48626

UNITED NATIONS
ECONOMIC
AND
SOCIAL COUNCIL

Distr.
LIMITED

E/CN.14/SDP/25
14 September 1963

ENGLISH
Original: FRENCH

ECONOMIC COMMISSION FOR AFRICA
Meeting of Experts on the
Integration of Social Development Plans
with Over-all Development Planning
Addis Ababa, 9-18 October 1963

SOCIAL FACTORS IN EDUCATION PLANS

(Presented by the United Nations Educational,
Scientific and Cultural Organization)

63-3086

TABLE OF CONTENTS

SOCIAL FACTORS IN EDUCATION PLANS[1/]

Until recently, there were no national education plans to speak of, but only education legislation and programmes. Education policy was scarcely in evidence, and aimed primarily at providing elementary instruction for the working classes and more advanced instruction for the ruling classes.

Since secondary education, and - a fortiori - higher education concerned only a small proportion of the children (the more well-to-do, in general) and the link between education and professional life was barely established, at least from a community standpoint, the concept of national planning had little point.

Today, the general provision of education, and its tie-up with economic life, brings forward the problem in an entirely different way.

Whether or not countries have a rational economic development plan, there is an increasingly compelling need for an education policy which in addition to its traditional aims has to provide education, in suitable proportions, for men and women, capable of meeting the needs of a society in process of constant technical change.

Let us first consider the demographic factors, from the purely quantitative standpoint, and then turn to the social factors.

I. THE DEMOGRAPHIC FACTORS

It is only during quite recent years that the close connexion between education plans and population trends became apparent.

Pupils belong to rising generations and teachers to adult ones; and any demographic disturbance may well modify the age-composition of the population, and especially the ratio between young people and adults.

Contrary to a very widely held view, the increased expectation of life or lower mortality rate has not so far produced any marked change in age-composition, for it has been increasing the number of young people in at least as high a proportion as the number of old ones.

1/ By Afred Sauvy.

On the other hand, the fall in the birth rate has indeed produced a profound change in age-composition, since lower fertility has the effect, by definition, of reducing the proportion of children to adults.

In most cases these two trends had hitherto proceeded in step, although with a more or less marked lag between them, with the mortality rate being the first to fall.

This progressive senescence made it easier to recruit teachers and, for the same standard of education, slightly reduced the ratio between educational expenditure and the national income, with the result that the relationship between demographic development and education policy was obscured.

Conversely, the rapid growth of population in many countries, the recovery in the birth rate in the developed countries, and the democratization or progressive extension of education at the various levels has made this relationship very apparent during the past few years.

The following numerical example, which corresponds fairly closely to actual situations, will make this point clear.

A numerical example

The model in this case is one which has been deliberately simplified. Let us assume that there are two populations A and B, which are stationary to begin with:

A which is developed - and hence aged, has a low mortality rate (expectation of life at birth 70 years) and a low birth rate;

B which is undeveloped, and hence young, has a high mortality rate (expectation of life at birth 40 years) and a high birth rate.

Education is assumed to be compulsory among these two populations for a period of eight years (age 6 to 14), with the teachers beginning to teach at age 20 and finishing their careers at age 65.

The initial situation, as regards the data with which we are concerned, is as follows:

	A Developed population	B Undeveloped population
Population age 20 – 65	100,000	100,000
Children aged 6	2,410	3,200
School population	19,200	23,900
Young people aged 20	2,380	2,930
Rate of annual renewal of teaching staff	2.38%	2.93%

Of the two populations, it is the less developed one which has the heavier burden, on account of its age pyramid. With equal standards (number of pupils per class), therefore, it has to recruit a higher proportion of teachers in each 20 year generation.

As to the annual rate of renewal of teachers, it depends not on school standards but solely on the ratio between the number of under 20's and the adult population aged between 20 and 65.

Let us now assume that this initial situation is abruptly changed by an increase in each generation of children of 10 per cent, in the number of children attending school. The above proportions will then be greatly modified: during the course of eight years, the school population will increase, by slightly over 1.25 per cent a year (we take the figure of 1.25 per cent, leaving out of account the very low mortality rate at that age). For the number of teachers to increase in the same proportion (to ensure the maintenance of standards), the annual renewal rate will have to increase from 2.38 per cent to 3.63 per cent for population A, and from 2.93 per cent to 4.18 per cent for population B, or an increase of 52 per cent and 43 per cent respectively.

These very high figures give an idea of the acuteness of the change, for it entails an increase of some 50 per cent in the annual level of recruitment. However, the Government has six years before it in which to prepare that change, at least if it is a question of a rising birth rate, for birth statistics are a very sure indicator.

Again, of the two populations, it is the less developed one whose position is the more difficult, for an increase in the number of enrollable children may be due not only to a higher birth rate consequent on better health conditions but also, and especially, to a reduction in the mortality rate, and even more to an extension of school coverage. If, for example, infantile and juvenile mortality falls to such an extent that expectation of life increases from 40 to 50 years, the number of 6-year old children in a generation identical at birth increases by more than 11 per cent on that account alone, without the number of adults increasing initially in the same proportion. The increase in school enrolment may be larger still.

Surges and forecasts

The problems which may arise where the population is steadily increasing and school enrolment growing can be readily imagined. The number of teachers to be found is very high; yet the adult generations have not themselves been trained in anticipation of this event. We are faced with a real case of "reverse genetics".

These upward surges may one day be matched by surges in the opposite direction. A very high rate of teacher-training, necessary during an acute crisis, may become excessive once the crisis has been met, especially if school enrolment at a higher level removes pupils from elementary schools.

The extent of the possible surges in one direction or another can easily be shown by calculation. If this question has been given very little attention for so long, it is because school enrolment was a matter which mainly affected the Western countries, and that the number of pupils was falling slightly, at least in relative figures, as a result of the fall in the birth rate, with school enrolment moving in the opposite direction. Today, however, the two factors no longer offset each other, but combine.

This survey indicates the necessity of making fairly exact calculations well in advance so as to take account of the tendency for the number of teachers to remain stationary, and to anticipate surges in order the better to ride them out.

Fortunately, the increasingly widespread practice of making population forecasts makes it possible to calculate several years ahead, on the national scale, the number of pupils covered by compulsory education and the number of teachers in certain hypothetical cases. Although local contingencies consequent on internal migration, remain, school building plans can be drawn up with some assurance, and an unexpected increase in the number of pupils can no longer qualify as an excuse.

In the case of the construction of new school buildings, practically the only obstacles that might occur are financial; but it is otherwise when it comes to teacher-training, for almost all the prospective teachers receive their teaching training and vocational direction before the birth of the children who will be placed under their care.

In any case, as far as they are concerned, measures should be taken immediately a spurt in the birth rate, a fall in the mortality rate or an increase in school enrolment begins to take shape.

Other levels of education

What has so far been said applies to compulsory elementary education. At the other levels, the proportion of children of each generation is usually small, so that school enrolment (percentage of children of a generation enrolled at that level) plays an essential part.

It is nevertheless possible to work out forecasts, supplementing demographic estimates by those for enrolment rate. In this way, calculations can be made of the total number of children enrolled at each age, as a source of useful data on the number of teachers to be provided (the same difficulties then arising as were mentioned above).

II. SOCIAL FACTORS

Education and social life impinge on each other in various ways:

(a) The former is affected by the latter by reason of inequality in the social status of the children;

(b) The former affects the latter by giving young people an education which, directly or not, will to a greater or lesser extent determine their professional activity.

This would imply that there are two separate aspects that could be distinguished. In point of fact, the present study will dwell on three essential problems:

(a) Social inequality in respect of education, and means of attenuating it (democratization);

(b) Relationship between education and employment;

(c) Effect of the educational system on the stratification of social classes.

Inequality in respect of education

Education at the beginning, was essentially a class education; and in many countries it is still influenced by the historic process concerned. But in all countries, in any case, the influence of the family is a considerable factor.

In undeveloped countries, this family influence operates intensively through the effect of the economic level. Secondary and higher education, even when they are free involve expenditure and reductions in income which a family in modest circumstances cannot sustain.

This economic handicap is reinforced by a social one, which is often not apparent but which becomes very clearly so where the population is more developed. It is therefore a point to be stressed.

The child with a high social status is better fed, better housed and better equipped, and this by itself puts him in a better position as far as his future development is concerned. Furthermore, he has early access to picture books and toys conducive to that development; and lastly - and undoubtedly most important - there is the family conversation and the environment which condition the child. In other words, a certain transmission of knowledge takes place in a non-hereditary manner and as a result of purely environmental phenomena.

It is not surprising, under these conditions, to find that the children of well-to-do parents get better marks on average, both in the tests made in the course of special surveys and in the teachers' regular notations.

To give an example, the mental level of the children examined during the major French survey of 1944 was found, to be represented at age 11 by marks ranging (from 120.6 for the children of farmers to 129.3 for the children of town workers and 146.2 for the children of parents in the intellectual or liberal professions. The class marks given by teachers also reflect substantial differences.

Furthermore, even where the marks, and hence successful performances at school, are on a par, the transition from one level of education to a higher one is also affected by social inequality.

Then there is the further point that handicaps resulting from social status are often accompanied by geographical handicaps (remoteness from towns equipped with suitable schools) and those resulting from the size of the family.

A clear distinction must therefore be made between obstacles due to differences in income and those due to social environment. Even in the Soviet Union, after forty years of suppression of the class system, a certain reserve on the part of workers' families towards higher education is still in evidence. Hence it is wrong to think that absolute equality in respect of education can be achieved by purely economic means (free education or contraction of the range of incomes). More has to be done than that.

The question of whether inequality of family origin (so strongly marked at age 10 or 11) diminishes with time, and, if so, to what extent, is still a matter of dispute. It would be reasonable to think, a priori, that this handicap is progressively reduced as the child grows older, in line with the weakening of family influence. But sometimes an attitude becomes ingrained and the damage becomes beyond repair. Furthermore, account must be taken not only of the mental level of the parents but also of their more or less powerful urge to see their children rise in the social scale.

In a teacher's family, for example, there is a greater tendency to push the children than in a businessman's family which includes only one child and is certain of providing him with a place in society. There may be other situations, however, which are more complex.

There is a vital need for detailed studies on this point: on the findings may depend, in fact, the questions of the duration of the common instruction provided for all children.

Attention is specially focused on very talented children. Where they are not provided with the instruction suited to the development and use of their talents, the disadvantages are twofold: loss to the community as well as social injustice. For these reasons, and for others also, talented children in modest circumstances do not accede to the various levels in the proportion commensurate with their merit, but often break off their studies prematurely in order to contribute their wages or their labour to their family. Here again, it is the economic factor - i.e., the family income - which operates. The allocation of study scholarships offsetting the prospective wage is obviously the most appropriate method to apply in this case.

The social handicap is more difficult to correct. It may even be argued that it will not be possible, so long as the family continues to exist as a cell of society, to eliminate completely the differences between children resulting from inequality in their parents' conditions. In all countries, assuming equality of talent, the son of a doctor, teacher or factory director has more chance of acceding to higher education and later to a high social position than the son of a peasant or worker. Often, however, this phenomenon, the existence of which no one can dispute, is given too little or no weight. It is by being fully acquainted with it, on the contrary, in its inmost mechanism, that it will be possible to combat it most effectively.

Throughout the world, a trend can be noted, at least as far as avowed intentions are concerned, towards the democratization of education. But unless a close study is made of the mechanism in question, these intentions are likely to remain sterile.

Relationship between education and employment

Although the idea of rising individually in society thanks to education is one which men have long harboured, it is only at a much more recent stage that the collective relationship between the active population and education has been made the subject of study; and it is still a long way from being properly understood, let alone being properly used.

All too often, a certain lack of interest in the practical application of particular types of instruction is still in evidence in university circles.

(a) There is often little concern for developing the spirit of initiative and enterprise which is so essential in modern society;

(b) Furthermore, although vocational guidance is more and more concentrated on seeing that the best use is made of the child's aptitudes, it takes insufficient account of the extent to which young people need to be trained in order to meet the economic needs of society.

Even in the countries with planned economies, the universities' link with the plan is not always perfect. The latter, in any case, is usually drawn up for only five years or so, whereas a man trained in a certain way is supposed to apply what he has been taught for a matter of 40 or 50 years.

We are thus faced with the following problem: Every year, the school, in its broadest sense, discharges, as it were, a flow of men to join the active population but without liaison between the two sectors having been properly ensured.

Let us now examine some aspects of this liaison.

Full employment and economic expansion

A shortage of qualified men, at least in certain sectors exists in all countries, without exception. This is not to be wondered at: technique is constantly advancing, creating sudden new requirements which, even if all appropriate measures were adopted, would take some years to meet. New

discoveries, by definition, fall largely outside the scope of planning and even of rational forecasting.

Where the shortage of qualified men is fairly strongly marked, this structural imbalance, this disproportion, dooms part of the unskilled active population to unemployment - a phenomenon which is particularly noticeable in the under-developed countries. Economists increasingly recognize that financial aid to these countries - assistance in the form of capital - is not the essential remedy, and that it cannot be fully effective unless the country concerned has sufficient trained men possessing various skills and especially technical skills.

It may be asked why the primary importance of training men was not recognized earlier, and why it is still underestimated. The reason is that the human factor lends itself less readily to book-keeping practices, accountancy reckonings; having no market value, human beings do not feature in accounts. The idea of man's value only emerges when he is transferred by contract, as happens in the case of certain professional sports. Champions or star players, i.e., persons who are highly qualified (and sometimes even trainers, for whom the question of profitable publicity does not arise) are transferred at very high fees.

Many other less direct proofs or convergent presumptions could be cited in support of this argument.

It can justifiably be held without abandoning a strictly materialist standpoint, that the education of men is the most profitable investment, provided, of course, that it is in the right direction.

The shortage of qualified persons and, more generally speaking, the imbalance among the active population are not peculiar to the under-developed countries. It is also found, for more than one speciality, in the developed countries, or at least in those without planned economies.

The experience of the past few years

During the years 1950 to 1960, potential employment forecasts were largely exceeded in a number of countries, - in particular, Western Germany, Austria, Netherlands, Italy and Switzerland, and also Japan. The really

outstanding successes of these countries can be explained only by the existence of a considerable, although of course inadequate, proportion of educated and qualified persons.

In Western Germany, for example: 7,000,000 persons of active age have entered the territory since the Potsdam agreements. They came without capital, i.e. without factories, house, hospitals or universities, but with their knowledge. Had they been 7,000,000 uneducated labourers, German economy would not have expanded as it did, and there would have been a great mass unemployed.

The question being one of proportionality among the active population, persons without proper qualifications benefit from the high level of general intellectual education provided they are not too numerous. For example, a charwoman in Western Europe earns more than a worker in an under-developed country and many times more than she would have earned in that country for similar work. The same phenomenon can be seen in the case of other unskilled professions: the baggage porter or dishwasher earns far more in a developed country than his counterpart in an under-developed country. Hence education and training enrich the community in all its members.

This essential rôle of human education explains the reversal of the age-old flow of immigration which has now been in evidence for half a century, and especially during the past few years.

Switzerland, for instance, with its lack of natural resources, has long been a country of emigration. Latterly, a particular effort has been made to develop education and technical training there. Thanks to the progress made the number of jobs has grown to such an extent during the past few years that considerable recourse to immigration has been found necessary: the number of foreign workers now amounts to 20 per cent of the active population - a substantial proportion which has outstripped the most generous forecasts.

As stated above, the earnings of an unskilled worker performing a particular type of work differ considerably according to whether he works in a developed or an undeveloped country. But for the fact that

there are many sociological or political obstacles in the way of migration, there would be intensive immigration to the developed countries - an eventuality against which all countries have in any case introduced protective measures.

A qualitative forecast

Let us now see how a more effective link could be established between education, which produces men, and the economy, as their consumer.

Mention may be made, in this connexion, of the investigation made in Italy (and completed in 1961) by Svimez, at the request of the Ministry of Economy. The object was, in the first place, to produce an estimate of the composition of the actual population according to degree of qualification, on the basis of presentday technical trends. Each professional qualification was correlated to a degree of instruction, thus making it possible to deduce the number of holders of various diplomas who would need to be trained each year. It was even possible to make estimates for teacher-training to achieve that objective.

A similar study has been made in France by Mr. Jean Fourastié. It, like the Italian study, cannot be regarded as completely reliable, in the present state of statistics, but both should serve as models for future studies. Not only should all countries undertake similar ones, but it might even be possible to envisage a sort of permanent investigation aimed at reconciling the needs of the economy and the direction of education as far as possible.

Integral estimates

On the basis of essentially quantitative demographic forecasts and the qualitative forecasts referred to above, a general education plan can be envisaged which would take very considerable account of the economy's manpower requirements. Except where natural resources are lacking, overpopulation, chronic unemployment or underemployment, would cease to exist.

While efforts should tend in this direction, it would obviously be wrong, of course, to contend that education programmes and general plans

could be entirely governed by these considerations. In particular, the forecast cannot cover a longer period than the active life of a man - i.e. 40 or 50 years. New discoveries, as already stated, are events which are too capricious to allow us to see so far ahead. A man trained in the light of immediate or imminent necessities may later find his professional activity placed in jeopardy by a new invention.

It may be advisable, as a protection against this eventuality to avoid excessive specialization, to develop adaptiveness and to organize seminars or courses lasting several months during which professional adult workers could bring their knowledge up to date.

Effect of education on social stratification

If social origin, i.e., the existence of classes or categories, is a contributory factor in the way children are educated, the latter conversely, bulks fairly large as a factor determining the social status of the adult. In itself, this rise in the social scale thanks to education is a good thing, provided always that the selection by examination is correctly conducted. Nevertheless, divergencies deepen between men when they enter active life: in some countries, the difference between elementary and secondary education is such that it often produces a lifelong gulf between the individuals thus moulded.

It is not easy to indicate with certainty the most appropriate solution, for the question is one of reconciling objectives which are different from, if not opposed to, each other. In addition, account has to be taken of the diversity of countries and situations. Nevertheless, any premature separation of pupils may be considered dangerous even if based on their real merits. Common instruction for all children of a given generation for a period of years has the advantage, in fact, of not only reducing the family handicap referred to above, or at least of preventing it from producing a final and untimely break, but also of creating lasting relations and a certain community of thought conducive to subsequent social cohesion.

The foregoing observations apply particularly to the developed countries. In the under-developed ones the question is even more vital. As we have seen, the training of middle and higher grade staff is a prime condition for development. However, it produces a considerable gap between its beneficiaries and the popular masses, a gap which is widened by the fact that even with the best will in the world it is not possible to go very far in providing a general coverage of elementary education, since the number of teachers to be found is more than the already educated generations can provide.

Those who accede to higher education thus find themselves on the same level as their colleagues in the developed countries, but by the same process terribly remote from large numbers of their compatriots. This is one of the difficulties of development: unable to proceed at the same speed in all sectors, it inevitably leads to dislocations.

The difficulty is even greater where the higher education has been received in a developed country. A certain acculturation takes place which directly results in partial uprooting. It even happens that on completion of his studies, the young man, makes no attempt to return to his home country, finds a job and founds a family in the country or region where he has received his education, in which case the loss is considerable, for the country loses a man who is fully trained and often of outstanding ability.

The choice between education received locally, and one acquired abroad cannot be subjected to hard and fast rules. It may involve basic impossibilities, but it is advisable never to lose sight of the risk indicated above.

III. GENERAL VIEW, AND CONCLUSION

This brief survey of the social factors of education makes clear, first of all, the vital importance of reviewing traditional concepts.

It also indicates the possibility and even necessity of formulating education plans of some duration, even going beyond that of the economic plans. Educating people is henceforward part and parcel of a country's general development. Not content with satisfying the needs of the individual, education concerns the very life of the nation and is its most precious ferment.

- - - - -