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**A Review of  
"Higher Education in Developing Countries:  
What, How and When"**

by

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for IIE Colloquium**

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## **"Higher Education in Developing Countries: What, How and When"**

**By Stephen Heyneman and Bernadette Etienne**

### **Overview**

The authors argue "that there is a major crisis of quality in higher education in developing countries due to economic recession, unchecked private demand, and political naivete about higher education functions." Higher education institutions should (in conjunction with their national governments) realistically limit their functions, seek good relations with their national governments including government contracts, be run more like private businesses, and develop international linkages with other similar institutions.

### **Summary Points**

#### **Introduction (pp. 1-5)**

- As enrollments expand, students are less and less perceived as a privileged elite that deserves protection. Tax payers are becoming increasingly reluctant to finance investments which seem to have essentially private returns.
- The private sector seems to demand highly generalizable skills rather than technical, job-specific training.
- Students seek education in OECD countries (at a rate increasing by 10-15% a year) because the quality of education is better.

#### **Form of Control and Finance (pp. 5-8)**

- Private ownership obligates institutions to take on responsibilities which more or less correspond to the level of available resources.
- Government ownership often results in the assigning of too many, unrealistic, and contradictory functions. The pursuit of nationalist or local goals may be incompatible with the international connections and universality of institutions of higher education. "A genuine university requires such an enormous act of public faith that most governments in developing countries are too insecure to allow it."

#### **The Production of Knowledge: What Level of Expectations for Universities in LDCs? (pp. 8-14)**

- In the case of many developing countries, only the state could provide the material and human resources required to create and run universities.
- How "high" should a university set its goals?
  - 1) To disseminate existing knowledge.
  - 2) To participate in a dialogue with contributors to the production of new knowledge.
  - 3) To be recognized internationally as a contributor to new knowledge.

- The vast majority of institutions are only capable of reaching this first level--disseminating existing knowledge--a difficult task in itself.
- Attaining higher levels requires taking advantage of 1) comparative economic and geographic advantage (such as studying coffee in Colombia) and 2) large and stable sources of financial investment. Stability is important due to the long term nature of research.

#### Influences on University Planning (pp. 14-18)

•**Economy:** Diversity and growth in an economy determine the feasibility of reaching the first, second, or third level of quality. Small, primary product economies are constrained by the lack of economic diversity which could justify a diverse curriculum. Universities in countries of this kind cannot offer more than the first level of quality--issue awareness. Multiple product economies can justify considerably more. Economic growth is also key. For example, Nigeria could justify a reasonable breadth of programs in tropical agriculture, fisheries, engineering, chemical engineering, and the like. But economic decline in both its agricultural and industrial sectors has meant a sacrifice in its ambitions for university excellence.

•**Languages:** Instruction in languages not used in international trade will handicap any university's chances to participate in the world of scholarship. However, use of indigenous languages can serve cultural and political functions. A possible solution is to require students to use two languages.

•**Comparative Advantage:** There are three factors one would need to consider in deciding whether any comparative advantage exists.

- 1) The degree to which other universities can claim similar advantages.
- 2) The likelihood of a twinning arrangement with an institution with more technical experience.
- 3) The possibilities for stable financing.

#### Effects of Economic Adjustment (pp. 18-20)

•**Changes in Finance:** User fees may need to be raised and students may need to serve as part of the university's labor force.

•**Changes in Management:** Economic constraints require greater efficiency and cost consciousness. Academic departments themselves will be increasingly asked to justify their existence economically.

#### Destruction of Myths (pp. 20-22)

•**Myth of Self-Reliance:** Universities are not self-reliant. They do not exist as local institutions serving local cultural and economic needs, and they are not independent of international reference groups.

•**Myth of a Residential Campus:** Post-secondary education is about to see a splintering of delivery mechanisms.

#### Summary (pp. 22-24)

### **Evaluation**

•By their own admission, the authors provide a very impressionistic view of the state of higher education in developing countries. As such, the paper's organizational structure does not follow a logical progression through a theme or through higher education as a whole. Nor do the authors attempt to place higher education in the broader frameworks of education as a whole or even more broadly in development assistance in general. The authors clearly spend more time on current problems than on possible solutions.

**HIGHER EDUCATION IN DEVELOPING COUNTRIES:  
WHAT, HOW AND WHEN \***

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COLLOQUIUM  
on  
THE ROLE OF EDUCATION AND TRAINING IN DEVELOPMENT IN THE 1990s

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## Preface

What follows here is too impressionistic to be labelled an academic paper, and probably too lengthy to be read like a speech. It is designed for presentation to a small but highly select audience concerned with priorities for the next president of the United States.

We have tried to be simple without being simplistic. We have argued that there is a major crisis of quality in higher education in developing countries due to economic recession, unchecked private demand, and political naivete about higher education functions. We are prepared to argue that this crisis is wide spread; but we are not prepared to argue that it is universal. Higher education in The People's Republic of China is certainly an exception, as is higher education in the petroleum exporting economies of the Middle East, and, perhaps, India.

But there are large areas of Africa, the Middle East, East Asia and Latin America where we believe these impressions of a crisis of quality do apply and it is to these areas that we turn our immediate attention. However, the policy decisions we describe as being necessary in the future — what kind of higher education is most necessary; how it should be managed and financed; and the timing of when new forms of higher education should be inaugurated — decisions on these issues we believe to be universal.

About a year ago, Iba der Thiam, Senegal's Minister of Education addressed a small meeting of his Francophone counterparts and the World Bank officials. The subject was university finance.

"You know how I trick students when they come asking for real butter five days/week instead of three and then threaten to shut down the university unless their demands are met? I ask them to come to my office to make their demands to me in person. There I have television cameras ready and I say go on live. Tell the country what your demands are, including the villages where you come from. Because of the drought there are many with nothing to eat at all in those villages. The students refuse to go on television because they know they would be ashamed to face their communities afterwards."

The Secretary of Education from India, Anand Sarup told me a similar story about his tactics when he was a Vice Chancellor of one of India's leading agricultural universities.

"When the students start demanding higher living allowances and bursaries, I print up a flier, a simple graph which shows how the university is financed. It includes what everybody in the economics of education already knows—that taxpayers foot the bill; that students often have lower private costs in higher education than they do in primary education; and that they have very high private returns. I distribute this little graph with a simple explanation to all of the town shopkeepers who do business in and around the university. They don't know these facts, but when the shopkeepers find out how comparatively privileged the students are, and that they, as taxpayers are paying for the students to be privileged, they start refusing to serve students. Two or three days of a shopkeeper boycott is all that is necessary to get students back into the classrooms, and for the university to return to normal."

One other example. Indonesian universities have had the practice of paying their professors by the number of students enrolled, as opposed to graduating, in their classes; students could take courses as they wished, and so receive a student stipend, without penalties for early withdrawal prior to final examinations. A significant reform is now slowly

dismantling this old system which rewarded students as well as faculty members for enrolling but not for graduating...

What do these anecdotes illustrate? They are testimonials of a transitional phase in the story of higher education in developing countries. A series of shifts is starting to take place at various levels, and even the most superficial analysis reveals an intriguing interplay of their causes.

Relationships between the various actors (faculty and students on the one hand, governments and managers on the other) are changing. Students are less and less perceived as a privileged élite which carries the responsibility of their nation's economic development, and is therefore to be nursed and protected. Previous protection has occasionally been abused; this investment in the nation's future has occasionally developed into a special interest group, highly vocal and highly effective. Today, as a result, governments are discovering an array of arguments which divest higher education of its special privileges.

The first of this argument is based on the evolution of enrollments. These have expanded considerably in the past twenty years. In Africa for example, there were only 21,000 students enrolled in tertiary institutions in 1960; there were 437,000 in 1983. One of the salient consequences has been that civil servant posts have become too scarce for the number of graduates; in many countries, the state can no longer absorb the product (students) it pays to produce. Furthermore, what--and how

much--the university supplies is far from perfectly attuned to what the market demands. More often than not, the private portion of an exiguous modern sector is not showing as much interest as had been projected in using the (publicly-financed) technical job-specific skills supplied by institutions of higher education in engineering, agriculture and the like. Instead the private sector seems to demand highly generalizable skills in the general sciences, mathematics and writing--skills in which university graduates are often found to be deficient.

Reflecting this reassessment of the economic "raison d' etre" of higher education, aided by the global shrinkage of public and private resources, and the competing demand for resources from sectors other than education, the willingness-and modalities to finance higher education are changing. Taxpayers are becoming increasingly reluctant to finance investments which seem to have essentially private returns. Social benefits--food, lodging, health, transport--the most conspicuous signs of student consumption, constitute typical subsidies for which the use of public funds is being challenged.

Enrollment expansion has had unintended consequences. In some instances it has reduced unit expenditures significantly and has exacerbated the shift within the recurrent expenditure budget from non-salary to salary categories. Thus one can find classrooms at the University of Buenos Aires so crowded that there are often struggles among students to gain entry. Moreover what students will hear after entry has been obtained will be a distant voice, imperfectly magnified if at all,

and without the benefit of visual aids, laboratory equipment, and library resources.

In other cases the student/faculty ratios have remained low—16 at Makerere, and average of 8 for Mali and the Sudan, and the African average of 12—in spite of a considerable expansion of enrollment. This anomaly has occurred because of a proliferation of tertiary institutions including new (economically unjustified) universities. This has meant a burdensome salary structure (given the low student audience), a diminution of supplies, and a general lowering of quality. Thus quality has declined both in instances of high student/faculty ratios as well as in instances of low student/faculty ratios.

This quality crisis might explain why—despite considerable expansion—that the rate at which students seek higher education outside their own countries has far from diminished. Between 1960 and 1976 the number of students from developing countries studying in the United States increased four-fold; it increased five-fold in France; and seven-fold in Canada. In the USA, Canada, France, FRG and the U.K. there were 115,000 students from developing countries in 1960, and 252,000 in 1976. Today, students continue to flow from developing to developed countries at a rate increasing by 10-15% year.

Why is there such a demand for education in OECD countries if the supply in developing countries has increased so rapidly. Is it due consumption, the tendency to seek higher education in a foreign country

in order to travel and live there? Is because specializations exist in OECD countries which do not exist in developing countries? Or is it because students realize that the quality of a university education is better in one part of the world over that of another? We believe it is largely due to the latter.

But what has gone wrong? Why is the quality of higher education in developing countries so low?

#### Form of Control and Finance

Most higher education in developing countries is government owned and operated. This in itself is not a drawback. But if institutions are privately owned or operated, they are forced to recognize their own limits; they are obligated to take on responsibilities which more or less correspond to the level of available resources. This is true for example of LaSalle University and the University of Santo Thomas (the latter founded a decade prior to Harvard) in Manila, The Philippines. Both of these universities are great under-graduate teaching institutions with a few rather good, carefully selected graduate programs in the humanities and biological sciences. 1/

Public control, on the other hand, can profoundly affect the nature of university functions. Governments can assign functions to university beyond a realistic level. Too many cooks with too little

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1/ Many Catholic Missionary Universities in the tropics maintain their comparative advantage in areas of research in which confined monks could traditionally excel--botany, biology, astronomy, pharmacology in particular.

experience in the kitchen... Take, for example, the University of Juba, in the southern Sudan, a resource poor institution in the most impoverished region in one of the world's most impoverished countries. According to its charter the University of Juba shall be an instrument of:

1. National integration
2. Social integration
3. Socio-economic development both for the southern region and for the nation at large
4. Environmental enlightenment and action
5. Cultural and technical enlightenment
6. Modernization in university education
7. Democratization of the university organization, admission and administration
8. Horizontal transfer of modern technology and a vehicle of vertical transfer of improved indigenous technology
9. Regional and international cooperation and understanding (Coleman, 1984, p. 86)

The charter seems to imply that the university is supposed to haul the rest of the country out of its current technological and cultural status; and it is supposed to accomplish this while using the most under-privileged social groups for its teaching and administrative staff. This is simply an unrealistic proposition.

Too many functions is not always the main problem. Sometimes it can be the contradiction between functions. Take the University of Dar-Es-Salaam for example. Its first two objectives are to:

1. Preserve, transmit and enhance knowledge for the benefit of the people of Tanzania in accordance with the principles of socialism accepted by the people of Tanzania;
2. ... Promote respect for learning and pursuit of truth.  
(Kimambo, 1984, p. 59)

It is all very well to say that the university should be responsible to the state and should be responsive in terms of curriculum design, relevance of program and the like. But the opposite is just as defensible. Universities are not indigenous in nature (Shils, 1980); rather they are what the name implies--universalistic in nature. Universities are supposed to "pursue truth," not the truth in accordance with locally - accepted principles. Universities cannot be engines of technical innovation if their reference is confined to local political predilections and ideologies. The conflict of interest is too great. One purpose or the other gives way. In the case of the University of Dar-Es-Salaam what gave way--rather soon--was a sense of excellence. Most teachers and teaching had to be filtered through whatever it was which constituted Tanzanian socialist principles at the time.

A genuine university requires such an enormous act of public faith that most governments in developing countries are too in-secure to allow it. Universities are created in name only, as institutions which cannot function. Nevertheless they have a hand in their own fate. Universities are quick to make claims on governmental finance on grounds of traditions of supporting faculty and students established in Britain and Europe after World War II, but they are slow to keep pace with the business management changes of universities in the late 1980's. The combination of

public finance in conjunction with paralysis in management has resulted in a declining status of university governors. For instance, in neither the University of Juba nor in the University of Dar-Es-Salaam are university facilities rented out to private business; are students used to maintain public facilities; are endowments or alumnae gifts sought; are contracts and grants from public and private enterprises aggressively pursued; are faculty paid in conjunction with alternative demands on their time.

**The Production of Knowledge: What Level of Expectations for Universities in LDCs?**

One must acknowledge historical factors which make for such overwhelming public control. In the case of many developing countries, only the state could provide the material and human resources required to create and run universities. Moreover, it is easy to say that governments have expected too much and have expected contradictory functions. It is more difficult to say what is realistic. But the mistakes of the 1960's need not be repeated into the 1990's. The inability of governments to make choices among university functions need not be repeated for lack of awareness that such choices are possible.

The most important choice which can be made is that of academic quality. How "high" is a university intended to reach? Asking this question would have been embarrassing ten years ago; it would have been impolite to raise it, and thus it would have been avoided. But this is an era of competition, of biotechnology, computer data banks, of aggressive

pursuit of comparative advantages. Universities in OECD countries are shedding their 19th century terms of reference; it is inevitable that universities in developing countries will follow suit. Thus the first choice in higher education planning begins with what once was forbidden to ask; how "high" should a university set its goals?

To this query are three possible categories of response:

- (1) To disseminate existing knowledge
- (2) To participate in a dialogue with contributors to the production of new knowledge
- (3) To be recognized internationally as a contributor to new knowledge

Let's use the analogy of constructing a hospital. Choices should have to be made between the function of recognizing, to diagnosing, and treating disease. And secondly, choices would have to be made as to the breadth of medical problems to be dealt with. All would agree that the hospital should be able to handle most commonly occurring diseases which cannot be treated at more local facilities. 1/

But good hospital management is not necessarily a choice at the stage of design. The choice is what non-common diseases to anticipate and plan for. Should a hospital prepare itself for the odd case of leukemia? of hemophilia? of anosmia? The implications behind the choices of hospital design are obvious, even to laymen. If one is prepared to diagnose

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1/ The problem comes because of bad health management, when hospitals are forced to treat diseases which can more easily be handled at low-cost, local facilities. The analogy would be for a typical university in a developing country forced to teach cognitive skills in basic subjects which should have been provided in secondary education.

hemophilia, it would require an array of blood test specialists, special laboratory equipment and maintenance, and an established network—both in and outside the country—of referrals. But how important is the diagnosis of hemophilia relative to that of parasitic problems, bone deformities, rare viral infections, and other appropriate tertiary treatments?

The other set of hospital choices has to do with the question of depth of treatment. Should a hospital be able to only diagnose uncommon problems or should it be able to treat them? To treat uncommon health problems requires expensive and highly specialized facilities. If the disease is rare, the facilities may have to be unique. If so, then the diagnosis and treatment process require a research facility. This can become a white elephant or it can bring fame, honor, and secondary technological advances. Such was the case in the first heart transplant in Groote Shur Hospital in Capetown. But there are many instances too of investment in unique curative programs which have had to be abandoned.

It is possible to make similar choices of breadth and depth in designing a university. To be sure, most would agree that the basic function would be for a university to teach an awareness of certain basic knowledge. This is typically divided into traditional categories of arts, humanities and the sciences; and the sciences are further broken down to those pertaining to biological, chemical, physical, and social questions. There are of course specializations within each, and there are specific professional training programs associated with some—law, medicine,

education and the like. Thus even basic knowledge is hardly a uniform component; choices are required even here.

Choices of depth are a secondary set of issues. Should it be for purposes of awareness; for purposes of dialogue with those who generate knowledge; or for purposes of creating new knowledge? None of these tasks are simple. Even the dissemination (teaching) function requires careful planning and forethought. One thinks of the great liberal arts teaching institutions such as Swathmore, St. John's or Williams as examples of strong institutions comparatively independent of research functions. These institutions did not achieve excellence in teaching reputations accidentally.

But let us be realistic about what actually happens in university settings in many developing countries. What is promoted, in actuality, in awareness--what such a field consists of, its content and shape. Most universities in the world are able to teach nothing more. At the most they are able to teach students to recognize concepts which typify common fields of endeavor, and the terms which describe those concepts. Often the process is deadly work--significant levels of memorization, routine, test, and review. The process can be "puffed-up" in prestige because the university remains a mystery institution to many of the people at large. But the function actually being performed is routine treatment of commonly recognized knowledge.

In rare instances a university faculty may be designed so that it can take part in a dialogue about some uncommon problem. This is true for

example with respect to the Departments of Economics at the Universities of New Delhi and the University of The Philippines; tropical agriculture at The Philippines, Los Banos; the Department of Astrophysics at the University of Sao Paulo.

As the designers of a hospital may choose to diagnose certain specific uncommon health problems, so university designers can choose to take part in a dialogue on biotechnology, on paleontology, on musicology. Taking part in the dialogue, however, implies just that; it implies awareness of new issues, attendance where new issues are discussed; and perhaps recognition by those involved as being from an institution which shows some interest. Many individual faculties from universities in developing countries have taken part in international meetings, corresponded with journal authors and have sought out twinning relationships with other university faculties in hopes of acquiring new professional experience.

The third level is that of international recognition as being a contributor to new knowledge (the Groote Shur hospital). This is rare indeed. It is the Mount Everest of university ambitions, and justifiably so. The standards of excellence are not local but are rather universal. The judge consists of the world of expert opinion. It is not the local politician or the local public. Regardless of how much pride may be expressed in the university's ability to unite the country in one language - such as the University of Malaysia; or to have produced great political leaders - such as the University of Bandung; or to have played such a

formative role in a nation's exposure to the modern world--such as Beijing University--among universities, there is one Everest in terms of knowledge generation and that is international recognition for work which is unique.

Everests of this kind never occur in a vacuum. They are premeditated, and they can require a clear sense of comparative economic and geographic advantage--coffee research in Colombia; oceanographic research in Samoa; aquaculture in Thailand etc. But they also require large and stable sources of financial investment. Securing local sources for funds of these kinds has been problematic, especially the stability of their provision. In reality, for faculties in developing countries to reach stage two (that of participant in a world dialogue), much less that of stage three (that of being a world class contributor), sources of funding must be external for two reasons. First is the problem of quantity. Financial resources within developing countries are rarely sufficient. Second is the problem of stability. Even where resources are sufficient in quantity within developing countries, they are rarely able to support research functions over sufficient periods of time to make them effective.

Stable external finance (from the Rockefeller Foundation) has been the reason why major incentives for conducting international standards of research could be infused in the salary structure in the Department of Economics at the University of the Philippines. Stable external finance since 1948 has made it possible for the Naval Medical Research Unit (NMRU #3) in Cairo to become the world's best known center for Arthropod borne

disease research; stable financing has made it possible for the International Center for Medical Research and Training (ICRM) Program of NIMH to support centers in San Jose, Costa Rica, in Cali, Columbia, in Lahore, Pakistan, in Kuala Lumpur, and in Calcutta; and similar support for centers in Bangkok, Manila and Jakarta under the Walter Reed Army Institute of Research (WRAIR) program. The point about these centers of excellence in developing countries is that for the most part they derive from external rather than internal sources of finance.

If there has to be one reason suggested as to why foreign students from developing countries continue to seek education in OECD universities, it is because these standards of excellence, while unrecognized in political documents, are widely acknowledged among consumers. No matter how loud the drums may glorify local functions, knowledge, and relevance, the fact remains that the basic terms of reference of a university are universal; and that their peer groups are other universities around the world.

#### Influence: on University Planning

So far we have argued that the cause of disappointments in higher education in developing countries has been the inability to limit functions to realistic portions or to balance the contradictions in a university's terms of reference. We have also argued that there are three levels of quality to which a university could aspire and, were universities planned like hospitals, that the circumstances and requirements for each level might be more obvious.

But are they so obvious? What are the influences which determine whether one can expect a university--or a specific faculty within a university--to obtain the first, the second, or the third level of quality? There are basically three influences: the economy, the languages of instruction, and the choice of comparative advantage.

Economy. As biology determines destiny, so diversity and growth in an economy determine feasibility. Small, primary-product economies such as those of Somalia, Haiti, or Nepal are constrained by the lack of economic diversity which could justify a diverse curriculum. Universities in countries of this kind cannot offer more than the first level of quality--that of issue awareness - in the basic subjects. Multiple product economics such as that of Brazil and Indonesia can justify considerably more, though not unlimited, breadth. Masters and an occasional doctoral program in agriculture, forestry, medicine or chemical engineering could all be justified on grounds of local utility.

Diversity however is not enough; also required is economic growth. Nigeria is a case in point. Nigeria could justify a reasonable breadth of programs in tropical agriculture, fisheries, engineering, chemical engineering and the like. But economic decline in both its agricultural and industrial sectors has meant a sacrifice in its ambitions for university excellence. On the other hand, countries such as The People's Republic of China and Malaysia have economies which continue to grow at reasonable rates and despite differences in scale, both can comfortably anticipate an expansion of its university purposes.

Languages. Choice of languages for instruction will determine whether a university will serve primarily local - cultural functions or whether it will serve universal goals. To be sure, Swahili and Malay do indeed serve purposes of national cohesion, and do help to establish stronger linkages between the university and its constituent local communities. But one cannot dismiss the conclusion that using Swahili in universities in Eastern Africa significantly determined the destiny of their reach. Even where languages have larger audiences - as in the case of Hindi - instruction in language not used in international trade will handicap any university's chances to participate in the world of scholarship.

One possible remedy is for universities to require students to use one international trade language in addition to the local language of instruction, and to actively encourage multi-lingual presentations on the part of scholars. In this way universities in Sweden and Holland have been able to serve both parochial and international interests. Universities in developing countries have been far less pragmatic with respect to allowing more than one language of instruction. Their future will be determined in part by the degree to which they overcome the linguistic barriers to world scholarship.

Comparative Advantage. Maximizing comparative advantage in university planning requires that political ambitions be channelled into feasible objectives. What is feasible can indeed be determined by local factors. This is the case with respect to studying agriculture in Malawi

at Mikalongwe rather than in Zomba, or in the Philippines at Los Banos rather at Diliman. But what is feasible can also be determined by external factors. It is conceivable that world class research on wildlife economics could emanate from the University of Nairobi; but less likely computer science. Glaciology could conceivably emanate from the Catholic University in La Paz or from Tiburan University in Nepal; but in neither case would Pathology. In cases where comparative advantage is being sought, university planners must diligently guard against what is known as "cargo cult science"--the tendency for politicians to demand local science facilities so as to attract from distant gods the delivery of industry, jobs and development. Such demands, while profitable to university planners in the short run, simply add more problems to the long list of over-expectations.

But how does one decide upon the existence of comparative advantage? Surely not all proposals are in the cargo cult category. We believe there are three factors one would need to consider in deciding whether any comparative advantage exists. First is the degree to which other universities can claim similar features. Second is the likelihood of a twinning arrangement with an institution with more technical experience, and third is the possibilities for stable financing.

Problems occur in university planning when political officials make decisions for universities which run counter to one of these three factors. Higher education institutions have been established in Mali and Niger whose economies are narrow as well as weak. Malaysia and Tanzania

handicapped by language restrictions making their educational task considerably more difficult. And institutions all over the developing world have been saddled with ambitious specializations without regard to comparative advantage.

Given such problems in the past of planning higher education with a sense of realism, what are the likely scenarios for the future? What factors will determine the growth or prosperity of higher education in developing countries in the coming decades?

#### Effects of Economic Adjustment

Few of us who are living in OECD countries have an accurate perception of how deep the effect has been of the economic crisis in developing countries. Student expenditures in Latin American universities are today one third what they were in 1971. According to one study, there wasn't a single Latin American country where the portion of non-salary expenditures hadn't declined. Laboratory equipment, library journals, and research funds have disappeared (Heller, 1984).

The effect of this crisis is what we euphemistically refer to as "adjustment." For universities in the developing countries this adjustment means two major changes - in finance and in management.

Changes in Finance. It is inevitable that many universities will have to diversify their sources of finance. Fees will have to be initiated

and, where they already exist, they will have to be raised. Students may be offered opportunities to borrow the necessary finance for their education, or they may be offered the opportunity to work in lieu of paying fees directly. Many countries are considering asking college graduates to work in rural primary schools after graduation, or to help maintain library and laboratory facilities during their enrollment. Many universities will become more aggressive in seeking endowment funds from previous graduates or private industries; they will initiate contacts with private business for the purposes of seeking research contracts; they will seek renters for parts of their property, their services or their equipment; and on their own they will begin to seek contacts with foundations and grant-giving agencies in OECD countries. These characteristics, which at the moment typify universities in the U.S., are destined to become common everywhere.

Changes in Management. Traditions of university management will be undergoing as many changes as university finance. Vice Chancellors will soon be judged in part on the basis of their skills in business management—upon whether they have been able to reduce student and faculty costs, upon whether they have been able to balance the budget, or whether they have been able to successfully attract new resources. Vice Chancellors will be judged increasingly like Chief Executive Officers (CEO's) of publicly-owned corporations.

Faculty will inevitably be paid in some fashion parallel to their market worth. Only the most traditional among resource rich universities will be able to staff a school of law, engineering, business administration

or medicine no more than faculty in the English and Anthropology Departments on the grounds that all faculty are well paid. Most other institutions will have to find a means of differential rewards.

Academic departments themselves will be increasingly asked to justify their existence economically. It will no longer be assumed that a university faculty can be undifferentiated, that all parts are equally important. Departmental budgeting, class sizes, student/faculty ratios will all be used in the future to help determine whether parts of the university will survive. What this implies is that there are some parts of the university which will not live out this period of adjustment.

#### Destruction of Myths

Also inevitable is the destruction of university myths. Two of these are outstanding in nature, that of self-reliance and that of delivery through residential campuses.

Myth of self-reliance. Somehow in the heady days of the 1960's, the proposition was bandied about and nominally accepted that universities are self-reliant, that they exist as local institutions serving local cultural and economic needs; that they are independent of international reference groups. Universities in OECD countries were sometimes portrayed as being a part of a world-wide academic conspiracy, as though excellence in research was tantamount to imperialism from which independence was sought through academic self reliance. The need to use this fundamentalist "rain dance" in order to protect weak institutions is quickly passing.

To be sure, universities in developing countries--as they do any where--will continue to serve local functions and will continue to explore novel ways to do so. And it is also evident that universities will never become monotheistic. For instance, the California Institute of Technology is not the only excellent teaching/research institution, even in engineering fields. There are many different forms of excellence and many different techniques to deliver it. Neither the form nor the function of excellence is at issue. What is at issue is excellence itself, which is generally recognized and acknowledged; and the fact that university excellence at any of the three levels in developing countries is so scarce.

What is certain, however, is that the functions of the university are going to be more and more carefully scrutinized and seriously evaluated in economic terms. No local institution within an OECD country is any more able to define excellence in entirely local terms. The University of Western Kentucky is now judged largely on national or international terms. What has proven to be true within OECD countries, will soon be common everywhere.

In any discipline, in any field there will be an increasing recognition of an international reference. It is no longer possible to argue that a local university can be independent of this. Even in subjects such as local oral history taught in a local language--Swahili, Creole, Hausa--there are standards of historiographical evidence, increasingly influenced by new technological developments. Since the research and curriculum product of a university is open to public scrutiny, none can remain immune to these developments.

The Myth of a Residential Campus. Post-secondary education is about to see a splintering of delivery mechanisms. Teaching by correspondence; courses sandwiched between jobs; branch campuses; international marketing of degree programs--all of these are becoming standard fare. Private colleges in one country will market their degrees somewhere else. What will be the value of such a degree? How can the institution be licensed in the country where students are sought? What if the degrees or certificates being offered are worthless? Who is to protect the consumer?

Such questions and headaches are an inevitable outgrowth of proliferation of university facilities and the technological innovations which now make it possible to internationally market academic programs. Can a country ban the "Coke is it!" culture when the message can be disseminated through the radio? Can Indonesia and Malaysia prohibit the enrollment of "degree" students in a profit making correspondence college in Australia? These questions and the implications of this inevitable heterogeneity of delivery mechanisms is destined to become one of the major problems of higher education in the next decade.

### Summary

We have attempted in this paper to list our impressions about a very wide and disparate subject - the current status of higher education in developing countries. To do so we have drawn upon our experience in assisting university chancellors and Ministers of Education to deal

effectively with economic crisis. We have not stayed close to the rigors of scholarship nor of empirical evidence, but rather we have attempted to portray what we "feel" may be the coming future scenarios. Among them are the following:

- (i) Higher education in developing countries will continue to expand in size and will continue to decline in financial resources, thus exacerbating the current crisis of quality.
- (ii) Demand for higher education in OECD countries will continue to expand at its current rate of 10-15% per annum for two reasons: partly because of genuine comparative advantage in institutions of the OECD countries such as the provision of specializations and partly because of the crisis of quality in institutions of the developing countries. The market for any institutions of high quality will remain strong despite the many political handicaps against free trade in higher education.
- (iii) "Localized definitions of excellence" will lose popularity as justifications for higher education. Universalized definitions will be admitted with increasing candor in the years ahead.
- (iv) Higher education institutions which are politically able to adjust to the new realities will be able to prosper; others will continue to decline as their product becomes increasingly undifferentiated from secondary education. Those able to "adjust" will likely do the following:
  - negotiate with their governments to narrow social functions.
  - forge a trusting relationship with their governments so much so that university research on government sponsored projects will become routine, and profitable for both sides.
  - manage themselves in a fashion similar to many modern businesses, including the appropriate incentives for various parts of higher education to successfully bid for external contracts and grants.

- develop specific and long-term international linkages with other institutions with similar research comparative advantages.

In the past, higher education in developing countries has been conceived in parochial terms, as sort of an academic finishing school for local elites, based upon national standards of "what is important to know." On the other hand, higher education has been portrayed as having economic functions which can help bring developing countries out of their predicament of international depression. What we are saying in this paper is that one can't have it both ways. A finishing school for "social debutantes" cannot be expected to pull its economic weight competitively. For that one needs to be more purposeful. To obtain serious economic effects one needs to make serious choices. The choices include: what kind of higher education is most necessary; how it should be financed and managed; and when new programs should be inaugurated. These are the choices for the future.