

Agricultural Education and its Related Problems in the South Pacific

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Background and Setting

Agriculture is the basic industry of all countries in the South Pacific, except for Nauru. Earnings from agricultural production are one of the main cash sources in most rural communities. In most countries the largest proportion of the GNP is generated by agriculture, as is most foreign exchange. In addition, the largest numbers of people in these countries are employed in agriculture.

South Pacific countries, scattered over 30 million square kilometres of ocean and stretching from Tahiti in the east to Solomon Islands in the west, include members of the three major ethnic groups of the central Pacific-Melanesian, Micronesian, and Polynesian. More than 200 languages are spoken, including English and French. Population sizes range from 1,600 in Tokelau to 700,000 in Fiji. (Note: Papua New Guinea is not referred to in this article, which focuses mainly on the 12 member countries of the University of the South Pacific.) The total population is just under one and a half million people.

Rapid increases in population growth rates have occurred in the last decade, with most countries exceeding three per cent. However, high emigration actually resulted in negative growth rates in Tonga and Niue, while the net growth of each of the other countries amounted to less than 1 percent. Even with these low net growth rates, it is likely that the need to employ those born in the 1980's beyond the year 2000 will not be reduced. Thus the major problem facing most countries is providing jobs for young people.

In terms of physical characteristics, South Pacific countries have some common features, namely: relatively very small land masses, fragmented land areas, scattered island communities, and long distances from international markets.

The topography of island groups in the region varies considerably. Atoll countries such as the northern Cooks, Tuvalu and Kiribati are mainly deposits of rubble and sand with some rock and hard pan. The potential for agriculture is poor, with heavy reliance on copra and fish for export, and reliance on root crops and coconut products for subsistence. On the other hand, countries such as Fiji, Vanuatu and Western Samoa are of volcanic origin with mountain peaks rising as high as 1,000 metres. In these volcanic islands, there is generally a higher soil fertility and a greater diversity of crops is supported as a result.

Agricultural development has had adverse effects on the environment. During the last decade, deforestation surged due to the clearing of new land for agricultural use, and also the export of timber products, especially from the larger volcanic countries. In Western Samoa, for example, up to 2000 hectares of land are cleared annually for agricultural purposes. Increased use of tractor tillage, fertilisers, and chemicals have also contributed to problems of environmental pollution.

The devastating effects of cyclones in the late 1980s and early 1990s has further compounded the damage already done to many of the fragile ecosystems. The inevitable result has been a sharp decline in exports for all of the countries in the region.

In terms of the development of integrated agricultural systems, the constraints are quite apparent in all countries. These include:

- . Reliance on perishable and bulky crops, coupled with the often unreliable nature of sea transport, high costs, and low frequency of shipping runs.
 - . Susceptibility to natural disasters, such as droughts and cyclones.
 - . Rural-urban migration and reluctance of youth to pursue farming careers.
- Weak agricultural support services.

- . Problems in food processing and storage.
- . Severity of certain crop diseases, such as taro leaf blight in Western Samoa.
- . Low world market prices for exports such as copra and cocoa.

The physical conditions and fragile nature of all these island countries highlight the importance of education. In the 1950s, 60s and 70s, goals of education reflected the struggle for self determination and a sense of identity. The 1980's and the early 1990's saw internal struggles concerning democracy and universal suffrage. Education has evolved with the changes that came about, especially in the last 10 years. The Basic Education and Life Skills (BELS) Programme is one manifestation of these changes.

The development of agricultural education

The first efforts by a regional agency to initiate agricultural education development go back to 1968 when the South Pacific Commission assigned Alan Sutherland to carry out a regional survey of the teaching of agriculture in schools. According to Sutherland, very few schools were teaching any agriculture-related subjects. He emphasised the importance of agricultural education and concluded that it should be offered in more schools. The philosophy emerging was that it was at the youth stage that an individual became mature enough to handle farming and related tasks (Wendt, 1974).

A major survey of the South Pacific conducted by the Asian Development Bank in 1979 strengthened the position for instituting agricultural education. This survey confirmed that agriculture in the region was declining both absolutely and relatively. Thus there was a strong need to improve agricultural productivity in the region, and for progression in management practices as well.

In August 1981, the South Pacific Ministers/Directors of Education met in Western Samoa at the first Alafua Conference on Agricultural Education to decide on a strategy for implementing teacher education and secondary school

agriculture in the region served by the University of the South Pacific. In the conference keynote speech Dr. Felix Wendt, the Dean of the USP School of Agriculture at that time, presented a rationale for instituting agricultural education in the South Pacific. He stressed the following

- . Agriculture is basic to South Pacific people.
- . It makes a substantial contribution to both domestic diets and cash incomes.
- . It employs the largest number of people.
- . It provides the largest sector of the Gross National Product and is the biggest source of foreign exchange.
- . There is an increasing population of junior and senior secondary school students in the region.
- . There is evidence that the vast majority of the above students return to their villages and the land.
- . In terms of education and from the economic development viewpoint, a good general education with some vocational agriculture would be highly appropriate for many students.

Thus, expanding secondary school agriculture should result in some spinoffs, including the productive employment of young people, providing trained manpower for development, bringing about desirable changes in farming methods and improving living standards.

As a result of the first Alafua Conference, the Advanced Certificate in Teaching Agriculture (ACTA) Programme was set up at the USP School of Agriculture in 1981. The main purpose of this programme was to train teachers to teach agriculture in secondary schools. By 1991, a total of 116 students had graduated from the ACTA Programme, the majority of whom were from Fiji, Tonga, Solomon Islands and Vanuatu. There were also graduates from Western Samoa, Cook Islands, Niue and Tuvalu. Regrettably,

the ACTA Programme was terminated in 1991 due to lack of funding.

Fortunately for agricultural education, the opportunity for further development came in the form of the BELS Programme. This project made provisions to assist with the development of agricultural education curricula.

Agricultural education under the BELS Programme

The BELS Programme commenced in 1993 with the USP School of Agriculture implementing the Curriculum Innovations for Life Skills (CILS) Module.

The countries which had signed the Memoranda of Understanding by September 1993 were the Cook Islands, Kiribati, Marshall Islands, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu and Western Samoa. Fiji signed in 1994.

Prior to the BELS Programme, countries which had strong on-going programmes in agricultural education were Fiji, Solomon Islands, Tonga and Vanuatu. Other agricultural education programmes existed in the Cook Islands, Niue and Western Samoa (School Cert Horticulture). Under the BELS Programme, countries which have further developed their agricultural education curricula are the Cook Islands, Fiji, Kiribati, Marshall Islands, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Western Samoa.

The 1995 mid-term evaluation of the BELS Programme found mixed progress in the CILS Module. Some countries had developed their educational resources (whether it be people or resource materials) to the extent that they were quite well off, while the development in other countries, lacking those resources, had been much slower.

The position of agricultural education within the social context of our countries is one of the important factors that needs serious consideration by education policy makers. Our Pacific systems of education are a legacy of colonial times and in the case of agricultural education, biases against agriculture as a subject in pre-tertiary education have been pervasive. This bias against agriculture is

at least partly related to the aspirations which parents have for their children, the least of which is for them to be farmers.

Agricultural education within the social context of the Pacific Islands

The social changes taking place in the region over the past decade have been fast, complex and overwhelming. In education, the decade of the 80s was a time when curricula were revamped to make them more appropriate or relevant to local conditions. In agricultural education, the appealing solution favoured the design of curricula which could enhance the status of agriculture and encourage youth to go into farming rather than migrating to urban areas. This is easier said than done, however, for in a number of countries, only lip service is paid to this with little or no real effort at all.

The general trend in all countries is that people tend to be drawn away from a largely subsistence existence in their villages, to look for paid employment in the towns or cities. This trend became more marked after the devastating cyclones in the late '80s and nearly '90s, when farmers incurred heavy losses. In an address to BELS Programme National Managers in May 1994, Esekia Solofa, the Vice Chancellor of the USP, said that parents saw schooling as a path to their children's material well-being. As a result, education authorities, governments and the churches in the Pacific had found rural-urban migration to be a major problem. They also saw many opportunities outside the village smallholder agricultural sector. As long as farming is associated with hard labour and little return, parents' desire for better things for their children will persist.

The agricultural education challenge

The challenge for Pacific education policy makers is to propose ways of making agricultural education more meaningful. The solution may lie with those to whom the task of developing agricultural education is delegated. There is an urgent need to train not only more teachers of agriculture, but also those who can develop agricultural curricula. The following story about a wise

old blind man is intended to illustrate the way ahead for us.

One day, a young man went to see the old man with the sole purpose of testing him. The young man said to himself "I will present the old man with a riddle. I will take a bird with me ask him 'Old man, tell me, the bird in my hand, Is it dead or is it alive?' If he says it is alive, then I will squeeze it dead and tell him, you are wrong old man, it is dead. If he says it is dead, then I will let it fly from hand and I will say, you are wrong old man, it is alive. Indeed that will be a good test of his wisdom! Both ways, it is going to be a no-win situation for him!"

So he went to see the old man. And he began his riddle, "Old man, I have a bird in my hand. Can you tell me, is it dead or alive?"

The old man pondered for a moment, stroked his beard and seemingly stared out into space before he replied. "Young man," he said, "you have a bird in your hand. If I say it is alive, then you are going to close your hand around it and squeeze it until it is dead, then you will say it is dead. If I say it is dead, then you will release it from your hand and let it fly, and you will say it is alive. My answer is, young man, the bird is in your hands..... the bird is in your hands."

Conclusion

Likewise, it is evident that agricultural education is in the hands of education policy makers in the Pacific. All it needs is a nod and encouragement to those involved in developing curricula. Educational progress is not based on buildings and the paperwork that administrators plough through every day, but on working with people and empowering them to succeed. This is basically the key to success in any human enterprise. Agricultural education has made substantial progress in many countries of the region, but not in others. The key to success in this enterprise is in the hands of those concerned with education in each country.

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