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USP commits to strengthen Leadership

Dr. Jamil Salmi with Professor Rajesh Chandra during the workshop

THE UNIVERSITY OF THE SOUTH PACIFIC hosted a workshop for its Senior Management Team and Heads of Schools and Directors of Institute earlier this month.

This workshop according to USP Vice Chancellor Professor Rajesh Chandra is *"part of our effort to ensure that we make a good start to the implementation of the Strategic Plan 2013-2018 and to enhance collaboration and understanding among ourselves*"

The workshop was conducted by Dr. Jamil Salmi, a world-renowned expert on tertiary education, the former Manager of the Higher Education Division of the World Bank for two decades, and Advisor to the University on Strategic Planning.

According to the VC, the Heads of Schools and Directors of Institutes were selected first for the workshop as of their their crucial role in ensuring the full and prompt implementation of the ambitious new plan and the need to bring SMT closer to key leadership groups at USP. Also Dr Salmi had limited the number to 32 so we could not include everyone but we will provide additional opportunities later in the year for leadership workshops.

He also said that *"over the two days, we were exposed to new ideas, were able to discuss among ourselves what is implied in transforming USP from good to excellent, take part in group exercises that challenged us to think outside the box, and to listen to colleagues on crucial issues."*

At the end of the workshop, participants shared their views about the value of the workshop. They all indicated that they had found the workshop very worthwhile, and it was a privilege for the University to have had Dr. Salmi's wealth of expertise and experience, and his skillful facilitation in such a critically important area. The VC also said that *"effective, engaged, empowering, facilitative and results-oriented leadership is one of the keys to our success and this workshop is one attempt to further develop our leadership at the University."* Dr. Salmi will conduct a full day leadership and management workshop for Campus Directors tas Campus Directors are crucial to our future. *(continue to page 4)*

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Editor in Chief : Mohammed Umar

Connecting research and innovation for development in the Pacific

Story by: Vaasiliega Rupeni Tamaniyakaroi

THE FINAL PACE-Net (Pacific-European Network on Science and Technology) Conference hosted by the University of the South Pacific (USP) in Suva Fiji from 12-14 March to discuss outcomes of the three year project was attended by more than 120 delegates from 17 Pacific and European countries and territories.

The Fiji Minister for the Environment, Colonel Samuela Saumatua in opening the conference, noted the need for policies in relation to PACE-Network must be founded on good scientific information particularly because of the Pacific's vulnerability to global change.

The PACE-Net is jointly supported by the USP, European Union (EU) and the Secretariat of the Pacific Community(SPC)

Mr. Andrew Jacobs, Head of the EU delegation in Suva, stressed the EU's active involvement in: regional and global areas of common concern; capacity building; and its continued commitment to research and development.

On the other hand the Vice Chancellor of USP, Prof. Rajesh Chandra outlined USP's commitment, as a regional organisation, to increasing the role of science and technology in regional policy development, in capacity building and in networks with other Pacific Island Universities.

Dr. Jimmie Rodgers, Director General of SPC, underlined the importance of research for Pacific countries to respond to their challenges and to improve their development. For this, he adds that research institutes, policy makers, regional organisations, private sector will have to all work together. Some of the major outcomes of the PACE-Net project in the last three years are: strengthening the EU-Pacific bi-regional dialogue on Science, Technology and Innovation (ST&I);

- identifying the general absence of regional and national ST&I policies and plans in the Pacific; catalysing the formation of the "Pacific Islands University Research Network" (PIURN);
- assisting initiation of a national ST&I policy framework process in Papua New Guinea;
- raised awareness of the critical importance of the Pacific – a region of extraordinary physical, social and economic diversity –to global sustainability and of the vulnerability of small island nations to global change.

USP leads Samoa Arts Council

THE UNIVERSITY OF THE SOUTH PACIFIC through its Pacific Outreach Programme for Polynesia (POPP) has successfully established and officially launched the Samoa Arts Council (SAC).

The establishment of the Council followed many workshops and consultations looking at the current situation of the Arts, initiatives if any, and Arts in Education coordinated by the POPP project. The workshop and consultations were conducted with Arts practitioners in the various forms of Arts, and the interested stakeholders.

Coordinator of the POPP, Tuilagi Allan Alo and President of the SAC said that, "SAC was formed with the purpose to raise awareness in Samoa of the value of the Arts and their vital contribution to Samoa's cultural identity, spirituality and economic development." he said.

"SAC will provide a much needed platform where traditional and contemporary artists can access development opportunities such as training networking, resources and information via local, regional and international links.

"This is an exciting time for our young organization especially given the current emphasis being placed on the development and growth of the cultural industries, globally. *(cont next page)*

Samoa Observer Photo

Samoa Observer Photo

USP leads Samoa Arts Council.....from page 3

The main goals for the establishment of the SAC are to:

- Benefit artists, arts and cultural organisations and communities nationally by creating a national resource and meeting ground for all those whose public responsibility it is to support excellence and diversity in artistic and cultural endeavour;
- Build national and international networks, promote understanding and enhance cooperatiobetween arts councils and culture agencies;
- Strengthen the capacity of arts and culture associations to meet the challenges and opportunities of globalisation and technological change;
- Consolidate the collective knowledge of arts and culture associations; and
- Encourage public support for the practice of the arts and cultural diversity.

Prime Minister and Patron, Tuilaepa Sa'ilele Malielegaoi, who delivered the keynote address said the formation of the Council was a positive step for Samoa.

He said the Council, would open opportunities for dancers singers and supporters of culture and arts in Samoa.

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He also said that *"going forward, H R will take responsibility for cascading leadership training throughout the University. We plan to develop this kind of training into a formal qualification in the near future."*

The final evaluation of the report indicates that the workshop was a huge success.

"The evaluation has rated the workshop as overwhelmingly successful with 95% Strongly agreeing or Agreeing that the objectives had been met. In terms of an overall rating, participants ranked it as Excellent (47%), Very Good (32%), or Good (21%) with no one saying that it was not good. The suggestions received would be useful in the design of a more appropriate evaluation questionnaire and also for any future improvements in the workshop

The objectives of the workshop was to have a common understanding of the vision and the new strategic plan;

- to identify discomfort zones and areas where disruptive change is needed;
- to identify exactly what is needed to lift USP from good to excellent;
- to have an appreciation of effective change management for the new Strategic Plan;
- to have an awareness about the contribution of each USP professional to the implementation of the strategic plan;
- and to provide an opportunity for team building.

Israel shares postharvest knowledge with Samoa

Story by: *Siope Pele, SROS*

POSTHARVEST and handling of fresh commodities is an immense barrier towards export of Pacific produces to the prominent markets.

In March of this year, a Research and Development Course on Postharvest Physiology, Pathology and Handling of Fresh Commodities held in Israel concluded and Samoa was amongst the 13 countries that participated.

The USP-School of Agriculture and Food Technology was invited to send a representative to the course. The Acting Head of School of SAFT recommended the Scientific Research Organisation of Samoa (SROS) to attend. The training was organized and conducted by the Institute of Technology and Storage of Agricultural Produce of the Agricultural Research Organization (ARO) in cooperation with the Center for International Agricultural Development Cooperation (CINADCO).

The objectives of the training was to understand the Physiological, Pathological and Environmental factors involved in the deterioration of fresh agricultural produce, to learn postharvest technologies and best practices associated with the postharvest handling of fresh fruits and vegetables, to assist in the delay of senescence, reduce loss and maintain the best possible quality of the produce and to initiate, research, teach and transfer knowledge to extension workers and farmers.

The main subjects included Physiological and pathological factors affecting storage and shelf life; Cause and site loss; Standardization and inspection of fresh produce; Quality factors and analysis; Pro-longing shelf life; Post-harvest technologies.

This was an intense four weeks course with so much information that the lecturers had taken every effort to convey their knowledge and experiences to the participants in the limited time available.

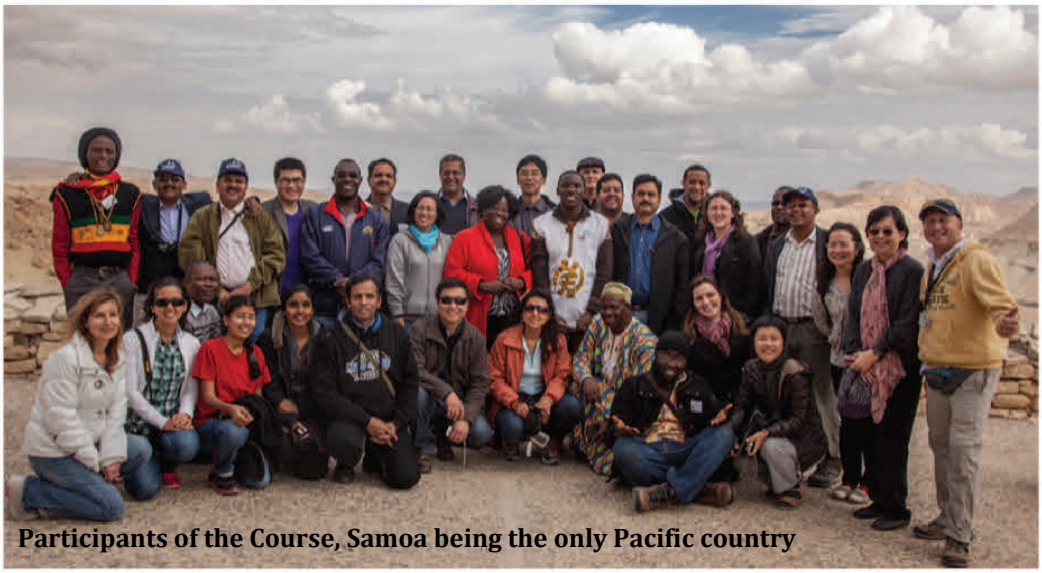
In addition, professional visits throughout the country provided the opportunity to observe what is done in the practice of the subjects covered by the course, and agriculture in general.

The success model of agriculture in Israel is the result of strong collaboration between the Research Scientists, Extension Officers and the Farmers.

In order to be able to supply the markets with quantity and quality they demand, new and efficient methods have been developed to preserve the crop from harvest time up to the stage where the commodity reaches the consumer.

The way is long and passes through sorting, packing, transportation and often also storing for a shorter or longer period before it reaches the market. Much research and development has been carried out in these subjects to cope with these challenges of market demand.

Capsicum Greenhouse on a desert land



Participants of the Course, Samoa being the only Pacific country

Israel shares postharvest knowledge with Samoa.....from page 5

Packing and storage are important to maintain Export quality

Cleaning for packing

Israel has advanced technology and machinery used in post harvest process.

SAFT attends workshop on Research

Story by: Dr. Pradeep K Singh

The School of Agriculture and Food Technology -Alafua Campus through one of its lecturers in Agribusiness, participated in a one -day workshop on "Research Skill Development" held in Suva

The workshop was sponsored by the Faculty of Business and Economics and organised by the Research Office, Office of the Pro Vice Chancellor Research and International, USP. This initiative was a part of the larger agenda of the USP: *Renew the STAR Project and the University*. The workshop was conducted by Dr John Willison, University of Adelaide .

The participants represented a cross section of selected course coordinators and teachers across the courses offered by schools under FBE. In addition the representatives from Library, CFDL and Research Office were also there.

RSD is about explicit and coherent development of research literacy and skills in University courses and STAR has a component of embedding the development of research literacy and skills in curricula.

The workshop introduced the participants to the RSD Framework, a conceptual tool devised by John Willison and Kerry O'Regan at the University of Adelaide in 2006.

The Framework draws together six facets of research, viz., embark on inquiry, find needed information, critically evaluate information, organise information, synthesise and apply new knowledge, and communicate.

The course coordinators have to work on the RSD framed assessment instruments and marking criteria. During 2013 and the first half of 2014 the process of embedding RSD in selected 100-level courses will continue.

Student research focus on postharvest loss

Sigatoka Valley

Analysing the extent of post harvest losses at various stages is the overall focus of a research conducted by Binesh Prasad a student currently undertaking a Masters Degree with the USP– School of Agriculture and Food Technology.

In his study, post-harvest losses in the seleceted vegetables, (Eggplant, Tomato, Okra)will be calculated at different stages to find out at which stage maximum loss is incurred.

"Descriptive statistical tools like means and percentages will be used in the study. The incargo environmental factors and transporting distance will also be correlated to the total post-harvest losses"

The information on the extent of losses at various stages is important not only for scientists and technologists but also for policymakers, administrators and industrialists as well as extension officers and farmers' in carrying out improvement in crop production and post-harvest technologies aimed at minimising these losses.

However the objectives of this study are:

- to ascertain the nature and extent of postharvest losses in the selected vegeta ble crops at farmer, exporter, retailer and consumer level;
- to determine the relationship between in cargo micro-climate (temperature, rela tive humidity, and vibration impact) and extent of post-harvest losses in the selected vegetable crops during transport tation
- to separate and quantify the actual post harvest losses into "non-trade post-harvest loss" and "absolute post-harvest loss" and
- to make suggestions to minimise post-harvest losses in vegetable crops at farmer, exporter, retailer and consumer level.

The post-harvest landscape analysis survey research is planned to be conducted over the multi-stage stratified locations (lower, mid and upper) of Sigatoka Valley, Municipal markets and consumers (Suva, Nadi & Sigatoka) in Fiji.

The primary data will be collected from the selected farmers, exporters, retailers and consumers involved in the supply chain using a pre-structured schedule by personal interview, questionnaire and data collection sheet.

Mucuna or 'magic bean' a research focus

Mucuna (*Mucuna pruriens*) legume with its various significant uses is believed to be under utilised in terms of research and extension work in the Pacific Islands.

Mucuna legume is widely introduced, distributed and cultivated in many tropical countries and regions as cover crop or green manure, either as a rotation or associated crop as it has the ability to improve soil fertility through a symbiotic relationship with soil microorganisms.

Mucuna grown at the USP –SAFT Nursery

Also used for biological control of weeds, pests and diseases, forage for animals, prevent soil erosion and is also known to cure Parkinson disease, snake bites, toothache, treating intestinal gas, diarrhea, cough, rheumatic disorder, muscular pain, diabetes, menstrual pain, tuberculosis, increases sexual libido in men and women and many more.

Aleikisio Sela one of the undergraduate researchers (AG383 Project) at their research plot

To take further advantage of the Mucuna, students at the School of Agriculture and Food Technology are undertaking two different researches on the significant impact of Mucuna legume on the growth of giant swamp taro (*Cyrtosperma chamissonis*) suckers in Samoa.

Alekisio Sela and Isikeli Rokoua for the AG383 Research Project are conducting a study on the effect of soil with Mucuna in comparison with the effect of soil without Mucuna and soil with NPK on the growth of giant swamp taro GST suckers planted in pits.

The Australian Center for International Agricultural Research (ACIAR) sponsored postgraduate student Toloi Vasuidreketi is conducting a research looking at the effect of soil with Mucuna as Treatment A and Treatment B as soil without Mucuna on the growth of GST suckers.

The postgraduate Masters researcher Toloi Vasuidreketi

Enhancing the role of small scale feed milling to develop PNG's monogastric industries

Story and photo by Seniorl Anzul

Smallholders and semi commercial farmers engaged in the monogastric sector (aquaculture, pig and poultry) in Papua New Guinea (PNG) can improve profitable with the use of locally available feed resources rather than imported ingredients which cost them dearly.

A research project aimed at assisting the PNG monogastric sector to develop cheap balanced diets and encouraging the establishment of small scale feed mills to make cheaper concentrate diets based mainly on local feed resources is well into plan.

The project stands to impact with a 25% increase in profitability of monogastric sector and increase production by 5% per annum, equating to A$47m. Currently the local monogastric sector has a market value of A$190.5m per annum, comprising some 600,000 small farmers.

The four-year project is titled: "Enhancing the role of small scale feed milling in the development of the monogastric industries in Papua New Guinea". Its annual review meeting in Lae from March 12-13 2013, after its first year of implementation, revealed that all partners are happy with the progress so far.

Funded by the Australian Centre for International Agricultural Research (ACIAR), the project is undertaken through a diverse collaboration involving the South Australian Research and Development Institute (SARDI), Primary Industries Industry and Investment NSW (Australia), Highlands Aquaculture Development Centre (HAQDC), National Agriculture Research Institute (NARI), National Fisheries Authority (NFA), PNG University of Technology (Unitech), Christian Leaders Training College (CLTC), Ok Tedi Development Foundation (OTDF) and the Lutheran Development Service (LDS).

The review was told that smallholder and semi commercial aquaculture, pig and poultry farming are making an important contribution to the livelihoods of rural households in PNG.

The project's anticipated outputs include: value chain maps and marketing strategies for sale of locally milled feed, pork, poultry and fish; regional business models, user briefs and training manuals for running mini mills;

improved monogastric production;

information on the quality of local feeds;

training and investigation/refinement of feeding options;

revised extension and training materials used by NGOs and public extension services;

campaign in PNG to promote mini mills and feeding options to improve profitability; and

training of research and extension staff as well as participating farmers.

The implementation strategy will involve specific business plans for feed mills to be developed using data generated from mini feed mill facilities built in previous ACIAR aquaculture and poultry projects at Goroka, Erap, Aiyura, Labu and Kiunga. Unitech has involved its post graduate students and together with NARI and SARDI scientists, they will evaluate social issues impacting on the development of feed mills and monogastric enterprises and the profitability of various feeding options.

Research facilities at partner institutes and demonstration facilities at NGO sites (CLTC, LDS, OTDF, and HAQDC) will be used to evaluate a range of diets based on site availability of locally available feed resources. Best feeding options will be tested on a number of village farms located near the mini mills.

This project aligns with the vision of the PNG National Agricultural Development Plan (2007-2016) of transforming the agriculture sector into a vibrant and productive economic sector.

The review was attended by over 20 representatives from the project partners.

March Images

SAFT students

Dr. Kesaia Seniloli with other members of the workshop

VC Professor Rajesh Chandra with members of USP Senior Staff at their workshop

SAFT Students

SAFT Students Research Project Coordinator Rupeni Tamaniyakaroi with his Mucuna research students and friends

Acting Campus Director Leatuaolevao and Allan Alo at the final dance to celebrate the launch of the Samoa Arts Council