

Trends and Policy Options

Current trends

The main trends that can be seen in post-secondary education in the South Pacific include:

- 1 There is a steady growth in the integration of study with work.
- 2 There has been a gradual increase in access to post-secondary education as education systems have expanded from pre-schools upwards, most recently in Melanesia. Two other contributing factors are the growth in distance learning, and in access to computing and other advanced learning techniques by the urban elite.
- 3 The benefits are concentrated on national and regional capitals, so that there has been a relative worsening of post-secondary opportunities for students in rural communities, the urban poor, and those living in peripheries of regional systems (though this last can be overcome to some extent by very small nations).
- 4 The proportion of women students is increasing such that they already outnumber men in post-secondary education in Hawaii, Guam, New Zealand and French Polynesia. Proportions are much lower in countries with lower income and education levels, but are growing slowly.
- 5 There is a rapid growth in the range of courses. This is due to the increasing complexity of tasks and the consequent need for more complex preparation. It is also due to acceptance of the fact that personal development can be facilitated by education

appropriate to individual needs, whether work-related or not. It is a positive, world-wide trend.

- 6 More business and government institutions are adding an educational component to their main functions.
- 7 More emphasis is being placed on local, national and regional curricula, especially in relation to topics with a high cultural component. The extent to which this is translated into action is not known, but there is a large rhetorical component.

The emphasis in the rest of this chapter is on issues with policy implications. Some of these are included in the summary of trends above. Others, which are not necessarily yet reflected in actual trends, include the need for more maths, science and technology, more transferability of qualifications, greater emphasis on personal development of students, the vital issue of quality and questions of management, equitable distribution of benefits and finance.

Policy issues

Towards a culture of continuous learning

Integrating work with study

Everyone agrees that learning should be a life-long process, but it is often not put into practice. The main tendency is still to lengthen the childhood schooling process, sending students straight from secondary school to tertiary level, without allowing them adequate opportunities to widen their experience and thus gain responsibility and maturity. However, an encouraging sign is the number of governments which now insist on one or more years of applied experience before further full-time study.

The SOPAC/USP programmes integrate work and study closely. Their Certificate in Earth Science and Marine Geology programme begins with a basic course of three months, then four courses each of six weeks spread over three years, interspersed with applied work.

Involvement in part-time or periodic courses or programmes is becoming commonplace. The initiative often comes from the inter-

national organisations, NGOs and bilateral donors which are funding such courses, from international as well as local firms with training needs, and from individuals who are conscious of what further skills and qualifications can do for them.

In addition to formal courses, self-education using books, computer software, video and audio cassettes, radio and other media continues to expand. It is hoped that the Pacific governments will enhance this process by encouraging commercial outlets for educational books, computer software, videos and courses, as well as increasing the educational component of the largely government-owned television networks.

Adding educational components

More government departments, statutory authorities, private businesses, churches and voluntary organisations, are adding an educational component to their primary function. Many courses are initiated by the main employers of the trainees, for example, teacher training by the Ministries of Education, banking courses by the banks, aviation industry training by airlines, rather than by a community college or university. In view of the low levels of education relative to the rest of the Pacific Basin, with which the island nations are increasingly interacting, this is to be encouraged. In fact, with limited national resources, it is likely that this tendency offers the best hope of catching up. The formal educational institutions will need to work closely and supportively with these other organisations.

Curriculum issues

Science, Maths and Technology

Expertise in these subject areas is in short supply throughout the region. There is a widespread awareness that too high a proportion of persons have been trained in general arts subjects, and too few in science, technology, commerce and management.

Those with the arts training were absorbed for a time by governments, but this is becoming increasingly difficult. It is also question-

able whether a country is best served by a government overwhelmingly staffed by personnel with a general arts training. Many such persons are now without suitable employment, despite the scarcity of technical, scientific, commercial and managerial expertise. The gap is filled in part by expatriate staff (usually but not always at high cost), and its existence remains a deficiency in national achievement.

One problem is that science courses are generally more difficult. Many students who prefer the natural sciences take a social sciences course, as they can obtain a qualification more quickly and its market value has been at least as high. The authors have seen many students who, having failed in the natural sciences, turn to the social sciences and achieve high grades, even though they preferred the science option.

A Papua New Guinea study noted that science was not popular at school because it was considered difficult and that there was an 'alarmingly high drop-out rate from science courses at tertiary level' (Wilson, 1988). Science students worked harder and had higher educational and job expectations than their non-science peers. As was to be expected with many of the students being accustomed to agriculture, fishing, hunting and other interaction with the natural environment, they did better in biology than in chemistry or physics. The nation remains very short of trained scientific personnel, as well as of people with an understanding of the changes being wrought by science and technology. The PNG experience seems to be broadly true of the Pacific region.

The economic success of a nation, according to Porter's study of world patterns, depends on most students receiving 'education and training with some practical orientation' (Porter, 1990 p.629). He considers mathematics, computing, writing, basic sciences and languages to be vital, and notes that 'the training of a significant proportion of outstanding students in engineering seems to provide the greatest benefit to an upgrading economy'. Such training contributes both to innovation and to quality as managers (Porter, 1990 p.629).

The 1990 high level review of its foreign policy by the New

Zealand government concluded, on the basis of investigations in all countries of the region, that the 'one educational concern expressed more often and with greater anxiety than any other, was in the field of skills training. Repeatedly the group was told by heads of government, ministers, education officials, church education authorities, NGOs and women's groups of the urgent national need for vocational training and senior secondary education. On several occasions this was conveyed in the form of criticism of USP for failing to meet the need' (Henderson et al, 1990 p.146). The same concern is expressed in Micronesia about the education available in the north Pacific Islands.

Success in science, mathematics and technology necessitates more emphasis on these subject areas from kindergarten onwards. This is now possible and is being achieved in some places by conversion courses for both teachers and students who are interested in these subjects and greater incentives for quality science teachers (including salary differentials, periodic retraining opportunities, and adequate equipment). A Pacific-wide conference on 'Quality Mathematics Education and Popularising of Mathematics' held at UPNG in 1992 raises hopes for significant improvements (Ahuja, 1992).

Students would also be encouraged to enrol in science and technology courses if governments appointed more persons qualified in these areas to senior government posts, particularly as the most likely potential growth areas in the Pacific islands nations are in the minerals and marine industries, primary product processing, bio-engineering and non-conventional means of energy production; and the most likely hazards are in environmental deterioration ranging from the Greenhouse Effect to scientific recycling of waste. All these and many other topics need a proportion of administrators with an understanding of the sciences. This would serve national needs better and it would shift the image of an arts education being more prestigious. Businesses are doing this more than governments, not as a matter of principle, but because they find the science and technology background increasingly relevant to management in today's context.

One option under consideration in PNG is for a natural science college. That would not be feasible for the smaller countries, though some specialisation may be possible for countries the size of Fiji or Solomon Islands. At university level, USP, UPNG and/or selected metropolitan universities could offer specialist science teacher training, not only through conventional courses, but through short refresher and conversion courses, both on campus and in-country.

There also needs to be an element of social science and humanitarian studies in science and technology courses, and of scientific and technological awareness in social sciences and humanities programmes.

Culture

Most post-secondary education in the islands is based to some degree on knowledge and skills from the industrialised world. Even the prestigious and successful National Arts School in Papua New Guinea, which was set up expressly for indigenous arts, has drawn heavily on external technology and techniques, staff and funding. It is, nevertheless, very much a national school, and the local cultures remain unique, despite the incorporation of some borrowed components.

However, institutions which teach telecommunications, engineering, aviation, accounting, electronics, the exploitation of submarine minerals (SOPAC), etc. deal with subjects which are overwhelmingly external in origin.

Whatever the subject matter, every institution wants to apply its own stamp of legitimacy, propriety and uniqueness, seeing the area it serves as the one from which some symbols of uniqueness must be extracted and applied.

Culture is now receiving higher priority in the islands than ever before. It is a world-wide trend, which is in part a reaction to massive external influences, but which is also facilitated by more rapid communication and more income. This trend probably has some distance to go before it levels off. It is given a narrower definition in practice than the rhetorical all-embracing 'way of life'

concept, and is being focused on language, history, the expressive arts, and a little on leadership.

Much less is being done about teaching values, even though this is perhaps the core issue. This may be due to ambivalence about the appropriateness of some traditional values which evolved to suit very different contexts. But the issue of values should be objectively discussed and evaluated so that decisions on action can be taken.

The New Zealand foreign affairs review team received throughout the region 'a consistent message about the importance of local culture and language to education. The renaissance of Pacific cultures will have important implications for the kind of education that Pacific island countries want.' (Henderson et al, 1990 p.146). The team noted that the current emphasis of Pacific governments on language and other cultural issues focuses on the nation, and creates the need for new materials, especially in local languages, and for the special training of teachers.

Establishing a national identity and coherence, in which the education system plays a major role, is easier for countries like Samoa, Tonga, Kiribati, Tuvalu, Niue or the Cook Islands, each of which has its own language and a distinct, relatively homogenous culture, than for more complex Melanesian nations, with multiple languages and cultures. In both categories, particular interest groups may try to use such programmes to advance their interests unduly. The most difficult cases are those such as New Caledonia or Fiji, which contain radically different cultural systems. The difficulty makes it more rather than less important for the education systems to assist students to understand other cultures and value systems within the nation as well as their own.

Cultural studies do not need to play a large part of the curriculum, but there is a case for having them both as a separate topic and as an element in most if not all other subjects.

One excellent example of the latter is the current attempt to develop a programme in Pacific science by studying the physics of traditional canoe design, the pharmacopoeia and biochemistry of traditional medicines, the economic biology of traditional horticulture and marine culture, the mathematics implicit in traditional

long-range astro-navigation, the technology of snaring octopus, preserving various foods, constructing buildings and so on, which was initiated by Professor John Morrison and others at the University of the South Pacific, and is being implemented jointly with the University of Auckland (Geraghty and Morrison, 1993). It can be used either as a separate course, or components can be extracted and used in various courses.

Some governments want the national language to be given more priority at higher levels of study, lest it become marginalised. Although most Pacific islands countries have a single language, the Melanesian states have many, so there are real constraints as to how far this can be done. But the vast majority of Pacific people do not have a good knowledge of English or French, and trying to convey information or ideas, particularly for various forms of continuing education, requires the use of local languages. (Nevertheless, many of the Pacific elite who strongly advocate the use of their native language, do not teach it to, or use it with, their own children).

The extent to which the curriculum needs to be adapted to the national, regional or other environment varies considerably with the subject. A good qualification in mathematics or statistics or physics, for example, may be just as useful wherever it is done. Incorporating national needs becomes more important in subjects such as the creative arts, social sciences, botany and so on. It is important to decide what elements of culture are to be given emphasis in each programme of post-secondary education. Some countries may find it useful to spell this out in more detail than is now usually done.

The important question arises of how far it is necessary or cost-effective to prepare special curricula for each small province or nation or region or system (e.g. when various government and church institutions teach the same topics at similar levels in the same country). Too much emphasis has been given in some fields to the 'need' for special curricula for particular countries or regions.

There is indeed a case for this with some programmes: for example, if the Samoan government considers that teaching of or in the Samoan language is a priority, it is likely to have to create its

own curriculum. However, to take another example, in the training of nurses some content has to be specific, such as social structures and national legislation; much more is universal. There is no case for re-inventing the wheel, and more use could be effectively made of mass-market materials from larger nations where much more time and resources have been devoted to their preparation, and where they have been tested in wider and more competitive markets. This does not preclude the need to complement such materials with a good mix of national materials.

CULTURE VERSUS QUALITY

While a cultural component is undoubtedly an important ingredient in any curriculum, education of the highest possible quality has to be regarded as even more important than culture or context. What happened to Tongan engineering students in Papua New Guinea is an example of this. The civil engineering requirements of islands states differ from those of the metropolitan countries. (They also differ between islands states). This, and the availability of scholarships, were good reasons for sending students from Tonga to the Engineering School of the Papua New Guinea University of Technology (UNITECH). However, after its engineering students had graduated with a B.Eng. from UNITECH, Tonga gave them a year or two of practical experience under supervision, and then sent them off to a metropolitan country to do another B.Eng. because they found the UNITECH training inadequate. In other words, they found quality more important than content. Many similar examples could be cited.

To take a different example, there is an obvious case for subjects like political studies and sociology being taught within the nation or region concerned. But there is also a case against it. All universities, given the recruitment process, tend to develop departments with particular preferences in theoretical content and orientation. In islands universities, being small, this is accentuated. Many staff of political 'science' and sociology departments are committed activists for one political party or another. Far from countries of the South Pacific feeling that the teaching of these subjects at Pacific institu-

tions facilitates understanding, there is a concern lest students should be indoctrinated with particular ideologies and interpretations.

Disciplinary boundaries

There has been considerable progress in the world in relaxing the artificial compartmentalisation of knowledge known as 'disciplines'. Although Pacific institutions adopted the boundaries set abroad, it is hoped they will not feel too bound by them. In practice, the smaller the nation or organisation, the more individuals need to be multi-functional in their activities, whether at work or in private life. And the more multi-functional the needs, the more inter-disciplinary or preferably non-disciplinary studies are to be valued.

Non-academic factors

Since the focus of most post-secondary institutions is the qualification achieved, there are considerable advantages in building some non-academic factors into the curriculum. For example:

HEALTH AND PHYSICAL FITNESS

It is common in many countries for sport or some other form of physical exercise to be an essential component of post-secondary programmes. Though not usual in government-sponsored institutions in the Pacific, it is worth considering as the adverse effects of poor nutrition and ill-health on learning are well documented. The Pacific Adventist College is known for its emphasis on student nutrition and health, and also for educating students in these matters. For many of the less well-endowed institutions, however, this is not so. While many institutions cannot supply these services for non-residential students, there is a case for including some education on nutrition and health in the curriculum of every student.

CREATIVE EXPRESSION

As with physical fitness, some institutions include an element of music, art, drama or other creative expression in their study programmes for all students. In a rapidly changing world, anything that can be done to improve creativity is worth while.

ETHICAL TRAINING

A high proportion of post-secondary education in the Pacific is sponsored by churches and church colleges give considerable emphasis to ethical training. There are cases where it is focused on narrow sectarian lines which is a subject for concern. But in the government institutions ethics tend to be avoided as too difficult, too personal or too likely to be tied to dogma. Students are faced with a barrage of ethical systems: from traditional cultures; from their own and sometimes very different and apparently conflicting religions and ideologies; from radio, television, journals and other media. It is hard to make sense of it all, and it seems to us an obligation of post-secondary institutions to assist their students to examine, digest and distil the best from these varying systems. This does not imply indoctrination: on the contrary it implies helping students not to be vulnerable to indoctrination from any source, including the teaching staff, so that they are able to make mature decisions about the ethical issues they will face. Sippanondha Ketudat (1990 pp.24-5), former Chairman of the Thai National Education Reform Commission, considers it vital that 'our educational institutions be so shaped as to create people who are both expert and ethical... in short ... a culture change such that the ordinary people will find a leader unacceptable unless he or she is demonstrably both expert and ethical'.

ENGENDERING MOTIVATION

Perhaps this should be part of the overall programme, but often it is not. Specific consideration might be given to increasing levels of motivation along with other aspects of students' personal development. Some highly experienced educators in the islands have told us that requiring a financial and physical contribution from students, and integrating study and work more closely, would go a long way towards improving motivation.

Qualifications

While all around us we see the emergence of sharing rather than exchange transactions in information, most universities

jealously guard credit as the sacred element in their educational rituals.

... universities continue to talk of teaching hours as a key ingredient in their economic planning. I would suggest that learning hours is a better concept, for it opens up the possibility of self-directed and other forms of learning and growth (Morrison, 1989 p.6).

Value of qualifications

An international training consultant with extensive experience in the Pacific, noted that 'diplomas, certificates, letters of participation, etc. carry great psychological value in the Pacific Region – there being a less cynical attitude towards them than in the more developed countries' (Burns, 1988 p.62). The reason is no doubt their scarcity until recently. As the qualifications proliferate presumably the value, or at least the mystique, will also wane. This is good to the extent that people become valued more for the quality of their work than for their qualifications. Qualifications are, however, much easier to measure objectively than quality of work.

Spacing of qualifications

The generally better starting salary for those with higher qualifications gives an extra incentive for students to emphasise qualifications over experience. However, there would seem to be a strong case for students obtaining practical experience between qualifications. This is increasingly the policy of islands governments, and even more so of private employers.

International acceptance and marketability

Students and their parents want qualifications that are as widely recognised as possible, as these facilitate higher salaries, higher status, mobility and migration. The main exception to this general desire for an internationally marketable qualification is when it is considered to be too difficult to achieve. Other motivational factors also need to be considered.

Governments, on the other hand, are faced with conflicting goals.

They want high quality services and the prestige of high quality institutions. But having low per capita incomes they cannot compete with richer countries in terms of salaries and conditions. Moreover, there are strong political pressures to give priority to local citizens. Internationally accepted standards may mean the loss of the most skilled local staff, trained at high cost. The choice is often to replace them either with expatriates, or with local staff whose qualifications do not enable them to compete beyond the security of their national or regional institution.

There is great variation between countries, ethnic communities and disciplines in this. Many governments prefer qualifications that are not widely marketable as this induces graduates to return home and accept more modest conditions. It is a very difficult policy decision. For example, the FSM qualification in medicine is less widely recognised than qualifications from Australia or New Zealand: those who qualify are more likely to be retained, less likely to emigrate.

Likewise, many medical students from the north Pacific who trained in USA wanted to remain and practice there. This was a major reason for setting up the Pacific Islands Medical Training Centre in Pohnpei for the islands of the north Pacific. Dr Carleton Gajdusek, a Nobel Prize-winning physician who specialises in the Pacific, informs us (personal communication) that students at that Centre, where teaching is provided by the University of Hawaii medical faculty, learn as much as those at most medical schools in USA. The islands governments wanted the Centre to produce the skills but with non-transferable qualifications. The Centre is available at present only to countries and territories with close links to USA, which finances the programme.

Veterinary qualifications from the Philippines involve lower academic standards in the sciences than the equivalent qualifications in the high income metropolitan countries. But we are informed by some experienced people in this field that the Philippines training involves more practical experience, and that its graduates are as good in the regular work as those with the more academic training. Some Pacific governments prefer the Philippines graduates as their qualifications are not recognised in the metropolitan countries and

they thus will not migrate.

While in principle we advocate Pacific people having the highest possible quality of education, we sympathise with governments which opt for lower quality where it is the only way to retain staff for essential services.

Accreditation

As noted above (page 52), an increasing proportion of knowledge and experience is gained outside institutions, from books, newspapers, journals, audio tapes, video cassettes, computer software and television. Most courses in institutions are designed on the assumption that students begin from a common base and must cover a given area of new knowledge over a set period. The growing need is for institutions to be able to take students in with varying amounts of pre-existing knowledge, and to offer appropriate examinations and other testing and certifying facilities, in addition to the routine requirements for those who follow the conventional path.

Setting up facilities for independent examining and certifying is important for the many students who are motivated through self-teaching course packages. Nowadays not all students need tuition, and the vast majority of Pacific islanders are out of reach of it anyway. Most students studying by extension in the smaller countries receive very little tuition. In the Cook Islands, for example, only for USP courses for which there is a minimum of eight students on any one island is a tutor provided, and in practice that means very little tuition for any island except Rarotonga, and only some there. Tutoring for those who get it is estimated to average not more than ten hours per semester. The satellite system, once thought to be crucial, is not used for lecturing, nor for tutoring in most courses. At least half of the assignments are not received back by the students by the time the course is over.

EXTERNAL EXAMINATIONS

There is a tendency in many post-secondary institutions to resist external examinations, particularly on the part of less secure and

lower quality staff who often rationalise such resistance in terms of being 'colonial' or 'dependent'. High quality staff, however, usually welcome the stimulus and experience gained from the process.

UPNG had a comprehensive system of external examiners, but abandoned it. It costs money, although external funds are usually available to pay for it. The cessation of the system has been associated with a decline in quality. At USP the role of external assessors has been changed from checking examination scripts as well as reviewing all aspects of the courses, to simply reviewing. This is useful, but not as valuable to the students or the institution as independent examiners, even if only for a proportion of the materials. The South Pacific Board for Educational Assessment (see page 61) deals only with primary and secondary schools. There is a case for them to consider post-secondary studies also, though the benefits of such a system would be greater if a wider range of countries was involved in a network for post-secondary education.

CROSS-CREDITING

This is increasingly necessary owing to high mobility in the Pacific. Accreditation is best done between the countries which interact most. It is not quite as widespread a problem as is sometimes assumed. However, there is often a feeling in the region that particular qualifications are or are not officially 'recognised' elsewhere. In some cases this is true, but more often it is not. For medicine and law, for example, most countries specify which other countries' degrees they accept, and have procedures requiring further training or assessment for those with qualifications from elsewhere.

But for most people with general degrees, it is up to the employer in the country concerned whether they will employ them. Governments often have rules on these matters for civil servants, but private employers hire much more on track record and assumed quality of work.

Institutional specialisation

There is scope for more institutional specialisation across the region and beyond. Thus one effective means of heightening regional

awareness and interaction is by various countries offering some course or courses for the region or part of it. This could be both for residential students and by extension. This would be facilitated if the extension centres of USP were to be owned and controlled by the country concerned, and could provide a mechanism for any institution (or in some cases individual) in that country to send out or take in courses from neighbouring countries. It is this kind of balanced, co-operative regionalism, based on the networking of equals, that the Council on Pacific Education (COPE), the Hawaiian-linked council which provides resources from USA and Japan for science, mathematics and computer education, aims to facilitate among its member countries – American Samoa, Western Samoa, Tonga and the Cook Islands. Countries within the Pacific Islands region are, however, generally short of resources so confining such linkages within the islands is likely to be counter-productive. Most benefit could be obtained by casting the net much wider.

The question of quality

A strong correlation seems to exist between the quality of education and the economic success of nations and communities. Economic success creates the opportunities for better social services and improved quality of life. On the basis of extensive research on the competitive advantage of nations, Porter (1990 pp.628-9) concluded that education and training were decisive factors, and must be of high quality, demanding 'high performance'. This is particularly so in those sectors of education which are relevant for the economy, for example, science, technology and accounting.

Throsby and Gannicott (1990 pp.iii et seq.) likewise note that 'it is now well established that the pay-off to quality improvement is high'. This seems to be one of the most important issues of all, because there is too often a tendency to equate qualifications, rather than the quality of them. As noted above, some Pacific governments have found it necessary to send staff who already have a degree from one university within the Pacific islands to do the same degree again at another further afield, because of inadequacies in the

quality of the former.

Henderson (1990 pp.147) reported that one of the main 'question marks in several regional capitals over USP' was the quality of teaching staff. The indications are that similar concerns are held about other post-secondary institutions in the region. To some extent there are questions about quality everywhere in the world, most of them very hard to answer. Problems in the Pacific region include: most students and many staff are working in a second language; extensive higher education has only recently become available so that regional staff lack the length or breadth of experience that would be normal elsewhere; and selection tends to be from a very small pool.

This is a difficult area in which to find objective data. One item is in the 1987 tracer study and evaluation of the New Zealand-funded scholarship scheme from Samoa to New Zealand 1962-1985, and to USP since 1970 (Annual Report, Appraisal, Evaluation and Analytical Support Unit, Ministry of External Relations and Trade, Wellington, 1987). The pass rate for the Samoan students in New Zealand over the period was only 47 per cent. We do not have figures for Samoans at USP but estimate it to be about 80 per cent. It is unlikely that the difference is due to cultural differences since there are many times more Samoans in New Zealand than in Fiji, and many more Samoans at most New Zealand universities than at USP (460 at University of Auckland alone in 1991, as compared one quarter of that number at the main USP campus). The report notes that it is cheaper to get Samoan students through degrees at USP, but also notes the resistance of many Samoans to that option.

Another less measurable indicator is that Cook Islanders can take extension courses from either USP or Massey in New Zealand. Very few take the latter option. The main reason students give for the choice is that they consider it easier to pass at USP. Discussion with persons closely involved with standards at UPNG, UNITECH and NUS, indicate that academic standards at those institutions are probably not as high as at USP.

There is a popular impression in the region that there is a hierarchy of quality, equating the lower levels with national institu-

tions, middle levels with regional, and highest levels with institutions outside the region. There may be some truth in it for the government-sponsored institutions at least, but there is no necessity for such a pattern, and there are many exceptions to it in institutions, subjects and personnel. Nevertheless, it remains the perception of most students and officials that we have contacted, and it is reinforced by a glance at the qualifications and experience of staff at the respective institutions, the incentives offered to staff, and other criteria.

Quality, we believe, can best be attained by use of the highest quality staff and institutions available. That will necessitate hiring the best quality staff for institutions in the islands, establishing linking arrangements with quality institutions abroad, sending a good proportion of students abroad (but only to high quality institutions), establishing staff and student exchanges with quality institutions, and localising only with persons of the requisite quality.

Student and staff mobility

When USP began, an exchange scheme was set up with UPNG, and attempts were made for students to take one semester of their years of study (usually four) in a metropolitan university. This included trying to persuade the East West Center in Hawaii (and other donors) to offer eight scholarships for one semester instead of scholarships each for four years study (or whatever the equivalent costs allowed). The Pacific contains some of the world's smallest societies in close interaction with some of the world's largest. For those undertaking most of their studies in an islands university, some exposure to a metropolis and its university would be beneficial. But aid donors and institutions place high priority on putting their stamp, their award, on a student, and anything less than that has not been attractive to donors. Perhaps in the 1990s they can be persuaded to change that philosophy.

There is also a strong case for attracting exchange students from the larger countries to the islands. USP has the best range of such schemes, mainly with USA and Japan, both very important connections. Expansion of such two-way opportunities throughout the

region and with the larger countries would be beneficial. The new UMAP (University Mobility in Asia and the Pacific) programme being co-ordinated from the Australian Vice-Chancellors Committee office in Canberra is another promising example. Many secondary schools in the islands also have international student exchanges, as do some primary schools. Two groups of Cook Islands primary school children are at the moment of writing preparing for exchange visits: one to Japan and the other to New Zealand.

For students who will have a period abroad, at what age is it most useful? Margaret Mead was of the opinion that better value was derived from two or three years at a high quality secondary school in another country, than the same period at university abroad. Her reasons related to the acquisition of basic patterns of language and logic, and she exemplified the claim with the high success rate in later life of the small number of Papua New Guineans who were sent for secondary schooling in Australia. Research on this question would be merited, and it may be more effective and less costly to devote overseas scholarship funds more to secondary students and less to tertiary.

Staff exchanges are also beneficial to both staff and students. USP and UPNG have been able to arrange more than most, but there is a case for expanding such exchanges for all institutions.

There is a good case for not doing more than one qualification in any one country, let alone in any one institution. The smaller the country and the institution, the more this is so, as a student learns not only from the classroom, but also from the wider context. Since most higher degrees are funded by external donors, it might be worth asking donors to make it a condition of scholarships for second qualifications that they be to a different country and institution from that in which the student studied before.

Fortunately, there are better prospects for achieving this in the Pacific than elsewhere in the world. Many countries receive more offers of scholarships abroad, especially for masters level courses, than they can accept. Pacific Islands universities would likewise be enriched by taking more foreign students from Pacific Rim nations

or from further abroad. The University of the South Pacific and University of Guam have been the most successful so far in this regard, and the scope for expansion is considerable.

Management

Decision-making forces and options

EXTERNAL

The extent of choice for islands nations is limited by bilateral and multilateral aid donors. Foreign aid has paid for the building of all post-secondary institutions in the region and contributes to the running costs of most. Thus, donors have considerable leverage and national initiatives can usually only materialise if they are supported by metropolitan countries or international agencies.

The two countervailing forces have thus been the individual countries, most of which want to undertake more on a national basis, and the main donor countries which, having planned and financed the University of the South Pacific and other regional institutions before the member countries gained independence, tend to resist the aspirations of individual countries. The donor nations also see greater political advantage in maintaining the islands together. They encourage interaction between nation and region only when the nation is seen to be subordinate to the region. Competition, which may be of great value to all parties, is strongly discouraged.

It is because of the power of external donors that most of the proposals of islands governments for national universities have not materialised. The National University of Samoa, established against the advice of potential donor countries, was for years effectively confined by them to largely sub-degree courses. One of the authors was assured in Japan that they allocated funds to build the National University of Samoa, but were persuaded by the Australian and New Zealand governments not to proceed as it was their policy to require Samoa to use only USP within the region. The decision of the Tongan government to have its own university was likewise changed by pressures from the aid donors to conform to a model

more congenial to them. Samoa's action did, however, precipitate some activity by the aid donors in assisting post-secondary colleges in other countries, provided they remained below USP's level.

REGIONAL

Within the region, disproportionate leverage lies with the host countries of regional institutions. This is not only at the level of formal decision-making structures, but even more in staffing and 'gatekeeping'.

Almost all regional educational programmes and institutions focus on the higher levels of education, with consequently higher unit costs. All depend on external assistance for capital, expertise and operation. The countries with the greatest needs are least able to tap these higher education resources. The countries with least need, i.e. those which already have the most resources available to them for higher education, are the best equipped to siphon off the resources available to the region through external subsidies, more specialist personnel, personal connections and other linkages.

The example quoted above (page 64) showed that the Cook Islands derives 27 times more benefit per capita than Solomon Islands from the USP extension facilities. Further examples could be taken from many programmes and institutions, showing that the centralist approach to regional co-operation in higher education has in many cases widened gaps and left the poorest at a relatively greater disadvantage. Moreover, the most disadvantaged are least able to represent their interests, for the major influences, sources of advice and opinion, and presenters of what is portrayed as 'regional opinion' are overwhelmingly those of, or most closely identified with, the host country of the institution concerned.

NATIONAL

Within nations there has been some broadening of participation in decision-making about higher education. The tendency for political leaders and planners to invite fuller participation from private firms, the professions, trade unions, churches and voluntary organisations, is a positive trend. Does it pay to formalise this further? In a nation as large as Papua New Guinea there is no doubt a strong case for

the establishment of its Commission for Higher Education. For smaller countries, however, we would be reluctant to recommend an additional bureaucracy, with its inevitable extra costs and often extra delays. There may be a case for at least a Committee on Higher Education, involving representatives of the government and from the wider community. In countries such as Solomon Islands or Western Samoa, for example, it may be worth considering widening the functions of the council of the national college of higher education or university to encompass this role. One caution, however, is the danger that the council may see its first role as protecting its own institution, rather than looking at the long-term welfare of the national population.

The limits of manpower planning

Manpower planning has a role, but there is a danger of it being overplayed. In the 1960s and 1970s, it was seen as the panacea for many ills of higher education. In the hope that it would help the Pacific avoid the problems of other developing regions, USP asked the United Kingdom to send their top expert in manpower planning in the Third World to offer advice. His basic message, based on years of involvement in many countries, was that there was no reliable formula and that earlier assumptions had not proved valid.

Manpower planning took a lower profile for a time, only to surface again, refurbished in practice a little and in rhetoric a lot, under the title 'human resource development'. It is sensible to have information about labour markets, employment trends and opportunities, and education and training options, to inform decision-making. But we have seen this goal translated into more bureaucrats and less education in more than one country, and are therefore cautious about devoting excessive resources to too much formal planning.

Before relying too heavily on the HRD approach, it might be noted that those Pacific graduates who have succeeded best were educated in the institutions not covered in any manpower plan, i.e. Pacific Adventist College, Brigham Young University, Divine Word Institute or Atenisi, through self-study, private arrangements

abroad or in private firms. Providing education which facilitates self-reliance, responsibility, initiative and adaptability may be even more important than planning.

Monopoly and competition

Much of the world came through a phase, particularly following World War II, when it was considered that monopolies (or quasi-monopolies) were the appropriate basis for educational systems. It derived from a central planning approach of demarcating a task and a territory, and allocating a monopoly over both to an institution or system. Students were channelled in by zoning, scholarships or otherwise.

In education as in other walks of life, the monopoly approach has been increasingly questioned in the past decade, though it remains attractive to some aid donors and international agencies, and to institutions that benefit from it. It is usually justified on the basis of economies of scale. The high cost and often low efficiency of many government and private monopolies, however, led to the abandonment of many of them in the 1980s, in the South Pacific as elsewhere, making us aware that the argument for 'economies of scale', while superficially attractive in principle, can be fallacious in practice. While 'wastage' is often assumed to be avoided by monopoly, in practice wastage and inefficiency is often greater in monopolies. The monopolistic approach to higher education would not seem to be appropriate for the coming century. A wider range of options and more competition between institutions of learning, both within nations and beyond national boundaries, is likely to benefit students and nations.

The monopoly question also arises in relation to the allocation of scholarships. A single allocating authority was usually set up for each nation on the assumption that national criteria would be applied uniformly. But as Malama Meleisea noted (in a submission to the Henderson Review, April 1990) 'It is not unknown for scholarships to be used in exchange for political favours'; and a Pacific-wide meeting of public service commissioners in the mid 1980s was of the view that political or relationship pressures were the greatest

problem in the allocation of training opportunities. In other words, while a single system may be theoretically equitable, it can also be vulnerable to bias in selection criteria due to political, kinship, ethnic or other connections, as well as on more 'objective' grounds such as manpower planning projections.

Some of the most outstanding Pacific Islanders – in particular some of the most creative – would have been lost in such a process. We therefore recommend a wider range of processes. For example, the Australian Equity and Merit Scholarship system was designed to overcome these problems by keeping the selection process outside the country of the applicants. This was popular with applicants but unpopular with those governments which wanted to maintain monopoly control, not only of scholarships paid for by their own governments, but also of those from other sources. We used to favour the monopoly argument, thinking that it was in the national interest, but have seen kinship, political and other interests overcome objectivity sufficiently frequently to favour a more dispersed system, such as one whereby each scholarship source sets its own selection criteria.

In view of the increasing complexity of sources of education, it would be helpful if ministries and others could give higher priority to helping students and the public become more aware of all the potential opportunities and of ways of choosing between them. There have been impressive advances made in some countries with the establishment of careers centres, usually in a room set aside in the secondary schools. In some cases these offer comprehensive information on further study opportunities available at home or abroad, on a full or part-time basis, residential or by distance methods. This information would be helpful for both personal and national development and needs to be available to the public as well as to senior high school students. Perhaps an information centre set up in town, run jointly by the ministry of education and the chamber of commerce or the local government council, would be merited.

Size and critical mass

Critical mass is a dubious term, to be used with caution in the Pacific. It was used by many colonial officials, international agency experts, and even indigenous leaders, to explain why no Pacific islands territory could ever become a constitutionally independent nation. Since then, almost all of them have done so. Likewise it was the 'logic' used to justify a single regional airline as more than one would be 'uneconomic', and not have the necessary 'critical mass'. In fact the single regional airline was uneconomic, and it greatly disadvantaged all countries except the one where the headquarters was located. Each country now operates its own airline.

The concept of 'critical mass' needs to be re-evaluated in terms of the geographical spread, national and ethnic diversity, and very real restrictions on effective mobility in the Pacific. Also the post-secondary institutions which we find are much the most cost-effective, as well as being academically good, would be regarded by those concerned with 'critical mass' as non-viable. They have only 200 to 2,000 students and see their smallness as one of their advantages, correlating with quality of the educational experience. For example, Brigham Young University, the largest of these, has a ceiling of 2,000 students. It turns large numbers away, even though it has ample funds and facilities (it is the best funded university in the whole region), because it is convinced that with over 2,000 students the quality of education would decline. The Divine Word Institute, with about 400 students, achieves high academic standards in degree courses in accounting and management, communication and other fields, and does so at low cost. The other small institutions likewise see smallness as correlating with quality. They also produce quality at a much lower cost than the larger institutions. Quality in post-secondary education depends on a range of factors – it is not a correlate of size.

The conventional wisdom can change quite rapidly. It was the 'logic' of advocates of 'critical mass' that one university campus (The University of Auckland), was the 'right' size for the city of Auckland (population 750,000 – the same as the national popula-

tion of Fiji). Yet within the past three years this has changed so radically that there are now five campuses: University of Auckland main campus; University of Auckland Tamaki campus; Asia-Pacific International University (new and private); Auckland University of Technology (formerly the Auckland Institute of Technology); and the Auckland campus of Massey University. Others are being considered. The conventional wisdom was so firmly established that needed change was long delayed. When it came it was radical. The University of Auckland naturally fought strongly against the breaking of its monopoly, yet now that it has been broken many of its faculty (including one of the authors of this study, who is Director of the Centre for Pacific Studies at the University of Auckland), accept that the people of the city are much better off with the wider range of choice and options, and for the stimulus that the competition has given to the formerly monopolistic university. We believe some equally radical rethinking is due in the Pacific islands region.

It would also seem to be the case that where economies of scale have channelled the benefits of centralist regionalism to countries with better leverage, most nations have been left worse off than they would have been if equivalent resources had been devoted to nationally-based solutions, using a mix of national, regional or international facilities.

Where larger scale is considered desirable this can be achieved in small countries by, for example:

- joining diverse forms of training in fewer institutions within the nation
- joining with other countries in a single institution
- networking with other countries using a mix of one's own and others' facilities (including the use of two-way extension and summer schools)
- sending students abroad to institutions with which the countries are not involved.

It is not a question of which, but of how much of each.

Consolidation, decentralisation and centralisation

There is a tendency for applied courses to have been begun by government departments (e.g. nursing in health, teacher training in education), and over time to have been consolidated into specialist educational institutions. While there is a case for this, the specialist departments tend to resist the trend and feel that they can do a better job (e.g. of training nurses) in-house. We feel that the aim should not be either/or, but both. To take the example of education, this now pervades every sector (see the Cook Islands case study pages 64 to 81) and it can be counter-productive to pull it out of the places which made it part of the life-blood of their organisation, and segregate it in strictly educational institutions.

One problem of consolidation is that it can lead to a plethora of committees and procedures that slow down the productivity and effectiveness of the overall educational process.

It is a task of great skill to combine the advantages of larger scale and potential interaction, with maintaining a learning culture. Structurally, a community college needs to be separate from any one ministry (e.g. education, health or the public service commission), but involving the fullest possible participation of all concerned. Each ministry and each private organisation will still need to be as independent as possible in promoting training (in the specifics for that work), and education (in the broadest sense for personal and community development) throughout its operation. No university, polytechnic or community college can handle the whole complex range of opportunities, knowledge and skills necessary for today's world.

Thus the banks encourage their staff to use the universities, community colleges, bankers institutes and other formal learning institutions but they also operate their own in-house systems on an even larger scale. We wish they would also encourage personal learning and creativity beyond those limits. Diversity, openness and choice seem to have greater potential than monopolies.

In Papua New Guinea, as discussed on page 13, some post-secondary institutions draw students from throughout the nation,

others serve particular localities. Most teach a distinct speciality, for example, teacher training or agriculture or commercial studies, although there have been discussions about amalgamating some into community colleges. Fiji has drawn most, but not all, of its specialist colleges into the Fiji Institute of Technology, although a number are on separate campuses. The Solomon Islands College of Higher Education is a similar plan for consolidation, although it plans to draw the separate facilities together on a single large campus. The National University of Samoa was intended to draw together the teachers' college, technical institute, and possibly other programmes, and to take back the Alafua Campus of USP (the USP agriculture campus was formerly a national facility and still belonged to the Samoan government). External pressure was applied to stop these plans.

The Tongan government had decided to establish a National University of Tonga, but aid donors were only prepared to assist if it were a Community Development and Training Centre feeding into USP. This was set up in 1985. In 1991 Tonga decided to make another attempt to set up its own institution for diploma and degree studies. The Cook Islands proposes an Institute of Higher Education, consolidating the present teachers' college, college of nursing, apprenticeship training and other facilities plus some new ones. A team is currently working on the proposal, but no decisions have yet been taken.

Throsby and Ganicott (1990) note the potential for improved performance in schools as a result of decentralised management. For most post-secondary institutions in the islands this is not an issue, for example, most countries have one teachers' college, one nursing college and so on. The main instances where it does apply are PNG, with its relatively large population and fragmented environment, and USP, where all significant decisions are made in Suva and participation in the process by persons from the other member countries is in most cases marginal.

Centralisation on the capital of each country or territory is equally apparent in dependent territories such as French Polynesia and New Caledonia (with a combined population of 350,000). France

decided, for reasons of 'economies of scale', to establish one university on one campus in New Caledonia for its Pacific territories. Had they done this when President de Gaulle announced it in 1966, it could have worked for a time, because France then exerted more centralised power. But by 1988 they found such strong pressure within each territory for its own institution or at least its own campus, that two campuses had to be built. Each teaches some of the same courses but each specialises in others, and in that way serves both territories.

The same debates about centralisation and decentralisation apply regionally as nationally, with strong pressures for action on a regional basis coming from aid donors, international agencies and hosts of regional institutions. But there are major differences between centralisation within a nation (usually focused on the capital) and centralisation involving a group of countries. The significance of these differences was not foreseen when the central institutions were established.

For example, whereas citizens of a country are free to travel to the capital to study or work at a national institution, only those of the host country are free to do so with a regional institution. Travel is restricted by permits which can be revoked at any time without notice or explanation. For those students who are married and need full or part-time employment for spouses, or for themselves, the prohibition on work is a serious issue. For these and other reasons, the opportunities for study, employment, economic gain and other benefits accrue mainly to the host country and its people.

The main arguments in favour of centralisation are:

- more efficient use of facilities and staff, thus achieving economies of scale
- it brings islanders together
- it encourages participation by islands governments in the policy-making of the institutions.

These arguments would be stronger, the regional/national

balance would be healthier and the benefits from regional education more equitably spread, had there not been the pressure from donors and staff at the power centre, to centralise. If the resources had been allocated to member countries they could have insisted on a more equitable spread of both physical plant and benefits, as a condition for contributing to regional networks.

The main arguments against centralisation are:

- the creation of higher levels of complexity and bureaucracy
- the concentration of real power at the centre
- the subordination of specialised needs to a centralised system which can become highly politicised.

Moreover, there is a danger of forming 'clubs of the weak'. When some islands heads of government wanted to form what became the South Pacific Forum without larger powers, Prime Minister Ratu Sir Kamisese Mara said Fiji would not participate as it would be a 'club of the weak', i.e. they could make pronouncements, but did not have the wherewithal to do much about them. They needed to identify with countries with which they most interact, and which would contribute resources to enable proposals to be turned into action. They did so, relative to the balance of power of that day, and the Forum has been outstandingly successful.

The centripetal forces drawing powers over educational and other issues to the centre become countered to a greater or lesser degree by centrifugal ones pulling them back out. The more democratic the nation, i.e. the more effective the political representation, the more this will happen. Particularly in the larger countries with provincial governments, there are strong pressures for equitable distribution of physical facilities, student places, employment opportunities and other benefits. However, while some decentralisation does take place, the forces of centralisation are stronger: as some functions are decentralised, new ones are established in the centre.

Retention rates

These show that managers of education systems can have only a limited influence on retention rates and that too much emphasis on retention has its own costs.

Most Melanesian graduates will return to work in their home countries, wherever they are trained. That applies a little less to Fijians than to other Melanesians. Polynesian graduates, on the contrary, are more likely to leave their home countries, no matter where they are trained. The graduates most likely of all to emigrate are non-indigenous, with the highest rate probably among the Indians of Fiji.

The crucial issue for those who would like to emigrate is access, and education abroad increases that. The pressure to emigrate among islanders is greatest among Samoans and Tongans. Samoan scholars in New Zealand from 1962-1985 stayed away from Samoa much more than those who studied at USP, although the study does not show to what extent this was due to lower pass rates in New Zealand (Annual Report, Appraisal, Evaluation and Analytical Support Unit, Ministry of External Relations and Trade, Wellington, 1987).

Cook Islanders have free access to New Zealand and Australia at any time, so they are the best control group. A study of all Cook Islander graduates until the end of 1986 (Crocombe, 1990 pp.242-3) showed no significant difference in retention between those who studied at USP and those who studied in New Zealand. The Cook Islands is important too for illustrating that the 'brain drain' is more a question of access than of qualifications. Whereas about 75 per cent of all Cook Islanders live abroad, only 24 per cent of graduates do. For Indian people from Fiji the opposite is the case, with more graduates emigrating, but this is because graduates are more acceptable to the receiving countries.

The crucial issues in graduate emigration are the profession chosen and where qualifications are recognised. Cook Islands doctors with a New Zealand or Australian qualification are much more likely to stay there than those with a qualification from the

Fiji School of Medicine, who have difficulty having their degree recognised abroad.

There are advantages in having people working abroad. Most send money back. Western Samoa, for example, would have a much lower standard of living today were it not for remittances from Samoans abroad: these constitute the nation's largest source of income. Many of those working abroad make it possible for their relatives also to be educated abroad to a better standard than at home, thus relieving the national system and providing better trained people. A number return later in life, having acquired valuable experience abroad. (This is more apparent in the eastern Pacific where the tradition of going abroad for education is more established. It is likely to become more evident in the western Pacific in the coming decade.) Those who have been educated and worked abroad also provide a system of linkage and leverage with the larger nations on which the islands states depend for supplies, technology, information, financial and technical aid, and political support.

For all islanders to be educated in the islands would leave them vulnerable. The Minister of Education of Tonga, Hon. Langi Huakavamoliku, has consistently sent students abroad, as far as possible to countries with which Tonga has the most interaction.

Tuvalu in the 1980s had six qualified ships captains. But Tuvalu is very small and has only one ship. Why should those persons who became captains (and were then commanding ships working ports in Australia, Fiji, Kiribati, Papua New Guinea and Vanuatu) be denied the opportunity? Prime Minister Toalipi Lauti said he was happy to see his citizens working abroad as captains – most Pacific Islands seamen who work abroad are deck-hands. Captains abroad, he said, helped the country in many ways.

Retention is not only a matter of access abroad. It is also a matter of conditions at home. We know Papua New Guineans in post-secondary education who work abroad because of the law and order problems at home. Educators cannot do much about these problems, but national governments can.

Staff management

RECRUITMENT AND RETENTION

Almost all Pacific institutions claim to appoint exclusively on merit, but this is seldom the sole criterion. The most common other criteria are citizenship and cost, often also ethnicity and sometimes political orientation. If quality is the goal, merit needs the highest priority.

Staff from further afield, and particularly from high income countries, are generally more expensive. The higher cost of recruiting from outside the host country restricts the extent of international recruitment, as do problems of security of tenure, restrictions on speech and other limitations. On the other hand, in some cases there are incentives for the appointment of foreign staff, particularly when a donor agency pays some or all of their costs.

All government-sponsored institutions in the islands have a practice, and usually also a policy, of localisation. The term 'regionalisation' is used in regional institutions, but the process is in practice largely one of localisation, with citizens of the host country being preferred, owing to selection mechanisms and constraints on staff mobility. But the pool of highly educated manpower is small. The smaller the pool of qualified talent, anywhere in the world, the lower the average quality must be.

Immediately following independence a strong preference for localisation was understandable, but how much priority is to be given to localisation where a higher quality non-local applicant is available? The world's highest quality universities aim to recruit from a wide pool of talent. Students and long-term national interest usually favour quality too.

The country of origin is also likely to be a factor among those recruited from abroad. Pacific people have been in close interaction with Australia, New Zealand, USA and the United Kingdom, and this has been reflected in the expatriate staffing of educational institutions. For the coming generation, however, much more needs to be known about Japan, China and Korea, as these are becoming major influences on the region. Recruiting staff from those countries would be advantageous to students and the Pacific nations.

CONSTRAINTS ON RECRUITMENT

Probably the most critical constraint on external recruitment and retention of staff for post-secondary institutions in Papua New Guinea is the safety of families. It is beginning to cause the loss of national staff also. Government efforts to overcome law and order problems have had limited success. Personal security has also become an issue in Fiji. Solomon Islands and Vanuatu, for example, with no university of their own, have had to fly their students out of both Papua New Guinea and Fiji for security reasons – most recently from Papua New Guinea in June 1991.

The way that governments can act as a constraint on staffing has been demonstrated particularly in Fiji since the military coups of 1987. All other governments repatriated their students from the regional post-secondary facilities in Fiji, and sought alternative sources of education for them. However, the donor countries which supplied the scholarships offered to finance their return to Fiji, threatening to cancel the scholarships if they tried to go anywhere else. Academic freedom was promised by the host government, but was not honoured, with at least one staff member being tortured and a number assaulted by members of the security forces. Faculty have been officially warned of unspecified limits to academic freedom and of the government's ability to withdraw work permits without disclosing a reason.

The Government of Fiji made provision for its citizens who teach in national post-secondary institutions to have a 'Certificate of Suitability', requiring a security (in practice political) clearance. This was not applied to USP – one advantage of a regional institution. How far the criterion of political 'suitability' was applied in practice in other institutions in Fiji is not known, though many feel that political criteria became more important.

Whereas most countries permit long-serving staff to apply for citizenship, and all the metropolitan countries where Pacific islanders work do so, the Fiji government's policy is not to count service for the USP as 'residence', thus inhibiting staff from countries other than Fiji from obtaining citizenship, voting rights, security of employment, rights to work for spouses and children, and other

standard provisions.

UPNG requires all non-citizen staff to sign that they will not do anything 'that may be construed ... as being involved in the politics of PNG'. Publishing is also subject to restriction; a provision introduced after a highly respected economist queried aspects of economic policy in a way which would be a daily occurrence in most industrialised countries.

Post-secondary education in the Pacific has been concentrated in the two least politically stable nations. The main lesson is that regional educational resources would be better spread rather than concentrated.

Further constraints on recruitment are the cost of mobility between islands nations and immigration restrictions. No country allows free mobility of staff or students from neighbouring islands states. Study and work permits take time to issue, contain restrictive conditions, can be revoked at any time, and are a disincentive to regional staff. Moreover, students from the other countries of the region, and their spouses and children, are not normally allowed to take full or part-time work. The restrictions imposed within the islands region are generally much more severe than those in the metropolitan countries where some Pacific staff choose to work. If high standards are a priority more action is needed to ensure that staff and students are free to move to places where the opportunities are available, and are treated equally once there.

STAFF TRAINING AND PROFESSIONAL DEVELOPMENT

The region is fortunate in that funds have been available under aid programmes for staff training, mainly in metropolitan universities. To maintain high quality teaching standards for students, staff should be sent to universities of the highest quality. This has generally been done, but for reasons of time and cost there is sometimes a tendency on the part of the persons concerned and their institutions, to go to the university which will give the qualification in the shortest possible time. This may be counter-productive in the long term.

The fact that the funds are often tied to external institutions has

some advantages. Being trained in the same university in which they themselves were taught, and where they will later teach, is likely to provide a narrow experience for staff.

There is sometimes a tendency to assume that anyone can be 'trained' provided they are given the opportunities. Especially when a new institution begins, there is strong pressure to appoint persons of less than ideal qualities and send them for training. In such cases we believe that it is better to make alternative arrangements until staff with first class potential are available. Once appointed, they are likely to be there for a long time.

Funds for short courses, attendance at conferences, and participation in a range of experiences have also been relatively freely available from external sources. This is very desirable in a highly interactive world. As many such awards and invitations are given by nation and/or institution, the smaller the country and the institution, the more it is likely to receive these opportunities. Sometimes the opportunities are so frequent that if all were to be accepted the teaching programme would be disrupted.

Such funds, however, tend to go disproportionately to the highest level institution of that country or region, and much less to the others. For example, national teachers' colleges are vital institutions and have an urgent need for top quality and internationally aware staff but they often find it harder to obtain the necessary resources than universities do. There is also a tendency for external funds to go to government institutions, whereas we feel there is a strong case for them to be shared equitably with private colleges and universities.

In situations where salaries are relatively low and the cost of living high, many staff feel they cannot afford to buy books, subscribe to journals, or maintain membership of international professional associations. In view of the value of these for quality teaching and for keeping up to date, we believe there is a strong case for a tied allowance, in addition to salary, to be available for spending only for these purposes. This is the practice at UPNG, where a tied allowance of K500 (US\$500) per year is granted to staff for books, journals, computer programmes, etc.

It was long assumed that while primary and secondary teachers required training in the art of teaching, post-secondary staff did not. Fortunately this attitude is changing, it being increasingly accepted that anyone who teaches can benefit from professional training. However, in many post-secondary institutions this is not happening. There is value in a basic course as early as possible, and for periodic brief refresher programmes. Having expert visitors from various countries at different times, to introduce a diversity of new perspectives, can also be valuable. This can usually be provided under aid programmes.

We see a good case for staff exchange within the Pacific region. However, given the fact that so much that goes on in the region is determined from the Pacific Rim countries and beyond (and this will be increasingly the case), there is an even stronger case for exchanges with those countries which are the most important partners for each of the Pacific islands nations. Moreover, in many subjects, Pacific expertise is not what is in short supply. Thus if teachers of history or geography are being exchanged between Pacific institutions, they are less likely to carry new information than if such persons are coming from further afield. Likewise, the expertise of the Pacific staff member is likely to be of more interest abroad, where first hand experience is less readily available.

PERSONAL QUALITIES IN STAFF SELECTION

Staff selection anywhere is ultimately subjective. Since formal qualifications and publications provide objective criteria, they sometimes receive undue prominence. We have the impression that one of the differences between the government universities and the private is that the private ones, most of which are church related, place a higher value on personal integrity in staff selection.

RECOGNISING THE VALUE OF PRIVATE/NGO/CHURCH STAFF

Staff costs in private, NGO and church educational programmes tend to be lower than those in government and inter-governmental programmes. This reason alone justifies such programmes receiving an equitable share of external aid, and indeed of national taxpayer

funds, along with government institutions. It used to be a widely held view that education in the Pacific was the prerogative of churches; now it is in many cases considered to be the prerogative of government officials. Fortunately it is now becoming accepted in this part of the world as elsewhere that there are many approaches to a good education, and that diversity can be healthy.

Mixing national, regional and international options

The basic question for islands governments, and for individuals, is the extent to which their interests are best served by:

- operating as groups of islands states (and if so which ones for which purposes)
- linking with larger powers (and if so which ones to what extent)
- leaving individuals to choose among national, regional and international institutions, as those do who go to the church-sponsored and other private institutions in the islands, or go privately to universities and colleges in the metropolitan countries.

Regional systems

Four main systems apply in the region. The largest is what might be termed the 'Commonwealth' system, broadly derived from, and still in contact with, the British, Australian or New Zealand systems. Closest to it, and compatible with the least adjustment, is the US system which applies in American Samoa and all islands states and territories above the equator. Third is the French system, which is more difficult to interact with owing to language differences and relative inflexibility. The Indonesian system, within which the western half of the island of New Guinea falls, has only nominal contact with the rest of the region. Moreover, Indonesian standards are generally not high.

The boundaries between the systems are loosening. For example, the Marshall Islands has joined USP and the Federated States of Micronesia is likely to; COPE (Council on Pacific Education) now links Hawaii, Western and American Samoa, Tonga and the Cook

Islands; France has recently indicated a wish to expand the use of facilities in New Caledonia and Tahiti by Commonwealth Pacific states; and some attempts are being made in PNG to expand interaction with Irian Jaya and Indonesia.

Some new overlapping networks are emerging:

- 1 The most prominent are those based on Hawaii (University of Hawaii, East West Center, Center for Advancement of Pacific Education, Council on Pacific Education, Brigham Young University, University of the Nations).
- 2 In 1991, The University of Auckland had some 1,233 Pacific Islander students (not including Maori), including more Cook Islanders, Niueans, Samoans, Tongans, and Tokelauans than any other university in the islands or elsewhere in the world. There are Pacific islanders at the other six universities in New Zealand as well. About half of those who identify as Pacific Islanders have come to New Zealand to study, and the other half reside there.
- 3 The recently formed Melanesian Spearhead Group (a group-ing based on the annual meeting of heads of government of Papua New Guinea, Solomon Islands and Vanuatu) has made co-operation in higher education one of its priorities, though how this will be implemented is not yet clear, particularly in view of the tensions between Papua New Guinea and Solomon Islands over Bougainville. There is likely to be more interaction in education in Polynesia in the 1990s.

The extent to which France will succeed in its attempt to attract students from the Commonwealth Pacific to the two campuses of L'Universite Francaise du Pacifique remains to be seen. The original proposal was countered by anti-independence supporters in French territories who feared the presence of students from independent islands states might exacerbate pro-independence pressures. The main potential influence is that of the Tahiti campus on its nearest neighbours – the Cook Islands, Samoa and Tonga; and that of the New Caledonia campus on Vanuatu.

Much will depend on the amount France spends on the exercise and how far the university adapts its programmes to suit such students.

Categories of institution

There are two main categories of institution. The regional educational institutions are concerned mainly with credit courses, whereas the regional 'development' institutions mainly operate short applied courses. The former are larger, the latter more numerous. As noted above, the only institutions which provide educational programmes for the whole Pacific Islands region are the South Pacific Commission (see page 23), some international agencies and some religious institutions.

Widening the options

The first priority of the islands states has to be to strengthen national development. Most students going abroad prefer to learn in and about the places where the power is, relevant to their needs. The range of such countries is different today from a generation ago, and will be different again next generation.

An important task for national education systems is to compile information on the options available and make it readily available to the public. To the extent that government scholarship funds are involved, we endorse the growing tendency for the selection panel to be widely representative of government, business, NGOs and other interests.

We see advantages in giving students more decision-making power in relation to what they study and where, to the extent that this is feasible. We also advocate requiring them to be more responsible for the results, and to contribute more in terms of money or service. Students who achieve only marginal results are too often allowed to repeat, and many openly discuss the widely used techniques of passing just enough courses to be able to continue, and failing enough to ensure maximum time on scholarship.

Whereas the growing complexity of offerings makes for more

complex decision-making, we believe it also provides exciting opportunities. It helps prepare students and countries for the world of tomorrow, which will be characterised by higher international interaction. Individuals and nations will be better placed the wider the range of countries they have experience in and contacts with, providing that first priority goes to those countries that are likely to matter most to the student and his or her nation.

There is, therefore, a good case for a mix of national, regional and international courses. The first priority is a solid national grounding; the second is highly selective international experience, focusing on those countries that can help the country of the student in future. This necessitates identifying what countries are likely in future to have most influence over a particular country, and then making it possible for an appropriate number of students to study there, in order to understand those countries, their cultures and languages. For all Pacific states this would mean giving higher priority to Japan, China (and Taiwan, Singapore and Hong Kong), Korea and some ASEAN states.

Regional and international linkage is being facilitated by The Commonwealth of Learning (COL). It can facilitate linkages with Australia, New Zealand, Singapore, Malaysia, Hong Kong and Canada, as well as the United Kingdom and other Commonwealth countries which may have something to contribute to the Pacific region. Japan's consideration of an Asia-Pacific satellite for distance education, mainly in English, could be a major influence if it materialises.

COL's work in the South Pacific began in Solomon Islands, its task being to establish a distance education network for technical/vocational courses, and to upgrade rural teachers by linking rural learning centres to the Solomon Islands College of Higher Education and to the University of the South Pacific. Other developments have been undertaken in relation to distance teaching within Papua New Guinea, Samoa, Tonga and Vanuatu. Regionally COL facilitates the teaching of law in USP where courses from Australian and Canadian universities

are used. COL has a potentially valuable role, provided it operates direct to participating countries and institutions and is not constrained by intermediate sub-stations which could complicate the process.

Cultural integrity and international interaction

Pacific countries are trying to evolve national identities which give confidence and legitimacy. There seem to be two strong drives: one for the integrity of the nation (in most cases partly in terms of the integrity of its culture or cultures); and the other for learning in and about those parts of the world with which the country has most interaction, for example, in trade, technological and cultural influences, political and security relations and population flows. The first leads to national solutions, the second mainly to opportunities offered by Pacific Rim countries: in the past this meant mainly Australia, New Zealand and USA, but in the future it will increasingly mean the north Pacific Rim.

There is also an important case for a third level; that of Pacific regional solutions, facilitated by Pacific regional awareness. But if these are over-emphasised they are likely to undermine the first two (national and world), which may be of more long-term value to the nation. Bray's study (1990 pp.267-9) of higher education for small nations emphasises the case for national institutions, even for small states. He quotes Gislason's view that having its own university was a major factor in the creation of Iceland's identity, and that not having a national university has been a contributing factor in the lack of a national culture in Luxembourg. Bray quotes similar views from various other small states. More recently Galtung (1993) is quoted as suggesting that 'small private universities could provide a solution for the crisis in higher education'. He also emphasises the importance of 'high temperature pedagogics', a multi-science approach.

Pacific Islanders, particularly in Polynesia and Micronesia, are among the world's most mobile people: for example, not including tourists or other non-citizens, a number equivalent to nearly half

the population of Rarotonga travels internationally each year. Tourism is the largest industry for several countries and seems likely to become so for more. International finance centres play a bigger role here than in any other region. Relative to population size, Pacific governments have more diplomats and other staff travelling abroad than any other region. These and other factors mean that Pacific leaders (and those at lower levels) need to be familiar with other countries. The countries with which they need most familiarity are the industrialised nations of the Pacific Rim.

Obtaining part of their education in those countries is not only of value, it is the first priority of most Pacific people. It tends to be others who wish to restrict their access.

The aim should be to broaden the mix. The idea of taking all one's courses for a qualification in one place is going out of date. The cheapest way to achieve an international perspective is by national institutions taking some courses by distance methods from USP, UPNG and other institutions – the wider the range the better. The next level is student exchanges, for which there is more scope than has been exploited. Except for the small number of private students going abroad (almost all of whom want to go to metropolitan countries), the decision as to where to send students for full-time studies for most islands countries is determined by aid donors. Current donor preference is for most to go to institutions in the region, with a proportion going to the country of the donor. These are mainly for subjects not taught in the region, or for post-graduate studies, or for outstanding students such as are provided for under the Australian Equity and Merit (now Sir John Crawford) Scholarships.

Self-reliance versus internationalism

There are strong political and psychological forces encouraging self-reliance and others facilitating dependence and interaction with a wider range of countries. There is much public rhetoric to the effect that the former is good and the latter bad. In terms of action, however, that which is rhetorically recommended is not always implemented.

What action falls within which category is not always self-evident, and is sometimes reclassified according to the need of the speaker. Self-reliance may cost more in some circumstances, and it gives a narrower range of personnel to choose from. However, if funds are used to import better staff or teaching aids from abroad, this can be classified in either category.

Isolation is not a goal of any Pacific Islands country. They want self-reliance, but in a highly interdependent world – particularly for very small states – this can only be achieved by a good knowledge of the external sources of power. Thus, all want extensive contact with the world community and espouse a general principle of internationalism. None, however, wants unrestricted contact and all governments require some degree of filtering or control, particularly in relation to curriculum materials and staffing.

Most countries want to undertake at least some teacher training nationally, but there is a very good case for specialised forms of education being taught on a regional basis, for example, physical education, non-formal education, expressive arts and teaching of the disabled. There is also a very good case for ocean resource management, land management, journalism, linguistics, archaeology, geology, librarianship, tropical agriculture, tropical fisheries, town planning, surveying, population studies, community development, law and many other fields to be taught in regional centres – but not all at one centre (a point reinforced by the 1991 Review of USP under Professor Unku Aziz). The developing Caribbean notion of regional ‘centres of specialisation’ (to overcome the problems created there by excessive centralisation) merits further consideration in the Pacific.

What is needed is a new concept of regional co-operation, with more of the facilities and benefits distributed, and more co-operation between nationally-based institutions. However, as most student movement in the region is funded from abroad and is tied to institutions and criteria decided by those who donate scholarships and capital funds, it is necessary to persuade these donors of the need to spread the growth in various countries. Otherwise the benefits accrue where the concrete is poured.

Most islands countries will be marginalised if they become pressured into a single Pacific islands regional system, and can only approach the world beyond through that system. Their leverage is their sovereignty, their ability to negotiate freely. And in a complex situation, flexibility, multiplicity, and freedom of choice are essential ingredients if the islands states are to avoid being locked into the kind of bureaucratic straitjacket from which Eastern Europe is trying to escape. Linking arrangements between islands institutions and those abroad (both in other islands states and beyond) are essential. They can bring in resources, skills, comparative experience. But the best results will be derived from each country making multiple linkages, both to obtain the best resources from wherever they are available, and to avoid any external source having excessive influence over them.

Equity issues

Geographical access

Within islands countries geographical access is a major issue, as there is little provision for students outside the capital city. Much more than in the industrialised nations post-secondary education is skewed in favour of capital cities. For example, in the Cook Islands 57 per cent of the population lives within 20 minutes driving time of the USP Centre, and almost all Cook Islanders own motor vehicles: 81 per cent of the credit course enrolments in 1991 are in the capital. In Solomon Islands only 10 per cent of people live within even 30 minutes drive of the USP Centre and very few have their own vehicles: 76 per cent of USP extension students are in the capital. In both cases, failure rates of students outside the capital are very high, owing to minimal support services.

The disproportion in-country is sometimes less than it appears. For example, many students on Rarotonga are outer islands people who live on Rarotonga – some having come in for that purpose. The very fact of being the capital means that Rarotonga contains a higher proportion of people with the prerequisites for post-secondary studies. Since, however, there is free mobility and full employment in

Rarotonga the constraints are not so serious. One example of this is that even though 57 per cent of the population lives on Rarotonga, only 7 of the 21 permanent secretaries and heads of statutory authorities are Rarotongan, and 14 are from other islands within the nation.

The situation in Solomon Islands is more serious, both because only one tenth of the population lives in the capital and because it is very difficult to obtain work. This concentration of educational privileges in the capital is noticeable in almost all islands nations.

The issue of geographical access is even more noticeable in regional institutions, in which the host country is the main beneficiary. For example, though Fiji has only 45 per cent of the population of the USP region, its people have received about 71 per cent of students and of regional staff posts, 85 per cent of staff training awards, 91 per cent of postgraduate students (now the normal route to staff posts) and 96 per cent of the books (and 99.6 per cent of the inter-library loans). This is despite the fact that foreign donors have supplied almost all USP's capital funds, staff training and research, a high proportion of its scholarships, many of its staff salaries, as well as substantial contributions to the running budget, ostensibly for equitable benefit of all member countries (Crocombe and Meleisea, 1988 pp.346-63). To take another example, in its 25 years to 1993, USP graduated one out of 125 of Fiji's population, but only one out of 1,200 of Vanuatu's. In other words, from every donation of buildings, staff and every other input by donors, about 90 per cent of Vanuatu's intended share has been taken by Fiji. Vanuatu has been marginalised with the remaining 10 per cent. This is the opposite of the aid principle of giving most to those with most need. The high-level New Zealand foreign affairs review, after consulting all member countries, noted the 'perception in the region that USP is more a Fiji than a regional institution' (Henderson et al, 1990 p.147); and Albert Wendt, probably the most internationally distinguished Pacific islander academic and a former Pro Vice-Chancellor of USP, felt that 'Our governments and donor governments should ask themselves if they are still willing to finance an institution which, I believe, is Fiji's national university'

(Wendt, 1989 p.94).

A much more equitable spread of benefits and opportunities could be achieved if priority were given to that goal. However, the other countries have now been so deprived over the last twenty years that equity would require extensive corrective action over many years. It is probably unattainable in the short term with such a high degree of centralisation of facilities, and consequently of staff, economic and other benefits.

The same problem arose in Micronesia from the same cause; external planners and funding sources placing too much emphasis on centralised regionalism in situations of restricted mobility. Although the Community College of Micronesia is technically a joint facility of the Federated States of Micronesia (FSM), the Marshall Islands and Palau, the main campus is in FSM. At the 1991 graduation 63 of the 76 graduates were from FSM, only 13 from the other two states combined.

The benefits from South Pacific Applied Geoscience Commission's extensive programme of education and training are likewise spread unevenly among member countries, even though its finances are donated from outside the region for equitable assistance to members. Fiji, with 14 per cent of the population of SOPAC's member countries (excluding Australia and New Zealand, which do not benefit from the training programme), was much the largest beneficiary on this, including the most valuable training of all – employment in the organisation, whose regional staff, including the Director, have all been mainly Fijian.

Although perfection is not to be expected, experience has shown that centralisation benefits the centre at the expense of the others. Other approaches are needed. One is to spread facilities. Thus USP's School of Agriculture is located in Samoa (and the proportion of Samoan students there is high), Pacific Languages Unit is in Vanuatu (and the proportion of Vanuatu students is high there). The Institute of Marine Resources is to be located in Solomon Islands, the country with the highest proportion of its national income derived from marine resources, the highest proportion of its work force living from marine resource industries, and the most

diverse marine environment. The principle is appropriate, but this kind of devolution cannot be achieved unless the decision-making power is devolved with the facilities. Then co-operation on a basis of equality and mutual respect is possible.

The same problem arises with some commercial firms. The Australian headquarters of both Westpac and ANZ banks decided to centralise training for the Pacific on Fiji. Apart from a temporary Australian manager, the staff of the training centres are all Fiji citizens, who receive the higher levels of training, employment and salary.

Access for the disadvantaged

Countries have experienced a varying degree of success on this issue. Kiribati, with a strong tradition of equity in its society and polity, allocates access on the basis of a quota for each island. Otherwise, students living in Tarawa, the island where the capital is located, would gain almost all places in secondary and post-secondary institutions, for Tarawa has generally better schools, more highly educated teachers, and a range of additional stimuli. Moreover, the students or their parents or relatives living on Tarawa are in a much stronger position to apply leverage to those who control access to such institutions and to scholarships for training abroad. This kind of allocation, at least partly on the basis of geographical location, appears to us to merit further consideration in other countries.

Where some ethnic communities are more advantaged educationally than others there is also a case for transitional priority being given to the disadvantaged. This is done in Fiji for indigenous Fijians and in Nauru for Nauruans, and for indigenous people in several other countries.

Access for women

Women are at a serious disadvantage in all Melanesian countries, and in parts of Polynesia and Micronesia. That the situation varies widely is illustrated by the fact that of the USP Extension Services credit course enrolments in the first semester 1991, 62 per cent of

the enrolments in the Cook Islands were women, but only 17 per cent of those in Solomon Islands were. Most other forms of post-secondary education also show a preponderance of women in the Cook Islands (except in apprenticeships, aviation, theology and a few others) and of men in Solomon Islands. The trend in the Cook Islands is reinforced by the fact that the proportion of women under 30 is higher than those over 30.

In neighbouring French and American territories, women outnumber men at L'Universite Francaise du Pacifique in Tahiti, the University of Guam (57 per cent) and the University of Hawaii (56 per cent).

In contrast, in Papua New Guinea, Solomon Islands and Vanuatu, fewer girls receive secondary schooling than boys, fewer girls can obtain employment, and cultural constraints on allowing girls the mobility necessary to attend tertiary education are stricter.

The predominance of women in higher education in eastern Polynesia and western Micronesia is recent. As in French Polynesia and Guam, high levels of per capita income and education corollate with high levels of female participation. The achievement of equality by women is easy to explain, but the rapid movement to much more than half is not. To some extent it is catching up, since in earlier years boys had more opportunities. But this cannot be the total explanation, for that factor also leaves more men equipped to take tertiary courses. Moreover, in age cohorts where both sexes have had the same opportunities, women are well ahead. For example, in the foundation (preparation for degree studies) programme taught at Tereora College in the Cook Islands in 1991, there were 19 girls but only five boys. Achievement levels in the nation's high schools indicate that the tendency for female students to outstrip males is increasing.

In the Cook Islands there is relatively full employment. In the public service 51 per cent are women, but there and in the private sector the proportion of males increases with the rank of the post. The difference in current enrolments cannot be explained by cultural factors; they would indicate the opposite, as formal education

both in traditional society (for example, for ta'unga or experts in various fields) and in the colonial era, was primarily for males. The reasons may have to be sought in deeper psychological factors, one manifestation of which is the much heavier involvement of men with alcohol and other stimulants, and with contact sports (boxing, rugby, etc).

Papua New Guinea's National Development Strategy, a document of basic principles adopted after independence in 1975, recognised women as disadvantaged, and called for the rapid achievement of equality. In practice, however, fewer women were employed in 1980 than in 1971, as PNG men generally took the jobs of departing expatriate women, and also displaced PNG women (National Public Expenditure Plan 1983-1986, p.58).

Enrolment of trainees in teachers' colleges for community (lower level) schools, was 60 per cent male, 40 per cent female; academic staff was 70 per cent male to 30 per cent female, with not much change over the previous seven years (Kara et al, 1988 pp.69-70). Women are particularly under-represented in the sciences and technology, with an average of only 12 per cent of female entrants to science at the University of Papua New Guinea between 1979 and 1987, even though the female students averaged higher grades (Wilson, 1988 pp.117-20) and only 6 per cent of female students at the PNG University of Technology between 1970 and 1984, even though women achieved just as well as men in tertiary science and mathematics courses (Wormald and Crossley, 1988 p.9). There was a higher proportion of women at secretarial, technical and community colleges, but in the more than 60 institutions of higher education, 78 per cent of enrolments were male (Commission for Higher Education, 1990 p.37).

Pressure for equality of women in higher education comes from foreign aid donors (many of whom make equal participation of the sexes a condition of scholarships) rather than from local pressure groups. But the most effective pressure comes from full employment (which gives women more opportunities), higher incomes (which facilitate labour-saving devices and mobility), and rising aspirations.

All or almost all Pacific countries have a policy of equality for women, though practice varies. Therefore, positive discrimination in favour of women students for scholarships, access and other incentives is practised to a varying extent. In situations of major imbalance we see a case for even more preferential treatment, but also note that there are limits to the extent to which this can be forced by educators. For instance, in Papua New Guinea, one of the constraints on women's participation is the law and order problem. There may also soon be policies needed in those countries where women have the advantage, to give equitable opportunities to men.

Finance

Many countries of the region experienced stagnant or declining per capita real income during the 1980s, due in part to deterioration of world prices for primary produce, and in the case of Fiji and PNG to internal political problems. The proportion of government revenue devoted to education declined even more in most countries of the region, due to higher spending on military, police, marine surveillance and related 'security' services, as well as on infrastructure for telecommunications, tourism, manufacturing and marine resource exploitation.

Yet the tendency over recent decades has been for governments to pay more of the costs of post-secondary education, for three main reasons:

- 1 The local and overseas funds to churches, which had been the main suppliers of higher education, declined.
- 2 Foreign aid has been much more available to government institutions than to private ones.
- 3 Both independent and colonial governments have given priority to post-secondary education in order to staff the growing public services, and to meet public demand.

Whereas it used to be the case that education required financial and physical contributions from students, their families and com-

munities, it is now mainly provided free by someone beyond their knowledge. Mr Aukino Tairea, Secretary for Foreign Affairs of the Cook Islands, says that when he receives requests from schools for foreign aid funds to buy lawn mowers (as he does) he remembers that when he went to school they brought broken bottle glass or old razor blades with which to cut the grass.

Recently, however, both national governments and foreign donors have been reducing the proportion of funds available for education. Post-secondary studies have absorbed a very high proportion of the education budget: for example, Siwatibau (1990 p.27) notes that in Papua New Guinea 50 times more is spent on each tertiary student than on each primary one, and 18 times more than on each secondary student (compared to the international average for low income countries of 25 and 13).

The difference in costs in different institutions providing similar programmes is striking. The main difference is between institutions which are primarily government funded, whether regional or national, and those that are privately funded. For example, for the government to train a nurse in PNG costs 50 per cent more than it costs the churches (Commission on Higher Education, 1990 p.38). In many cases throughout the Pacific the discrepancy is greater.

Cost does not necessarily correlate with quality. The limited evidence available would seem to suggest that the cheaper training is no less effective. A study of university development in PNG from 1961 to 1976 observed that the number of diploma and degree level candidates from the then three main church-sponsored institutions 'was small by comparison with the output of the two official universities ...[yet they were] probably among the best graduates the country has produced' (Howie-Willis, 1980 pp.249-50). Their influence reached far beyond the churches, to education, media and politics. In 1991, one of the most outstanding leaders of PNG (not himself a church man or a product of church education) said he did not expect the future leadership of PNG to come through its national universities (in their present state at least), but from education in the private institutions or overseas.

Fees

Very few students in government-sponsored institutions pay fees. Most are paid by donor governments, national governments or other sponsors. The revenue from fees depends not only on family incomes but on what the community accepts as reasonable. Thus parents in Tonga and Kiribati pay a relatively high proportion of their income for school fees, even though both countries have very low per capita incomes. In Papua New Guinea and the Cook Islands, on the other hand, even though the capacity to contribute to education is much higher, parents have not been accustomed to pay much. Any government which tried to change that situation would be concerned about loss of public support. Nevertheless, the demand for higher education is so strong that the public probably would contribute more to their own and their children's education once the pattern became established.

One advantage of being responsible for at least part of one's fees and other costs, is that students and their families are likely to take more interest in the study process, devote more time to it, and ensure that value is derived from it. The Tonga Ministry of Education's university foundation studies programme puts this into effect by requiring parents (or students) to make a small financial contribution. The Minister believes this has a beneficial effect on student motivation and family support, as well as on the maturation of the students. In contrast, in the early years of the National University of Samoa students paid no fees and they were paid an allowance. Students graduating from its foundation (pre-degree) year were less successful than those in Tonga, despite the much higher cost. While this was not the only factor, the fully funded approach seems less cost-effective, less academically successful, and less maturing for the student.

With few exceptions, full-time students at UPNG, UNITECH and USP make no contribution in time or money to their education, and we believe students tend to be less mature and responsible for that reason. At University of Hawaii, by contrast, nearly half of the students are part-timers with full-time jobs, and many of the

rest are full-time students with part-time jobs. At the private universities in Hawaii the student's contribution to his or her own costs seems to be even higher. Many students at Japanese universities likewise work part-time to help pay for their education, and one of the most common jobs for university students is to tutor high school students. The teaching, in addition to the money it generates and maturity it develops, also assists the education of the person doing the teaching.

A theoretical disadvantage is that fees can facilitate social stratification and discriminate against those most in need. But in practice the opposite is the case. Pacific Adventist College (PAC), The Brigham Young University (BYU), Divine Word Institute (DWI), University of the Nations (UON) and Atenisi Institute and University do not cater for the wealthy and privileged whereas the government-sponsored institutions contain a high proportion from the privileged sectors.

DIVINE WORD INSTITUTE

Private institutions have evolved techniques whereby, irrespective of income levels, students can earn their fees. Degree study at DWI costs K2,800 (about US\$2,800) per year, including accommodation and food. Of that Natschol (from government) and the DWI Scholarship Fund (private) contribute K1,800 and the student contributes K1,000, plus a minimum of four hours of community service per week. The student's contribution is part of DWI's 'philosophy of self-reliance through the payment of school fees and willing participation in community service' (A Guide to the Divine Word Institute, 1991 p.39). Students also care for their own living quarters, share dining hall duties and take part in campus maintenance. 'Emphasis is placed on the value of work, self-reliance, responsibility to community and the acquisition of critical thinking' (ibid., 1991 p.4). Students may borrow from a revolving students' loan fund, to be repaid within three years of graduation. All students must have worked for one year before beginning tertiary studies, but most have worked for two. Students make their own applications for private work during vacations for at least

nine weeks per year. DWI assists with tutoring in letter writing and other approaches to locating work, and considers that both the employment and the confidence to find it are valuable parts of the education process. In a nation with major problems of unemployment, it says something for the reputation of DWI that all their students have found jobs every year for the last ten years. Many have become permanent staff of their vacation employers.

THE BRIGHAM YOUNG UNIVERSITY

This Mormon-sponsored institution in Hawaii is attended by about 300 Tongans, Samoans, Cook Islanders and other South Pacific people, out of a total of 2,000 students. Fees were a problem which could not be resolved until President Howard Stone established the very successful Polynesian Cultural Center as a commercial enterprise at which students could work part-time (20 hours per week during semester, 40 hours during vacations) to pay their way through university studies. The work gives them training and confidence as well as funds.

PACIFIC ADVENTIST COLLEGE

One feature which keeps costs low at PAC is that students contribute to the operation of the campus, so that few ancillary staff are needed. For example, only one permanent worker is employed in food service since the rest of the labour is provided by students. Students also undertake most routine library work (compulsory for students training to teach), food production, security and janitorial services, maintenance, the business office and store. Single students must work 14 hours per week, married students seven hours. The sale of farm produce further reduces costs. Like all Pacific universities, there is external subsidy, in this case from the Seventh-Day Adventist church in Australia.

Students who cannot meet the fees (K1,056 or about US\$1,100 per year for single students, including accommodation and food) can earn them by full-time work during vacations. About one third of PAC students pay their way entirely from work.

The work component is not just to save money. Even a student of wealthy parents is required to work as this is seen as an essential part of the education process, balancing study with practical activity, leading to greater self-reliance and responsibility. Students gain confidence and maturity by paying for their own education. We expect the work/study component is also a factor in the reputation PAC students have earned for responsibility and productivity.

Despite low costs, the ratio of staff to students is high (about one to nine), and the demand for graduates is high, a *prima facie* indication of the quality of education, despite unemployment among graduates of other institutions.

THE UNIVERSITY OF NATIONS

This is a recently established church-sponsored university in Hawaii which a number of Pacific students attend. It recently acquired land to build a campus in Tonga. Fees, which are much lower than the costs of the state university, are kept low by a requirement for ten hours of campus work per week and by a 'live-learn' philosophy of education whereby many of the students and staff of a particular faculty live together in one 'village' to facilitate staff-student interaction. Degrees are offered in education, science and technology, performing arts, communication, counselling and health care, and Christian ministry. Humanities and international studies are being developed. It is the most recently established university being used by Pacific people, and we have no data on the quality of its qualifications.

ATENISI UNIVERSITY

This institution charges P540 (about US\$400) per year for full-time, non-residential, degree studies, or P60 per course for part-time students. Students have provided most of the labour for the construction of the university buildings. Despite the low costs and minimal facilities, an independent study observed that 'the success rate of Atenisi students in New Zealand universities has been remarkable' (Coxon, 1988 p.194).

STUDENTS FROM COOK ISLANDS, NIUE AND TOKELAU

Students from these countries have effective dual citizenship with New Zealand. Since fees for citizens there are very low, that is the cheapest option and the one that offers the most freedom, for example, for students, spouses and families to enter and work. This means that the only students from these countries who study in islands institutions (except for PAC) are those for whom external scholarships are only tenable there. Many Samoans also have dual citizenship with New Zealand and use that option.

The obvious ideal is for students to make some contribution to fees, but with exemptions for the poor if opportunities to earn one's contribution are not available. Even if such an ideal were attainable (and it is more achievable than is usually realised), fee levels are determined by the availability of other funds (from governments, churches or aid) rather than by ideals. For a discussion of loans and bonds see page 141.

The need to reduce costs

The financial constraints highlight the need to deliver post-secondary education at lower cost. Possibilities include a higher proportion of teaching by distance methods (which do not require the same capital outlay, fares or accommodation costs, and reach a wider clientele), more effective use of radio and satellite, lower cost texts, summer schools, more use of private institutions, and drawing more on larger systems beyond the islands.

The prospects of more external funding for post-secondary education are not good from Commonwealth sources. Per capita contributions to education in the region from the United Kingdom, Australia and New Zealand declined in real terms in the 1980s. Those from Canada increased, but Canada is not a major contributor. Projections for the 1990s suggest a continuing decline from these sources, but an increase from north-east Asia, particularly Japan in the short term and other East Asian countries with interests in the region in the longer term.

Internal sources of funding, including greater contributions from students and parents, may be necessary to achieve quality and

economic growth. This could have positive effects, as is demonstrated by those countries of the Pacific Basin which have made the most rapid strides in higher education and economic growth and which are also those in which parents and students make a considerable contribution to higher education. We note the spread of scholarship trusts (commercial insurance/savings schemes for higher education) in Pacific Rim countries. There is a limited role for them in the islands.

Links between costs and student responsibility

Our favourable impression of the institutions where students pay for at least part of their education and take responsibility for their facilities has been noted above. The contrast with other institutions is obvious. An official of UPNG spoke to *The Times* of Papua New Guinea on 3 January 1991 on the 'astronomical sum' required every year to repair vandalism caused by students – doors knocked down, windows smashed, fly wires torn open, dormitories 'littered with rubbish, betel-nut spit and human excreta'. The damage was 'not something new. This has been going on every year'. The PNG University of Technology has similar problems. Apart from large-scale fights, occasional killings and pack rapes by and of students, it has been at times necessary to declare a state of emergency. In May 1991, in riots on the two campuses, 16 cars were hijacked and destroyed along with other damage. Even more serious than the repair of material damage is the fact that graduates move onto the labour market and into positions of power, when they have not learned responsibility.

Yet the Divine Word Institute and the Pacific Adventist College, catering for students from the same backgrounds, do not have these problems. One of their advantages is being smaller in scale, but we believe also that the requirement for students to contribute to the maintenance of their facilities, and to the costs of tuition, is a significant factor. Thus in institutions where students carry a significant level of responsibility for their costs and their physical environment, the costs are much lower, the condition of the campuses much better relative to cost, and the graduates seem to be more mature.

Incidentally, the graduates may also be fitter, as a result of their participation in physical work.

In 1990, the PNG Commission for Higher Education decided, partly to overcome the problems discussed here, that whereas previously their institutions had two functions (teaching and research), henceforth they would have a third – community service. The type of community service is for each institution to determine.

Responsibility and productivity

Of the many factors which may relate to the low and relatively stagnant real incomes per capita in the region, one is the pattern of formation of the region's most talented young people and the assumption that qualifications are the key and that other experiences are peripheral.

Most students in national, regional and international government-sponsored institutions have been put through an educational process in which all fares, fees and other costs have been paid, with no contribution from the student required. Thus, those with the highest potential are kept for years in a state of dependence, with little opportunity to develop responsibility, productive initiative, or the ability to solve real problems.

An apparent tendency which merits detailed research, is that a higher proportion of students who have integrated work with study and contributed to costs, have subsequently made a more productive contribution to their countries. Many were educated in small-scale, highly integrated, clearly focused, private institutions.

Official planning in the region still seems to be largely in the opposite direction. In some cases, outstanding success has been achieved by those who have been educated in large systems, but due to their own efforts (usually by concurrent work and/or vacation work) rather than with total sponsorship. The five private systems referred to above all demonstrate that it is possible to achieve the goals of greater personal responsibility, integrated learning, student contribution to costs, and low total cost. More aid funds channelled to private institutions which work on these lines might yield better long term results at lower cost.

Futa Helu pointed out to us that integrated work and study 'harmonises with the basic rhythm of Pacific life and is to that extent a healthy approach'. We do not accept the view put forward by some people that integrating work with study reduces the quality of education. If there is an impact, we expect it to be positive, provided the mix is not excessive: the National University of Samoa provides full-time degree courses to nominally full-time teachers (who are in practice given some time off for study) – this seems to be expecting too much. It is understood that the system is being reconsidered.

Loans and bonds

The Government of Fiji recently introduced a partial loan scheme but it is too early to know how effectively it will work. Loan schemes reduce the long-term cost of higher education to the public, and facilitate more higher education. One disadvantage is the high administrative costs of loans and the difficulty of tracking defaulters. However, a very recent change in many Pacific countries is that private banks are giving loans to individuals for higher education, usually at concessionary rates of interest.

The effect of loans on student motivation may be conflicting: on the one hand they may discourage some people from studying; on the other, they probably are an incentive to study harder and to learn more responsibility.

Bonds have been used by Pacific governments for scholarships abroad, but most such schemes have been abandoned as too difficult to implement. When the bond is signed the student is usually legally a minor, but on reaching 21 years of age, he or she is no longer legally bound by it. Likewise, parents who sign the bond cannot be held responsible after their child reaches 21. Woodhall's practical guide to the use of loan finance for students is useful here (1988).

External aid

The Pacific Islands states receive more aid per capita than any other part of the world. That which is allocated to education is almost all to post-secondary. The volume of aid varies according to relations

with donor countries. The purposes for which it is available vary according to donor priorities:

- 1 The largest determinant is political interest. Thus, the highest funding per capita for education is in the French territories, the next highest is in the US territories and associated states, the next is in countries and territories associated with New Zealand, then those linked to Australia, then those associated with Britain, and least in the Indonesian province of Irian Jaya.
- 2 While the first priority of donor nations is to help nations with which they have special relationships, the second is to support regional organisations. The first priority of most international agencies is to organisations like their own, that is, multi-country institutions. It is also administratively easier to deal with one recipient than with many.
- 3 As a result of 1 and 2, the greater the need, the less the chance of meeting it from aid, as donors have other priorities and agendas.

Of Australia's aid to the Pacific in 1985-6, some A\$20.4 million (29 per cent of total aid) was spent on education. Only 14 per cent of aid to education went to the primary and secondary sectors, and 78 per cent to post-secondary (14 per cent vocational and technical, 64 per cent university) and very little to teacher training (Throsby and Maglen, 1988 p.vii).

Despite constraints on the amount of aid, post-secondary education is likely to remain a priority. The vital question is, what is the best distribution of aid to education? Our impression is that quality is more important than quantity; that upgrading the teaching staff from pre-school to tertiary is a high priority; and that greater overall benefit will be derived by distributing more of the aid to individual nations, so that they can determine the mix of national, regional and international education that best suits their needs.

We used to think that the way to upgrade the quality of education was to get teachers to take higher qualifications. But recent

studies in Tonga show that standards of both primary and secondary education dropped during the past decade despite a great improvement in the formal qualifications of teachers. We can no longer simply assume that improving formal qualifications of teachers brings about a higher quality of education.

Returns on buildings, equipment, books and time

'Lavish buildings and equipment will not raise quality' (Throsby and Gannicott, 1990 pp.10-11). Those authors do, however, regard quality books and other instructional materials as one of the most cost-effective ways of raising the quality of education.

There is a tendency, particularly where foreign aid is involved, for recipients to request more lavish structures and equipment than they would consider necessary if spending their own funds, and for donor nations to seek publicity in perpetuity through structures bearing their brass plaques. This generates competition between donors to provide unnecessarily lavish buildings, and in the most visible locations. One of the most successful structures in higher education in the South Pacific is the central complex of the University of Papua New Guinea campus which Sir John Gunther insisted be of maximum simplicity and adaptability, with minimal maintenance over a long life. It also achieved character as well as pragmatism at modest cost. What Atenisi has achieved with a tiny fraction of the capital outlay per student cautions against the lavish facilities on a privileged few.

The time for which buildings are used is also very low, and here again it appears (though we do not have concrete data) that this applies more in government institutions than in private. The National University of Samoa is exceptional, with its limited facilities being fully used in morning, afternoon and evening sessions. USP is probably more successful than most in using some buildings for courses, conferences and other activities during non-teaching periods, but the scope for fuller utilisation is considerable.

The amount of time allocated to learning, with the minimum of interruptions correlates with better performance. Universities anywhere have an amazing talent for creating additional holidays or

breaks. For some years UPNG planners found it necessary to allow for about two weeks of student strikes per semester (the first semester of 1991 saw about three weeks of strike time).

Post-secondary courses are usually planned in terms of a certain number of contact hours, but in our experience most courses are completed with many less hours of contact due to staff absences, unscheduled holidays, diversions or 'time off'. It is suggested that administrators re-examine the question of contact hours, determine what is considered essential, and ensure that the time is allocated or the course extended. Students are in many cases short-changed in their education – and most connive readily in the short-changing!

The 28 to 32 weeks of teaching undertaken in most post-secondary institutions in the Pacific are an anachronism carried over from Europe in the days when students were needed to harvest the crops in summer. This is another of the assumptions underlying post-secondary education in the region which is overdue for reconsideration. The countries of East Asia, which will be the main points of interaction for Pacific Islands states in the coming generation, spend more hours per day, and more days per year, on the learning process. Unless that gap alone is reduced, the Pacific Islands states will fall further behind those Asian neighbours who are going to have great influence over their region.

Post-secondary education and economic development

There has been a world-wide trend to produce too many graduates in the social sciences and humanities. Conversely, there is a shortage of graduates in the sciences, technology, mathematics and commercial studies. Higher priority needs to be given to education and training for productive roles. However, it seems to us that the structure and philosophy of many of the educational institutions are not at present well suited to doing this. The private institutions are much better suited to it. Policy-makers may wish to explore the possibility of giving more freedom to students to use their scholarships in public or private institutions, and to restructure state-run institutions on more privatised lines.

A related assumption, underlying the practices of most countries of the Pacific in the late colonial and early independence periods, was that economic growth came from central planning and a massive public service. Education and training were thus oriented mainly to those goals. Despite some modification, this is still the dominant orientation of most post-secondary institutions – particularly the higher level ones – in the region today.

In the early stages of independence it was assumed that the then pattern of post-secondary education would be a major contributor to economic growth. That assumption seems not to have been borne out: Giri (1990) notes that in Africa a 25 times growth of higher education between 1960 and the late 1980s has ‘borne little fruit’ as ‘the essential basis was unsatisfactory and ... has failed to generate the anticipated economic improvement ... Not only has the education system failed to lead African societies to economic growth. It is also increasingly divorced from social needs ...’

Likewise, all the significant economic successes in the Pacific islands region make minimal use of the region’s universities or their products, for example: mineral exploitation (the main growth point in Papua New Guinea); the growth of the foreign tourist trade in a number of countries; industrial investment in Fiji and Tonga; coffee in Papua New Guinea; vanilla in Tonga; cultured pearls in the Cook Islands; and forest industries in Fiji. The international finance centres (the second largest industry for the Cook Islands and a significant one for several other countries), could use the products of the formal education available in the region, particularly those qualified in law and accounting – but do not. Although many islanders have these qualifications, few are involved in the industry, probably because a crucial ingredient is initiative and entrepreneurship, for which the training experiences provided to most islanders (whether in the islands or beyond) have been counter-productive.

There is much more to education than generating national income levels, but we are not convinced that the principles adopted by the present government-sponsored institutions meet the intellectual, skill-training or personal development goals any better than the alternatives.