



Workshop Report

CTA/USP Regional Workshop on

“Reshaping Tertiary Education to meet the Global Challenges”

September 10 – 12, 2008, USP Alafua Campus, Samoa

**Co-organized by
Technical Centre for Agricultural and Rural Co-operation ACP-EU
(CTA)
The University of the South Pacific (USP)**

**Compiled by:
David Hunter¹, Mary Taylor², and Pa’olelei Luteru¹**

**Reviewed by
Judith Francis³
December 2008**

¹The University of the South Pacific (USP)

²Secretariat of the Pacific Community (SPC)

³Technical Centre for Agricultural and Rural Co-operation ACP-EU (CTA)

Table of Contents

Foreword	3
Acronymns	4
Executive Summary	5
Overview of Workshop	7
Background	7
Workshop Objectives	8
Expected Outcomes	8
Workshop Agenda and Participants	8
Official Opening Session	9
Tertiary Education Challenges for Decision Makers	10
A New Approach to Agricultural Education, Training and Research in the Pacific Region	10
Overview of Pacific Agriculture including Fisheries and Forestry	12
Integration of Agriculture, Fisheries and Forestry at the University of Vudal	13
Panel Discussion: Is tertiary education in Agriculture and Science a Priority in the Pacific Region?	13
Status of Tertiary Education in the Pacific	14
Tertiary Education in Agriculture and its sustainability in the Pacific.	18
Closure of Workshop	22
Annex 1: Workshop Agenda	23
Annex 2: List of Participants	26

Foreword

This regional workshop on ‘Reshaping Tertiary Education to meet the Global Challenges’ could not have come at a better time, following the meetings of Pacific Ministers and Heads of Agriculture and Forestry Services held in Samoa early in September 2008. At these meetings, critical issues relating to the global fuel and food price crises, the adverse effects of climate change on agricultural production, erosion of agriculture and forestry diversity, and the increasing reliance of our Pacific Communities on imported food, to name a few, were thoroughly discussed. There was also a strong call for the region’s education system to be more innovative and proactive, in particular, to strengthen agriculture-related subjects in our primary and secondary schools’ curriculum, thereby raising the status of “farming”, and attracting more of the region’s youth to take up agriculture as a profession.

As tertiary institutions in the region, we face unique and interesting challenges in achieving our collective visions and objectives. The focus and purpose of this workshop is directed towards one of these challenges: how we as tertiary education providers can best respond to the future demands and requirements in agriculture by reshaping our training activities, research agenda, extension and related policies in an effective and coherent manner through our courses and programmes. This meeting presented an excellent opportunity for participants to debate these challenges. Whatever strategies that are implemented for reshaping tertiary education in agriculture, as an outcome from this workshop, the choices within the agricultural curriculum should be responsive to the emerging needs of the region, and attractive to prospective students, and potential employers. Moreover, research, training and extension activities, should focus on priority agricultural needs and opportunities of the rural farming communities, in order to ensure maximum impact at the grassroots level.

I must acknowledge the continued financial support of CTA which has enabled this workshop to take place, and their continued cooperation together with USP, SPC and FAO in moving agricultural development forward in the Pacific region. It is the joint belief of USP and CTA that the contribution of agriculture to overall national development can be enhanced and improved if Pacific Universities and Colleges’ courses and programmes are directed towards addressing the real challenges facing our region in the agriculture sector.

Dr. Pa’olelei H. Luteru
Dean
Faculty of Islands and Oceans
The University of the South Pacific

Acronyms

ACIAR	Australian Centre for International Agricultural Research
CETC	Community Education Training Centre
CTA	Technical Centre for Agricultural and Rural Co-operation ACP-EU
FAO	Food and Agriculture Organization
FCA	Fiji College of Agriculture
FIO	Faculty of islands and Oceans
FIT	Fiji Institute of Technology
HAC	Hango Agricultural College
HOAFS	Heads of Agricultural and Forestry Services
LRD	Land Resources Division
MOAFS	Ministers of Agricultural and Forestry Services
NGO	Non Governmental Organization
PNG	Papua New Guinea
SAFT	School of Agriculture and Food Technology
SICHE	Solomon Islands College of Higher Education
SPC	Secretariat of the Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
TIHE	Tonga Institute of Higher Education
UNITECH	University of Technology
USP	The University of the South Pacific

Executive Summary

Co-organized by CTA and USP, a regional workshop on *Reshaping Tertiary Education to meet the Global Challenges* was held from 10 – 12 September 2008 at USP Alafua Campus, Samoa.

The workshop brought together 29 participants representing Pacific universities, colleges, government ministries and institutions, the private sector and development partners. The objectives were to:

1. Facilitate dialogue and information and knowledge exchange on the state of tertiary education in agriculture in the Pacific region;
2. Identify policies and strategies for reshaping tertiary education, training and research in agriculture and science in the Pacific region to meet the 21st century challenges; and
3. Strengthen inter and intra-regional partnerships in the Pacific region to advocate for increasing investments in tertiary education for Pacific agricultural and rural development.

Presentation by participants focussed on emerging issues, concerns and challenges faced by universities and colleges in keeping up with the dynamics of agricultural and rural development at the national regional and global levels. Discussions that followed led to a consensus that the universities and colleges should strengthen linkages and cooperation amongst themselves, and restructure and update their academic programmes, research and outreach activities, to enable them to contribute to improving agricultural performance and enhancing food security in the Pacific region, in view of the national, regional and global challenges, such as the food and energy crises, continuing threat to sustainable agro-food production systems from climate change, a dwindling natural resource base, and high unemployment and poverty faced by the Pacific communities.

Key messages from the workshop include the following:

1. Universities and Colleges should accept some responsibility for the problems the Pacific region is experiencing in achieving food and/or nutritional security, and should seek to ensure quality and relevance of their academic programmes, provide good leadership, and effective monitoring in consultation with all stakeholders.
2. The global challenges facing the Pacific are increasing and while struggling to keep up, the situation is further exacerbated by the diverse agricultural needs at the individual, community, national, sub-regional and regional; levels. Political will, innovative thinking, expertise, resources, vibrant universities and colleges and capacity are needed to tackle the challenges. Agricultural research has responded reactively rather than proactively and this must change. Investments in research and development and extension should be

1. increased and the universities and colleges must provide the suitable trained manpower with a good grounding in science and technology that is required to anticipate and respond to challenges and opportunities and develop and evaluate appropriate technologies and interventions.
2. National governments, donor agencies and in particular the private sector should provide more funding in the form of scholarships, given that the majority of the trained manpower are to be assimilated into their workforce, and the universities and colleges should ensure that the formal training provided is relevant and linked to the Pacific agricultural and developmental needs.
3. Tertiary institutions should work closely with the ministries of education and schools to ensure that children at both primary and secondary levels are exposed to agriculture and science to nurture the interest and ensure that they are well prepared for tertiary level education.
4. Coordination in education, training and research in agriculture amongst the tertiary institutions in the Pacific region should be strengthened and there should be regular feedback from stakeholders to ensure effective monitoring and evaluation. Regional accreditation should be considered so that graduates can move within the region and pursue programmes offered at other institutions.
5. Academic staff of the various tertiary institutions should be allowed opportunities for upgrading knowledge and skills to respond to the challenges; specifically improve their research skills to relate their research to address Pacific issues; visionary leadership so that they can be more proactive rather than reactive in their teaching in both content and delivery.

The top three action points included:

- Ø Resources – staffing and operational. This would require ensuring that donors see that good linkages between education and agriculture can make a major contribution to food and nutritional security. This would include staff development, programmes for guest lectureships, active exchange of programmes;
- Ø Proactive policy to support tertiary education, training and research etc, and the establishment of effective monitoring and evaluation systems;
- Ø Effective and regular consultation with all stakeholders to include private sector, and to encourage wider support, possibly through sponsorship of students and multi-stakeholder advisory boards.

It was noted that all the above would require good, strong and visionary leadership.

Overview of Workshop

Background:

The recent global food crisis and the continuing threat to sustainable agro-food production systems that small island states in the Pacific region face from climate change, high energy prices, a dwindling natural resource base (land, water and biodiversity) and high unemployment and poverty, require a measured response from the academic community that demonstrates its commitment to addressing social and development challenges. The consequences of these 21st century challenges are on the agenda of Pacific universities and colleges as they seek to identify and implement policies, strategies and programmes that provide their governments and communities with highly skilled, knowledgeable and flexible human resources who can find creative solutions to the problems, and confident in their own indigenous knowledge systems complemented by appropriate external formal and informal knowledge.

Universities and colleges in the Pacific should be enabled to adopt modern approaches to stimulating learning, teaching and research, underpinned by training materials and tools that are not only up-to-date but also relevant and correspond to the circumstances in which the graduates will pursue their careers in holistic and diverse agricultural innovation systems.

The mission of The University of the South Pacific (USP) is to position itself as a Centre of Excellence for all things 'Pacific' including Pacific values, ethics and knowledge, to promote the status of the university as an institution of higher learning that is regionally relevant and of high international standing in key strategic areas, encourages high academic and professional standards and quality education, human right, justice, peace and human development, enhances the understanding of many sustainable development and globalization; develops knowledge, skills and values that will benefit all levels of society, applies principles of access and equal opportunity, builds capacity in science and technology and promotes arts and social sciences in education and society. The mission of the Technical Centre for Agricultural and Rural Cooperation ACP- EU (CTA) is to strengthen information and communication management capacities of agricultural and rural development organizations in the 79 African, Caribbean and Pacific (ACP) Group of States. It is also charged with policy and institutional capacity development. CTA is committed to supporting the ACP region in building capacity and strengthening information and knowledge networks to achieve sustainable and measurable impact in the agricultural and rural sectors.

In view of the afore-mentioned, the USP and CTA co-organized a regional workshop in Samoa from 10 – 12 September 2008, for high-level representatives representing agriculture and science disciplines of Pacific universities and colleges, and other key stakeholders and development partners, to dialogue and deliberate on appropriate policy and institutional responses for ***“Reshaping Tertiary Education in Agriculture in the Pacific to meet the Global Challenges”***.

Workshop Objectives:

The overall objective of the workshop was to contribute to improving agricultural performance and enhancing food security in the Pacific region.

Specific objectives of the workshop were to:

- § Facilitate dialogue and information and knowledge exchange on the state of tertiary education in agriculture in the Pacific region;
- § Identify policies and strategies for reshaping tertiary education, training and research in agriculture and science in the Pacific region to meet the 21st century challenges; and
- § Strengthen inter and intra-regional partnerships in the Pacific region to advocate for increasing investments in tertiary education for Pacific agricultural and rural development.

Expected Outcomes:

Based on the above objectives, the expected outcomes from the workshop included:

- § A strategy document for raising awareness and obtaining commitment for improving the quality of tertiary education in agriculture and science; and
- § Partnerships strengthened and new alliances forged for enhancing information, learning and knowledge networks and advocacy for tertiary education in agriculture.

Workshop Agenda and Participants:

With the above objectives and expected outcomes in mind, the workshop agenda (see Annex 1) was developed accordingly with three plenary sessions focusing on:

- § Tertiary Education and Challenges for Decision Makers;
- § Status of Tertiary Education in the Pacific; and
- § Tertiary Education in Agriculture and its sustainability in the Pacific.

The morning of the first day of the workshop immediately after the official opening session was spent on the first plenary session, whereby three key presentations were given followed by discussions. The afternoon of the first day and the morning of the second day were spent on the second plenary session whereby invited high-level representatives from various Universities and Colleges in the Pacific region gave presentations on their institutions' profiles, mission statements, teaching and learning programmes, research activities, and emerging issues, concerns and challenges they face in keeping up with the dynamics of agricultural and rural developments at the national, regional and global levels. The afternoon of the second day and the morning of the third day were spent on the third plenary session which involved in-depth

discussions in small working groups, focusing on key issues relating to relevance and sustainability of tertiary agricultural education in the Pacific region.

The workshop brought together a total of 29 participants (see Annex 2) with the following breakdown:

- § 8 participants representing other Pacific Universities and Colleges from Papua New Guinea (PNG), Fiji, Solomon Islands, Vanuatu, Tonga and Samoa;
- § 6 participants representing government ministries and institutes from the three sub-regions – Melanesia (PNG and Fiji), Micronesia (Kiribati) and Polynesia (Samoa);
- § 4 representatives from the local private sector who are actively involved in agriculture-related businesses and developments;
- § 3 representatives from development partners – Food and Agriculture Organization (FAO) and Secretariat of the Pacific Community (SPC); and
- § 8 representatives from the co-organizing partners – CTA and USP.

Official Opening Session

The official opening session was facilitated by Mr. David Hunter, Acting Head, School of Agriculture and Food Technology (SAFT), USP Alafua Campus, and involved three speakers as follows:

- § Welcome Remarks by Dr. Pa'olelei Luteru, Dean, Faculty of Islands and Oceans (FIO), USP, Fiji;
- § Overview of the Workshop by Ms. Judith Francis, Senior Programme Coordinator, Science and Technology Strategies, CTA, The Netherlands; and
- § Keynote Address by Honourable Patu Ativalu, Associate Minister, Ministry of Agriculture and Fisheries, Samoa.

In his welcome remarks, Dr. Luteru reiterated the need for FIO of USP to be in a position to respond to future demands of the Pacific communities. He also emphasized the guiding principles of the faculty which are flexibility, efficiency, and dependability in delivery methods. One of the problems faced in the area of tertiary education is the limited number of scholarships that are available to support students, and more support is needed in this area. The key question for the faculty and one which the workshop must address is: “are we focusing on real needs of the region in agriculture-related subject areas?”

The presentation by Ms. Francis from CTA set the stage for the workshop, and highlighted that knowledge requires action. Innovation is the key to improved performance and real and sustained progress in any field and agriculture is no exception. Institutes and organizations have a vital role to play in nurturing innovation. Strong innovation systems ensure diversity and continuing improvement.

This workshop in considering how best to reshape tertiary education to meet global challenges is looking at how to nurture innovation both within the institutes themselves and in the students they teach. The outcome of this workshop will be a strategy document for raising awareness and obtaining commitment for improving the quality of agricultural education.

The Associate Minister in his keynote address related his talk to the recent Heads of Agriculture and Forestry Services (HOAFS) and Ministers of Agriculture and Forestry Services (MOAFS) meetings, where the main issues on the table were climate change, food security, loss of genetic diversity and natural resource management. In addressing these issues, he emphasized that it is crucial not to forget the importance of relevant education at primary and secondary levels, where young people (youth) will not choose agriculture at the tertiary level if they have not had a good and appropriate grounding in agriculture at the primary and secondary levels. Universities and Colleges in the Pacific have to make agriculture attractive to young people, and raise its status. If Pacific communities can grow more of their own food, they can improve their self-reliance, eat more nutritious food and they can cushion the impact of any global food crisis.

Tertiary Education Challenges for Decision Makers

This plenary session consisted of three presentations followed by discussions, and then a panel discussion which focused on “Is Tertiary Education in Agriculture and Science a Priority in the Pacific region”? The speakers and topics of their presentations are as follow:

- § “A New Approach to Agricultural Education, Training and Research in the Pacific Region” by Dr. Pa’olelei Luteru, Dean, FIO, USP, Fiji;
- § “Overview of Pacific Agriculture including Fisheries and Forestry” by Dr Vili Fuavao, Head, FAO Sub-regional Office, Samoa; and
- § “Integration of Agriculture, Fisheries and Forestry at the University of Vudal” by Professor Alan Quartermain, University of Vudal, Papua New Guinea.

A New Approach to Agricultural Education, Training and Research in the Pacific Region:

In his presentation, Dr. Luteru stated that the challenge for USP is how it can better serve the agriculture-related needs of its member countries through higher education, research, extension and training. Various studies have been conducted to try and determine the answer to this question. An electronic demand study was conducted in June 2006, which surveyed government ministries, private sector, civil society, tertiary institutions, regional and international institutions. A study was also conducted in August 2006, in which a total of 92 agricultural leaders and 6 SAFT students were consulted from 7 member countries. Other studies included a tracer study of USP Graduates and Diplomates of Samoa, and a student survey in August 2008.

From these studies, a number of observations can be drawn:

- § The focus for tertiary education should be on post-diploma degree and post-graduate studies at Alafua;
- § A focused programme should incorporate agribusiness and management, animal health services, bio-security and trade facilitation, sustainable development and food security, and extension and research;
- § There is considerable regional interest in the development of a forestry programme;
- § Research in agriculture should concentrate on a selected number of areas of high priority to the region; and
- § There is a need to strengthen existing national agriculture training institutions.

A possible direction for agriculture education at USP Alafua Campus is to move away from the diploma programme and to work with national agriculture training institutions to realign and strengthen their programmes with a view towards USP accreditation as equivalent to Year 1 and Year 2 currently offered at Alafua Campus. These would feed into the university programme for Year 3 courses, post-graduate training, research and in-service training.

An interesting discussion followed which highlighted a number of issues as follow:

- § The importance of agriculture in meeting current challenges;
- § That the concept of agriculture as a business must be supported;
- § In areas of research there should be strong links with the agricultural ministries and the private sector so that research is of relevance and adoptable;
- § How was USP going to address issues such as insufficient number of computers and internet access for students;
- § There was concern that USP would no longer offer the diploma programme, especially from the countries with no national institutes to take on this role; and
- § That USP should work with countries and national institutes to share Masters' programmes, so that research component can be conducted in the student's own country on emerging agriculture-related problems so as to ensure that research findings are meaningful to the developmental activities of its member countries.

Dr Luteru responded that:

- § The USP facilities and quality of lecturing staff will obviously be looked at and addressed;
- § More scholarships are needed but these must be linked to agriculture needs in the member countries;
- § Scholarships from donors are important and USP has been successful in seeking three from the Australian Centre for International Agricultural Research (ACIAR) for Masters linked to ACIAR-funded projects in six partner countries in the region (PNG, Solomon Islands, Vanuatu, Fiji, Tonga and Samoa);

- § Private sector could provide funding in the form of scholarships given that some of the trained manpower are assimilated into their workforce; and
- § The diploma studies are being phased out because of low student numbers.

Overview of Pacific Agriculture including Fisheries and Forestry:

In his presentation, Dr. Fuavao highlighted a significant number of challenges facing the Pacific at this current time. Basically, the challenges are increasing and the Pacific is struggling to keep up. However, these challenges can be opportunities but for this to happen, the region has to have expertise, resources and capacity. The relatively recent large increases in fuel and food costs have had a very significant impact and FAO have changed their focus to be better placed to help countries manage this very difficult time. He emphasized that what is needed now in the Pacific is innovative thinking and thinking “outside the box”.

The needs of the region vary from regional, to sub-regional to country and then within the country at the community and individual levels. However, basically agriculture is subsistence level, and in the rural areas, there has been very little development. The decline in agriculture in the Pacific has followed the international trend. There is a limitation to the range and volume of export commodities that the region can trade in. Most of the countries are dealing with the same products, which perhaps highlights the need to collaborate (inter- and intra-trade).

The allocation of resources has not benefited agriculture in any way, with most resources being channeled to service providers and not training institutes. Research too has been severely impacted, and neglected for years, with the responses to problems generally being reactive rather than proactive. Research needs to consider the diverse needs of the region, evaluate appropriate technologies for the region, and investment in research needs to be significantly increased. In order to recognize and evaluate technology, there has to be good grounding in science and technology.

According to Dr. Fuavao, for too long the region has tended to ignore the private sector though this is changing. Their value lies not just in developing markets but also as sources of knowledge and expertise to be used for training. Any effective and sustainable approach to development has to have a cross-sectoral approach, and with this approach a clear understanding of the role and function of each of the sectors. Governments must define what the core functions of the Ministries are. The general lack of market information perhaps reflects this poor identification of functionality.

Dr. Fuavao emphasized that taking agriculture and rural development forward in these very challenging times requires that our leaders are dynamic and innovative, willing and able to pioneer and identify appropriate technologies, and that tertiary education should nurture critical thinking skills.

The discussions that followed agreed very much with the need to “think outside the box” and for educational institutes to be able to provide courses which will generate

innovation and critical thinking. The issue of appropriate technologies was raised, and it was noted that what is appropriate in one country is not necessarily successful in another country. The importance of monitoring and evaluation was also raised, with the need for the performance of any newly adopted technology to be followed up and analyzed.

Integration of Agriculture, Fisheries and Forestry at the University of Vudal:

Professor Quartermain's presentation highlighted the modular approach of the University of Vudal to the challenges facing Papua New Guinea and the Pacific region. Agriculture, fisheries and forestry had been fully integrated, enabling a programme to be established which was sufficiently flexible and innovative to meet the challenges. This approach also accepts that students themselves are from diverse backgrounds, and so having a programme, which varies in its delivery method, seems to meet all needs.

The discussions that followed centred on how the integrated approach actually works, and revealed that there are common courses which all students cover. The fact that the University of Vudal accepts students from outside of Papua New Guinea raised the question of regional accreditation. Should there be systems in place to enable students to move from different institutes and for courses from one institute to be acknowledged by another? Should institutes offering undergraduate and postgraduate courses ensure that their courses are of the same standard and level?

Panel Discussion: Is tertiary education in Agriculture and Science a Priority in the Pacific Region?

The following issues were discussed when participants were addressing the above question:

- § How attractive is "farming" to the youth of today? This generated significant discussion with some institute representatives informing the meeting that they were turning away potential students, yet others such as USP, were saying there were not enough students;
- § Scholarships and funding were obviously an issue and the possibility of more support from both the donors and the private sector was raised;
- § Agricultural institutes need more support from governments – most countries say that "agriculture is the backbone of their country" but there is limited support for educational institutes in terms of funding and scholarships. For example, SPC and FAO get good support but not USP. The question is why?
- § Overall there has been poor response to the need for change, and a tendency to stick with existing structures;
- § USP has a poor status amongst students who want to pursue additional studies at the postgraduate level and they would rather go overseas;
- § Is USP offering the right subjects and are these subjects meeting the needs of future employers? Should there be an increased focus on agribusiness?
- § There is generally poor support for USP from the private sector;

- § What about training for farmers? Should institutes like USP offer training for farmers? and;
- § If children are not given a good grounding in agriculture at both primary and secondary levels, how can they be interested at the tertiary level?

Status of Tertiary Education in the Pacific

The remaining of the first day of the workshop was spent on the second plenary session whereby the following speakers from Universities and Colleges in the Pacific region presented an overview of Education, Training and Research at their various institutions:

- § Mr Ropate Ligairi, Principal, Fiji College of Agriculture (FCA), Fiji;
- § Mr Dick Haamori, Solomon Islands College of Higher Education (SICHE), Solomon Islands;
- § Mr Fatuimoana Langilangi, Tonga Institute of Higher Education (TIHE), Tonga;
- § Mr Peter Napwatt, CEO, Vanuatu Agricultural College (VAC), Vanuatu; and
- § Professor Cletus Gonduan, PNG University of Technology (UNITECH), Papua New Guinea.

From all five presentations, the following issues were common:

- § Linkages with USP, for example, students who wish to engage in Masters programmes should be able to return to their countries to continue their research. This would help students facing funding constraints and the emotional difficulties associated with being away from families for extended periods of time;
- § Diplomas/Certificates at national institutes should link into USP programmes and courses;
- § Availability of funding;
- § Capacity of teaching staff at institutes. Better use could be made of the capacity within the regional organizations, when staff members are on duty travel. Similarly farmers and private sector could also be used as resource persons;
- § Cost of courses varied across the board and so those institutes where the cost of the course was low, had good student numbers, but often graduates were unable to find employment;
- § There was a need to obtain more information on the students at the end of the courses and at various stages in their careers;
- § Resource material and sources of information were often difficult to locate and obtain. Further use could be made of the resources within regional organizations such as SPC, Secretariat of the Pacific Regional Environment Programme (SPREP), etc;
- § Institutes should look at different modes of delivering courses;
- § There was some concern that there should be increased and easier availability of more practical courses, possibly delivered as self-contained modules; and

- § Many of the institutes said they had close linkages with the relevant Ministries in their countries, which would suggest that the needs of agriculture in the countries are being addressed – but some of the results from the survey and issues raised during discussions suggested this was not the case.

The morning of the second day of the workshop continued with the second plenary session whereby the following speakers presented an overview of Education, Training and Research at their various institutions:

- § Rev. Tuluta Fisi’ihoi, Principal, Hango Agricultural College (HAC), Tonga;
- § Professor Alan Quatermain, University of Vudal, Papua New Guinea;
- § Dr. Nirbhay Chand, Fiji Institute of Technology (FIT), Fiji;
- § Dr Mary Taylor, SPC, Fiji; and
- § Mr David Hunter, SAFT, USP Alafua Campus, Samoa.

The five presentations brought out the following issues:

- § Linkages with overseas universities such as explored by HAC in Tonga with Massey University require courses and units to be revised to meet the necessary standard;
 - § Funding to support students;
 - § Recognition of courses of other national institutions by USP;
 - § Many students go into teaching or go for further study with limited number taking up farming;
 - § Teaching materials can be a problem and if linkages with regional institutes such as USP are to be encouraged then there has to be collaboration/sharing in the production and use of teaching materials;
 - § Resources are under pressure due to increasing populations, increasing aspirations (land competition), striving for economic development, global warming and natural disasters;
 - § Use of extensive farms for practical application is an important source of revenue for an institute, as stated by the University of Vudal;
 - § If courses are integrated, what should be the level of integration?
 - § Teaching of courses in block format has advantages but this perhaps depends on the course topic though blocking arrangement brings efficiency;
 - § The University of Vudal was developing forestry at postgraduate level, and placed a strong emphasis on farmer training and community outreach, with farms demonstrating “best practices”. The farmer training programme has been in place since 2002. There are 14 modules, in 4 island provinces, funded by the provincial government, mining industry, or farmers;
- The issue of the problem with English language. At the University of Vudal, courses in communication and writing skills are held in Year 1. Scientific communication is different from the spoken word. The PNG UNITECH has a scientific communication course. The USP has incorporated an English course for academics, and also established a test for students to determine the level of

- § English before progressing into second and third year courses. It was suggested that perhaps English is not being covered well at pre-tertiary levels.
- § Importance of research being relevant to the needs of industry, especially with institutes such as the FIT, where entry occurs at different levels, depending on needs of people and industry;
- § The FIT plans to embark on short courses, such as renewable energy, horticulture, landscaping and botanical science. These will be more at the technician level but also within the community at the grassroots level;
- § There was agreement that institutes should always try and diversify programmes and keep in line with government policies, and be mindful of the needs of the communities;
- § How can the institutes ensure they are meeting the demands of the industry? In some cases, academic programmes are reviewed every three years. Should this period of time be shorter? Making changes in courses and validation takes time. The private sector is moving very fast, and so there is a need for a quick response. Can this be addressed through guest lectures, or other more flexible delivery systems? The ability to adapt to the changes is the biggest challenge faced by educational institutes. More meetings with the private sector are required to ensure needs are being met;
- § Short-term courses can be established to meet trade requirements such as labeling and packaging, post-harvest handling, HACCP, food safety and marketing requirements, traceability. These are becoming the barriers for trade;
- § The USP presentation discussed the demand study. This was linked to Cornell University who would come as “staff” to USP for a 5-year period and non-PhD holders would go and earn PhD. There was some misunderstanding as to who would be liable for the cost and so this initiative was never implemented;
- § The USP presentation also explained how with the establishment of national colleges, its student numbers for diplomas had reduced. As a result USP will have a 2-years diploma programme feeding into the degree. This will continue until the needs of other countries are met either through their own national institutes or through participating in others;
- § The degree programme focuses on key areas which will address the needs of the region, such as agribusiness, animal science, crop science and agricultural economics;
- § The USP will ensure there is good coverage of crop pathogens and pests as part of its academic activities in addressing concerns raised in the survey;
- § Natural Resources Management in Agriculture course will be offered next year, and SPREP has agreed to provide expertise though this has not been formalized as yet;
- § The FAO is presently funding the development of an Agricultural Project Management course by USP to be incorporated into the curriculum from 2010 onwards;
- § USP Staff are encouraged to develop research projects through linkages with ministries and SPC. The SPC has agreed that some of the final year projects of the Bachelor of Agriculture programme can link with their work;

- § The SPC presentation described the work carried out by the Land Resources Division (LRD), and how the various modes of delivery of activities and services are aimed at meeting the needs on the ground. There was also some discussion of the different needs of the countries and the sub-regions and how this has to be taken on board by any regional educational institution. Some suggestions were made as to how agricultural education could be improved, such as through sharing resources as no one institute can do everything. More accurate identification of what is needed with frequent monitoring and evaluation and linkages with expertise outside of educational institutes. Targeted research by staff and students, working with public and private sector. Different forms of delivery with mix and match, greater integration at high-level meetings and technical meetings resulting in a “louder voice”, and accreditation enabling greater flexibility;
- § The SPC presentation also highlighted some of the recommendations from the recent HOAFS and MOAFS in Samoa which emphasized the importance of engaging youth in agriculture, and ensuring that educational institutes provide courses that meet the needs and the challenges of 21st century agriculture in the Pacific, both in content and delivery;
- § The meeting agreed that the current “food crisis” provided an opportunity to get more support for agriculture at all levels and that this opportunity should be pursued urgently; and
- § The SPC staff could provide lectures/seminars when visiting countries on duty travel. They should make every effort to contact local educational institutes in advance of their travels.

The HOAFS recommendations relevant to this workshop are:

- § Direct LRD and USP and other regional training institutions to explore ways of incorporating veterinary science into the curriculum of the relevant institutions;
- § LRD collaborates with relevant education institutes, such as USP and the Community Education Training Centre (CETC), to support and strengthen agricultural education, especially the link between agriculture and health; and
- § LRD works with all relevant agencies and institutes to develop ways in which youth and Non-Government Organizations (NGOs) can be engaged actively in agriculture, exploring the use of “champions” and ensuring appropriate marketing systems and markets are also developed to meet their needs.

The MOAFS endorsed the above recommendations and added the following:

- § Higher priority should be sought in national budgets and regional programmes towards developing agriculture and forestry; and
- § Endorsement of the development and implementation of Pacific Youth Strategy.

Tertiary Education in Agriculture and its sustainability in the Pacific

The third plenary session involved in-depth discussions in small working groups, and focused on key issues provided in the form of seven discussion questions relating to relevance and sustainability of tertiary agricultural education in the Pacific region. Participants were divided into three working groups and were asked to address the following seven questions.

The collective responses of the three working groups to the seven questions are as follow:

1. *On the first day of the workshop, the statement was made that “43 years after the establishment of the USP Alafua Campus; Samoa cannot feed itself”. In your opinion is it the fault of the Pacific universities and colleges that countries cannot feed themselves? Discuss and provide possible arguments for and against tertiary education institutions fulfilling this role.*
 - § Generally all the groups agreed that universities and colleges should accept some responsibility as to any problems the Pacific region is experiencing in achieving food and/or nutritional security. They have to ensure relevant, up-to-date teaching, in-service training, good leadership, and effective monitoring and consultation with “clients”;
 - § However at the same time is their “failure” a reflection of a lack of supporting policy and poor or under investment by national governments in tertiary education institutions – almost a “chicken and egg” situation, which comes first – poor investment because of the product, or poor product because of limited investment; and
 - § Linkages between the sectors have also not been supportive and in general insufficient networking with all relevant agencies, etc.
2. *Are Pacific universities and colleges addressing the needs of Pacific communities? Should this be a priority or the responsibility of the tertiary education institutions? Discuss and provide possible arguments for and against tertiary education institutions fulfilling this role.*
 - § Need to strengthen a multi-sectoral approach to ensure needs are met;
 - § Within the region there are two basic systems – volcanic and atoll. This is not properly addressed in the teaching programmes in both content and mode of delivery;
 - § Lack of systems approach in teaching agriculture;
 - § Agro-processing is not covered and this is a very important area especially considering the business implications; and
 - § Need to use expertise from outside the institutes – farmers, private sector, CROP agencies, etc.

1. *In your opinion what are the top three national, regional and global challenges facing Pacific agriculture and Pacific tertiary education institutions? Discuss and summarize responses.*

§ At the national level, the challenges included:

- o Lack of interest of youth in agriculture – how to cater for the drop-outs. There is a need for innovation and flexibility in subjects and delivery of approach;
- o Have to show there is a future in agriculture, which means provision of good training and a supportive/enabling environment;
- o Lack of funding for institutes and students;
- o Behavioural changes required so that people appreciate agriculture and local food production;
- o Increasing population and pressure on land; and
- o Changing dietary habits with declining demand for local/traditional foods.

§ At the regional level, the challenges included:

- o Silo mentality but this also exists nationally;
- o Limited collaboration;
- o Transportation infrastructure and isolation; and
- o Lack of collaboration to support trading together – intra- and inter-trade.

§ At the global level, the challenges included:

- o Climate change;
- o WTO and other international and bilateral trading agreements;
- o Global economic crisis; and
- o Fuel – energy crisis.

§ For Pacific Tertiary Education, the challenges included:

- o Mechanisms to encourage and develop agriculture teaching capacity and capability and linkages between research and teaching;
- o Policies to support tertiary education;
- o Mechanisms to ensure teaching skills are updated, such as sabbaticals, etc;
- o Sustainability of funding to institutes;
- o Poor collaboration and harmonization within countries between national institutes, and between national and regional institutes; and
- o Lack of mechanisms to ensure cooperation across all institutions.

2. *Is there overlap in the delivery of tertiary education, training and research in agriculture in the Pacific region? Discuss and provide evidence to support your answer. How can the Pacific region benefit from all the various institutions have to offer? Discuss and summarize responses.*

§ There needs to be an analysis of what is currently available and how this meets the needs of students and employers, and also how it facilitates students' mobility and qualification attainment;

§ Overlap with national institutes could exist if more than one institute in a country;

- § Universities should have a mechanism in place to ensure that diplomas from national institutes feed into their system;
- § Overlap in research is more likely as not just educational institutes involved – requires better coordination;
- § Universities tend to focus on more academic research – which does not necessarily cater for the clients' needs, farmers, etc; and
- § Overlap in training is more likely as not just educational institutes involved – requires better coordination. This would vary to some degree with the country so perhaps there needs to be country coordination. However, overlap in training does not mean that all training needs are being met.

In summary, there needs to be a strengthening of coordination across all three areas – education, training and research, at the national and regional level. There should be regular feedback to ensure effective monitoring and evaluation.

1. *Is there any need to reshape Pacific tertiary education, training and research in agriculture and science to meet these challenges? Are you satisfied with the efforts that the institutions are making/have made to date? In your opinion, what more can tertiary education do to address these challenges? What are the top three constraints and opportunities? Discuss and summarize responses.*

- § There is a need to reshape Pacific tertiary education, training and research in agriculture and science to meet current challenges;
- § Institutes should work together more and pursue national to regional linkages and regional accreditation;
- § Quality standards should be in place at both the national and regional levels;
- § Perhaps there is a need for a network in which institutes recognize what they do best and provide that – again highlighting working together;
- § Top three constraints included:
 - o Rigidity of institutes, often too demanding of their requirements of both students and staff. At the same time, staff need to be up-to-date with current challenges and technologies, and should be inspiring;
 - o Under-resourced (funding and personnel); and
 - o Inadequate marketing by USP.
- § Top three opportunities included:
 - o Current cost of imported foods and the need to strengthen the agriculture sector;
 - o Agro-business needs of many countries because of the limited opportunities for employment; and
 - o To be innovative in their modes of delivery and their partnerships.

If you had to provide advice to Pacific governments on investing more resources in tertiary education, training and research in agriculture and science, what

1. arguments would you use? Discuss and summarize responses and provide top three action points.

§ Governments state that agriculture is the backbone of the economy but they need to follow this with investment. Projections which would include costs, numbers, benefits, returns, cost-effectiveness, should be provided;

§ Arguments should relate to major regional strategies, such as the Pacific Plan, opportunities for increased trade, strengthened food production reducing cost of importing food (trade deficits), nurturing an environment in which farmers, extensionists and policy makers are proactive and so far more able to respond to any emerging issues;

§ The top three action points included:

- o Resources – staffing and operational. This would require ensuring that donors see that good linkages between education and agriculture can make a major contribution to food and nutritional security. This would include staff development, programmes for guest lectureships, active exchange of programmes;
- o Proactive policy to support tertiary education, training and research etc, and the establishment of effective monitoring and evaluation systems;
- o Effective and regular consultation with all stakeholders to include private sector, and to encourage wider support, possibly through sponsorship of students and multi-stakeholder advisory boards; and
- o All would require good and visionary leadership.

7. What knowledge and skills would Pacific academic staff need to face the challenges facing agriculture and deliver high quality education, training and research in agriculture and science and responding to the needs of Pacific societies? What policies and strategies would you recommend to support Pacific tertiary education institutions in meeting these needs? What is the role, if any for various stakeholders? Discuss and summarize responses.

§ Staff should have good research skills, and relate their research to what is required in the “real world”;

§ Staff should be visionary so that they can be more proactive rather than reactive in their teaching (content and delivery);

§ There should be systems/mechanisms in place to ensure that the skills and knowledge of staff are updated;

§ Consultation process on the development of new courses (whether modifications or major changes) should be broad-based, and should take place relatively often. The time required to make changes to programmes/curriculum can be a constraint so this has to be looked at and maybe dealt with through developing new modes of delivery and basically being more flexible;

§ Youth should be involved in consultation process; and

§ There must be more integration with other sectors, and the roles of the various stakeholders clearly defined.

Closure of Workshop

Dr. Luteru officially closed the workshop and advised the participants that their deliberations would be taken into account in the development of the roadmap to take USP forward so it is better placed to support agricultural development in the region. Thank you remarks were also given by Ms. Francis and Mr. Hunter.

Annex 1: Workshop Agenda

Day 1: Wednesday 10 September 2008

8:00 – 8.45:	Registration
8:45 – 10:00:	OPENING CEREMONY
8:45 – 8:50:	Opening Prayer – Rev. Pelupelu Amia Tutolu
8:50 – 9:00:	Welcome Remarks – Dr. Pa’olelei Luteru, Dean, FIO, USP, Fiji.
9:00 – 9:15:	Overview of the Workshop – Ms. Judith Ann Francis, Senior Programme Coordinator, S&T Strategies, CTA, The Netherlands.
9:15 – 9:25:	Keynote Address – Hon. Patu Ativalu, Associate Minister of Agriculture & Fisheries, Samoa.
9:25 – 10:00:	GROUP PHOTO & COFFEE BREAK
10:00 – 12:30:	FOCUS – TERTIARY EDUCATION CHALLENGES FOR DECISION MAKERS
	Chairperson – Dr. Mary Taylor, Land Resources Division, Secretariat of the Pacific Community, Fiji.
10:00 – 10:20:	“A New Approach to Agricultural Education, Training and Research in the Pacific Region” – Dr. Pa’olelei Luteru, Dean, FIO, USP, Fiji.
10:20 – 10:30:	Discussion
10:30 – 10:50:	“Overview of Pacific Agriculture including Fisheries and Forestry” – Dr. Vili Fuavao, Head, FAO Sub-Regional Office, Samoa.

10:50–11:00: Discussion

11:00–11:20: “Integration of Agriculture, Fishery and Forestry at the University of Vudal” – Professor Alan Quartermain, University of Vudal, Papua New Guinea.

11:20–11:30: Discussion

11:30–12:30: Panel Discussion – “Is Tertiary Education in Agriculture and Science a Priority in the Pacific Region – Why/why not?”

Lead Discussants: Representatives of Farmer Organizations, Agribusiness, Ministries of Agriculture, FAO Rep, SPC Rep, USP Rep, University of Vudal Rep.

12:30–14:00: LUNCH

14:00–17:00: FOCUS – STATUS OF TERTIARY EDUCATION IN THE PACIFIC

Chairperson – Professor Alan Quartermain, University of Vudal, Papua New Guinea.

14:00–14:20: Mr. Ropate Ligairi, Fiji College of Agriculture, Fiji.

14:20–14:40: Mr. Dick Haamori, Solomon Islands College of Higher Education, Solomon Islands.

14:40–15:00: Mr. Fatuimoana Langilangi, Tonga Institute of Higher Education, Tonga.

15:00–15:30: COFFEE BREAK

15:30–15:50: Mr. Peter Napwatt, Chief Executive Officer, Vanuatu Agricultural College, Vanuatu.

15:50–16:10: Professor Cletus Gonduan, PNG University of Technology, Papua New Guinea.

16:10–17:00: Open Question and Answer Session

19:00–21:00: GROUP COCKTAIL

Day 2: Thursday 11 September 2008

9:00–12:00 FOCUS – STATUS OF TERTIARY EDUCATION IN THE PACIFIC

Chairperson – Mr. Ropate Ligairi, Fiji College of Agriculture, Fiji.

- 9:00–9:20: Rev. Tuluta Fisi’ihoi, Principal, Hango Agricultural College, Tonga.
- 9:20–9:40: Professor Alan Quartermain, University of Vudal, Papua New Guinea.
- 9:40–10:00: Dr. Nirbhay Chand, Fiji Institute of Technology, Fiji.
- 10:00–10:30: COFFEE BREAK
- 10:30–10:50: Dr. Mary Taylor, Secretariat of the Pacific Community, Fiji.
- 10:50–11:10: Mr. David Hunter, SAFT, FIO, USP, Samoa.
- 11:10–12:00: Open Question and Answer Session
- 12:00–13:30: LUNCH
- 13:30–17:00: FOCUS – TERTIARY EDUCATION IN AGRICULTURE AND ITS SUSTAINABILITY IN THE PACIFIC.
- 13:30–15:00: Working Group Sessions
- 15:00–15:30: COFFEE BREAK
- 15:30–17:00: Working Group Sessions

Day 3: Friday September 12 2008

- 8:30–13:00 FOCUS – TERTIARY EDUCATION IN AGRICULTURE AND ITS SUSTAINABILITY IN THE PACIFIC.
- 8:30–10:00: Working Group sessions
- 10:00–10:30: COFFEE BREAK
- 10:30–12:30: Group Presentations
- 12:30–13:00: Closing Remarks –
 Dr. Pa’olelei Luteru, Dean, FIO, USP, Fiji.
 Ms. Judith Ann Francis, Senior Programme Coordinator, S&T Strategies, CTA,
 The Netherlands.
 Mr. David Hunter, SAFT, FIO, USP, Samoa.
- 13:00–14:00: LUNCH

Annex 2: List of Participants

Fiji Islands

1. Mr. Ropate Ligairi
Principal
Fiji College of Agriculture
Nausori
Fiji Islands
Fax: (679) 3400275
Email: ropateligairi@yahoo.co.uk
2. Dr. Nirbhay Chand
Senior Lecturer – Applied Science
Fiji Institute of Technology
Suva
Fiji Islands
Tel: (679) 3381044 Ext 323
Fax: (679) 3370915
Email: chand_n@fit.ac.fj
3. Mr. Apisai Ucubou
Acting Deputy Secretary – Agriculture Development
Ministry of Prime Industries & Sugar
Raiwaqa
Fiji Islands
Fax: (679) 3385048 or 3385234
Email: apisainu@yahoo.com

Kiribati

4. Mrs. Rota Tetaake
Head of Information, Training and Extension
Ministry of Environment, Lands and Development – Division of Agriculture
Binenibeu, Tarawa
Republic of Kiribati
Fax (686) 28121
Email: matiota_k@yahoo.com

Papua New Guinea

5. Prof. Udai R. Pal
Research Programme Leader
National Agricultural Research Institute, Dry Lowlands Programme - Laloki
Port Moresby
Papua New Guinea
Fax: (679) 323 4733
Email: udai.pal@nari.org.pg or udai_pal@yahoo.co.in
6. Prof. Alan Quartermain
Dean
School of Natural Resources & Environment
University of Vudal
Rabaul, East New Britain Province
Papua New Guinea
Fax (675) 983 9250
Email: aquartermain@gmail.com
7. Prof. Cletus Katka Gonduan
Associate Professor of Department of Architecture and Buildings
PNG University of Technology
Lae, Morobe Province
Papua New Guinea
Fax: (675) 4734477
Email: cgonduan@arch-bldg.unitech.ac.pg

Samoa

8. Mrs. Karen Mapusua
Associate Director
Women in Business
Apia
Samoa
Fax: (685) 23246
Email: karen@womeninbusiness.ws
9. Tuoapepe Prof. Felix Wendt
President
Samoa Farmers Association
Apia
Samoa

5. Seumalo Afele Faiilagi
Assistant Chief Executive Officer
Ministry of Agriculture & Fisheries
Apia
Samoa
Fax: (685) 22171
Email: afele.faiilagi@lesamoa.net
6. Papalii Mr. Grant Percival
President
Samoa Association of Manufactures & Exporters (SAME)
Apia
Samoa
Fax: (685) 23380
Email: Percival@ipasifika.net
7. Mr. Benjamin Pereira
Assistant Chief Executive Officer
Economic Planning & Policy Division
Ministry of Finance
Apia
Samoa
Tel: (685) 34324
Fax: (685) 21312
Email: benjamin.pereira@mof.gov.ws
8. Adi Maimalaga Tafunai
Director
Women in Business
Apia
Samoa
Fax: (685) 23246
Email: adi@womeninbusiness.ws
9. Asuao Kirifi Pouono
Chief Executive Officer
Ministry of Agriculture & Fisheries
Apia
Samoa
Fax: (685) 22171
Email: kpouono@lesamoa.net

Solomon Islands

5. Mr. Dick Haamori
Director
Solomon Islands College of Higher Education
Honiara
Solomon Islands
Fax: (677) 30390
Email: director@siche.edu.sb

Tonga

6. Mr. Fatuimoana Langilangi
Coordinator – Agricultural Studies Diploma Programme
Ministry of Training, Employment, Youth & Sports
Nuku'alofa
Kingdom of Tonga
Email: euaboy_92@yahoo.com
7. Rev. Tuluta Fisi'ihoi
Principal
Hango Agricultural College
Eua
Kingdom of Tonga
Fax: (676) 50044
Email: tfhage2@yahoo.com

Vanuatu

8. Mr. Peter Napwatt
Chief Executive Officer
Vanuatu Agricultural College
Luganville, Santo
Vanuatu
Fax: (676) 36606
Email: nikamatua@gmail.com

Secretariat of the Pacific Community

19. Dr. Mary Taylor
Genetic Resources Coordinator/CePACT Manager
Land Resource Division
Secretariat of the Pacific Community
Suva
Fiji Islands
Fax: (679) 337 0021
Email: maryt@spc.int

20. Ms. Valerie Tuia
Genetic Resources Officer
Land Resource Division
Secretariat of the Pacific Community
Suva
Fiji Islands
Fax: (679) 337 0021
Email: valeriet@spc.int

Food and Agriculture Organization

21. Dr. Vili Fuavao
FAO Sub-Regional Representative for the Pacific & FAO Representative in Samoa
Apia
Samoa
Fax: (685) 22126
Email: Vili.Fuavao@fao.org

Technical Centre for Agricultural and Rural Co-operation ACP-EU

22. Ms. Judith Ann Francis
Senior Programme Coordinator Science & Technology Strategies
CTA (Technical Centre for Agricultural & Rural Cooperation)
Postbus 380
6700 AJ Wageningen
The Netherlands
Email: Francis@cta.int

The University of the South Pacific

20. Dr. Pa'olelei Luteru
Dean
Faculty of Islands and Oceans
The University of the South Pacific
Laucala Campus
Suva
Fiji Islands
Email: luteru_p@usp.ac.fj
21. Mr. David Hunter
Acting Head of School of Agriculture
The University of the South Pacific
Alafua Campus
Private Mail Bag
Apia
Samoa
Email: hunter_d@samoa.usp.ac.fj
22. Lemalu Lemi Taefu
Campus Manager
The University of the South Pacific
Alafua Campus
Private Mail Bag
Apia
Samoa
Email: taefu_l@samoa.usp.ac.fj
23. Dr. Mareko Tofinga
Associate Professor – SAFT, FIO
The University of the South Pacific
Alafua Campus
Private Mail Bag
Apia
Samoa
Email: tofinga_m@samoa.usp.ac.fj
24. Dr. Bhati Jagdish
Senior Lecturer – SAFT, FIO
The University of the South Pacific
Alafua Campus
Private Mail Bag
Apia
Samoa
Email: jagdish_b@samoa.usp.ac.fj

20. Mr. Ioane Malaki
Tutor
The University of the South Pacific
Alafua Campus
Private Mail Bag
Apia
Samoa
Email: malaki_i@samoa.usp.ac.fj
21. Mr. Aaron Kama
Lecturer in Agricultural Education
The University of the South Pacific
Alafua Campus
Private Mail Bag
Apia
Samoa
Email: kama_a@samoa.usp.ac.fj