient to climate change.

As a result, seven yam and panabolking sites and demonstration plots has been set-up - three in Guadalcanal and two in each in the Makira-Ulawa and Choiseul provinces.

“The results has been very encouraging and with the number of yams harvested. They will be replanted to double or triple the amount to enable planting materials are available to meet local farmers’ demands,” said SimoPitavoqa, Provincial Project Coordinator for Makira-Ulawa Province.

“I’m very happy that the various yam species have been revived through this bulking site and I’m hopeful that they will be distributed widely so that rural farmers can have enough yams to plant,” said KemuelGapu of the Rawo bulking site.

The promotion of bulking sites is an intervention targeting loss of planting materials by farmers, an impact resulting from irregular rainfall and prolonged dry seasons as identified from the vulnerability and adaptation assessment carried out in 2011 and 2012.

Furthermore, the vulnerability and adaptation also indicated that some households invest insufficient time into farming and this is partly due to lack of access to the right type of farming tools.

The yams, pana and taro bulked in the various bulking sites are local species suitable to the climatic area and are climate, pests and diseases tolerant which may result in food security for the pilot communities in which SWoCK project activities are being implemented.

To support local farmers and encourage more people engaging in farming, gardening tools were also distributed to the villages covered by the SWoCK project.

The SWoCK project is funded from the Kyoto Adaptation Fund, with US$5.1 million for the period of 2011-2015, implemented through UNDP and executed by the Ministry of Agriculture and Livestock and the Ministry of Environment, Climate Change, Disaster Management and Meteorology.

Besides the introduction of climate resilient crop varieties and enhanced farming systems, the project supports a range of other practical adaptation measures, such as climate-resilient land-use planning, climate early-warning and information system, germ plasm collection and agriculture food banks, national assessment of soil types and their vulnerability to degradation, enhanced food processing and storage techniques, amongst others. (Solomon Star)
“The show is also designed to complement the theme of the S.I.D.S Conference namely; “The Sustainable Development of Small Island Development States through genuine and durable partnerships”

Beach Road came alive on 2nd September when farmers took to the streets for the opening parade of the three-day ‘Agriculture and Fisheries Show.’

The annual event is being organised by the Ministry of Agriculture and Fisheries (M.A.F) as an incentive for farmers to show off their produces. The Minister of Agriculture; Le Mamea Ropati Mualia, opened the Show.

“Showcasing of the best farms and marine protected areas as well as the best agricultural products for everyone to witness, is an old traditional Samoan practice and this practice is still and alive in today’s society,” he said.

“The show is also designed to complement the theme of the S.I.D.S Conference namely; “The Sustainable Development of Small Island Development States through genuine and durable partnerships”

“As a result of these competitions and public displays, the farmers and fishers hopefully may have been encouraged by competitions to produce the best quality products as you might have witnessed already in the displays around the compound.”

He advised farmers and fishers that “the bigger your farm size is and the more diversified, the better is your chance of winning a prize in these competitions and consequently, the better is your chance of becoming economically sustainable as a farmer in the long term.”

“This is simply a fact of life and should be common knowledge to all.” he said.

Le Mamea said the competitions are an incentive for farmers to boost Agriculture and Fisheries production.

“Let me make a few remarks or shall I say, share with you a few tips concerning the ongoing competitions to help you improve your chances of winning a prize.

“Firstly, may I urge all competitors to display your products in the best fashion possible at wherever you are in the tents so that the judges can easily view your products when they come around for inspection.”

“Secondly, may I also remind all fellow farmers and competitors to please do not sell or remove your products from wherever they are displayed until the final round of inspections is completed tomorrow at 3pm.” (Iliia L. Likou, Samoa Observer)
About 40 members of the Solomon Islands Women in Business Association (SIWIBA) have successfully completed a one-week workshop on Piggery and Poultry training at the Dioceses of Guadalcanal Conference Room at All Saints Compound last week.

The training was facilitated by Hearly Aleve of the Ministry of Agriculture. Its aim is to empower women to access information on knowledge and basic technologies to develop livestock activity as a business activity for women.

Members of the SIWIBA who are aiming to start or expand in the industry as a business activity got engaged in both theory and practical field trip observation on farms involving piggery and poultry operation in Honiara. SIWIBA member Mary Borja stated that the training has “added value on her current experience in piggery and poultry farming”. Mrs Borjia added that the training has given her new knowledge especially on commercial farming and also shed light on ways to improve her current farming skills.

During the official closing on Friday, invited guest Lilly Wane of Women in Agriculture stated that the Solomon Islands government has recognized the importance of women participating in agriculture and has set an initiative to support women groups who uphold agriculture as way for Solomon Islands food security.

Mrs Wane said SIWIBA has recently shared the part of that government support to encourage women not in the course for business alone, but also in food security.

She stressed that in the agriculture sector, training without practical or action is not productivity, but training and putting in place actions and lesson learnt is productivity.

President of Solomon Islands Women in Business Association Dalcy Tekulu acknowledged the positive response of the Ministry of Agriculture training facilitator and SIWIBA members for their support in making the training successful.

Members were awarded certificates for successfully accomplishing the piggery and poultry husbandry and management workshop. (Solomon Star)

Samoa bids for coconut center

Samoa has entered a bid to host the Pacific regional coconut research center.

According to Crops Assistant CEO Misa Konelio, plans are afoot to relocate the current center in Papua New Guinea to another Pacific Island country.

“We indicated to the APCC (Asia Pacific Coconut Community) during the meeting last week in Sri Lanka that Samoa is interested, and stands ready, to host the regional coconut research center,” he said.

An integral part of the center, Misa pointed out, is to safeguard the on-site coconut gene pool.

“The gene pool at the coconut center in Papua New Guinea has been infected by disease, so it can no longer serve as a regional research and development center.”

The Agriculture ministry, he said, has just secured 200 acres of land at Oloamanu for a coconut nursery and farming.

“If we get the nod from the APCC, then that will be where the research center will be located. It will be a big boon for coconut farming in Samoa. A lot of international attention and funding will also be directed to Samoa.” (Tupuola Terry Tavita, Savali News)
Organics in the spotlight at SIDS, WIBD

Organic agriculture was highlighted during the Third International Conference on Small Island Developing States (S.I.D.S).

A side event entitled “Organic Islands - Role and Potential of Organic Agriculture for sustainable development” was announced by the Pacific Organic and Ethical Trade Community for September 4.

Among the speakers were Prime Minister Tuilaepa Sa’ilele Malielegaoi, who is also the head of the Pacific High Level Organic Group and the Samoa Organic Advisory Group, International Federation of Organic Agriculture Movements president Andre Leu, Women in Business Development Inc executive director Adimaimalaga Tafuna'i, Chef and author Robert Oliver, and Cicia principal Isikeli KariKaritu.

The event showcased learning from the Pacific to demonstrate the potential for organic agriculture partnerships to provide for sustainable economic development while also addressing other themes of the conference including climate change, biodiversity, and social development.

Innovative case studies and lessons learned from organic agriculture initiatives in the Pacific Island region that can be applied across S.I.D.S regions were shared. (WIBD)

Hotel-to-Farm compost

From the farm to the table, then back to farm – that’s a new programme in the making that will take food waste from Samoa’s hotels and turn it into compost for farmers.

The programme, which is still being designed, comes on the back of an audit on how hotels were managing their waste. The audit was performed by Samoa’s Ministry of Natural Resources and Environment (MNRE), the United Nations Environment Programme (UNEP) and the Secretariat of the Pacific Regional Environment Programme (SPREP).

SPREP Hazardous Waste Management Adviser, Dr. Frank Griffin, says the composting programme is a great example of turning waste into a value-added product. “The composting programme will also help take the pressure off the Tafaigata Landfill, which was built in the late 1990s, and, while it was predicted that the first section would take 12 years to fill – it took six.”

Women in Business Development Inc executive director, Adimaimalaga Tafuna’i says the organisation was thrilled with the approach taken by the environmental agencies. “We have always been a keen advocate of large-scale composting as a way to help our farmers produce better crops and as a way to protect our soils from floods and droughts. “By working with hoteliers, we can now develop a consistent supply that will complement our garden waste.”

The three environmental agencies distributed bins to 23 hoteliers to help them separate their waste. Each hotelier was also invited to contact Women in Business Development to join the compost pilot. The hotels were also given guidance on what type of green waste Women in Business Development could process such as: all cooked or raw organic waste including coffee grounds and tea bags, and egg shells but not meat products including bones, oils and fats, which should be put in the designated rubbish bin.

Vaea Hotel owner Dean Johnston says he welcomes the composting programme and proposed the collection of larger green waste such as hedge clippings. “I would also like to see something done about public littering. Everyday, especially when school is in, we have to collect all the rubbish that children are throwing on the ground,” says Johnston. “It’s about education.”

“You also see people throwing rubbish out of taxis and buses. There should be fines for that.”

MNRE and SPREP both offered to assist hoteliers develop waste management plans. (Faumuina Felolini Tafuna, Samoa Observer)
A shipment of Fiji Fantastic sheep breed should arrive in the country before the end of the year. The announcement by Minister of Agriculture Le mamea Tuiletufuga Ropati came after returning from Suva earlier this week.

“Fiji’s Agriculture Minister Inia Seruiratu has approved a shipment of 110 Fiji Fantastic sheep. “Ten will be rams to be provided by Fiji’s Ministry of Agriculture. The remaining 100 breeding ewes will be supplied by the Tiko Eastgate, a privately owned farm,” said Le Mamea.

“Fiji Fantastic produces high quality lean meat with very little excess fat. It also boasts high reproductive abilities with ewes able to produce twins or triplets. It has a fast growth rate and low mortality.”

Le Mamea also noted that since sheep farming was introduced in 2004 the flock has grown. “Today, the total number of sheep is in excess of 900. But we have a long list of farmers requesting sheep and funding. For that to happen, the farmers need to meet requirements, such as having a shelter, good pasture, water and paddock fencing.”

The project to develop Samoa’s livestock industry is funded by the World Bank, added the Minister. Under the Samoa Agriculture Competitiveness Enhancement Project, (SACEP) the World Bank is helping develop livestock, fruits and vegetable farming.

SACEP is a combined support scheme by the World Bank and Samoan government. It involves making available US$16 million (WS$35 million) to both subsistence and commercial farmers. The assistance include a grant and loan scheme to help farmers improve productivity and competitiveness.

Launched in October 2012, the five-year project has three components. The first component of the project is livestock production and marketing. Its objective is to encourage livestock producers to; upgrade livestock, improve husbandry practices, stock management, and improve the quality of meat sold in the local market.

Aside from sheep farming, Le Mamea said that the next step is to find the appropriate cattle from Australia to suit local conditions.

“The next step is to visit Australia before the end of the year. This is all part of the government’s preparation for the Abattoir Project. We must have the right stock for the Abattoir to reach its full potential.” (Nanai Laveitiga Tuiletufuga, Savali News)
The growing concern on climate change and aspiration for sustainable development has been the main focus of the SIDS Conference recently held. Prior to the conference, Dr. Jagdish Bhati (Senior Lecturer in Agricultural Economics) of SAFT delivered a seminar to let the USP constituents and stakeholders know how SAFT’s teaching and research programs respond to these current challenges facing the Pacific Island countries.

In his talk, he validated the fact that developing nations like Pacific island countries (PICs) has agriculture as the mainstay of the majority of people for their employment and livelihood. However, agriculture in small island states is highly exposed to climate change as farming activities directly depend on climatic conditions. Further, agriculture also contributes to their unsustainable economic development.

However, Dr. Bhati believes that agriculture can also help to provide solutions to the overall climate change problem and unsustainable development. Therefore, there is a need for deeper understanding of the issues of climate change and unsustainable agricultural development by asking such questions as: How will farming in PICs be affected by climate change? How does farming in PICs influence climate change? How can farming in PICs adapt to the changed climate? How can smallholder farms in PICs be economically and environmentally more efficient? What public policy supports are needed by farmers in PICs?

Clearly, the role of agricultural research and training is very crucial in finding solutions and adapting to climate change related problems. The seminar explored how the agricultural research and teaching programs at USP School of Agriculture and Food Technology, Alafua campus are responding to these emerging agricultural and rural development issues of PICs, and identifying the constraints hindering the School in achieving its full potential in this regard.

For more information, please contact Dr. Bhati at jagdish.bhati@samoa.usp.ac.fj

### Agriculture resource base expanded

**USP Alafua Library** recently acquired new materials to expand the agriculture resource base of the campus. The following are now available for reference by staff, students and the external public:

- **Title:** How to be quantitative ecologist: the ‘A to R’ of green mathematics and statistics  
  **Author:** Jason Matthiopoulos  
  This book comprises two equal parts of mathematics and statistics with emphasis on quantitative skills.

- **Title:** Combating climate change: an agricultural perspective  
  **Edited:** Manjit S. Kang .... [et al.]  
  This book assembles causes and consequences of climate change and possible remedial measures.

- **Title:** Capitalizing on nature: ecosystems as natural assets  
  **Author:** Edward B. Barbier  
  This book focuses on major policy challenges that need to be overcome in order to avert the worsening problem of ecological scarcity and how we can fund novel financing mechanisms for global conservation.

- **Title:** Island environments in a changing world.  
  **Author:** Lawrence R. Walker, Peter Bellingham  
  This book examines the natural and human history of each island group from early settlement onwards. It provides a critique of the concept of sustainable growth and offers realistic guidelines for future island management.

You can maximise the benefit of the Alafua library resources by going online at [http://athenasamoas.gus.ac.fj/athcgi/athweb.pl](http://athenasamoas.gus.ac.fj/athcgi/athweb.pl). Photocopy $0.20 sene/page. Copyright rules apply.