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# Education and Training in Development

by Professor Gabriele Wülker, Bochum \*

**Education and training are playing an important role in the development process of the less developed countries. So far, however, the traditional systems of education have been primarily of service to the privileged strata. New systems must be found for the future which fit in with development conditions and bear upon the qualitative, as well as the quantitative, aspects of education.**

In less developed countries (LDCs) education and training deserve to be given a high priority rating in the compass of development planning. Education is acknowledged to be a human right of every individual. Investments in education are appraised as an integral, constituent part of any development which has the aim of social and economic growth and change. As a logical consequence, expenditure on education and training has been increasing as a percentage of state budgets and gross national products ever since the LDCs gained independence<sup>1</sup>. From 1960 to 1968 public spending on education rose in Africa at an annual rate of 10 p.c., in Latin America at 11.3 p.c., in Asia at 4.1 p.c. and in the Arab states at 8.5 p.c.

The existing educational systems and institutions have nevertheless come in for growing criticism. Not only in the industrialised countries but in the LDCs as well is there often talk of a crisis in education<sup>2</sup>. The use of this term implies a need for a reorientation and change in the education services.

## Too Much Stress in the Quantitative Aspect

Educationists and economists alike are laying stress on the importance of education for the development process. The educational economists tend to apply to the LDCs the conclusions from the experience of the highly industrialised countries in regard to the economic benefits to be derived from investments in human resources<sup>3</sup>. Such attempts are however as a rule made without access to the necessary statistical information, to economic and educational data, and without allowing for the particular conditions and requirements of the LDCs. The rising rate of literacy and the quantitative spread of schooling are often regarded as evidence for the success of educational measures.

Initially illiteracy was deemed to be the greatest obstacle to development. Measures against it

were therefore, together with the extension of the school services, given an important place in educational planning. This was reflected by the three major overall plans which UNESCO designed and prepared for the countries of Asia, Africa and Latin America at the Conferences of Karachi (1959), Addis Ababa (1961) and Santiago de Chile (1962) together with the governments of over 70 states. Cardinal to them were recommendations for formal school services to cater for everybody in the young age-groups by 1980<sup>4</sup>. Special emphasis is put in all the UNESCO plans on the quantitative aspect, for they are based on a linear extension of the education services in the light of demographic projections and extrapolations of the growth of the social demand for education. The qualitative aspects of education, their place in the cultural texture of the countries concerned and their level of development were largely disregarded. The conference in Chile (1962) at least recommended to the national planning staffs that they should devise programmes for the extension of the education services which are integrated with the economic and social development projects<sup>5</sup>.

There has indeed been a remarkable quantitative expansion of school services. From 1960 to 1966 school attendances rose by 42 p.c. in the primary schools, by 80 p.c. in the secondary schools and by as much as 93 p.c. at the university level<sup>6</sup>.

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<sup>1</sup> H. M. Phillips, UNICEF Aid for Education, Review of Policy, UN, ECOSOC, E/ICEF/L. 1279, March 16, 1972, Annex p. 8.

<sup>2</sup> Philip H. Coombs, The World Educational Crisis. Oxford 1968 (in German: Die Weltbildungskrise. Stuttgart 1969).

<sup>3</sup> See for instance Harbison, Frederick and Charles A. Myers, Manpower and Economic Growth, Strategies of Human Resource Development. New York, Toronto 1964.

<sup>4</sup> Hasso von Recum, Bildungsplanung in Entwicklungsländern. Die Regionalpläne der UNESCO für Afrika, Asien und Lateinamerika (Education Planning in Developing Countries. The Regional Plans of UNESCO for Africa, Asia and Latin America). Documentation No. 9, December 1963. College of International Pedagogical Research, Frankfurt/Main.

<sup>5</sup> Quoted by Gottfried Hausmann, Bildungshilfe im Entwicklungsprozeß (Educational Assistance in the Development Process). In: Offene Welt, No. 99/100. Frankfurt 1969, p. 201.

<sup>6</sup> Education. World Bank, Washington 1971, Annex Table 1.

This development in the field of formal education is the result of

- the importance generally attached to education for the development process;
- the growing demand for education in the Third World (the age-groups 0–15 years account for over 40 p.c. of the total population); and
- the wish for more schools and education because in this way it is hoped to achieve better living conditions.

In the light of these desiderata however the total of education measures remains inadequate: after 1970 500 mn children of compulsory school age were still not receiving any schooling<sup>7</sup>. Moreover, the expansion of the education services was regionally off balance: it was concentrated in the urban areas, with the result of a marked differential in educational facilities between town and countryside which operated to the disadvantage of the rural population.

### Concept of Education

The extension of the education services after the LDCs had become independent was clearly based on the understanding that development and economic growth are identical and that advanced technologies and scientific knowledge are the prerequisite to all modernisation with the ultimate aim of industrialisation. On this assumption the education systems – modelled on foreign, and that means alien, education ideals which had been introduced by missionaries and colonial powers – were built up on a broad basis to cover the whole population. Qualitatively the formal education services were thus derived from concepts and systems of other societies. One not infrequent result was that instruction was given in a foreign tongue and not in the native language.

The design for not only the systems but, to a large extent, also the curricula came to Africa, Asia and Latin America from outside. The education pyramid of highly industrialised countries – the structure of primary, secondary and higher education and universities – was also taken over, so that the primary school is the original basis for all stages of education up to university level. To young people in rural areas is thus conveyed a knowledge of subjects which have no relevance to the specific conditions and requirements of their environment; for about 65 p.c. of the gainfully employed population of the Third World in 1970 were still engaged in agricultural pursuits<sup>8</sup>.

The character of the secondary and higher education and thus also of the primary education is largely determined by academic and philological

disciplines and not by technical subjects and the natural sciences. As a result, priority is given to consumptive over productive education even though there is a greater demand for practical and technical qualifications than for advanced intellectual studies.

### Inefficiency of Education Systems

The potential effectiveness of the education systems in the LDCs is being increasingly questioned. A number of mistaken developments or discrepancies have given substance to the misgivings being felt: the low productivity of the systems has been shown up by the fact that in half of all developing countries no more than 50 p.c. of the children entering school complete their courses in the regular way<sup>9</sup>. That many pupils thus leave school prematurely results in widespread secondary illiteracy (school-leavers relapsing into their former state of illiteracy). In practice this means waste of large investments and betokens inefficiency of the school institutions as hitherto constituted. Even so the school system is not open to a sufficiently large number of the young people of school age<sup>10</sup>: of the children between 5 and 14 years of age in Africa 40 p.c. attended a school in 1967/68; in Asia it was 55 p.c., in Latin America 75 p.c. and in the Arab states 50 p.c. The opportunities for acquiring higher qualifications, i.e., for higher school education, are also extremely limited: just under 10 p.c. of the young people of intermediate school age attended a secondary school and no more than 1 p.c. were at university<sup>11</sup>.

Even this small proportion of young people with educational qualifications cannot be absorbed by the labour market. Unemployment among young people rises in all LDCs with the level of education: in Sri Lanka 90 p.c. of the young job-seekers in 1969/70 were under 20 and had received an advanced education; two-thirds of this group were still unemployed when 20–24 years old<sup>12</sup>. In India an investigation into the employment situation of university graduates revealed that 26 p.c. of those leaving college had to wait for an average of one year before they found work, 15 p.c. two years, 7 p.c. three years and 3 p.c. four years<sup>13</sup>. This relation between rising levels

<sup>7</sup> H. M. Phillips, *ibid.*, p. 1.

<sup>8</sup> (1960: 69.5; 1980: 59.6 p.c.) The World Employment Programme. Geneva 1969, p. 33.

<sup>9</sup> Education. World Bank 1971, p. 8. UNESCO ascertained a "drop-out" rate of 87 p.c. among schoolchildren in the Chad in 1970.

<sup>10</sup> H. M. Phillips, *ibid.*, p. 9.

<sup>11</sup> Education. World Bank 1971, p. 9.

<sup>12</sup> Erik Thorbecke, *The Employment Problem: a Critical Evaluation of Four ILO Comprehensive Country Reports*. In: *International Labour Review*, Vol. 107, No. 5, May 1973, pp. 393-423.

<sup>13</sup> A. Rahmann, *Scientists in India*. In: *UNESCO International Social Science Journal*, Paris, Vol. 22 (1970, No. 1, p. 64); quoted by Hilde Wandler, *Bevölkerung, Erwerbstätigkeit und Wanderungen (Population, Occupation and Movements)*. In: *Die Weltwirtschaft*, 1970, No. 1, pp. 158-174.

of education and declining chances of finding work is also encountered in Iran, Argentina, Malaysia, Syria, Kenya and Venezuela<sup>14</sup>. One must not generalize, however. In highly industrialised countries it also takes some time to find a job and start work after education and training. In the LDCs however there are much greater variations in job opportunities and career prospects (in view of the bigger investments of time, energy and training). It is beyond question that the rate of unemployment among persons with higher qualifications is higher than among unskilled youngsters and primary school-leavers. From this it may be concluded that the quality of education has improved faster than the labour market demand for their services has grown.

#### **A Disastrous „Brain-Drain“**

Finally, the emigration of college graduates from the LDCs to take up work in industrialised countries (the "brain-drain") is an unmistakable evidence of the limitations of the professional opportunities for people with educational qualifications in their native countries. As an example, between 1955 and 1968 more than 20,000 college graduates and about 5,000 persons at an intermediate level of education emigrated from Colombia (total population 21.5 mn) in order to fill well-paid posts in the USA (which took about half), Spain, France and Canada<sup>15</sup>. The Pearson Report quoted UN estimates (1967) to the effect that 40,000 trained specialists had left LDCs for industrialised countries<sup>16</sup>. There are no precise data to indicate how many stay in the industrialised countries and how many return to their native lands. Nevertheless this remains a problem which must be taken seriously; for the number of qualified people going from the poor countries to the rich is larger than that of the technical advisers from industrialised countries moving in the opposite direction.

Several factors are causing the "brain-drain". There is, on the one hand,

the attraction ("pull-factors") of better working conditions, higher earnings, better job facilities, more agreeable living conditions; and, on the other, there are

the conditions in the LDCs which favour emigration ("push-factors").

"In country after country there is irresistible pressure to expand university education, and so many countries have found it possible to do this that the number of college graduates (including professional graduates) has been rising faster than their economies can absorb them."<sup>17</sup> So Baldwin who observes elsewhere that "the less developed countries are not being stripped of

manpower they badly need; more often than not they are being relieved of manpower they cannot use."<sup>18</sup> Nevertheless it involves much wastage of the investment in human resources, a loss of capacities which in theory might be wanted for a development process.

#### **Causes of Lack of Absorptive Capacity**

It thus appears that the supply of certain highly-qualified working personnel is in excess of the economic demand although the percentage of those who are given an academic or intermediate education is substantially lower than in industrialised countries even if allowance is made for students abroad.

The causes of the low absorptive capacity of the economy, administration and science for experts and higher education need investigating. Of interest is also whether this is a temporary phenomenon affecting young people in particular and whether this trend becomes less marked with increasing age. As far as can be foreseen however, it will be impossible to overcome the structural unemployment in the developing countries during the current decade; in other words, it will not be possible to coordinate the supply of jobs with the demand. The International Labour Office goes so far as to forecast that by 1980 the total number of persons to be ensured of a livelihood will be at least 300 millions<sup>19</sup>.

The education services are evidently based on a false concept. They concentrate too much on the top and not on the basis. They are oriented towards the educational needs of highly industrialised countries and less towards the conditions prevailing in the LDCs. Furthermore, such systems of education conform to ideas and plans for development which identify modernisation with industrialisation and give priority to concentration on key-point development projects on the assumption that the impulses to be expected from such concentration will radiate through the whole country.

#### **Fresh Impulses in the Second Development Decade**

The strategy for the Second Development Decade is determined by awareness of the fact that not economic growth alone but also suitable partici-

<sup>14</sup> Mark Blaug, *Education and the Employment Problem in Developing Countries*. International Labour Office, Geneva 1973, p. 9.

<sup>15</sup> *Vers le plein Emploi en Colombie - Résumé (Towards Full Employment in Colombia - Summary)*. International Labour Office, Geneva 1970, p. 21.

<sup>16</sup> Lester B. Pearson, *Partners in Development*. New York 1969, p. 202.

<sup>17</sup> George Baldwin, *Brain Drain or Overflow?* In: *Foreign Affairs*, Vol. 48, No. 2, 1970, p. 362.

<sup>18</sup> George Baldwin, *ibid.*, p. 359.

<sup>19</sup> *The World Employment Programme*, *ibid.*, p. 44.

pation by the whole population and a more equal distribution of growth and incomes is a requisite for further economic development. In September, 1973, Robert McNamara, the President of the World Bank, said in his speech to the World Bank governors in Nairobi that 40 p.c. of the population in the developing countries had so far not been participating in the economic progress and also not contributing to economic growth<sup>20</sup>. This holds good for the sphere of education, the labour market and participation in the utilisation of agrarian resources. In this respect there are signs, also in regard to education and training, of the existing systems of education being restructured and new ones being devised; some quite unconventional routes are being chosen. Attention must be given in this context to the reasons for the crisis of education which have been indicated by Coombs<sup>21</sup>:

- Pressure of student numbers;
- Shortage of finance for personnel and material for education;
- Continuous increases in the real costs per student;
- Shortcomings for the provided education in regard to the objects of society;
- Imperviousness of the existing education systems and subject curricula to attempts at structural revision and innovation.

#### Consideration of Qualitative Aspects

Quantification of the existing education systems only makes sense in conjunction with a qualitative reform which deviates from the two principles of "social demand" and the "manpower requirement approach". The ecological approach is now being incorporated into the education strategies. The system of education is to be regarded as a component of the environment; the objectives and contents of instruction, its methods and subject combinations are to be determined in the light of the environmental conditions. To conform to this approach, the programme of instruction will be directed towards improving the living conditions, providing greater equality of opportunity and enabling the students to take part in the development process. A number of new systems have the purpose of meeting these ecological conditions:

"Non-formal education" is to operate as a supplement or alternative to the formal education services for population groups which are not, or no longer, catered for by the schools. Besides, new concepts have been developed for what is known as Functional Literacy or Basic Education and Functional Adult Education<sup>22</sup>. Common to all sys-

tems is that they abandon adopted exogenous ideas of education and look for guidance to the native civilisation, society and economy with their specific natural conditions. The education programmes, being based on a realistic assessment of the country's own development potential, are to form part of the development programmes. In this way it is to be avoided that these functional education programmes result in increasing unemployment and frustration. All education efforts and projects outside the formal education services in towns and villages are listed, classified and enlarged as possible vantage-points for the operation of such systems. In Cameroon<sup>23</sup> and Tanzania<sup>24</sup> these non-formal education facilities are described as "ruralisation" since their economies and societies rest on a rural basis. The education services are thus comprehended as means for leading and attracting the population to the most important resources of their country.

#### Education for the Masses the Primary Aim

These systems involve an entirely novel appraisal and assessment of what is meant by education. Schools are no longer given support for their own sake but what instruction is given is determined by everyday life and its needs. This stems from a new awareness that the school should not remain an institution and privilege for a favoured minority. The education system should on the contrary be put at the service of education for the masses and thus provide one prerequisite for more social justice. A new mobilisation of human resources is achieved in this way; it does not get its bearings any longer from labour market requirements or the social demand for education among the population as was the case in the past. The new concept necessarily differs considerably from the one which governed the mobilisation of human resources in the LDCs previously. The new education systems are no longer to aim primarily at eliminating illiteracy and matching the old system of values which favoured the upper strata. By integrating the non-formal

<sup>20</sup> Robert S. McNamara, Address to the Governors, Nairobi, September 24, 1973. International Bank for Reconstruction and Development, Washington 1973, p. 1.

<sup>21</sup> Quoted by G. Hausmann, *ibid.*, pp. 205-206.

<sup>22</sup> Functional Literacy — why and how. UNESCO, Paris 1970, COM 70/II.31a/A; Philip H. Coombs, *New Paths to Learning for Rural Children and Youth. Nonformal Education for Rural Development*. International Council for Educational Development, New York 1973; *Building New Educational Strategies to Serve Rural Children and Youth. Draft of Second Report on a Research Study for UNICEF prepared by the International Council for Educational Development*, UN. ECOSOC. E/ICEF/I. 1304, March 27, 1974.

<sup>23</sup> La Réforme de l'Enseignement Primaire au Cameroun (The Reform of Primary Education in Cameroon). Yaoundé, Ministry of National Education, March 26-29, 1973.

<sup>24</sup> Salomon Odiya, *Rural Education and Training in Tanzania*. International Labour Review, Vol. 103, No. 1, January 1971, pp. 13-38.

education with the economic and social order it is intended to reach the underprivileged sections of the population more particularly. This will be the point of vantage for future planning. The principle of unbalanced growth as the basis of development is thus abandoned; for the new education systems create prerequisites for a more even and more balanced development as well as greater social justice — which are also demanded in the context of the present international strategies.

#### **No Education System Without Problems**

Unquestionably there is a danger of the new education system becoming an end in itself. It can only be successful if it is integrated with work procurement, agricultural rationalisation, the improvement of the infrastructure and efforts for the advancement of the informal and traditional sector of the economy.

The following problematic aspects must not be lost sight of in the pursuit of this new education strategy: All LDCs wish to integrate themselves into the world market and to participate in the

progress of international science and technology. From this follows that in order to become internationally competitive they must respond to the objective need to prepare highly qualified personnel for appropriate efforts. The desired international integration could be delayed if the average educational level were lowered so as to conform to the needs of the masses. The same complex of problems arises in this respect as in determining the priority of labour-intensive techniques compared with capital-intensive ones.

The advanced education in science and technology is indivisible. It obeys the same principles in all regions of the world. Non-formal education is therefore in the long term incapable of taking the place of the previous, i.e. formal, forms of education and training. The two systems will have to complement each other and take their bearings from the development aims and development potential of each individual society, on the one hand, and the efforts for international cooperation and integration, on the other. It remains the task of every single LDC to draw up such new concepts of education and corresponding new education systems and curricula for itself.

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