Lead Papers

1. The Role of First and Second Cycle Institutions: *M. K. Bacchus*

Introduction

The focus of this paper is on the role of primary and secondary education in human resource development. Such a role is obviously influenced by many factors such as the level of economic development of a country, the importance of high-level technology in its economy, and the social and economic problems which it faces. Therefore any suggestions for reform made in this paper cannot apply indiscriminately to all Commonwealth countries irrespective of their economic and social realities. The more affluent countries which already have compulsory primary and secondary education may find that much of what is given here is not quite relevant to their situation. However, it is hoped that these observations will be of some use to them too, even if only to strengthen their efforts to help the educational development of less affluent member states through agencies like the Commonwealth Secretariat.

Factors in Educational Expansion

Human Rights and Human Resources

The rapid expansion of education in most Commonwealth countries since World War II was strongly motivated by both "human rights" and "economic" or "human resource development" considerations. In those countries which already had universal primary education, such as the United Kingdom, Australia and New Zealand, the human rights concern was seen in their efforts to ensure greater equality of access to secondary education. In Canada, which already had a more egalitarian system of entry into secondary schools, the "human rights" concern was observed more in efforts to reduce the influence of cultural barriers like language and ethnicity on students' efforts at advancing up the educational ladder. In the economically under-developed Commonwealth countries (UDCs) the "human rights" concern was seen in their desire to introduce universal primary education - a consideration which emerged quite strikingly in the deliberations and recommendations of the Unesco conferences in Karachi, Addis Ababa and Santiago in the 1960s.

Around the same time that the "human rights" concern began to gather momentum, economists were discovering the important role played by the "quality" of human resources in the process of economic growth. Further, they observed that in the UDCs human capital represented only about 10-15% of physical capital as against 38% in the economically more developed countries - the MDCs - and concluded that differences in their human rather than in their physical capital resources better explained the differences in their economic development. This general point of view was well expressed by one human resource economist who argued that "human resources, not capital or income nor material resources, constitute the ultimate basis for the wealth of nations".[1]

The Two Sector Theory of Development

These two considerations - the "human rights" and the "economic" - which influenced the expansion of educational services, were not necessarily in conflict. But a fly entered the development ointment and led to a parting of their ways - a fact that began to affect adversely the contribution which education was making to the development of the UDCs. The fly in the ointment was the development theory which suggested that it was the modern sector of the economy of Third World countries that would spearhead their development. The essential features of this theory were formulated by Sir Arthur Lewis[2] one of the most influential development economists of the 1960s, who argued that the centre of economic gravity in these countries must "continuously shift towards industry through continuous reallocation of labour from the agricultural to the industrial sector"[3]. Also since, as the argument went, the development possibilities of the UDCs would be akin to those of the MDCs, the former countries would have to use production techniques similar to those used in the latter and this would create a need for manpower with the same type of education and training.

Guided by this development theory, educational planners began estimating future manpower needs of the UDCs, basing their estimates primarily on the projected needs of the modern sector. Further, they used the occupational structures and educational systems of countries at higher stages of economic development as models for projecting the trained manpower needs of particular UDCs.

The Consequences of Educational Expansion

A Shift of Emphasis to Secondary and Tertiary Education

The major educational consequences of this two-sector theory of development was an overall shift in emphasis from primary to secondary and tertiary levels of education. This trend was further stimulated by the need for highly trained administrative staff as many of the former colonies moved towards independence. In consequence, since 1960 secondary and higher education in the UDCs have been expanding much more rapidly than primary education. For example, between 1960 and 1970 primary school enrolment in the UDCs increased on the average at about 10.5% per annum while secondary- and tertiary-level enrolment increased at more than double that rate - at 23.2% and 25.5% per annum respectively. This differential rate of growth in favour of secondary- and tertiary-level education has continued through the 1970s. One consequence of this was that though the percentage of illiteracy was falling, the number of illiterates in the world increased by 70 million between 1960 and 1975 to an estimated 800 million.

Further, when the costs are considered, the shift in emphasis towards higher education is even more marked. For example, while in Great Britain, ten students attending university cost roughly the same annually as 176 pupils attending primary schools, in the UDCs the same number of university students cost the equivalent of about 879 primary school students. Further, if we look at some of the African Commonwealth countries we find that about 2,830 pupils can attend primary schools for the cost of ten attending universities.

An Increase in Educated Unemployed

Another consequence of this rapid expansion of secondary- and tertiary-level education in the UDCs in the 1960s and 70s was that educated manpower was being produced faster than the economies of these countries were able to absorb at rates of pay which graduates have traditionally expected. Unemployment rates were rising even during the period of relatively high economic growth rates in the 1950s and 1960s. By the 1970s the combined unemployment and under-employment rates were estimated at 29% for all developing countries and 38% for the developing countries in Africa alone.

This increase in output from educational institutions has resulted in growing unemployment among the educated. It has further stimulated students to stay on at school beyond the primary and secondary levels because they feel that the additional education will provide them with the only opportunity of obtaining a job in the modern sector. As a result, both the educational levels and average age of the unemployed have been rising. Martin Carnoy indicates how this "educational inflation" occurs:

> As schooling expands unemployment moves up to influence the more highly educated graduates. The rapid expansion of primary schooling greatly increases the supply of primary school graduates, also increasing their unemployment rate... This increases the economic pay-off of attending secondary school. If the government responds to demands for more secondary places, eventually the increased supply of secondary school graduates... creates unemployment among [them]. This increases the demand for university expansion and results in university unemployed.[4]

The problem of the educated unemployed has now become so widespread in the developing countries that relative to the working population, the *unemployed as a group* tend to be better educated, especially where young and inexperienced unemployed are numerous.

The emergence of this situation was seen very clearly in Sri Lanka. In 1968 a labour force survey revealed that over 25% of the unemployed comprised persons who had at least some GCE O-Level passes. Between 1969 and 1973 their numbers rose from 500,000 to 800,000, pushing the unemployment rate from 14% to 17.4% of the labour force with four-fifths of that unemployment being concentrated among those under 25. Also among the 20-24 age group with at least three O-Level passes, the unemployment rate was 55% for men and 74% for women. Further, while the schools were annually producing about 182,000 persons with eight or more years of education (with 100,000 of these holding O-Level certificates) the number of wage and salary jobs becoming available annually was estimated at no more than 70,000. This means that there were likely to be "wage and salary jobs" for less than 40% of those who were entering the labour force looking mainly for them. The ILO report on Kenya noted the same trends there and observed that while that country's volume of unemployment was still some way behind that of Sri Lanka, it was "catching up fast". The same picture is beginning to unfold itself in most other Commonwealth UDCs and it is now obvious that the problem is deeply rooted in the social and economic fabric of these societies. No mere tinkering with the educational system can correct this situation.

The Emerging Need for a New Development Strategy

In these circumstances what is most needed before any important educational reform in these countries can be successful is a new approach to development necessitating more profound social and economic changes. Such a new development strategy will also call for a radical rethinking and reform of the existing educational policies and priorities in order to increase the contribution which qualitative improvement in the human resources of these countries can make towards their development.

Though education has not been directly responsible for the problem of unemployment, public demand for more and higher levels of education increases. In order to meet these demands, additional resources will have to be diverted by governments to the education sector. To the extent that this sector continues to absorb funds which might have been alternatively used to finance more productive job-creating projects, it will inhibit economic development and add to the growing unemployment problem which these countries already face. As one development economist recently noted: "Many of the early claims made on behalf of the unfettered quantitative expansion of educational opportunities - that it would accelerate economic growth; that it would raise levels of living, especially for the poor; that it would generate widespread and equal employment opportunities for all... have been shown to be greatly exaggerated and, in many instances, simply false."[5] Many are of the view that this educational expansion of the 60s has contributed to political unrest in the UDCs.

Current Educational Strategies

Curriculum Reform

Educationists sometimes argue that the major problem facing schools in the UDCs is the unsuitability of the education which they offer for their development needs. For over a century colonial administrators and local educators have observed that the education provided in these countries is not geared towards enhancing the knowledge, skills and values which will help students to live more productive lives in their own societies. It has been pointed out *ad nauseam* that although over 80% of these children are likely to end up earning their living from the land, the schools fail to provide them with the crucial skills they need to survive and improve their standard of living in such an environment.

Instead, the education offered at any one level of the system is geared mainly to preparing students to move up the next rung of the educational ladder. Primary schools remain essentially concerned with getting their students into the secondary schools, and these in turn try to gear their children to pass those examinations which can lead to the universities. Universities exert a distorting influence on the whole educational system despite the fact that often not more than 1% of the students who enter primary schools end up at a university.

Further, while the instructional strategies used in schools have improved somewhat over the years, rote learning and cramming for examinations still remain common practices. A major result is that the acquisition of certificates - the "diploma disease" as Ronald Dore calls it - becomes the major goal of schooling, and neither students nor parents are concerned with the practical usefulness of what is learnt. Usefulness or relevance of curriculum content is seen in terms of its value in

helping students pass those examinations which lead to the next stage up the educational ladder or which give the necessary credential for the "right" jobs in the modern sector.

These are not new criticisms. They have been made time and again. The history of colonial education is replete with them. Nearly every educational commission to the colonies since the 1850s recommended that the subjects of agricultural and vocational education should be given a central role in the curriculum of the schools. Yet the same suggestions continue to be made up today by economists like Balogh, Dumont and others who see the whole future of the UDCs as heavily dependent on an effective agricultural education programme in their schools.

Reasons for Failure

The question which arises is, why did these attempts to make primary and secondary schools more effective instruments of human resource development fail? The main reason has been that educators have been tackling the symptoms of the problem rather than its cause. In other words, we have been concentrating our efforts on bringing about curriculum changes when we should have been first directing our attention to more basic social and economic reforms which are a necessary pre-requisite for success in implementing curriculum change.

An Irrelevant Western-Type Education

There are two major features of the UDCs which together reinforce the persistent demand by the local population for an "irrelevant" academic type of western education. The first is the continued economic and cultural domination of these countries by the more affluent nations of the world - a factor which reinforces the traditional prestige enjoyed by this western-type academic education in the eyes of the local population. I shall not go into this issue here except to note that many developed and developing countries now accept this criticism and urge that this situation should be redressed by means of a "new international economic order".

Income Gap between the Two Sectors

The second feature is the marked difference in the economic rewards provided by the two major sectors of the economy of these countries - the modern and the traditional sectors. The traditional or low wage sector in which some 80% of the population live comprises mainly the peasant farmers and farm labourers who often work very hard to eke out a marginal or sub-marginal existence. Their incomes are uncertain and usually depend on factors such as market price fluctuations or droughts over which they have no control. The poorest 20% of the population earn only a very small percentage of the total incomes of these countries ranging, according to available figures, from 9.75% in Tanzania, 7% in Kenya and Nigeria, 3.8% in Sri Lanka and 2.2% in Jamaica. They bear the crushing burden of poverty in these countries as can be seen from the fact that about 40% of them had an income of less than $50 in 1965.

The modern, or high wage sector, contains the industrial and commercial enterprises owned by foreign firms, the more élite local families, and the government services. The fortunate few living in the modern sector enjoy a relatively comfortable existence. For example in the late 1960s a Ugandan graduate first entering the civil service could expect his income to be about fifty times the average income per head in Uganda. Even in India where salary differentials tend to be less, the ratio was

still 12:1 as compared with Canada, for example, where the ratio is more like 2 or 2½ to 1. And despite the economic growth which these countries experienced over the previous decade, the wage differentials between the high wage and the low wage sectors have on the average been widening rather than narrowing.

Since there is this very substantial gap, both in income and life chances in these two sectors, it becomes a most desirable goal in life for many parents to see their children secure a job in the modern sector. The only way in which they can help is to ensure that the children get a western-type academic education and acquire the necessary certificates to prove that they have successfully done so. The credentials are important, not so much as an indication of what they have learnt, but as an entry permit without which they are increasingly debarred from the modern sector job market. Dore,[6] in fact, describes the entire educational system in these countries as an immigration service for the modern sector bridgehead - the main task being facilitating the migration of people out of the traditional sector.

The size of this income gap can hardly be justified by the classic rationale that it provides a necessary incentive for individuals to get an education. In fact my argument is that it has been a major factor in fuelling the demand for more of this "irrelevant" education and preventing the successful introduction of meaningful changes in the educational institutions of the UDCs. Stemming from this is my assertion that converting the primary and secondary schools of these countries from diploma mills to institutions which can effectively help to develop human resources cannot be successful unless the income gap is substantially reduced through efforts aimed directly at raising the living standards of the poor. On the other hand the MDCs in the Commonwealth, where jobs requiring a lower level of formal education offer incomes on which one cannot only live satisfactorily but which are not far below the incomes of university degree holders in the UDCs, it becomes much easier to motivate a substantial number of students to take up training for a range of skilled jobs rather than encourage them to aspire to enter universities.

One could go on in greater detail to show how most of the existing educational problems which face the UDCs have their roots in this marked gap in incomes between those working in the two sectors of these societies. But one need only reiterate the point that attempting radical changes in the educational system and curriculum content of schools in these countries without effecting corresponding changes in their social and economic structures would be completely self defeating.

This was partly recognised by the Uganda Educational Commission when it discussed the difficulties faced in implementing an agricultural educational programme in schools. It noted that: "The problems of agricultural education are not primarily educational; they are intimately bound up with the solution of economic technical and social problems over which the Ministry of Education has no control... All we can say about agricultural education must be considered in the context of radical social and technical change in other sectors of the economy".[7]

A Pre-requisite for Educational Reform

The development ideology of the 1950s and 60s not only envisaged that the modern sector would play a leading role in economic development but also

assumed that the benefits accruing from any such development would trickle down to the poorer sectors of the society - mainly those in the traditional sector. It is now obvious that both these assumptions were false. Therefore, if in the 1980s we are going to make renewed efforts to ensure that education at the primary and secondary levels contributes more effectively to human resource development in the UDCs, we need to begin with a new development ideology and a new development strategy. In contrast to what I shall refer to as the élitist model of development which was followed during the 1950s and 60s and even into the 70s, we need a more populist model of development for the 1980s supported by development strategies which focus on mass development directly aimed at improving the general living conditions of those at the bottom of the economic and social hierarchy. Experience has shown that if the élites first receive the benefits of development, they are unwilling to let it "trickle down" to the masses. Therefore, any effort at improving the condition of the poor must be focused directly on them.

It is not my purpose to discuss the details of such a development strategy except to note that it will call for a massive concentration of available development resources on improving the living conditions of those in the traditional sector. One of the major goals must be for these societies to develop greater self-sufficiency through self help. This can partly come about through the encouragement of those types of economic activity in the informal sector which tend to utilise available local resources and are geared more directly towards meeting the needs of the less affluent groups in these societies.

Another aspect of this new development strategy must be its concern not only with human resource *development* but also human resource *utilisation*. Education planners in the past have tended to focus on the former activity whereas equal attention needs to be given to both aspects of the problem. New economic policies will therefore need to favour labour intensive rather than capital intensive methods of production thus facilitating the more efficient use of available manpower in the UDCs.

An Educational Strategy for the Future

The mass development strategy indicated above will have important implications for educational reforms at the primary and secondary levels and some of these will now be discussed.

A Basic Level Education for All

The first change that will be called for is a shift in the educational policies of most UDCs directed towards providing a basic level of education for the total population. The further expansion in the 1980s of formal secondary and higher education can no longer be justified both because the assumptions on which this policy rested are no longer tenable and because increasing numbers of those graduating from these institutions are unemployed.

A new policy aimed at providing a basic level of education for all will have a number of implications. First, it will mean that universal primary education (UPE) will have to become a major goal for all those countries which have not yet decided to move in this direction. Looking at the economic disparities between two Commonwealth countries which are rapidly moving towards this goal - Nigeria and Tanzania - it is obvious that a commitment to universal primary education is much more a matter of political will and establishing educational priorities than of economics

alone. This point becomes quite apparent when we consider that in many African Commonwealth countries the annual cost of educating one university student is equal to the cost of educating about 283 primary school students for one year.

The goal of universal primary education is both a "human rights" concern and an important part of the strategy for human resource development using a mass-oriented development strategy. The economic advantages of literacy have long been recognised. Further, economists who in the 1960s were urging further expansion of higher education in the UDCs now point to the fact that their researches have consistently shown that the social rate of return on educational investment has been consistently highest at the primary level. In addition, long-term projections of employment prospects in the UDCs indicate that an increasing surplus of highly qualified manpower is likely to develop in the 1980s.

Also, if our concept of development is broader than that of mere economic growth, the case for universalising primary education becomes even more convincing. People with education seem to display a greater willingness and ability to participate more actively in the political decision-making process and in community development efforts. Education also increases their predisposition to try out new ideas and methods such as improved health practices, family planning and the introduction of new crops and cultivation techniques.

While UPE will ensure that the educational level of the young will gradually improve, any mass-oriented development strategy must also provide basic educational facilities for the adult population. This is where adult education programmes geared at developing functional literacy are important. Non-formal education, as Dr. Ahmed's paper argues, can play a crucial role in assisting adults to attain not only functional literacy but also those relevant life skills which can help them to improve their general standard of living. Further, it is known that literacy skills acquired during a relatively short period of schooling are likely to atrophy unless opportunities are provided for their continued use. More important, the knowledge that youngsters acquire in the basic primary school course will need opportunities for renewal and regeneration if it is going to be of continuing use to them throughout their lives. In these areas non-formal education can play an important complementary role to that of formal education indicating the advantage of seeing both approaches as part of an overall programme of continuing or life-long education.

Educational Programmes and Relevance to Development

In addition to these efforts at providing a basic level of education for the total population, we need to re-direct our attention to increasing the relevance of educational programmes to the developmental needs of these societies. Once it is recognised that the root of this problem lies in the present marked income disparities between those with more education and those with little or none, and attempts are made to correct them, then curriculum reforms at the primary and secondary levels of schooling are more likely to be successful.

The problem that faces the educator is to develop a closer link between the type of education which students receive and the knowledge, skills and orientation required for the overall development of the country. This means trying to ensure that primary education becomes more useful in and for itself rather than being considered merely as a preparation for

secondary school. It is true that such an approach is not likely to be easily accepted by parents. President Nyerere espoused this view some time ago, and it is one which is increasingly shared by UDCs which cannot afford to provide universal secondary education. But even in Tanzania the implementation of this policy presented problems. In an evaluation of the Kwamsisi project by a Tanzanian graduate student, it was found that while the villagers gave general support to the idea of greater community involvement in the work of the school and in helping to plan its curriculum, one of their major concerns was whether the types of programme they had helped to plan might not adversely affect their children's chance of entering a secondary school or their academic performance there if they happened to be selected. However, as the attempts at reducing income gaps between those in the modern and traditional sectors of the society make progress, community education projects aimed at getting the school more involved in helping to meet community needs are likely to become more acceptable to the population. We have seen evidence of this in Cuba, China and to some extent in Tanzania - judging by the substantial expansion of such educational efforts in these countries.

Eight Years of Schooling in Two Stages

Another educational objective in this mass-oriented development strategy should be the eventual extension of the primary school course to provide a basic eight years of schooling for all. Children could start attending school at six or seven years of age so that after eight years of schooling they can enter directly into the work force.

During the first four years of this proposed basic eight-year educational programme, attention will need to be directed both at increasing learning outcomes through the use of more effective instructional strategies and increasing the relevance of the curriculum for the students. Since literacy and numeracy will form the foundation for all subsequent educational efforts, much attention must be focused on building up strengths in these areas so that an acceptable level of competence is reached even after only four years of schooling. One major problem which teachers in the UDCs face in trying to achieve this goal is the size of their classes which sometimes reach up to 70 or 80 pupils or more. This makes it virtually impossible for teachers to give individual attention to the weaker students who may have difficulty in acquiring the basic skills. The big hurdle to overcome is that of providing students with more individualised attention without over-straining the educational budget which in many UDCs already takes up a very high percentage both of government recurrent expenditure and of the Gross National Product. A suggestion for overcoming this problem will be put forward later when a proposal for a new type of "secondary" or second-level education programme will be discussed.

The question of improving teaching strategies - such as those that give students a more active role in the learning process and abandoning the traditional methods of rote learning so often found in schools in the UDCs - is also crucial. Research done by the International Association for the Evaluation of Educational Achievement has revealed a disturbingly low academic performance of students in some UDCs. This was true of all ages irrespective of subject matter tested or mode of testing. Even the students' performance in dealing with their own indigenous language was so low among the 14 year olds that one of the main researchers was led to question "whether any more than a minimal level of literacy had been achieved" [at 14] in [those] school systems studied.[8]

Educators in the UDCs know from experience that there is considerable room for improvement in the teaching methods now used in their primary and secondary schools - and what the IEA studies did was to confirm this fact. The results clearly indicate the need for research on how to improve learning using inexpensive teaching strategies. This is an important area of research on which the co-operative efforts of Commonwealth countries can be brought to bear. The challenge is to come up with those combinations of inputs which are most productive of learning outcomes but which, at the same time, involve costs that are within the budgetary constraints of these countries.

The second issue - that of attempting to increase the relevance of the curriculum content to the needs of pupils - will call for the development of new curriculum materials based as much as possible on the life experiences, cultural realities and environmental cues to which the children are exposed. This kind of work in curriculum reform has already been going on in many Commonwealth UDCs. But to be even more effective, especially in the larger countries, it will call for greater decentralisation in the preparation of curriculum materials so that local background factors can be taken into consideration. With this approach children attending school will have a better opportunity of knowing and understanding their environment. Since most of them will be living in agricultural communities, this will involve developing in them a greater awareness and knowledge of the plant and animal life around them without necessarily expecting them to do the usual hard work associated with keeping a school farm.

At the second four year stage of primary schooling, curriculum programmes, while continuing to emphasise the further development of basic skills and an increased understanding of culture and environment, will develop more deeply the knowledge and skills which would help students improve the quality of life in the community in areas such as health, nutrition, agriculture and various forms of practical work.

While the teaching of life skills is important, it should not be done at the expense of increasing knowledge, understanding and awareness which are pre-requisites for the successful introduction of future changes. For example an agricultural education programme should not be primarily concerned with getting students to achieve certain production targets, nor should its success be judged either by the size of the school garden or the numbers of hours students spend in those laborious chores associated with farming. The school farm should be a crucial teaching aid, a laboratory where students can try out new ideas and practices, experiment with new crops or with new methods of cultivation. It should not be geared primarily to the production by traditional methods of a large output of crops already being grown in the community. It must always be remembered that most of the children in rural schools will later spend much of their lives engaged in these routine chores, and that many of them, even while at school, are already performing them on the family farm. Agricultural education in school must do more than merely replicate these tasks if the pupils are to enjoy the subject and benefit from it.

Second-Level Education

The weaknesses of the existing system with its emphasis on helping students to obtain credentials rather than a useful education have already been noted. One solution for this is the elimination of the type of full-time secondary schooling which is now undertaken in most UDCs. Instead, after eight years of primary schooling, or after receiving the

basic education provided at the primary level, students would be expected to go out to work. But an important difference is proposed, namely that the work experience to which they would be exposed would be part of an overall training programme and be supplemented by various other types of educational activities. Those wanting to become skilled workers would work on projects with master-craftsmen in their chosen field, at first being assigned to jobs requiring little or no skill and gradually progressing to more complicated tasks as they learned the skills necessary to perform them. Some programmes might consist entirely of on-the-job training. In others such training might have to be supplemented by self-study, evening, day release or sandwich courses offered through an educational institution or even by qualified master craftsmen. In some cases these master craftsmen themselves might have to be helped to become competent enough to take on the job of training apprentices. The key point here is not to assume that in every field of training there must be a course of formal instruction in an established educational institution. The overall purpose is to ensure that people obtain the necessary skills to function competently in their fields. Only after they have demonstrated that they have acquired these skills would they be given whatever certificate of competence is deemed desirable.

Similarly, those wanting to be teachers would, after their eight years of basic educational preparation, begin as teacher-aides. They would then go through a programme of training which would include some months of practical experience working under the supervision of a competent teacher followed by some months of formal education and training aimed at blending theory and practice. They would continue this cycle until their education and training programme is completed. While working as teacher-aides they would also provide partial relief for the regular teachers to enable them to devote some time to give individual help to those pupils who need assistance to overcome their learning difficulties, especially in the basic fields of the 3 Rs. The work and study programme could be so structured that there will always be one group receiving on-the-job experience and providing help as teacher-aides while another group is doing its formal course of education and training, possibly at some centre for teacher education.

The length of the training period and the balance between on-the-job and formal instruction will be determined by the nature of the occupation for which the person is being prepared. But the major objective will be to ensure that the education and training being provided is directed mainly at improving the trainee's knowledge, skills and understanding of the job which he or she is being trained and educated to do. In this way it will seek to move dramatically away from the present type of education which most secondary school students in the Commonwealth countries now receive with its emphasis on studying subjects of little relevance to the development needs of the country. Also, the cramming of information in order to pass examinations and secure certificates to indicate that they have completed the steeplechase for entry into the next higher educational level or into a relatively high-paying job in the modern sector will become a thing of the past.

The education and training programme envisaged at this stage will not be oriented only towards teaching specific job-skills. But the education/training mix will depend very much on the nature of the occupation to which the programme will lead. Obviously for teachers, the education component might be larger than the specific job training component. But an effort must be made to balance the two, especially

when we know from available research evidence that training without an adequate educational background is not the best long-term investment. What must be provided is an education that extends beyond the teaching of specific skills - one that will help those in training to increase their knowledge, understanding and awareness of their role as workers and citizens in the society in addition to the skills which they will require to do a technically competent job.

This approach will establish stronger links between education and productive work, making the education more relevant to the developmental needs of society. It will also reduce the long gestation period which now exists between education and productive effort. In short, if such a programme is well carried out it will improve the productivity of the educational system.

Beyond Second Level Education

Beyond this basic second level of education and training, other opportunities will need to be provided for individuals to improve or refurbish their knowledge, up-date and upgrade their skills and deepen their grasp of the society in which they live. Opportunities will also be required for those needing further education before entering skilled professional jobs - medicine, engineering, etc. Their previous academic and on-the-job performance might become the first criteria used in determining their eligibility for such further education and training. By this time they would have had the necessary practical experience on which to judge whether they want to proceed to further studies in the same field or whether they should switch to another. Some of those who want to pursue more advanced training would be able to do so on the basis of their previous primary and secondary education. Others might have to undertake additional studies and this can again be done on a part-time, evening or block release basis. After this they can enter into their tertiary level of education and training which, it is to be hoped, will utilise the same combination of practical work and theoretical studies which characterised their second level of education.

In short, a key aspect of the second cycle of education would be a combination of theoretical and practical studies with each part of the programme used to reinforce the other. A combination of various educational approaches would be used as part of the overall educational strategy of increasing the quality of the human resources of a society and thus contributing to the overall development of a nation.

Conclusion

This is only one set of proposals and I am sure that other educators can come up with others. But I want to emphasise that in any proposal for educational reform in the UDCs aimed at increasing the effectiveness of the schools in their human resource development efforts, there are two features which cannot be ignored if success is to be achieved. The first and most important is that one must start with radical changes in the existing social and economic system aimed at reducing the massive income gap which exists in these countries, especially between those in the modern and those in the traditional sectors of the society. For any proposed curriculum reform to be accepted by the people, it has to be seen as leading to a life that is not entirely unattractive, especially as compared with the alternative opportunities which the existing so-called irrelevant curriculum offers.

The second is that any major economic, social and educational reform in the UDCs needs to be guided by a new development ideology which stresses mass development (i.e. is focused directly on improving the conditions of the masses.) The earlier development strategy which is still being used by many UDCs was based on the assumption that if the immediate benefits of development flow to the élites or the "better off" groups in the modern sector of the society, it will eventually filter down to the masses and thereby benefit the country as a whole. It is now recognised that development does not take place through proxies. The élites and others who are relatively affluent are not, and are never likely to be, sieves through which the benefits of development will trickle down to the lowest levels of the society. Historically they have been and are likely to remain sponges which absorb and retain for themselves the benefits of any development from the top.

References

1. F. Harbison. *Human Resources as the Wealth of Nations,* New York, OUP 1973, p.3.

2. See for example W.A. Lewis "Economic Development with Unlimited Supplies of Labour" in *The Manchester School of Economic and Social Studies,* May, 1954.

3. G. Ranis and J. Fei. *Development of the Labour Surplus Economy: Theory and Policy,* Homewood, Illinois: R.D. Irwin Inc., 1964, p.3.

4. M. Carnoy. "The Political Consequences of Manpower Formation" in *Comparative Education Review,* Vol. 19, No.1, Feb. 1975, pp 122-123.

5. M. Todaro. *Economic Development in the Third World,* London, Longman, 1977, p.236.

6. Ronald Dore. *The Diploma Disease,* London: George Allen and Unwin Ltd., 1976, p.4.

7. Government of Uganda. *Education in Uganda: The Report of the Uganda Education Commission,* 1963, Entebbe Government Printing Office, 1963, p.34.

8. Robert L. Thorndike. *Reading Comprehension Education in Fifteen Countries: An Empirical Study,* Stockholm, Alquist and Wiksell, 1973, p.135.