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David Lim
Griffith University, dlim@vtc.edu.hk

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DAVID LIM

ABSTRACT
In recent years universities in developing countries have followed their counterparts in developed countries in adopting quality assurance to improve the quality of their teaching, research and direct community service programmes. While many of the conditions required for the successful implementation of quality assurance programmes are not present in most universities in developing countries, their adoption will still be useful. Such programmes show how a university's seemingly disparate activities are related to one another to serve a common cause and how the quality of these can best be improved by adopting an integrated approach. In the process, they provide more focus and direction to the work of the traditional academic committee system. However, the quality assurance programmes must be modified to suit the conditions prevailing in developing countries, by being simple in design, modest in expectations, and realistic in requirements.

Best Practice in Quality Assurance in Higher Education
For some time now, higher education institutions in developed countries have adopted quality assurance programmes to improve the quality of their teaching, research, and direct community service activities. An instrumental approach has usually been adopted (Brogue & Saunders, 1992; Higher Education Council of Australia, 1992; Scottish Higher Education Funding Council, 1993). This begins by establishing a mission for the institution, followed by the functions that have to be carried out to achieve this mission and the objectives for each function are then set out. A quality management system is then introduced to ensure the quality of the programmes. Lastly, an external audit system is installed to assess the effectiveness of the management system. Best practice also requires that the implementation of quality assurance programmes be preceded by a strong commitment on the part of university leaders and managers to quality advancement (Tovey, 1992).

Quality Assurance and Economic Growth in Developing Countries
In recent years, quality assurance programmes have also been introduced in universities in developing countries. One reason for this trend is simply that it is the fashionable thing to do. A more important one is
that it will improve the quality and relevance of their graduates and research programmes, and thus enable universities to play a more effective role in the economy. The basis for this belief is the finding that education contributes to economic growth in a number of ways (Asian Development Bank, 1989; Denison, 1967; Psacharopoulos, 1988; Schultz, 1961). First, it improves generally the quality of the labour force by imparting skills and work knowledge. Second, it increases labour mobility and therefore promotes the division of labour. Third, it enables new information to be absorbed faster and unfamiliar inputs and new processes applied more effectively. Fourth, it improves management skills which leads to a more efficient allocation of resources. Fifth, it removes many of the social and institutional barriers to economic growth. Finally, it encourages entrepreneurship by promoting individual responsibility, organisational ability, moderate risk-taking, and long-term planning.

These contributions are particularly important at this juncture in the economic growth of developing countries. Empirical studies show that continued economic growth depends more on technical progress, defined to include increases in labour productivity, than mere increases in the stock of capital and labour (Lim, 1996a; World Bank, 1991). Quality assurance programmes in universities are seen to be important contributors to technical progress by increasing the productivity of their research and teaching programmes.

However, it is not universally accepted that the adoption of quality assurance has produced the desired effect in universities in developed countries. While there are those who argue that, in spite of problems, the net effect has been positive, there are those who point out that quality assurance is a passing fad which has produced no substantial and long-lasting effect. It is more concerned with processes than results, and data and bureaucratic requirements, together with unnecessarily obtrusive government intervention, have diverted institutions from their core activities. The effective operation of the traditional academic committee system would have produced, with much lower costs, equally good results.

The existence of such doubts has not prevented many universities in developing countries from introducing the same quality assurance programmes. However, as questions have been asked of the usefulness of these programmes in developed countries, similar questions have to be asked of them in developing countries. The specific concerns are whether they are relevant to the higher education needs of developing countries, and whether they are realistic in their expectations and requirements. Issues of relevance and realism were raised in the early 1950s of the existing economic theory for studying the development process of developing countries (Myint, 1967; Reddaway, 1963). They should now be raised about the application of quality assurance principles and practice in higher education in developing countries.

This paper attempts to do this. The next section presents a stylised picture of the university system in developing countries. This is followed by an examination of the impact that such a system has on the quality of the teaching, research, and direct community service programmes of these universities. A quality assurance system that is more appropriate for these universities is then proposed, while the last section contains some concluding remarks.
Characteristics of Universities in Developing Countries

Developing countries are not a homogenous group. Among other things, their size, factor endowment, industrial origin of output, dependence on international trade, and per capita income differ significantly. The World Bank uses the per capita income to divide them into low-income countries (e.g. Ghana), lower-middle-income countries (e.g. Peru), and upper-middle-income countries (e.g. South Korea).

If developing countries cannot be presented as a homogenous group, then neither can their universities. Universities in different groups of developing countries do not operate under the same conditions, and there are also differences between universities within a country. A possible way to classify the universities is to divide them into elite, urban-based, and rural-based universities. The first group is the best endowed, very small in number and usually located in the capital or major cities. By contrast, the third group is very poorly endowed and is usually found in remote areas. For example, in Indonesia the formal qualifications of academic staff, and the level and quality of support services in the elite University of Indonesia in Jakarta are significantly better than those in the small rural-based and remote University of Jambi in northern Sumatra (Lim, 1992).

The formal qualifications of academic staff in the elite universities in upper-middleincome developing countries (e.g. Seoul National University in South Korea) are generally comparable to those in universities in developed countries (e.g. Adelaide University in Australia). This is also true of the elite universities in some of the lower-middle-income countries (e.g. University of Malaya in Malaysia) and low-income countries (e.g. University of Delhi in India). However, this is not the case with universities in the other two categories. Table I summarises the pattern of differences in staff qualifications, a pattern that appears to exist also in the level and quality of support services provided.

| Table 1. Comparing qualifications of academic staff in universities in developing countries with those of staff in universities in developed countries |
|---------------------------------|-----------------|-----------------|-----------------|
| Country type                   | Elite           | Urban-based     | Rural-based     |
| Upper-middle-income            | Comparable      | Not comparable  | Not comparable  |
| Lower-middle-income            | Comparable      | Not comparable  | Not comparable  |
| Low-income                     | Comparable      | Not comparable  | Not comparable  |

However, in spite of these differences, it is possible to present a stylised picture of universities in the developing world in the areas of staff qualifications, working conditions, and the quality of teaching and learning, research and direct community service. As far as staff qualifications are concerned, academic staff are not formally well qualified, with the exception of those in elite universities. For example, for universities in the Commonwealth, this is shown by even a cursory examination of the entries for developing countries in the Commonwealth Universities Yearbook (Association of Commonwealth
Universities, various issues). While a significant percentage of staff in elite universities in developing countries have doctorates from the best universities in the world (e.g. staff of the School of Economics of the University of the Philippines have doctorates from Harvard and Yale), this will not be the case for staff in most urban-based universities. The highest educational qualification for most staff will be a Masters degree, usually by coursework, with little or no research training involved. For rural-based universities, most staff will have only a Bachelors degree. For example, in the remote University of Cenderawasih in Sulawesi, Indonesia, most of the staff have only an undergraduate degree, with no research ability or experience, and teach students for an academic award that is the same as theirs.

The working conditions for academic staff are poor. In only a few countries (e.g. Malaysia) are academics even from the elite universities able to enjoy a decent standard of living from their academic salaries. In most, staff members have to teach in other education institutions or carry out consulting work for international organisations, governments or commercial firms to supplement their academic incomes. For example, in Indonesia it is common even for academics in the most prestigious institutions (the University of Indonesia, Gadjah Mada University and the Bandung Institute of Technology) to teach in more than one educational institution, that is, to ‘moonlight’.

The information support services in the elite universities are adequate but wanting in most universities in the other two groups. Their libraries are stocked mainly with multiple copies of the most basic and often outdated textbooks, while research monographs are largely absent and journals a luxury. Inter-library loan facilities are absent or rudimentary and access to electronic facilities grossly inadequate. Only a relatively small proportion of staff have access to designated personal computers. The administrative support services are also inadequate. Administrative staff are often poorly trained, without tertiary qualifications, and do not function as proud members of a profession. The division that exists between academic and general staff in universities in developed countries is even wider in developing countries.

In many urban-based and rural-based universities, especially the latter, academics do not have individual or twin-shared offices. Each is given a small desk in a large open common office, sometimes on a shared basis, which is no better than what is provided for teachers in schools in developed countries. Quiet time for research or confidential consultation for students is not available. Learning assistance programmes for students are largely absent.

In many countries, especially those in sub-Saharan Africa, shortage of qualified local staff has resulted in the recruitment of significant numbers of foreign academics, especially at the senior level, to provide the skills required and to act as role models. These are appointed on short-term contracts, usually for three or five years, which can be renewed subject to satisfactory performance. The remuneration is usually significantly better than that for local staff with the same qualifications, and includes generous provisions for home-leave and the education of their children overseas.

In developing countries, there is often significant political intervention in the affairs of universities, with much less academic freedom for staff and students of the type treasured in universities in developed
countries. Demonstrations by students and staff are often treated harshly by police (e.g. students being beaten and shot by police in Jakarta in early 1998 when demonstrating against sharp rises in food prices, following the fall in the value of the rupiah). Public criticism of the government can also be met by imprisonment without trial because of the existence of draconian laws (e.g. the Internal Security Act in Malaysia), and termination of employment or expulsion from the country if the offender is a foreigner. In some countries, critics are silenced by being successfully sued, or by the threat of being successfully sued, for punitive sums, courtesy of a compliant legal system. In general, academics find it hard to play the role of a public intellectual.

Political factors also play a more important role in promotion. Certain people are promoted because of their ethnic origins or connections with powerful politicians. Patron-client relationships abound, and academic cronyism and obsequious behaviour thrive. The ability to teach and publish well counts for little under such circumstances.

Quality of University Activities in Developing Countries

The lack of qualified staff and poor working conditions affect the quality of teaching and learning, research and direct community service programmes. The lack of formal research training limits the quantity and quality of research that can be undertaken. For example, when the University of Vudal, near Rabaul in the East New Britain Province of Papua New Guinea, was established, only the principal, a foreigner, has a doctorate (Lim, 1997). The vast majority of the local staff have only first degrees. The few with postgraduate qualifications have only Master degrees by coursework and possess very little research skills. However, there are universities in the developing world where a significant percentage of staff have doctorates but whose track record in research and publications is poor by international standards. The reason lies in the need to have more than one job that limits the time available for research, and a promotion system which does not reward excellence in research and/or teaching.

By its nature, research requires sustained periods for analysis, data collection and writing. Such periods are not easy to come by when there is a need to hold down more than one job and to go from one workplace to another, often travelling under appalling conditions (e.g. in Bangkok with its well-known traffic jams). The ability to publish in internationally reputable avenues is therefore very poor, especially if, as often claimed, there is a bias against works submitted by authors from the developing world. In some countries (e.g. Thailand), the promotion system discourages research by placing more importance on producing textbooks written in the national language than on articles and research monographs written in a major international language for an international scholarly audience.

There may also be a psychological impediment to research. Academics from many developing countries undertake their postgraduate studies overseas, where they work under established and often well-known scholars. On returning to their own universities and countries, they often look for local role models. But
these are not around because the few that were around have left for greener pastures in the private sector,
public service or universities overseas. It will take some time for the returnees to get over this and to
realise that, in an environment where there are very few trained people, they are the role models, to whom
their even younger colleagues look to for help and inspiration. Unfortunately many never get out of the
psychological hole to realise their full research potential.

Teaching and learning programmes also suffer from inadequate qualifications and poor working
conditions. The lack of a higher research degree severely limits the knowledgebase of the programmes, and
prevents the treasured nexus between teaching and research from being activated. The need to 'moonlight'
limits the time available for preparing and updating lecture-notes, and for seeing students. This will
increase the unfortunate tendency in developing countries to teach by rote learning because this form of
teaching demands far less time than a more interactive one. When this is accompanied by the traditional
reluctance of students to question their teachers and of teachers to have their teaching performance
assessed by students, the result is poor teaching and equally poor learning experiences. Matters are not
helped by the absence of technological support services and learning assistance for students.

The quality of teaching and research programmes has also been adversely affected by the inordinate time
spent on providing direct community services. In an important sense, such involvement is to be encouraged
in developing countries because of the need to make the most of scarce human resources. However, it is a
different thing if this is at the expense of teaching and research activities. For example, students often
complain that, in order to carry out consulting or advisory commitments, some academics in some
universities in Southeast Asia turn up late for lectures or leave early, and a few do not turn up on a regular
basis.

Other factors affect the quality of teaching and research adversely. Inadequate print-based library
materials, electronic access and laboratory facilities make good teaching and research difficult. Political
interference makes the search for truth, especially in the social sciences, unattractive, and promotion by
political or social connection discourages the pursuit of excellence in teaching and research.

Ironically, another factor is the presence of foreign academics. These, especially senior ones, can help to
solve many of the problems encountered but their conditions of work often mitigate against this. For
example, a short-term contract of three years is not conducive to good teaching or research. The first year
is usually taken up by adjusting to the new and often strange living and working environment, while the
third year is spent looking for another job, leaving the second as the only year when 'normal' work is
possible. This does not provide sufficient time for designing and implementing good teaching and research
programmes. The need to find positions for nationals who return with overseas postgraduate degrees
explains why foreign academics are not given tenure but it does create problems of its own.

Another problem created by foreign academics is the better remuneration package they receive. This
creates jealousy among the local counterparts, especially if they have academic awards from the same or
better overseas universities. The problem is accentuated if the foreign academics are perceived to be
second-rate, unable to find work in their own countries, and only ended up in developing countries as a last resort. This will lead to acrimonious working relationships which adversely affects teaching and research programmes. The problem is exacerbated when the foreign academics come from countries where the standard of living and salaries are much lower than those in the country they work in. A good example is the case of academics from Bangladesh and Indonesia working in universities in Malaysia or Brunei. Acrimonious relationships between local and foreign academics may be less severe if the latter are seen to be competitive in their own countries and are working overseas to pursue their research interests. If nothing else, such academics will not stay long because they will find it difficult to get back into their own system.

There are other problems associated with having foreign academics. If these come from different countries, the chances of cultural and religious misunderstanding are increased. Professional disagreements are inevitable in any work environment but these can degenerate into something worse when cultural or religious overtones are consciously or unconsciously placed on them. The intrusion of non-academic factors can be particularly noticeable in the period leading up to the renewal of contracts, when individuals from the same cultural or religious group provide good reports for each other and bad reports for others. The stakes are very high for academics from countries where the salaries are much lower because the renewal of a contract means the maintenance of a more affluent lifestyle compared to what they can expect in their home countries. Such behaviour is facilitated by the lack of transparency in the promotion or contract renewal process.

Quality Assurance in Developing Countries

To assess the relevance of quality assurance programmes for improving the quality of universities in developing countries, three steps have to be taken. The first is to identify the conditions that must be in place for such programmes to work, the second to see if these conditions are present in universities in developing countries, and the third to assess if the total or partial absence of these conditions render the use of quality assurance programmes ineffective.

The experiences of universities in developed countries show that quality assurance programmes will improve the quality of their academic activities significantly only when academic staff are paid enough to live comfortably on their university salaries, have research skills, receive adequate support services, enjoy academic freedom, are promoted for performing their duties well and not for having political or social connections, and do not work in environments where acrimonious personal relationships abound.

All or most of these conditions are present in the elite universities in the more advanced developing countries (e.g. Seoul National University in South Korea), in which case introducing quality assurance should, in principle, be no different to introducing it in universities in developed countries. However, the same cannot be said of many of the other universities in developing countries. For example, most of their academic staff are not paid enough by their own universities, so they will continue to 'moonlight', with
adverse consequences on the quality of their teaching and research. Most lecturers do not have postgraduate research qualifications, so their knowledge-base and research capacity will be poor, leading to teaching, which lacks breadth and depth, and research, which is poorly formulated and executed. Most have to put up with grossly inadequate support services, which compromises the quality of their scholarly activities.

Many governments do not take kindly to criticism, so most academics dare not play the role of public intellectuals for fear of being punished. When academics are not promoted for having taught and researched well, their energies will be diverted elsewhere. When large numbers of foreign academics are employed on much better remuneration packages simply because they are foreign, then local staff will be justifiably resentful, leading to acrimonious working relations between them and foreign staff. If foreign staff come from countries with diverse cultures and religions, then working relations between different groups of them can also be uneasy. All this leads to less than ideal conditions for teaching and research.

It can be argued that introducing quality assurance to universities working under such conditions will be a waste of time. Imposing a quality assurance system on top of the existing system may make their quality management processes look good on paper but produce little. Probably more would be achieved by improving the operation of the traditional academic committee system at the university, faculty and department levels. For example, the University Staff Committee can play a more effective role in producing good teaching and research if it sets proper academic criteria for promotion, states these clearly, collects detailed information on applicants, and conducts the whole process on a transparent basis. Good teaching and research will then be rewarded and promotion by connection avoided. All this can be achieved without introducing a formal quality assurance system.

However, this argument is difficult to sustain. For a start, it ignores the importance of political will, without which even improving the existing academic committee system is not possible. If there is political will, the introduction of quality assurance can do much to improve things, even if some constraints were to remain. Systematically setting out the university's mission, the functions it performs, the management system it implements to achieve the objectives, and the external quality audit it faces in the assessment of the effectiveness of this will show how the university's different activities are related to one another to serve a common cause and how the quality of these can best be improved by adopting an integrated approach. It will be far more difficult to achieve the same result by improving the existing academic committee system because this is far too diffused to get the message across easily. The adoption of quality assurance will provide far better focus and direction and, in the process, will improve the effectiveness of the traditional committee system.

However, the quality assurance programme must be modified to suit the conditions prevailing in developing countries to ensure both relevance and realism. This requires, first of all, that its introduction be preceded by an even greater commitment on the part of university leaders and managers to continuous quality improvement. Compared to the situation in developed countries, there is much less awareness of quality assurance and of the requirements needed to make it work.
Second, the mission for the institution, the functions carried out to fulfil this, and the objectives for each function should not duplicate those found in universities in developed countries. Like their counterparts in developed countries, universities in developing countries aspire to serve their countries and the geopolitical regions. However, this mission is far too ambitious with the resources at the disposal of most of them. For most, serving the regions of the country where they are located should be the main priority and the conduct of undergraduate programmes the main activity.

They do not have the academic and financial resources to effectively serve more than the needs of the regions where they are located. For example, the major contribution of the University of Sarawak in the east Malaysian state of Sarawak should be to provide the generic and specialised skills needed for the social and economic development of the state, rather than the noble aim of serving the whole of the Malaysian nation, unless it was designated as the only supplier of one or two areas of skills for the nation's needs.

Most of the universities are undergraduate teaching institutions, with very few research postgraduate students. This is true even of the elite universities with staff holding doctorates and producing respectable research work. The policy has been to send bright graduates, including academic staff, to graduate studies overseas rather than to build up graduate schools locally. The postgraduate programmes that are in place are mainly Masters degrees by coursework, often in the vocational areas. The main function of such universities should therefore be to conduct quality and relevant undergraduate teaching and learning programmes. The writing of textbooks in the national language, including the translation of world-famous textbooks written in foreign languages, should be an important part of this. The policy of some universities in using this as an important criterion for promotion should be extended but not to the extent of preferring it to the publication of research works, as was the practice of, for example, Thammasat University in Bangkok.

These universities should also place more emphasis on direct community service than their counterparts in developed countries. Skilled personnel are scarce in developing countries so the potential for academics to contribute to the country's social and economic development is relatively greater than that of their colleagues in developed countries. Greater use should therefore be made of them in advising government and industry but without diverting them from their teaching activities. In many countries this will require governments to improve the remuneration of academics to ensure that they do not have to 'moonlight' or leave the sector altogether.

The emphasis on teaching and direct community service does not mean that research should be ignored completely. After all, an institution calling itself a university should do more than teach undergraduate programmes, and much synergy can be created by having teaching and research activities. However, it does mean that applied research should take precedence over pure research, and in areas which do not require vast amounts of expensive equipment. It also means that the research conducted should be in a limited number of areas and in areas of direct relevance to the needs of the country. There is simply no tradition, research capacity, finance or justification for a broad-based approach to research. Such a
concentrated approach will make it easier to assemble the critical mass of researchers needed for effective research to be carried out. The size of this critical mass depends on the discipline, with the science-based disciplines generally requiring a larger number of researchers. In many cases, it also makes sense for research to be in areas where academics enjoy a 'natural protection', such as those working in universities in Papua New Guinea probably having an advantage in doing research on tropical medicine and anthropology (Lim, 1996b).

The management plans for teaching and learning, research, and direct community service should be kept simple and realistic so that client expectations and resource requirements can be met. For example, in the teaching and learning management plan, it makes little sense to aim teaching at the level of excellence found in the world's leading universities. This simply cannot be achieved with the actual or future resources available.

Given the primacy of undergraduate teaching, most emphasis should be placed on producing the management plan for teaching and learning. In keeping with the need for relevance and realism, this should concentrate on ensuring that all staff turn up on time for classes and stay the specified time, and that courses/subjects are of good quality and relevant to the country's needs. The first is not of great concern to universities in developed countries but can be to universities in developing ones, because of the prevalence of 'moonlighting'. Until salaries are increased, some 'moonlighting' is inevitable and should be tolerated, especially as it can lead to the cross-fertilisation of ideas. However, there are staff who abuse the system by doing more outside work than is warranted by the low academic salaries received. Strategies need to be in place to minimise such behaviour.

The issue of relevance and quality of courses is important for universities in all countries but perhaps more so for those in developing ones because the need to provide basic needs is far greater. The strategies needed to achieve greater quality should include the regular assessment of teaching performance by students and colleagues, and of courses and subjects by external experts, but using simple instruments and performance indicators. An advisory committee with external members should also be set up for each department to ensure, on an on-going basis, that the curriculum and assessment methods are appropriate for the country's needs.

For research, the primary objectives are, first, to get research of any sort going, and, second, to aim for world-class research in specialised areas of 'natural protection'. To achieve these, a wider range of publications than is allowed in universities in developed countries should be considered as research. Thus, apart from refereed articles and research monographs published through internationally recognised publishing avenues, textbook, and translations of important foreign textbooks published by national publishing houses should be recognised, as should articles in reputable weekly magazines (e.g. The Economist, Far Eastern Economic Review, and Economic and Political Weekly).

A competitive system should be used to allocate scarce research funds on a narrow front. In promotion exercises, complicated methods of measuring research productivity, such as weighted publication indices,
with different weights for different categories of publications and different quality of publications, should be avoided.

Compared to the situation in developed countries, where direct community services are basically treated as a residual, and in view of the greater role that universities can play in the social and economic development of developing countries, greater attention should be placed on producing the management plan for such services. Ironically there is very little tradition of the provision of such services by the universities because these see themselves as elite institutions which contribute to society mainly through their teaching and research programmes.

The management plan should extend the direct community services provided by staff to include the contribution that students make through the fieldwork part of their coursework. For example, a degree programme on agriculture should have subjects where a significant part is taken up by projects with fieldwork. Thus, a production economics subject should include field projects, where students carry out experiments on, say, double-cropping practice, learning from farmers and helping them at the same time.

As with the implementation of university management plans for teaching, research and direct community service in developed countries, success depends importantly on the presence of efficient administrative services. Universities in developing countries have to give more attention to improving the quality of these support services because relatively more of their support staff have no tertiary education and formal training, and hence have less understanding of what a university does and less ability to play an effective supporting role.

As with universities in developed countries, the successful implementation of quality assurance programmes depends critically on the presence of political will to reward good teaching, research and direct community service. However, the need is greater in developing countries, though probably less likely to be present.

The university's quality assurance system should be assessed by an external audit group because of the greater absence of arms-length relationships, and a holistic rather than a disciplinary approach used. The holistic approach assesses the university's teaching, research and direct community service programmes against its mission and objective, and emphasises the totality of each of these programmes, rather than individual disciplines or departments within each. For example, in assessing teaching, the university's processes for ensuring good curriculum and assessment in all of its teaching programmes, rather than individual degree programmes, are examined.

This approach is preferred for a number of reasons. First, where teaching and research programmes have not been formally assessed for a long time, there is a need to make the entire university community aware of the importance and urgency of quality assurance. The most effective way of accomplishing this is to assess university-wide and faculty-specific processes to ensure quality, and not the quality of teaching and research in specific disciplines. While the holistic approach does not have the richness of detail of the disciplinary one, it involves more people and sections of the university. This is a good thing for
universities that have little history of being assessed by internal or external committees or which might have become complacent about the need to be efficient.

Second, the holistic system is more cost-effective, if the exercise is about embedding good teaching, learning and related quality assurance practices and not making judgements about contents and standards. The principles and practices of good teaching and learning are more or less the same across disciplines, so the extra gain by having disciplinary audits will not be significant. Third, the holistic approach is cheaper. For countries with small university sectors (e.g. Papua New Guinea and Malaysia), there are not enough experts from within to conduct disciplinary audits across the entire range of disciplines taught. If overseas experts are brought in, then it becomes very expensive.

Concluding Remarks

Theoretical and empirical studies show that output growth in developing countries depends importantly on the availability of workers with relevant and quality skills. They also show that technical progress becomes a more important determinant of output growth as economic growth proceeds.

Universities can be an important supplier of such skills through their teaching and an important source of technical progress through their research. However, this requires that they carry out these functions well. To ensure this, governments of some developing countries have begun introducing quality assurance in their higher education sector, something which universities in developed countries have been doing since the early 1980s.

While many of the conditions required for the successful implementation of quality assurance programmes are not present in most universities in developing countries, their adoption will still be useful. They show how a university's seemingly disparate activities are related to one another to serve a common cause and how the quality of these can best be improved by adopting an integrated approach. In the process, they provide more focus and direction to the work of the traditional academic committee system established to improve the quality of a university's work. However, the quality assurance programmes must be modified to suit the conditions prevailing in developing countries. This requires, among other things, that they be kept simple in design, modest in the expectations created, and realistic in the resources required for implementation.

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