



Food and Nutrition Security at the University of the South Pacific: *Lessons Learnt from the Pilot Study*

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The University of the South Pacific

**CTA/WUR Synthesis Workshop on “Mainstreaming Tertiary
Education in ACP ARD Policy Processes: Increasing Food
Supply and Reducing Hunger”, 25th-27th September, 2013.
The Netherlands**

Appropriate methodological framework for re-orientating HAEI → ARD policy priorities & society needs & world of work

Regional FNS policy priorities include

Pacific Plan (PP)– strengthening regional cooperation and integration on 5 priority themes

- *Fostering economic development and promoting opportunities for broad based growth*
- *Improving livelihoods and well-being of the Pacific people*
- *Addressing the impact of climate change*
- *Achieving stronger national development through better governance*
- *Ensuring improved social, political and legal conditions for stability, safety and security*

Towards a Food Secure Pacific Framework for Action on Food Security in the Pacific – fulfilled the PP with 7 themes on improving food security

- *Leadership and cooperation*
- *Regulatory frameworks, enforcement and compliance and public-private sector collaboration*
- *Enhanced and sustainable production, processing and trading of safe and nutritious local food*
- *Protecting infants and vulnerable groups*
- *Consumer empowerment and mobilizing partners*
- *Food security information system*

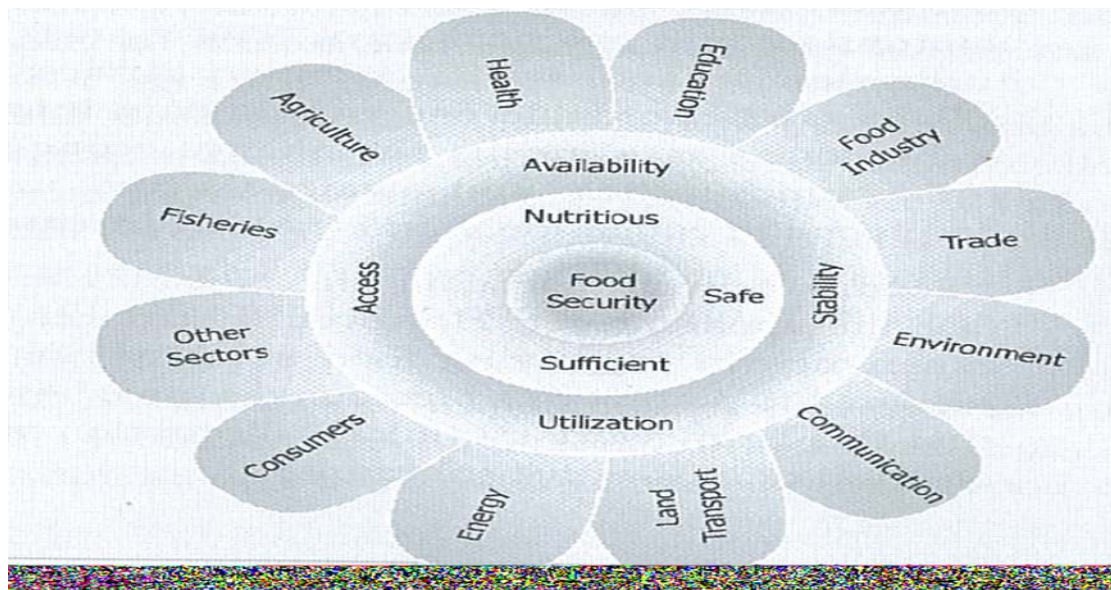
Enhancing land tenure systems and land-use policies, energy, transport, education and communication systems to underpin food security

- **Pacific Food Security Framework for Action: Food Security Indicators - 4 pillars of food security**

- *Food Availability*
- *Food Access*
- *Food Utilization(Use)*
- *Food Stability*

- Gap analysis of the 4 pillars of FS within each 6 Pacific FS Policy themes and underlying factors are shown in the conceptual model below

- ***Conceptual Model for Food Security in the Pacific***



Pacific Food Summit major recommendations

- Food industry need to adjust to protect health
- Partnerships between government and industry were a reality that need strengthening and effective
- Food control systems to be fine-tuned not only free from contaminants but also acceptable levels of salt, fats and energy
- Trade agreements for acceptable food quality and national regulations are to be made consistent with best practices
- Core activities of NGO are food market surveillance, food safety concern, naming and shaming, advocacy and price monitoring
- Food is what women do in the Pacific
- Growing and consuming local foods increased food security and health
- Preserve as many varieties of indigenous crops as possible which could provide protection against the effects of cc, crop failures, pests and natural disasters.

National FNS policy priorities include; case of Fiji

• Fiji Food and Nutrition Policy 2008

- Advocate nutritional issues and mainstreaming into the Government decision-making system
- Promote and sustain household food security
- Improve national nutritional status
- Protect consumers through improved quality and safety of food and water
- Improve nutritional status of the socio-economically disadvantaged and the groups that are nutritionally vulnerable (including children, mothers, the aged, differently-able and those living with HIV/AIDS)
- Nutrition Policy for Schools
- Promote healthy diets and lifestyles
- Establish and promote a nutrition surveillance and monitoring system
- Strengthen collaboration with development partners

● **Fiji Plan of Action in Nutrition**

- Integrate of FPAN into Government Strategic Plan
- Inter-sectoral collaboration for advocacy and mainstreaming nutrition
- Advocate for consistent nutritious food supply for households
- Local initiatives for increased production and consumption of fish, seafoods, poultry and livestock
- Community-based food production to increase consumption of vegetables, fruits and root crops
- Promotion of local foods for family meals
- Promotion and maintenance of healthy weight
- Reduction of undernutrition including micronutrient deficiencies
- Reduction of overweight and obesity
- Reduction of low and high birth weights
- Provision of safe and accessible water supply
- Promotion of safe food handling practices
- Enforcement and monitoring of Food Safety Act
- Enforcement of hygiene and village by-laws under the Public Health Act
- Promotion of increased Exclusive and Continued Breastfeeding

- Promotion of appropriate complementary foods and feeding practices
- Nutrition monitoring and counseling to mothers and caregivers
- Reduction of anaemia in women and children
- Training initiatives for income generating food-related activities
- Provision of nutrition information for HIV/AIDS
- Disaster Ration Scales
- Implementation of the Nutrition Policy for schools
- Promotion of gardening and enterprise education in all schools
- Implementation of health promotion schools program
- Strengthen community action
- Develop personal skills
- Create supportive environment
- Re-orient health services
- Establishment of a centralized database
- Monitoring of FPAN
- Evaluation of FPAN
- Collaboration of public and private sectors in the implementation of FPAN
- Collaboration with NCHP
- Strengthen collaboration with regional and international organisations

- Fiji National Food and Nutrition Policy for School

- Boarding schools

- All boarding schools must provide balanced meals
- All food handlers must undergo annual medical examination

- School canteens

- All foods service to be directed towards obtaining and maintaining optimal food quality and safety
- All canteen/catering facilities must obtain and display an operating license from relevant authorities before operating any business
- All school canteen operators should comply with canteen guidelines

- **School and curriculum**

- All schs must provide nutritious food and drinks in the school premises
- All schs shall have their own food policies which should be in line with the Nutrition Policy for schs
- All schs must provide proper linkages between good nutrition and physical education
- Nutrition subjects in schs must incorporate nutrition stakeholders' initiatives outside the sch framework
- All levels of education in schs must include Nutrition in their curriculum (early childhood through to secondary schs). All just have some elements of nutrition education in their subjects
- All sch functions and meetings must practice healthy eating practices using the Healthy Eating Guidelines
- All nutrition information from schs must be disseminated to nutrition stakeholders through the annual reports
- All sch food services must coordinate with the school nutrition policy to reinforce messages about healthy eating and ensure that foods offered in Fiji schools promote good nutrition and contribute to the development of lifelong healthy eating habits
- All sch compounds should have gardens and fruit trees and should link to the Enterprising Education in schs and Agriculture Science in secondary schs
- All education premises will observe at least one day a week for Fruit and Water Day

- Needs of Pacific societies and world of work
- Reduce major threats to Food Security in the Pacific
 - *Declines in traditional crop production - INCREASE*
 - *Increased dependence on imported foods - REDUCE*
 - Food import is 14% of total imports but increases from \$352M in 2004 to \$520M in 2008.
 - *Growing vulnerability to climate change – INCREASE EFFECTIVE ADAPTATION STRATEGIES*
 - *Overfishing and illegal fishing - REDUCE*
 - *Volatility in international commodity (food) prices - REDUCE*
 - *Failure to enact and enforce food safety and quality standards – STRONG ENFORCEMENT*
 - *Increase Obesity and NCDs and micronutrient deficiencies - DECREASE*
- Collectively, these and other threats hinder productivity, trade and development and contribute to greater risk of chronic disease, vitamin and mineral deficiencies, child malnutrition and food-related diseases.

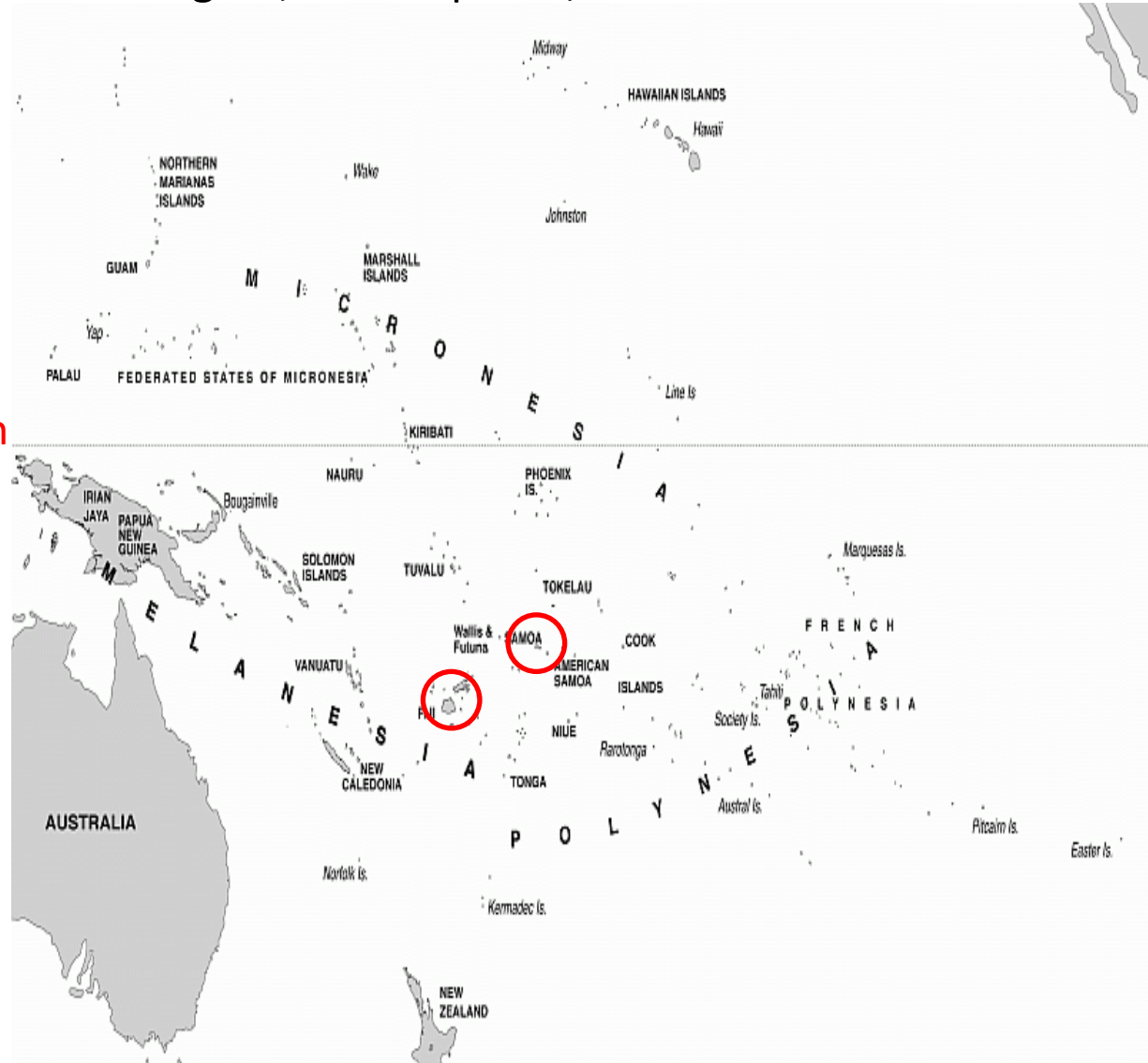
Other issues related to Food Security

- Development of local value-added products is minimal - **INCREASE**
- Poor food quality – **HIGH FOOD QUALITY**
- Insufficient food supply for the current market – **MORE FOOD SUPPLY**
- Limited market for essential foods - **SUFFICIENT/GOOD MARKET ACCESS**
- Supermarkets have 90% imported foods – **REDUCE IMPORTED FOODS**
- High spoilage rate of foods with poor handling and preservation techniques – **REDUCE SPOILAGE RATE**

USP Background

- Serves 12 countries in the Pacific region; 15 campuses,

- Cook Islands
- **Fiji**
 - 3 campuses, 1 centre
- Kiribati
- Marshall Islands
- Nauru
- Niue
- **Samoa – Agricultural Sch**
 - 1 campus, 1 centre
- Solomon Islands
 - 1 campus, 2 centres
- Tokelau
- Tonga
 - 1 campus, 2 centres
- Tuvalu
- Vanuatu – Law Sch
 - 1 campus, 2 centres



3 Faculties

- **Faculty of Arts, Law and Education**
 - School of Education – TVET/Teacher training
 - School of Language, Arts and Media
 - School of Law
 - School of Social Sciences
 - Oceania Centre for Arts, Culture and Pacific Studies
 - Institute of Education.

● Faculty of Business and Economics

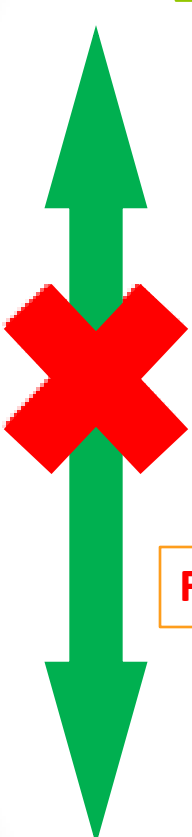
- School of Accounting and Finance
- ~~School of Agriculture and Food Technology~~
- School of Economics
- School of Government, Development and Internal Affairs
- School of Land Management and Development
- School of Management and Public Administration
- School of Tourism and Hospitality Management
- Graduate School of Business
- Institute of Research, Extension and Teaching in Agriculture

- **Faculty of Science, Technology and Environment**
 - School of Biological and Chemical Sciences
 - School of Engineering and Physics -
 - School of Computing, Information and Mathematical Sciences
 - School of Marine Studies (optional)
 - Institute of Applied Sciences
 - Institute of Marine Studies

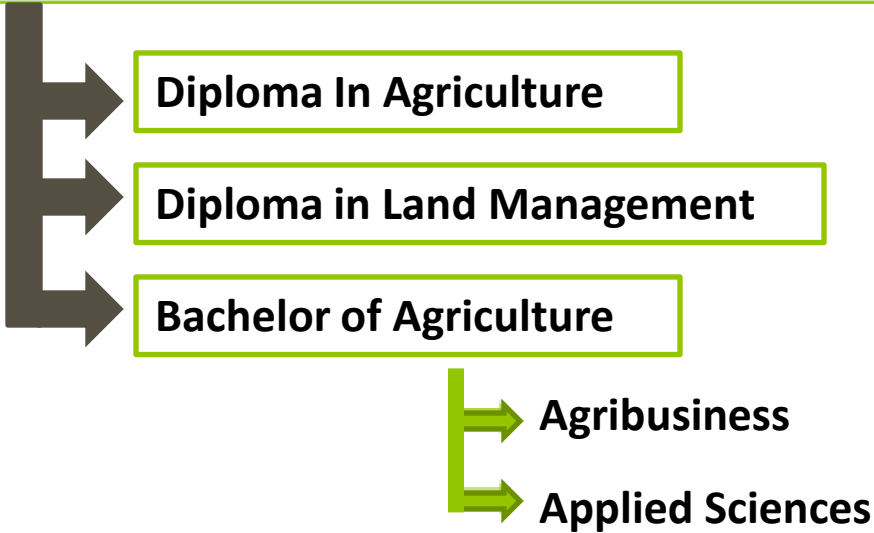
Other sections of the University

- College of Foundation Studies (CFS)
- Centre for Flexible and Distance Learning (CFDL)
- Student Learning Support (SLS)
- Regional Centre for Continuing and Community Education (RCCCE)
- Pacific Centre for Environment and Sustainable Development (PACE-SD)
- Confucius Institute

Curriculum on Food Security in Higher Education at USP



Faculty of Arts and Business –School of Agriculture and Food Technology in Samoa



IRETA

RCCCE

PACE-SD

Faculty of Science Technology and Environment –Laucala campus

Bachelor of science in Food and Nutritional Sciences

IAS

IMR

(Not offered as a single major)

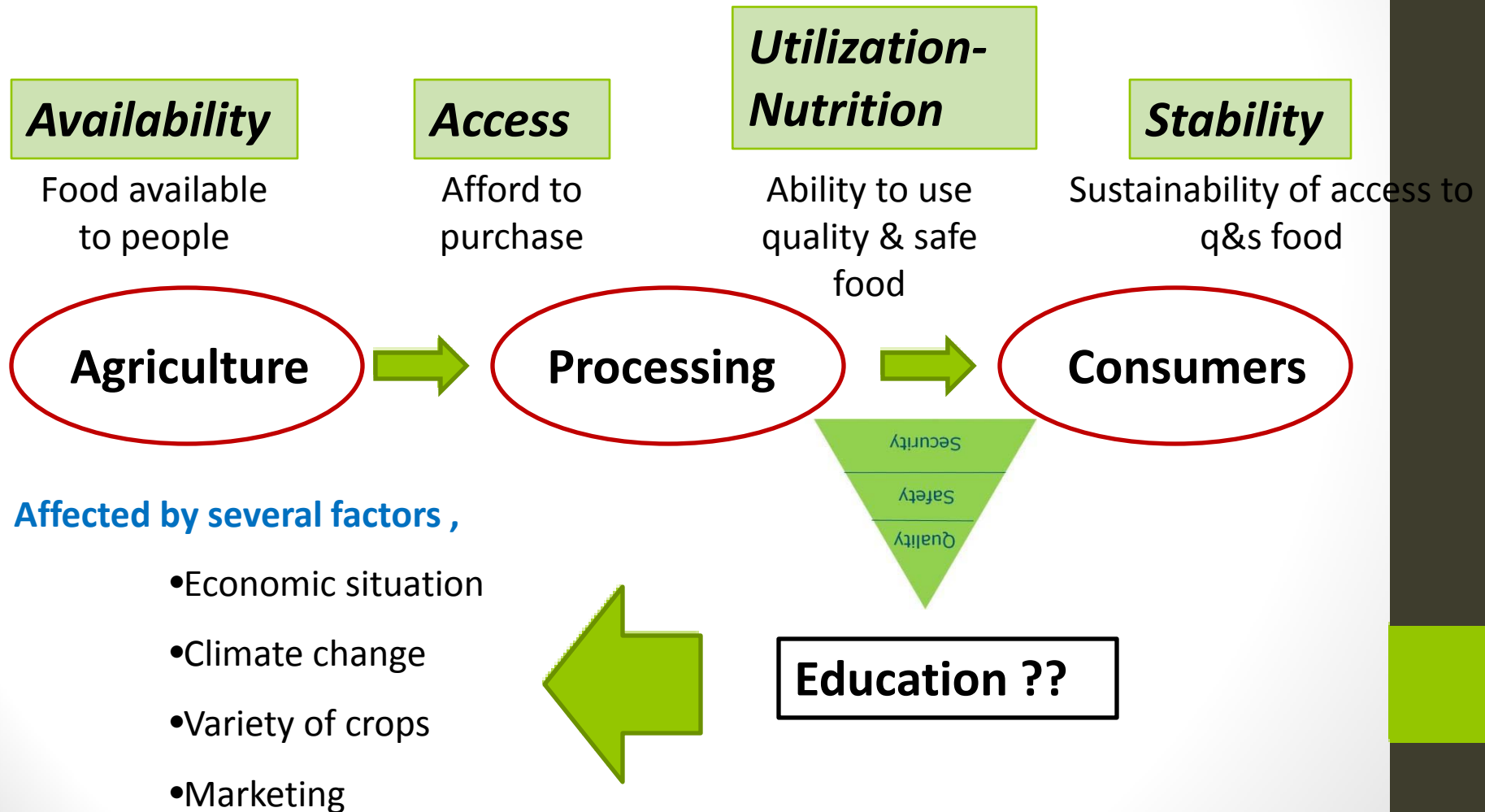
Faculty of Arts, Law and Education

Technical and Vocational Education (TVET)
Food and Nutrition Studies

BSCGCED – For secondary school
teachers

Addressing Food Security's 4 pillars

The World Food Summit defines food security as the condition when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.



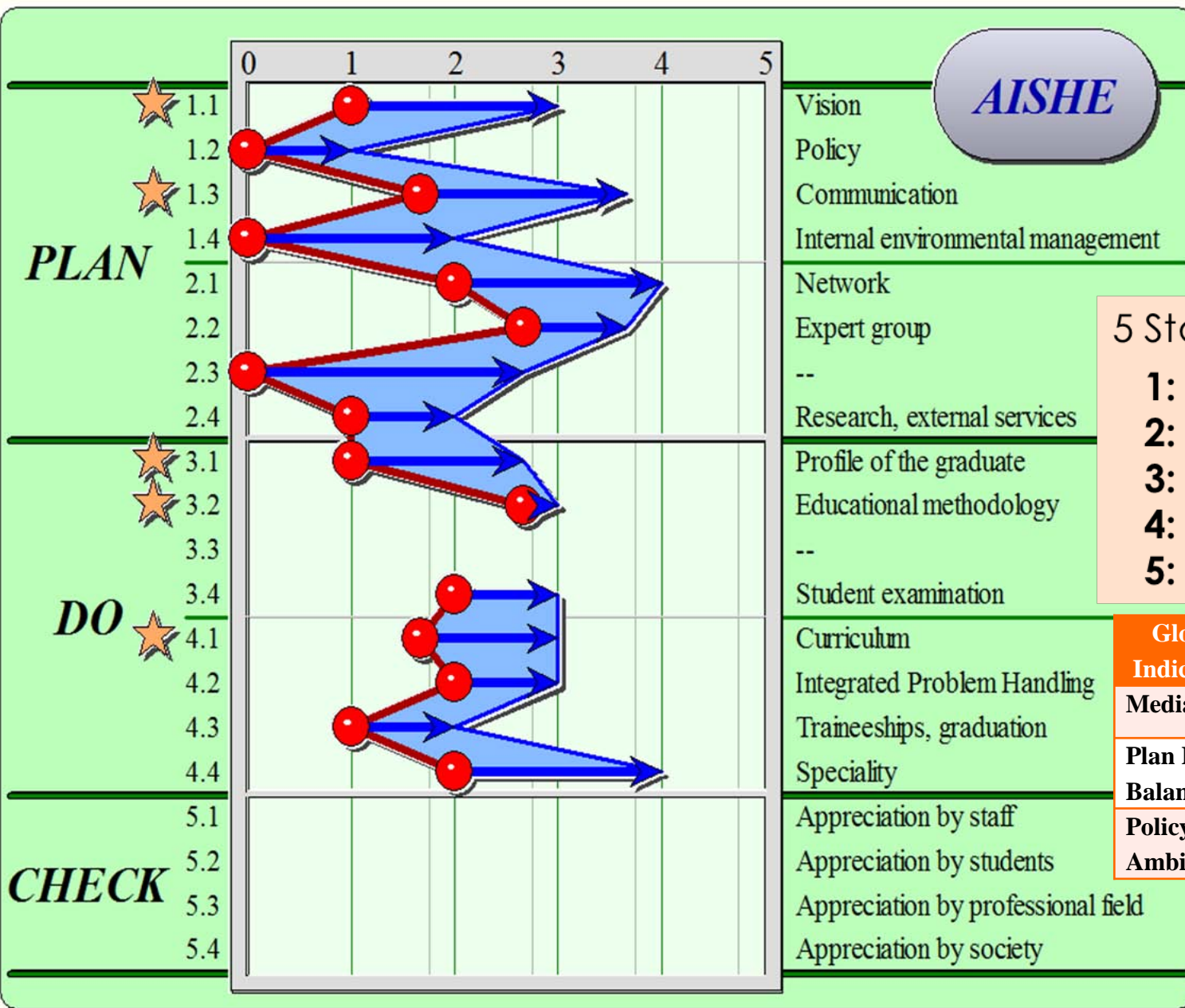
Curriculum in certain programmes and courses have some elements of food security and that student is gesticulated to develop a reflective attitude however limited i.e. Agriculture, Agribusiness and Food Science.

There are opportunities to develop all the four elements of food security.

There is a need for a systematic design in the curriculum and have compulsory units from different disciplines to produce an integrated curriculum to address food security.

The STAR (strategic total academic review) project should be able to address this deficiency in food security elements within the university.

Audit Result



AISHE

5 Stages of AIFSHE

- 1: Activity oriented
- 2: Process oriented
- 3: System oriented
- 4: Chain oriented
- 5: Society oriented

Global Indicators	Present Situation	Desired Situation
Median	1.5	3
Plan Do Balance	+4	-1
Policy Ambition		22

Lessons 1 learnt:

No policy on Food Security is explicitly defined, it's only embedded in the “sustainable development” part of the University's vision. Thus

- Food security related areas (teaching, research and community outreach) at USP are too scattered

- *without proper alignment*
- *poor communication within departments*
- *no focal point/group to take the lead*
- *curriculum not aligned to address regional framework and national policies (undergraduate)*
- *research and postgraduate difficult*

Appropriate methodological framework for re-orientation

A holistic view of food security needs to be expressed in the mission statement and translated into a top-down policy on Food Security with a clear mandate from all stakeholders and implement to “walk the talk” (Internal Services).

- Perhaps USP needs to find a niche in terms of food security that is relevant and unique for each of the 12 countries it serves.

USP to be part of the Food Secure Pacific working group that is currently in operation. This will allow USP to be actively involved and engaged in addressing food security issues within the Pacific Island region it serves.

USP to set up a food security focal point who will be responsible to integrate food security into the university's curriculum with proper alignment with the needs of the stakeholders. The curriculum should include the four pillars of food and nutrition security embedded in research, outreach and teaching areas within USP.

USP needs to shift the School of Agriculture from Alafua Campus in Samoa to Laucala Campus, Suva, Fiji. This will address resource constraints in research and teaching mainly due to isolation and smallness. Close proximity to science and economics disciplines within the Suva USP campus would be a great advantage in enabling sharing of resources.

Lesson 2 learnt:

Key capacities to address FNS policy priorities & how to translate and concentrate to learning outcomes & competencies for students and impact in faculties

Pacific Island Policy priorities;

- **INCREASE** traditional crop production
 - **REDUCE** dependence on imported foods - Food import to below 14% of total imports and below \$3M
 - **INCREASE EFFECTIVE ADAPTATION STRATEGIES** in vulnerability to climate change
 - **REDUCE** overfishing and illegal fishing
 - **REDUCE** volatility in international commodity (food) prices –
 - **STRONG ENFORCEMENT** failure to enact and enforce food safety and quality standards
 - **DECREASE** obesity and NCDs and micronutrient deficiencies
-
- **INCREASE** development of local value-added products
 - **INCREASE HIGH FOOD QUALITY**
 - **INCREASE** food supply for the current market
 - **SUFFICIENT** market for essential foods
 - **REDUCE** spoilage rate of foods with poor handling and preservation techniques

Key capacities to address the priority areas


Pacific Policy priorities	Actors	Roles	Capacities	Responsibilities
Increase in crop production and essential foods	Farmers	Increase production	Willingness	Meet consumer demands both quant and qual
	Govt	Assistance, Incentives	Funding, resources	Look after farmers interest
	Institution	Research and training farmers	??	Relevant curriculum
Decrease imported foods Increase in food prices	Govt	Reduce import	Food policy	Increase price and tax
	Retail outlets	Reduce ads for import and increase ads for local	??	Sell quality foods
	Institution	National budget assistance	Expertise	Reliable and sustainable advise
Increase adaptive strategies in vulnerability to climate change	Farmers	Learn impact and how to adapt	??	Adapt to climate change
	Govt	Awareness, disseminate info	Authority	Plan for action and monitor
	Institution	Inform and train	Expertise	Research and community - based activities
Reduce overfishing and illegal take	Fishermen	Catch quality fish	Skills and resources	Follow regulation
	Govt	Develop and monitor regulations	Expertise	Ensure regulations are enforced
	Institution	Training for ocean management	Expertise	Develop relevant curriculum

Pacific Policy priorities	Actors	Roles	Capacities	Responsibilities
Improve food safety and quality	Producers/private sectors	Manufacture and distribute safe and quality foods	Resources and expertise	Compliance to regulations
	Govt	Develop and monitor regulations	Expertise	Enforcement of regulations
	Institution	Provide training and conduct research	Expertise and facilities	Develop relevant curriculum, conduct research
Increase value-adding for local/seasonal foods- reduce spoilage of seasonal crops	Private sectors/investors/industries	Manufacture varieties	Resources and expertise	Manufacture high quality foods to consumers
	Govt	Provide investments (fund research, incentives for new industries)_	Authority	Identify, plan, implement and monitor value-addition projects for sustainability
	Institution	Provide training and conduct research	Expertise and facilities	Develop relevant curriculum, conduct research

Pacific Policy priorities	Actors	Roles	Capacities	Responsibilities
Increase market for seasonal foods	Farmers	Plant and harvest according to demand	Knowledge, skills and resources	Follow regulation - Good Agricultural Practices (GAP)
	Govt	Identify markets (international)	Authority	Develop, implement and monitor policies
	Institution	Provide knowledge and skills on food safety regulations along the supply chain	Expertise and facilities	Develop relevant curriculum and provide training
Strengthening of collaboration-stakeholder/ institution	Private sectors	Provide industrial projects for research	Identification of potential projects	Provide resources for search and employ local graduate
	Govt	Provide regulation	Scholarship/fund	Provide scholarship as high priority on Food Security
	Institution	Provide curricula of international standards (accredited)	Expertise and facilities	Maintain high standard curriculum
<i>DECREASE obesity and NCDs and micronutrient deficiencies</i>	Public/Individuals	Maintain good health	Knowledgeable	Ensure proper eating habits
	Govt	Formulate policies and regulate and advice	Authority	Disseminate the correct information and do awareness programmes
	Institution	Educate about nutritional value of food.	Expertise and facilities	Develop curriculum and do relevant research

How do these key capacities translate to relevant learning outcomes and competencies for students and have greater impact in faculties?

The procedure of introducing a programme in higher education : USP



Need for the new programme development or revision (determined by the University as per strategic area or needs analysis carried out in the region by the School, stakeholder (questionnaire, regional communiqués, etc) and Carry out an analysis of comparable programmes at other universities

Develop the programme structure, do curriculum mapping, learning outcomes of the individual programmes and courses.

Get endorsement from the Programme Advisory Committee, feedback from the stakeholders (normally an augmented PAC meeting is held)

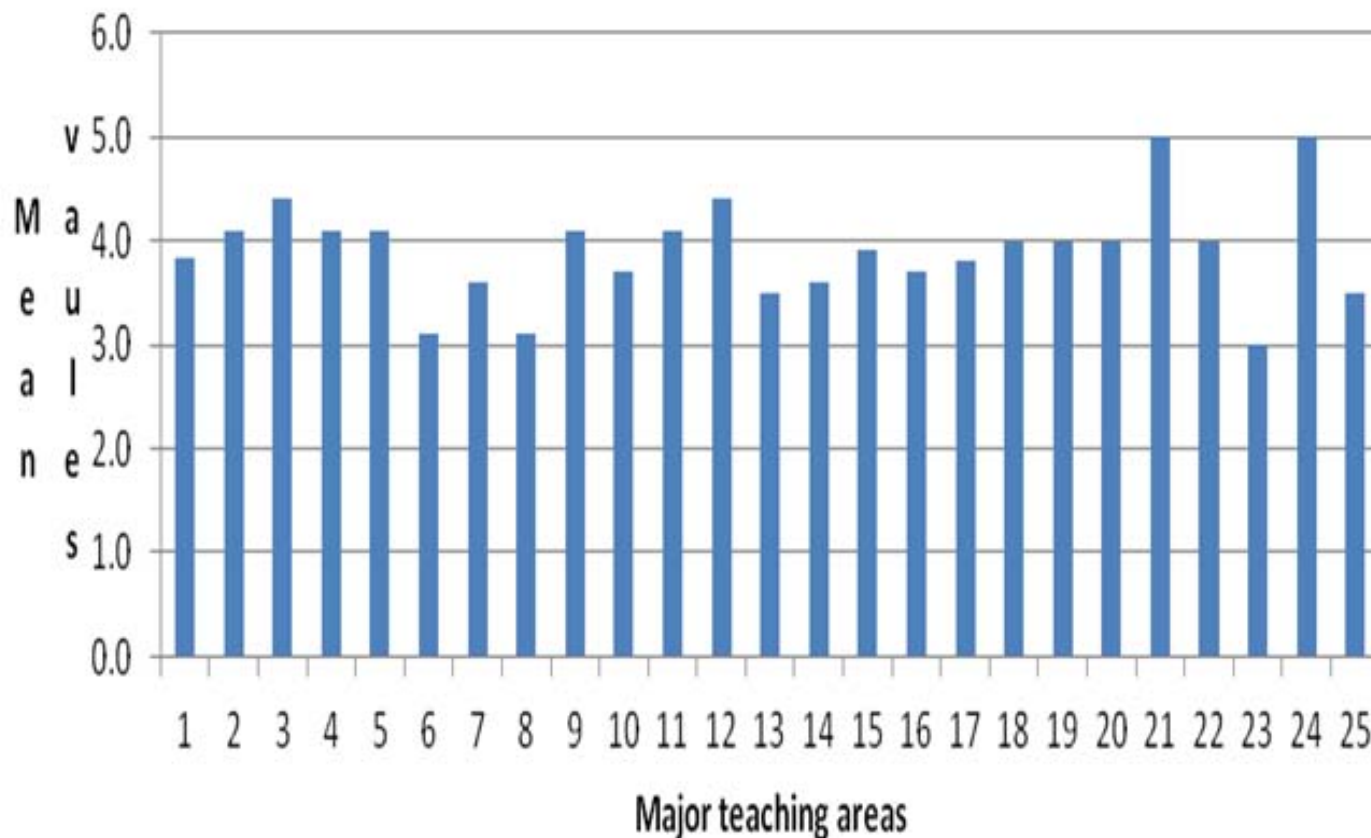
Collect all the necessary supporting evidence documents of the needs analysis, analysis of comparable programmes, descriptions of all proposed courses. (Current and expected resources)

Carry out the business case analysis (Are funds available to meet the gaps)

Submit documentation to the academic approval committee: BoS – FASQC – ASQC – Senate – Council

Example of the Curriculum Introduction Process – Step 1 : Needs Analysis

What major teaching areas do you think are most important for USP graduates to be taught that would be useful to you and your organization?



Key (nos in bracket are the respondents)

- 1Food Chemistry (62)
- 2Analysis (60)
- 3Safety (63)
- 4Microbiology (56)
- 5Processing (57)
- 6Engineering (55)
- 7Biochemistry (11)
- 8Biotechnology (55)
- 9Packaging and labeling (58)
- 10Sensory evaluation (57)
- 11Qty assurance & legislation(58)
- 12Nutrition (62)
- 13Food business and mngmt (56)
- 14Food marketing (56)
- 15Product development (57)
- 16Problem solving (57)
- 17Project design & mngmt (58)
- 18Communication skills (58)
- 19HR (1)
- 20operation mngmt (1)
- 21Home economic (1)
- 22Capacity building (1)
- 23Pedagogy (1)
- 24Food std & legislation (1)
- 25Int trades & Agreements (1)

Lesson 3 learnt

Current gaps in resources, curriculum, teaching and research to address priority and build capacity.

Priority Areas	Current	Expected	Gaps
Curriculum	Not addressing what the policy wants.	Address the needs of the policy (region).	Not aligned to meet the policy requirements.
Staffs	Limited staffs	More qualified staffs to teach specialized areas	Not enough qualified staffs in relevant areas
Facilities	Scattered and limited.	More modern facilities to teach	Purchase and construct required facilities.
Teaching	Food related teaching in different facilities	More cross communication among faculties	Isolated teaching
Research	Individual academic research	Conduct research relevant to the policy	No/limited consultations on which are priority areas.

Lesson 4

Appropriate pathways for bridging the gaps

Priority Areas	Gaps	Ways of bridging the gap
Curriculum	Not aligned to meet the policy requirements.	<ul style="list-style-type: none">•University wide consultation.•Improve current “irrelevant” courses.•Introduce areas of demand in the curriculum
Staffs	Not enough qualified staffs in relevant areas	Acquire funds to appoint required staffs to teach and carry out research.
Facilities	Purchase and construct required facilities.	<ul style="list-style-type: none">•Acquire funds and international collaboration
Teaching	Isolated teaching	Bring all programmes related to food security under one umbrella.
Research	No/limited consultations on which are priority areas.	Industrial/ Institution develop a range of relevant research areas and external services needed to address the priority areas.

Lesson 5 learnt

Institutional mechanisms to be put in place to make HAER more responsive to changes in Science and Society

- Need for the new programme development or revision (determined by the University as per strategic area or needs analysis carried out in the region by the School, stakeholder (questionnaire, regional communiqués, etc) and Carry out an analysis of comparable programmes at other universities

- Programmes and courses that contribute to the fulfillment of the four elements of food security should ensure a systematic examination of food security through clear learning outcomes, activities and assessments to achieve these outcomes in a carefully considered way, taking into account an increasing complexity, study- and examination methods, etc.-

- Food security is to be mentioned explicitly or recognized in the profile of the graduate and that both staff and students should be actively involved in the determination of such food security profile. Valid graduate outcomes in programmes to produce graduates to meet the need of the society. (Accreditation → standardization of curriculum (International))

- Reflective attitude is assessed.

Lessons 6

Is this process suitable for initiating transferability & up-scaling elsewhere?

The process followed at USP in

- i. Introducing/revising a programme is similar to many of the USP's comparator universities.
- ii. The new strategic plan of the University requires all programmes to be accredited by an international body.
- iii. Dialogue (Network) among National Universities in regional countries about their programmes to ensure no duplication within these institutions.



Other universities(non-regional) having similar vision and requirements **from stakeholders** , this process will be applicable.

Conclusion

- Insight into the situation at the USP today
 - Development of new (high demand) programmes and revision of existing programmes to meet the priority needs.
 - Integration of Food Security strategy in a global strategy plan
 - Build a Tertiary Agricultural-Food Education learning community for food security in the South Pacific with USP taking leadership.
 - There is an opportunity to develop a curriculum where relevant courses from various disciplines are combined.
- (This provides a multidisciplinary approach of addressing the four elements of food security within a programme and that provides a unique South Pacific flavour of addressing food security).

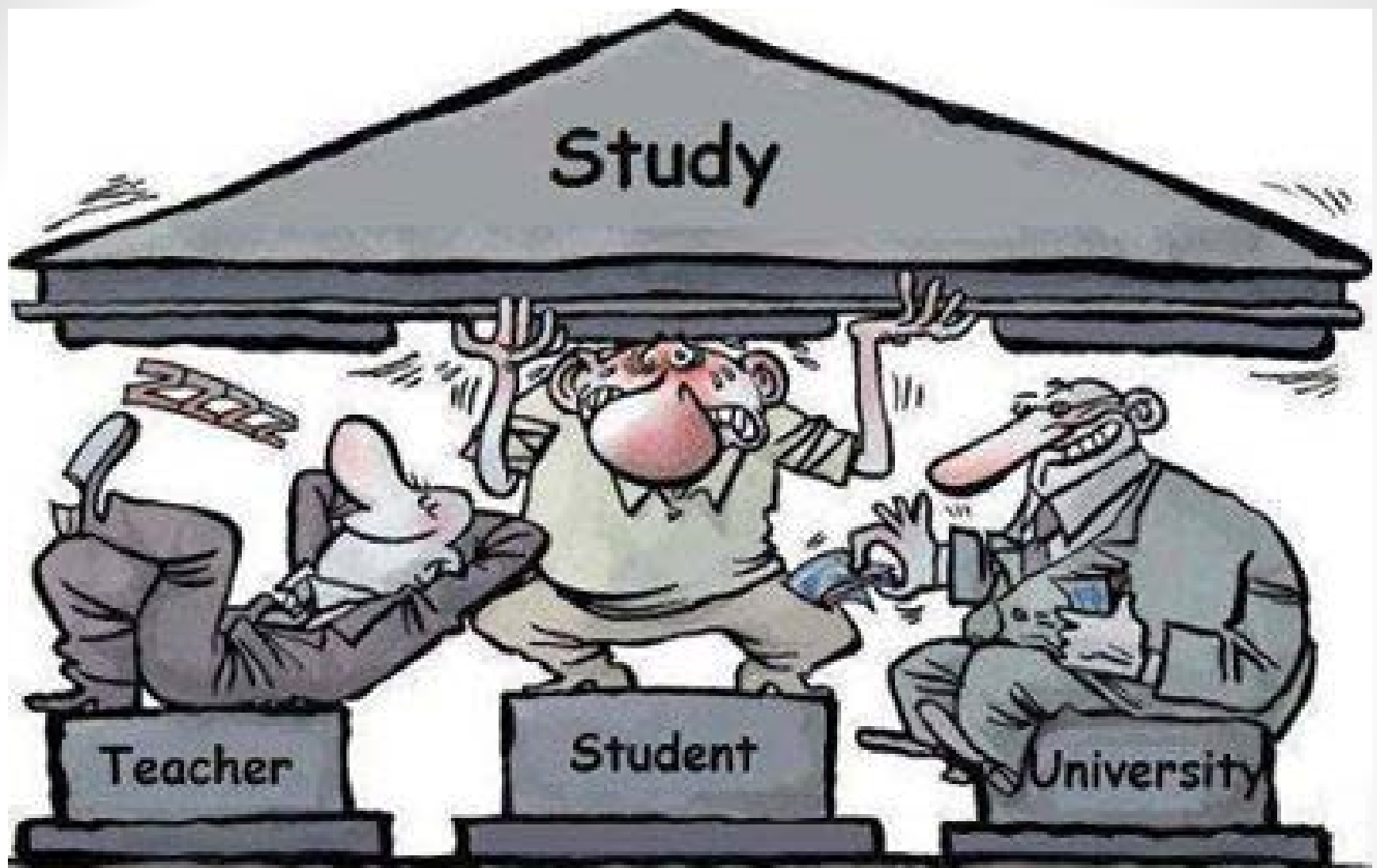
Reducing Hunger in Fiji (Achieving the MDG)

“THE director-general of the UN's Food and Agriculture Organisation (FAO) Dr Jose Graciano da Silva of Brazil has complimented Fiji for being one of the countries working hard to meet the millennium development goals (MDG) deadline in 2015. Dr Graciano complimented Commodore Bainimarama for Fiji being one of the countries that managed to halve the number of hungry people over three years before the MDG deadline.

He said this achievement was certainly something to be commemorated. The statement said Dr Graciano discussed attempts by FAO to create South-South co-operation synergies between Brazil's sugar research institute and the Fiji sugar industry.

The Fiji Times

Wednesday, September 25, 2013



Thank You