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ABSTRACT

This report discusses the identification of seven key problem areas concerning education and human resources, describes how three priority problem areas were selected, and presents brief discussions of all seven problem areas. The three priority problem areas cover the potential of educational technology, the economic aspects of education, and nonformal educational programs. The other areas include education and employment, reorientation of teacher training institutions, new directions in higher education, and new roles for women. Appendixes contain (1) general guidance for problem identification and (2) an account of the sequence of steps followed in the problem identifying process. (Author/JF)

AGENCY FOR INTERNATIONAL DEVELOPMENT

BUREAU FOR TECHNICAL ASSISTANCE

OFFICE OF EDUCATION AND HUMAN RESOURCES



# PRIORITY PROBLEMS IN EDUCATION AND HUMAN RESOURCES DEVELOPMENT - THE 1970s



Prepared May 1970
Revised November 1970

## FOREWORD

The several sections of this document indicate the background of investigation, analysis and consultation which resulted in the selection of the three problem areas for concentrated attention by the Office of Education and Human Resources of the Bureau for Technical Assistance.

No contention is made that these problems are the highest priorities in education and human resources development in all countries, or that they will not be supplemented or superseded by other priorities as our experience unfolds. They have been selected on the basis of exacting criteria and therefore merit the serious and sustained attention of all appropriate elements of the Agency for International Development.

The primary objective of the Office of Education and Human Resources is to advise and assist the Regional Bureaus and Field Missions in identifying significant opportunities to ameliorate these problems and in mobilizing the resources required for effective action.

The principal staff responsibility for development of the Staff Paper was borne by Dr. W. Steen McCall, Deputy Director, Office of Education and Human Resources. An indication of the large number of contributors to the substance of the paper and to the ultimate decision on the three problem areas selected is contained in Annex B.

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## ACTION SUMMARY

The Technical Assistance Executive Committee of the Agency for International Development in July 1970 concurred in three key problem areas of the education and human resources field for concentrated "in-depth" attention by the Technical Assistance Bureau in cooperation with A.I.D. Regional Bureaus, Regional and Country Missions.

The priority problem areas are:

> Problem Area One: To explore the potential of educational technology, as broadly defined, to achieve major gains or breakthroughs in quantity, quality and cost factors in LDC education and human resources development.
>
> Problem Area Two: To evaluate the experience of the LDCs (and the U. S.) with non-formal educational programs, and to foster experimentation and transfer of knowledge of successful experiences between the LDCs.
>
> Problem Area Three: To foster evaluation, research, and experimentation with various modes of educational finance, and to increase the usefulness and use of economic measurement tools in educational planning, decision-making and management.

In reaching the aforementioned consensus, the Technical Assistance Executive Committee considered the Summary Paper, Section I, on problem identification in education and human resources, and an earlier draft of the Staff Paper which, in revised form, constitutes Section II of this document.

The Summary and Staff Papers also discuss four additional problems which, while not assigned the same status as the three problem areas selected for concentrated "in-depth" attention, remain of considerable interest to the Technical Assistance Bureau as well as to the Agency as a whole. These other problem areas involve: education and employment; the reorientation of teacher-training institutions; new directions in higher education; and new roles for women in development.

The process resulting in the identification of key problem areas in education and human resources, as well as other fields, is explained in the Technical Assistance Bureau Notice on "General Guidance for Problem Identification" which appears as Annex A to this document. A brief and informal account of the steps followed in identifying problems in the education and human resources field is contained in Annex B.

## SECTION I - SUMMARY OF STAFF PAPER

### Key Problem Identification - Education and Human Resources

This memorandum identifies the three key problem areas for "in-depth" attention by the Office of Education and Human Resources (EHR) in the Technical Assistance Bureau (TAB). It also describes briefly the process leading to the selection of the three problem areas, and notes the disposition of several other problem areas considered in the selection of the three areas for primary attention during the next one to three years.

### The Process

The process by which the key problem areas in education and human resources were identified was as follows:

> (1) examination of the documentation of the experience of A.I.D. and the assistance agencies during the past decade, (2) study of the literature relevant to changing educational problems and priorities for the 1970s, (3) preparation of a series of working papers on various problem areas, (4) extensive discussions with A.I.D. staff members, Bureaus and Offices, other government departments, foundations, IBRD and a panel of experts formed to advise O/EHR, (5) preparation of a Staff Paper, and discussion with a large number of A.I.D. offices, two field missions, and non-governmental authorities on education and human resources.

This process narrowed the problem areas to be considered for final selection to seven:

1. Certain economic aspects of education
2. Education and employment
3. Strengthening non-formal education
4. Reorientation of teacher training institutions
5. New directions in higher education
6. New roles for women in development
7. Educational technology

Comments within A.I.D. were stimulated by dissemination of the draft Staff Paper, coupled with briefing sessions to which members of the TAEC, as well as others, were invited to send participants. These comments have had a decisive influence on the final selection of the key problem areas.

As a result of the comments received, it was concluded that the number of problem areas identified (seven) was too many, considering the resources available and the intended "in-depth" concentration of effort. It was also concluded that real "in-depth" attention to a smaller

number of problem areas would be likely to yield both a higher prospect of success and be of more service to the Agency and to the LDCs.

The further major conclusion was that two of the problem areas (educational technology and non-formal education) clearly led all the others in terms of interest expressed and the desire for special "in-depth" solution seeking activity in which the TAB as well as other components of the Agency should be involved.

Relatively few comments on the problems noted in the section dealing with "Certain Economic Aspects of Education" were received. This is believed due to the lack of familiarity with these matters by many of the recipients rather than a lack of interest in them or non-recognition of their importance. Those commenting on this problem area, primarily persons with an economics background, singled out work on the economic measurement tools as the segment of the problem area preferred for special attention. Additional considerations have suggested the desirability of making explicit the relationship of measurement techniques to the planning, decision-making and management processes.

Although there was relatively little comment on the search for alternative sources for financing education, the facts adduced in the Staff Paper, and consultation with institutions conducting research in this area led us to believe that it fully merits inclusion in the final list of priorities. It has been identified as a major problem by many LDC governments, by the Development Banks and by the Institute of International Educational Planning. Indeed, it is deeply interwoven with the other key problem areas of educational technology and non-formal education.

## The Three Problem Areas

The three problem areas selected for "in-depth" attention by TAB/EHR are indicated below as single sentence problem statements.

> Problem Area One: To explore the potential of education technology, as broadly defined, to achieve major gains or breakthroughs in quantity, quality and cost factors in LDC education and human resources development.
>
> Problem Area Two: To evaluate the experience of the LDCs (and the U.S.) with non-formal educational programs and to foster experimentation and transfer of knowledge of successful experiences between the LDCs.
>
> Problem Area Three: To foster evaluation, research, and experimentation with various modes of educational finance,

and to increase the usefulness and use of economic measurements tools in educational planning, decision-making and management.

All these problem areas are of concern to many other official and private assistance agencies. Every effort will be made to concert and coordinate our efforts with them in order to achieve maximum impact of research, experimentation and implementation. Similarly, it is recognized that any successful attack on these problems must be made as a joint enterprise between the TA/EHR, Regional Bureaus, Missions, governments and private institutions in the LDCs. Particular attention will be given to fostering such partnerships.

Disposition of Other Problem Areas

Comments from within and from outside the Agency reflect the view that the other four problem areas provisionally selected are important. However, the general view, which we share, is that they are either (1) not effectively and directly actionable by A.I.D., or (2) are beyond the resources which the Agency can reasonably hope to provide, or (3) they can, in part, be addressed by effective performance in the three problem areas selected.

For example, the employment of people emerging from the educational systems will be perhaps the most crucial human resource problem of the 1970s. The role of women in development clearly is a matter of great importance, particularly as it relates to population programs, education and health. Reorientation of teacher education, and greater relevance of higher education to development likewise merit serious and sustained attention.

Although these problems have been, for the reasons cited above, excluded from those to be dealt with in depth, we feel there is a useful role for TA/EHR to play in these areas, insofar as time permits, by (1) assisting in the clearer conceptualization of the problems, (2) stimulation of thought, research and experimentation by other assistance agencies and LDC governments, (3) relating our efforts in these selected problem areas to them in conscious and sensible ways.

Action

Two of the basic criteria for selecting the three key problem areas were that (1) they are basically important, and (2) actionable by A.I.D.

Obviously few significant actions can be taken by TA/EHR alone. These require a full and effective joint effort by all appropriate elements of A.I.D., coordination and cooperation with other assistance agencies,

and assistance to the LDCs (through the USAID Missions) in identification and action upon their own problems.

Beyond these, action will be augmented by mobilization of institutional and individual talents and bringing these resources to bear sharply and continuously upon real problems in their social, economic and political contexts.

# SECTION II - PRIORITY PROBLEMS IN EDUCATION AND HUMAN RESOURCE DEVELOPMENT - The 1970s

A STAFF PAPER

## INTRODUCTION

Education and human resource development and the problems relating thereto do not exist in isolation. They are an integral part of the whole pattern of development within each of the less developed countries (LDCs). Education demands a large share of national resources in each of the LDCs, and it can operate either to help solve or further exacerbate problems in their overall development. The nature and quantity of education in each country and its concern with overall human resource development is an expression of that nation's philosophy, aims and strategy of development - or, in some cases, a lack of these things.

Similarly, the priority problems in education and human resource development selected for attention by A.I.D. depend upon its philosophy, aims and strategy in assisting the LDCs in a variety of areas in which education is only one of many components. Thus, identification of priority problem areas in education and human resource development outside the context of our general strategies, priorities, commitments and capabilities becomes relatively meaningless.

For example, the relative emphasis that will be given to transforming the rural sector and the means adopted to bring about this transformation should exert a major influence on the direction of A.I.D.'s education program. If an overall decision is made that A.I.D. will in fact attack the problems of bringing about a rural transformation more vigorously, that relatively greater resources will be devoted to this cluster of problems, and that a greater diversity of devices will be used, the problems of the rural sector should be given high priority in the A.I.D. education strategy for the next decade. If such a commitment is not made, improvement in rural education and human resource development can be useful but of an entirely different order of importance.

Similar observations apply to other major areas of development such as industrial development, modernization of agriculture, urban problems and population.

In other words, the identification of priorities for education depends in very large part on the overall development objectives selected by a country and toward which A.I.D. is prepared to commit a major share of its resources in a variety of ways. This Staff Paper has been prepared without precise authoritative guidance with regard to overall objectives

which the LDCs will be willing and able to support. Nonetheless, it is based on several reasonable, though not necessarily correct, assumptions. Briefly stated, they are:

1. That there will be a major effort toward rural transformation.

2. That urgent and sustained efforts will be made to provide expanding employment in the modern, intermediate and traditional sectors, but that the largest component of employment must derive from the traditional and intermediate sectors.

3. That serious and perceptive efforts will be made to relate all aspects of education more directly and more meaningfully to development problems, needs and possibilities.

4. That a major effort will be made to control population growth, both in total terms and in distribution, and that this effort will be broadened to envisage the overall function of women in development.

5. That population growth and social demand will maintain growing pressures for larger quantities of education, in the face of declining rates of growth in educational expenditures.

6. That political as well as social and economic realities will compel much more serious concern with non-formal education and human resource development for non-school populations.

7. That increasing reliance will be placed upon new technologies for many developmental purposes.

There are, of course, other major and many subordinate assumptions which are relevant to the construction of a set of priority problem areas in education for development. However, those listed seem to us at this time to issue most logically from an appraisal of development now and for the years ahead.

Based upon these assumptions, this Staff Paper identifies a series of problems involving education and human resource development in the LDCs. The problems identified are a selection from among a vast number of such problems with which the LDCs are confronted.

The fundamental selection criteria were:

1. That the problem be common to many of the LDCs;

2. That it be a critical problem for which a solution, partial solution or even a significant degree of alleviation would represent a substantial gain in national development;

3. That the problem, or at least some important component of it, be accessible to and actionable by an external donor, such as A.I.D.; and

4. That A.I.D. efforts to assist in resolving the problem would represent the best use of our resources, i.e., their highest marginal utility.

This document is a severe condensation of extensive consultation with a wide variety of professionals concerned with the subject both within and outside of the Government, accompanied by an extensive review of the literature and advisory group discussions of informal working papers.

It is recognized that at best this document can be only a first "rough approximation" of the priority problems toward which A.I.D. efforts should be directed. Subsequent analytical work on each of the problem areas should yield a more precise understanding of each of the problems as well as the range of alternatives and options available to work toward solutions of them.

## Some of the More Important Facts and Factors

The critical problems for education and human resources occur within, are sometimes caused by, and must be solved in relationship to an environmental context. In fact, one of the primary findings of this review has been that many of the more important problems for education and human resources in the LDCs are not education problems per se and are not problems which are solvable by educators alone.

The general environmental factors of the LDCs are so well known as not to require repetition here. However, the impact of such factors on education and some of the data on education itself may be less widely known and some appreciation of them is essential in any useful analysis. The following data are therefore presented to highlight some of the more important facts and factors common to many of the LDCs.

The LDC quantity gain in education in the past twenty years has been impressive. Since 1950 primary enrollments have more than doubled and secondary and higher education enrollments have virtually quadrupled.

Even today, however, there are more school-age children (about 300 million) outside of the formal education system than are enrolled within it. And the gross educational deficits of the past may be measured by the roughly 2 out of 3 adult illiterates in the LDCs.

The social demand for education is very strong - a potent social, economic and political force in each of the LDCs. As a result, LDC expenditures of their own funds for education rose form about $1.5 billion in 1950 to an estimated $11 billion in 1969. In recent years, education expenditures on the average have been increasing over 12% annually, more than twice as fast as the growth in GNP. Education has been claiming proportionately larger shares of public budgets each year.

Quality has not kept pace with the gains in the quantity of education in the LDCs. There are, however, some notable exceptions, particularly in individual institutions within the various LDCs which have been the recipients of substantial attention and supplemental resources from external donors in cooperation with host countries. Given an assumed trade-off between quantity and quality in a competition for scarce domestic resources, responsible LDC officials, faced with the actualities of social demand, generally have opted in favor of quantity, while external agencies, at some distance from these pressures, have favored more attention to quality, and generally have directed their resources to this end.

Sheer demography is central to the education and human resource problems of the LDCs. Typically, one half of the current population of these countries is less than 20 years old, while the median age in a developed nation is in about the mid-thirties. Using another measure, about one fifth of a developed country's people are in the 5 - 16-year age group while in many LDCs about one third of the entire population are in this critical school-age group. The needs of LDC education systems for their current population are therefore proportionately much higher than those of the developed countries, as measured by the proportion of children in the school-age group.

Population growth in the LDCs will be central to their education and human resource problems of the future. General population increases of 2 to 3% in the LDCs mean 3 to 4% increases in their school-age populations. During the 15 years from 1965 - 1980, the 5 - 14 age group in Europe is expected to remain constant; in North America to increase by about 13%; and in the LDCs to increase by about 50%. Most of this basic school-age population for the decade of the 1970s is already born, and cannot be affected by any potential alleviation through advances in population control.

The imbalance between the supply and effective demand for educated manpower at all levels has been changing rapidly in recent years. This phenomenon is well established in some LDCs, and will become more pronounced in many others during the decade ahead. The numbers of new secondary school and university graduates are rapidly increasing. Meanwhile, new employment

opportunities in the government and other modern sectors of a typical LDC appear to be only about 3 to 5 percent annually. Under current concepts of development and employment, it is almost certain that the 1970s will see an increase in the educated unemployed in most of the LDCs.

Education - long identified as a precondition for development - is also a serious problem of development when it is insufficiently related to the real needs and circumstances of development. The blessing is not unmixed, and education, viewed as a panacea in the 1950s and 1960s, is becoming suspect in the 1970s.

The tradition-bound nature of education systems in the LDCs has been a major factor in the past and will continue to be in the decade ahead. While there are rapidly advancing doctrines of change and "modernization" of education, the painfully slow rate of change in education systems is understandable, and, to a considerable degree, inescapable.

The inadequacy of domestic research, experimentation and innovation in the education systems of the LDCs is evident and of real concern to both internal and external observers. Without condoning this lack, it is perhaps inevitable that the propensity to experiment is somewhat less in an environment in which the average resource per pupil is about $50 per year as contrasted with a school system quite open to experimentation, such as that of New York city, in which the cost per pupil for the elementary grades is $750 per year, and for secondary school about $1,200 per year. Actually, of course, the need to experiment may be the highest in the situation with the least available resources.

A review of the conventional means to increase the quantity and improve the quality of education in the LDCs does not reveal any instrument with a high potential for a really critical breakthrough in the so-called "world educational crisis" for the LDCs. Educational technology may have a potential for a partial solution of some of the educational problems of the LDCs.

A.I.D. obligations for education in F.Y. 1969 totaled $115 million about 1% of the LDCs' own expenditures or about 20 cents per school age child in the LDCs. It is essential that our resources be used only for the most productive purposes.

Several Preliminary Considerations

Definitions: For working purposes, we are using education to refer to any systematic and sustained effort, formal or informal, to impart a substantial body of knowledge. Human resources development is used with reference to the totality of efforts, educational or otherwise, which result in increasing the ability of human beings to contribute usefully to their society.

Interrelationships: It is recognized that education and human resource problems do not exist in isolation from many other problems. For brevity, however, these interrelationships are not outlined in this paper.

Categories: Education problems may be presented in a variety of categories. Some have the virtue of more familiarity than those used here, but all tend to have considerable overlapping among them. Those used, while far short of a logical ideal, did evolve naturally from the analysis undertaken and reflect the selected areas of emphasis as well as leading to the specific components of problems which are actionable by A.I.D.

Some Important Words: A.I.D. discussions of the education and human resource problems of the LDC often focus on such important words as: quality, research, relevance, experimentation, innovation, change, modernization, strategy, planning, management, curriculum, methods, science, technology, administration, reform and the like. All are important words, concepts and problem areas in themselves. As generalizations, however, they often are not directly actionable and only achieve real meaning when related to problems stated in other terms. For brevity, the discussions of the problems selected use these familiar terms sparingly. It should be understood, however, that important ingredients of planning, research, experimentation, modernization, reform, etc., will enter the search for solutions to the problems identified.

Relative Emphasis: Some important problems to which our resources might be directed already are receiving substantial attention by the LDCs, various external donors or others. Other problems or certain aspects of these same problems may be receiving little if any attention. In general - and given matters of equal importance - we have tried to focus our attention on those problems or important aspects of problems which appear to require a new, different, or added emphasis.

## II

## The Proposed Problem Areas In Brief

### 1. Certain Economic Aspects of Education

There are important economic considerations in virtually all of the problems discussed in this paper. An "economic" point of view, and the perspective provided thereby, is needed within our entire staff of education professionals. This economic perspective within the whole of our professional education staff is as important as, but certainly should not be confused with, the application of economic science and analytical techniques to education. The contributions of professional economists will be of increasing importance to education and human resource development in the LDCs. At the same time, however, they cannot be a substitute for the effective exercise of economic perspective and judgment as a continuing matter by the entirety of our professional education staff.

Virtually all LDCs in the 1970s will face a confrontation between the social demand for education and the availability of resources for this purpose. We have noted earlier the political strength of the social demand for education which is reflected in the larger shares of public revenues being allocated to this sector. However, this cannot be a never-ending process.

Even with full recognition of the political potency of the social demand for education, there probably is some finite point - varying within and among the LDCs - at which increasing financial availabilities for education from public budgets will have to be correlated much more closely with increased public revenues and with increases in the GNP. At this point, either a slowdown of educational growth or an actual retrenchment would be required, and further educational development would depend upon generating additional financial resources for education. This equation introduces a specific problem toward which AID efforts usefully may be directed, i.e., assisting the LDCs in the search for additional and alternative sources from which to finance educational endeavors.

Certainly the LDCs should not delay the search for alternatives until such a "finite point" is actually reached. And certainly AID or other external donors should not foresee such a condition and simply await its arrival before considering the possibilities for assistance in this area. One of the derivative benefits of such a search is that it might well reveal alternative

sources of financing for a variety of important non-formal educational purposes, as well as for the formal school system. Thus, the very process of developing a broader base of resources for education may become an instrument for educational innovation.

Much of the interest of economic science in education is of quite recent origin, with most of the professional work in this field occurring since the mid-1950s. There is now a substantial growth of inquiry in this area which can be expected to continue. Thus, we may expect an increasing array of insights, derived from economic analysis, to be available for education. We may also expect the refinement of current analytical techniques and the development of new methods and techniques specifically designed for education and human resource purposes.

Economics already has contributed much to our understanding of education problems and their possible solution. Of the many possibilities suggested, it is believed that the further development and use of "measurement" techniques may be the most useful in the short run in A.I.D. efforts to assist the LDCs in their education and human resource problems. (Such useful "measurement" instruments, of course, are not confined to economic science per se. The other social sciences and such fields as management and planning among others also should have much to contribute in this area.)

Such measurements can be particularly helpful in evaluating alternative means to achieve the same objective; in comparing the costs and benefits between current practices and proposed changes; in comparing optional uses of resources; in predicting the financial feasibility of many types of activities; and in attempting to insure that our resources, as well as those of host countries, are used for the most productive purposes. The problem area is how to bring to bear most effectively the contribution of the various measurement techniques to our full range of concerns and those of the LDCs in the education and human resource area.

Simply as one example, a variety of measurement techniques would be very helpful in assessing the efficiency of education and in providing constructive insights in how to strengthen the productivity of the process. It should be noted immediately, of course, that a great deal of work needs to be done on the measurement techniques available and their validity before any really serious claims can be made concerning our real abilities to offer truly reliable measurements of educational efficiency. Even recognizing such severe limitations, there is a very important role for

experimentation with such measurements even if they succeed only in raising questions and challenging complacent assumptions without offering definite evidence or conclusive proofs.

The efficiency of education systems, of course, has both an internal and an external component. Internal efficiency relates to the effective use of resources for the production of the product. External efficiency relates to the suitability of the end product for the market for which it is intended. We do not need a series of measurements, contributed by economics or other fields, nor do we need any additional degree of sophistication or technique to know that the education systems of the LDCs are grossly inefficient as viewed from either an internal or an external standpoint. Such insight is not unique to ourselves; such matters are well understood within the LDCs. The problem is one of having techniques available, such as a variety of measurement instruments, which will enable LDC planners, managers and decision-makers to focus on and understand the nature of the inefficiencies of the present in a context which will offer alternate means through which to achieve higher levels of efficiency both within and outside of the education systems.

## 2. Education and Employment

Education and employment tend to operate as somewhat independent variables in the LDCs. The problem area is often described as the inability of the education system to provide to the employment market people who are either trained or trainable in the particular skills for which there is an effective demand - actual employment opportunities. In real life, this interrelationship between education and employment is less than ideal in any country. However, the problem is well known and many techniques have been designed to facilitate the process through which the education system can adjust its programs and its production of certain skills and potentials to the varying needs of the market place.

The LDCs have been provided with considerable information and various techniques relating to this type of problem over the years. Although the pace of change may seem glacial to those professionally concerned, education systems in the LDCs increasingly are recognizing this problem area and may be expected to adjust somewhat more effectively to the requirements for trained manpower. For some years to come, however, progress in this field will remain slow for at least three major reasons: (1) development produces a constantly changing set

of manpower requirements in both skills and numbers, particularly in the unplanned sectors; (2) a large proportion of the effective employment opportunities will be in the least desired occupations; and (3) in gross numbers, there will be a larger future output of "educated" manpower than the governmental and modern sectors of most LDC economies can absorb.

Although all of these problems are important, the last two are crucial, and are problems for which there are no tested and reliable solutions.

The problem of inducing people to accept and continue in what they consider undesirable employment has never been fully solved, even in states operating under autocratic rule. In relatively democratic societies, it requires application of a wide variety of incentives - income, amenities, and general social improvement. Not the least of such problems is the modification of the occupational value system through different kinds of education.

It seems quite probable that even with all incentives which can be provided by the LDCs, at least some of them will be forced to take coercive measures to distribute manpower more in accord with development needs than is likely to occur otherwise. These should be regarded as last resorts, and the educational system adapted in every possible way to produce needed skills and the motivations to use them.

The growing divergence between the gross output of "educated" manpower and the effective demand for it is perhaps the greatest problem now for some LDCs and for many more in the future.

From the beginning of the development movement (roughly 1950) to the late 1960s, there were, as a generalization, very real requirements for people at all levels of education in most LDCs. It was this circumstance that may have led many to the belief that education was a panacea for development.

Throughout the past decade, however, the overall supply of educated manpower has been increasing very rapidly, and the education systems of the LDCs will be producing substantially larger numbers of educated manpower in the 1970s.

The early success story in education is proving to be the precursor of a set of serious second generation problems in a growing number of the LDCs - that of creating employment for large numbers of people

whose skills and expectations have been sharpened by education. The problem is no less real because the skills were often irrelevant and the expectations unrealistic.

The time at which this problem becomes apparent, of course, varies in each of the LDCs. But it appears to be universal in character and of a dimension which is beyond solution through simply adjusting the product designs of the education system.

The growing problem of employment for the educated is not as new as we might assume. For example:

a. In the Philippines reportedly only about one-third of the high school graduates under age 35 have been in full time employment throughout the decade of the 1960s.

b. In India, rising unemployment among both high school and university graduates was noted as early as the middle 1950s and more recently has included widespread unemployment among graduate engineers and agriculturists, categories in critically short supply only ten years earlier.

c. Many Latin American countries have experienced substantial unemployment among secondary school and university graduates for some years.

d. Even some African countries are becoming concerned about serious unemployment among secondary school leavers and potential surpluses of university graduates.

e. Informal reports from Afghanistan - a late starter in the education race - suggest that there may be employment opportunities for only a minority of its future university graduates.

The dimensions of this problem will increase as even larger numbers of "educated" people are produced each year, in contrast with the relatively limited capability (about 3 to 5% annually) of the government and modern sectors of the economies of the LDCs to absorb the surplus. The potential explosiveness of the problem need not be detailed. Without alleviation, the repercussions may be expected to become increasingly serious during the 1970s.

3. Strengthening Non-Formal Education

In contrast to formal education systems, there have been very few overall studies of non-formal education systems in the most developed countries. As for the LDCs, studies of their overall non-formal education systems are virtually non-existent.

Perhaps this is understandable in view of the loose and wide-ranging conglomerate of educational activities which comprise the non-formal system in each country. The non-formal education system often consists of a miscellaneous grab-bag identified by such words and phrases as: continuing education, in-service training, career development, work-study programs, extension, correspondence, apprenticeship, adult education, skill training, on-the-job training, labor education, worker participation programs, self-help learning, community education, home study courses, and the like.

The difficulties of getting a precise fix on such an elusive target, or of using calipers to measure the existence and importance of the non-formal education system may excuse the lack of study of this subject. However, it should not obscure the tremendous importance of non-formal education systems in each country. For example, one of the few overall studies of this matter is the U.S. and the USSR indicated that the non-formal education systems in these countries were roughly equivalent in size with their total formal education systems. In the U.S. there were individual corporations with educational establishments as large as those of good-sized universities, and the education activities within our armed services alone are equal in size to the total formal education efforts of several states combined.

The growth of all developed countries was accelerated by non-formal education activities designed to stimulate, train and motivate their large non-school populations. This had the effect of greatly broadening the base of education for work and life. In the process, it brought important new insights to the need for relevance in the formal educational system.

The foregoing is not to suggest that the LDCs should launch substantial non-formal education efforts simply because of the size and importance of non-formal systems in the developed countries. Further, it certainly is not to suggest that we embark on a "mirror-imaging" of the American non-formal education system as a parallel to the export of our formal education system. It is to suggest, however, that the non-formal education system has a more important role in the scheme of things in the LDCs than is now generally recognized in any real and meaningful sense.

Virtually all of the LDCs now have a non-formal education system whether it is recognized as such or not. Often very little is known about it. It simply exists. It enjoys little status and is often either ignored or given at best a glancing blow in the overall education planning mechanism. It seldom receives real recognition in such forms as the allocation of resources. And it is not given the organization, prestige, and leadership designed to truly nurture and strengthen it as a major instrument of development for non-school populations.

Many years ago, activity to strengthen non-formal education systems was an important theme in U.S. assistance. Today, such activities are sparse. The decline did not occur as the result of considered program judgment. Instead, it occurred simply as a natural and largely unnoticed byproduct of the bureaucratic decline of such internal sponsoring agents as the Industry and Productivity Division and other organizational units.

There are at least four major reasons for concentrating efforts on improvement of non-formal education at this time.

First, traditional, formal education is becoming prohibitively expensive for many of the developing countries in sheer terms of numbers of students and availability of financial resources. In most countries costs for schools are increasing faster than enrollments and faster than national incomes.

Second, the skills, knowledge and capacities of the labor force, as indicated above, are developed as much if not more through experience, on-the-job training, and other kinds of non-formal education as through formal schooling. Formal education, however, enjoys high prestige and status. More attention to and more money invested in the most productive programs of non-formal education will undoubtedly increase its prestige and effective contribution to national development.

Third, a very large proportion of the present and future population of most newly developing countries will have had little or no formal education at all. Its only chance for skill and knowledge development, therefore, is through some kind of non-formal education.

Fourth, in the past decade, most external assistance has been channelled into formal education while non-formal education and training have been largely neglected. It would appear now, however, that the highest payoffs for new investment in human resource development are in the non-formal area.

Owing to these and other factors, there is a new base of growing interest in the non-formal education systems in the LDCs. As one result, these countries themselves, with UNESCO assistance, are beginning to gather systematic data on their non-formal education

activities. It is believed that a proper use of AID assistance in the non-formal education system area can be highly productive. Equally, it is hoped that our assistance would be designed to support a truly indigenous growth of non-formal education rooted in their needs and in accord with their resources.

4. Reorientation of Teacher Training

During the past generation, teacher training has received more concentrated AID attention and interest - at least as measured by numbers of project - than any other element of education. This certainly is not inappropriate as, next to students, teachers are the largest and most important component of an education system. AID achievements in the teacher training field in the LDCs are substaintial and properly are considered among our more important contributions to development during the past decade.

Our long involvement in teacher training is so familiar and often reported as to require little if any review in this paper as a background for the problem area to be identified. This very familiarity, in fact, may be a reason why teacher training has not attracted during recent years a prominent place in either internal or external discussions about fresh and important new directions in education. Teacher training has tended to become a standardized activity, compounded of traditional methodology and concepts of educational development formulated fifteen or twenty years ago. Any realistic look at the present status and future prospects of development indicates a need for a major change and reorientation of teacher training, both in subject-matter and in methodology.

We now are compelled by experience and by insights into the rate and directions of development to conclude that irrelevant education results largely from teaching teachers to teach irrelevant things - to propagate unrealistic values and to cling to educational traditionalism. It seems clear that to relate education more effectively to development needs there is a prime requirement for a reorientation of teacher training.

Reorientation is much more than tinkering with curriculum and the aparatus of instruction. It requires recognition of the need for really significant and sweeping changes - an overhaul and reform in the philosophy of education, the mission of teacher training and the teacher training institutions. Some dimensions of this problem area may be noted in the contributions by two distinguished educational authorities to the International Conference on the World Crisis in Education at Williamsburg, Virginia, in 1967. (The first quotation is from the excellent basic documentation for the Conference, prepared by Mr. Philip H. Coombs with assistance by the staff of the International Institute for Educational Planning. The second is from the summary report of the Conference Chairman, Dr. James Perkins.)

> ". . . educational systems will not be modernized until the whole system of teacher training is drastically overhauled, stimulated by pedagogical research, made intellectually richer and more challenging, and extended far beyond preservice training into a system for continuous professional renewal . . . for all teachers . . . reform along such lines carries with it exciting possibilities . . ."
>
> " The proper preparation of teachers . . . will require a new definition of institutions for teacher training. These institutions must be deeply involved in research and experimentation and be themselves influential centers of innovation. They must be prepared to disseminate the tested results of research and to encourage their practical application."

There are two primary reasons for serious consideration of teacher education as a priority problem area for AID: (1) nearly all the LDCs are now conducting their educational programs with teachers who are insufficient in number, inadequately prepared to use the most effective teaching methods, and trained to teach subjects frequently only marginally related to the present and projective lives of their pupils, and (2) the very large past investment of AID in teacher education, part of which has been productive and part of which has helped to propagate the problems which now confront the LDC's.

5. New Directions in Higher Education

The past two decades have produced an enormous growth in the numbers of institutions called "universities" in the less developed countries. A good many of them qualify as authentic universities by the breadth and quality of their education and research. It would be difficult to discover any which have become deeply and purposefully concerned with the central purpose of the nations which support them. This purpose, at its best, is the accelerated improvement of the political, social, and economic life of their people.

Even many of the better universities in the LDCs cling to traditional disciplines and methods of instruction. Universities and university-level institutes founded primarily to provide trained manpower for development largely have evaded direct, purposeful and coherent commitment to the real and immediate problems of development. Their contributions to development continue to be regarded as a byproduct and their educational philosophy generally does not embrace a commitment, in a direct and immediate way, to the service of society. Thus, they have remained (as has become increasingly clear in our own universities) remote and largely irrelevant to the problems and needs of the developing countries.

AID (and its predecessor agencies) has been a party to the creation or development of many universities in the developing countries. From the beginning of the technical assistance program, the United States perceived the need for direct relevance by the universities in the LDCs to development problems. This perception, however, took the land-grant college as its main prototype. Schools of management, engineering, science and others were modeled essentially upon the industrial and agricultural cultures of the United States. While these responses were by no means wholly incorrect, they clearly have not produced institutions appropriate to and vitally engaged in the real problems of nation-building and development. Hampered by traditional conceptions of education already deeply imbedded in the LDCs, these institutions generally have remained academic enclaves, remote from immediate and paramount problems, diffuse in their educational purposes, and devoid of a sense of urgency and moral commitment.

During this same period new problems were emerging or being recognized to which the LDC universities could not properly remain indifferent:

A. Rapid growth in population and rising demand for education at all levels.

B. Changing and accelerating demands for trained human resources to meet the needs of social, economic and political development.

C. Migration of large numbers of people to urban centers compounding both rural and urban problems.

D. Demonstration that the modern sectors of industry, commerce, agriculture and government could not provide employment for all the educated, even at the university graduate level.

E. Realization that with mass education, the traditional primary and secondary schools would find it difficult or impossible to provide students adequately prepared for higher education. The sheer numbers of students seriously inhibited adequate improvement of the quality of education at these levels.

F. The requirements for faculty, physical plant, equipment, institutional capabilities and funds made university development, particularly of the technical faculties, a very long-term problem.

There have been various concepts of ways in which AID might assist LDC universities in casting themselves in a more development oriented role and in becoming organic with, rather than apart from, the societies they serve.

Perhaps the most extreme such concept is that AID might help selected countries create a new kind of experimental university, which generically might be called a Development University.

Such a university would be based on a more revolutionary concept than scattered efforts at curriculum improvement and inter-faculty linkages. It would have a clear and explicit purpose and doctrine - a direct, immediate and urgent commitment to development in all its aspects. At a minimum it should be:

1. Founded on a single guiding concept - development - in which all strands of study and research would be woven together to give them a coherence and visible purpose.

2. Directed toward equipping young people to do something about development problems in the special settings of their own nations and environments.

3. Characterized by an emphasis on the moral content of education and the values associated with service to society, rather than personal affluence and prestige.

Such a university would not offer courses in every field, but only in those where the cutting edge of development needs to be sharpened. This still would be a fairly wide spectrum, for development of a nation requires usable skills in politics as well as agriculture, the humanities as well as engineering, the arts as well as economics, and the social as well as the physical sciences.

But there would be several important differences in the Development University.

1. The overriding purpose of every offering in the curriculum would be to relate it to relevant problems and purposes of development.

2. Every specialization would be structured to give it a useful synthesis with other specializations. All should contain a major component of concepts of the aims of development as well as the means by which these aims may be achieved.

3. The campus would be a country or a region within a country - not an enclave. Students and faculty would spend at least half their time engaged with real problems, and their libraries and laboratories would be designed to sharpen understanding of these problems.

4. The university as an institution would undertake serious operational responsibilities for appropriate aspects of development - leadership in reform and improvement of

the whole educational system, propagation of non-formal education and learning programs, experiments in improvement of rural life, experimental population control programs and others.

5. It should emphasize high standards for admission - but not just academic standards. It should give full credence to non-academic talent, demonstrated potential, and personal commitment to service to society. Admission to the Development University should be a recognition of the individual, not of a secondary school diploma or a mark on an examination.

6. The university should consciously strive to create a new mystique of education, simplify ritual, honor practical achievement, exemplify spartan standards.

There are, of course, some very real and imaginary problems involved in constituting a Development University. The forces of traditionalism and the educational Establishment are likely to view such an institution with skepticism or alarm. Institutional involvement with non-academic problems is difficult and unfamiliar. Recruitment of faculty would present a problem, for it would require a kind of person as well as a kind of professional competence. The process of student selection would require more time and greater discrimination than is now common.

There are probably a few existing universities with vision enough to undertake a revolutionary venture in education. In some countries Development Universities would have to be created from scratch. But the experience with higher education in development thus far would seem to require experimentation with a new and more generative form of university.

Whether or not AID should seriously pursue the creation of Development Universities on an experimental basis, it should continue its interest in and support of higher education in the LDCs. However, except in rare and unusual instances, it should diminish and ultimately cease its support of overall university development. Greater selectivity should be employed in the institutions assisted and this support more sharply focused upon those elements of the institution which are (1) highly significant to national development, (2) receiving serious and sustained commitment by the host institution and government, and (3) capable of achieving a level of competence or excellence within a reasonable period of time.

Assistance to universities will be predicated upon their taking a problem-solving approach to both internal university problems and problems of their societies. This implies serious participation in identifying and solving human resource problems such as requirements for sub-professional personnel (for health, education, government, industry and agriculture); reform of curricula and teaching methods; adaptation of research to real problems of development; and economic management of faculty, staff and physical resources.

During the 1970s A.I.D. should encourage and support a growing assumption of leadership on the part of developing universities in policy formulation, planning and management. We feel that many of them are capable of doing this well, but we should respond to requests for assistance in these areas where such assistance seems necessary and we are able to provide it.

We envisage in the 1970s that developing universities will become more problem oriented, will forge more constructive links with their governments, industry, agriculture and with other education and research institutions. To facilitate this partnership, A.I.D. has moved toward new institutional arrangements with U.S. universities which provide for (1) greater flexibility in their cooperation with LDC universities, (2) joint effort between host country (or regional) institutions and U.S. institutions, (3) efforts to be more related to the environment of the host countries, (4) a more positive and problem-oriented approach to research.

6. New Roles for Women in Development

Almost invariably, discussions of human resource development, as well as those of development generally, proceed in a framework which presumes the non-existence of one half of the human species - the female component. This vacuum concerning a role for women in development might well continue except that their fecundity is now seen to threaten seriously any real prospect for successful development. Of course, this indictment is perhaps too harsh. It is true that most developing countries have somewhat improved the educational, social and employment

opportunities for their female populations. The dimensions of such change, however, are of a magnitude which might have been described as "tokenism" before this word assumed its present high emotional content. Nowhere in the LDCs is there a range of political, social and economic roles for women anything like those for men. Nowhere has a concept of women as full and essential partners in the development process gained a firm foothold.

Actually, the development of human resources, widely proclaimed as essential to overall national development, includes everyone (male or female) who performs a useful role in society, economic or non-economic, political or artistic, manual or intellectual, important or unimportant. This is not merely a semantic or humanistic point. Failure to understand it leads to fundamental misjudgments about society and as to how development can and does proceed.

Women indisputably carry a large share of the most responsible work in every society. Within all the LDCs, they bear and significantly educate children, shape family attitudes, perpetuate values, and perform an enormous amount of unpaid manual labor. However, much of the essential work of women for their society is either not performed for economic gain or is outside of the monetary sector of the economy. Thus, they are not considered as a part of the labor force, and they are not included among the human resources. As a consequence, they are not within the focus of attention of development planners who are preoccupied with those directly engaged in economic activity, disregarding the support forces, often women, who provide the facilities, services, motivations, and frequently the attitudes of the economic labor force.

This seems particularly odd in a situation where change is the major objective. Women in almost all societies, and particularly in developing societies, are known to be among the most tradition-bound, conservative, and apprehensive of change elements of the population.

This has tremendous relevance to population growth. Women cannot reasonably be expected to give up willingly their only socially recognized and respected function. A reduction in population growth rates occurs in societies where women are accorded opportunities to enrich their lives and to play a variety of respected and recognized roles.

This also has tremendous relevance to development, particularly if we are able to see through the modern sector of the economy to the society as a whole. Every society is half female. According full status as human beings to women in the LDCs is an essential element to strengthening their developmental efforts. It will add a new dimension and meaning to the whole effort toward development. A broad base of policies and action programs is required. As a beginning, we might encourage and assist the LDCs in effectively increasing educational opportunities of all types for women.

## 7. Educational Technology

The conventional means to increase the quantity and improve the quality of education do not offer any substantial potential for a really critical breakthrough in the so-called "world educational crisis" of the LDCs. The resource requirements for satisfaction of the social demand for education by conventional means are beyond the capabilities of most of the LDCs. Overall quality improvement, through conventional means, is both expensive and painfully slow.

Our primary interest in educational technology stems from the possibility that it may have a potential for a significant improvement in the quantity and quality educational problems of the LDCs. It may also be a prime instrument for overall educational reform. It is the importance of exploring such potentials which leads to the inclusion of educational technology among our selected problem areas.

Actually, technology permeates educational systems everywhere at the present time. However, its forms - buildings, books, logistical arrangements, etc. - are so familiar, as contrasted with the exotic new instruments, that we tend to overlook the presence and influence of technology on the conventional education process. To understand its role, we should begin with the broad perspective that "educational technology . . . includes all the different methods, materials, equipment and logistical arrangements employed by education to further its work." From this perspective, the entire system and process to induce learning is permeated with applications of technology which are an integral part of the system and which either advance or retard the learning process itself.

It is this broad perspective, encompassing the whole of education's technology, which yields the most interesting and exciting question in this area. That is, would it be possible to analyze and

evaluate all of the old and the new throughout the whole of educational technology with a view toward synthesizing a fundamentally new process and system which would produce the highest benefits in terms of human learning at various levels of cost.

Such a comprehensive endeavor, of course, would be well beyond the capabilities or realities of an individual LDC. It might well be beyond the scope and talents of an individual external donor working in isolation, particularly since many of the matters involved might not be accessible to or actionable by an external donor. However, an individual external donor, such as A.I.D., could initiate the beginning of a catalytic effort in this area through one or a series of 211(d) type grants. Evidence of promising work in this search for a new configuration of education's overall technology would attract the attention and cooperation of other external donors and of the LDCs themselves.

The effort to synthesize a new configuration of education's technology - even over an extended period of years - might never yield a superior process for education per se. After all, real education is a very complex affair far transcending the limits of transmitting knowledge, information and skills.

Such a new configuration of education's technology, at best, might achieve only a distinct improvement in the transmission of basic knowledge, useful information and common skills to a large number of people at an acceptable cost. Or, it might only provide learning opportunities for the majority of the people in the LDCs who are now excluded from the formal education system or who, by the lack of conventional literacy, are now barred effectively from knowledge which could be available to them. Or, the use of such a new configuration might be feasible only for a selected group, such as those attending teacher training institutions, with the possibility of imbuing a whole generation of teachers with a new outlook on the education process and system.

Such possibilities, as those noted above, are modest goals in contrast with the overall objective cited earlier. Yet, standing alone, the actual achievement of any one of these more modest goals would appear to justify a substantial effort to generate a new synthesis of the overall technology of education to enhance the learning process.

It is, of course, the application of the latest and most advanced instruments of technology to education - satellites, television, computers, etc. - which have stimulated the current wave of

interest in this subject. Given the momentum of such interest, there are a variety of ways in which it might be focused. It is urged that our emphasis be on examining the potentials of educational technology for critical breakthroughs in the education, human resource development and allied knowledge transmission problems of the LDCs - if, indeed, such potentials do exist in fact.

Developing and retaining this focus on examining the potentials for really major gains is one of the special difficulties in educational technology particularly concerning the more exotic instruments. The subject matter is of intense interest both to those who have little knowledge of it and to those who become enmeshed thoroughly within it. As a result, there is a substantial risk that involvement in the many intriguing aspects of the subject matter can divert our attention from the essentially high-risk endeavor of exploring the "potentials" of educational technology for at least partial solutions to the really vital problems confronting the LDCs.

## ANNEX A

### TECHNICAL ASSISTANCE BUREAU NOTICE

ACTION MEMORANDUM TO ALL DIRECTORS OF OFFICES AND STAFFS IN THE TECHNICAL ASSISTANCE BUREAU

SUBJECT: General Guidance for Problem Identification

Purpose: This document establishes the objectives, general procedures and schedule for the initial problem-identification process of the Technical Assistance Bureau.

Background: The TAB is charged with the responsibility for leading Agency efforts to mobilize professional attention in depth on the most important problems impeding achievement of the modernization and development purposes pursued by the developing countries with United States support. This involves several interrelated phases:

1. Work with the regional bureaus, missions, other A.I.D. offices and outside entities or individuals to identify these major problems and the related knowledge gaps.

2. Identify requirements and formulate proposals for essential activities such as research, advisory services, exploratory probes, etc., to further define these key problems and solve them or achieve interim steps towards their solution.

3. Provide the knowledge and the tools for application of improved methods to technical assistance planners and practitioners.

4. Sponsor and synthesize innovative thinking and planning on long-term problems of LDC modernization.

This problem identification process is concerned with the first of the above phases. The results of this process are to be followed by the activities necessary for problem solution and the dissemination of this knowledge to technical assistance planners and practitioners. In reality, the key problems cannot all be identified at a given time. There will inevitably be a series of approximations, necessarily limited by the constraints of time, data and manpower. This first

approximation, therefore, is not meant to terminate the process but hopefully to provide the starting point of a self-adjusting, dynamic system for problem solving. This first phase is to have an arbitrary cut-off point and to be conducted largely with the staff resources available within A.I.D. to meet the following objectives.

Objectives: The problem-identification phase should:

1. permit the Agency to concentrate its resources (time, energy, manpower, funds and knowledge) on those problems whose solution promotes the ultimate objective of the greatest benefit for the modernization objectives of the LDCs and the U.S.;

2. build a service capability within the TAB over a longer time period to enable it to respond to the regional bureaus' and missions' requests for assistance;

3. provide a guidance base for the TAB programming to occur next spring as part of A.I.D.'s annual planning-programming-budget process;

4. help the TAB to determine its requirements for funds, manpower and organizational structure;

5. permit a more effective interaction of the professional community within A.I.D. and outside A.I.D. and an efficient division of labor in contributing to problem solution. An explicit criterion of this process is to more fully utilize the technical components in the regional bureaus, staff offices and missions.

Identification of Problem Areas: In general terms, the problem areas to be identified are those: 1) in which performance lags result in major bottlenecks to the progress of economic, social and political development; 2) which limit the effectiveness of Agency assistance operations, and 3) whose prevalence among A.I.D. cooperating countries is sufficiently broad to warrant concern of a central staff organization.

The problem statements in each technical field will identify the major problem areas, and to the extent possible the key problems within such areas, as well as field projects that may serve as laboratories from which lessons can be learned or solutions tested. The selection of projects for TA Bureau concentration in depth should include the more important Agency projects in each problem area, having in mind the professional services reinforcement of the project that will result from the concentration of professional expertise on it.

Examples of problem areas might include:

- The inadequacy of formal or traditional education systems to meet the human development needs of large segments of the population.

- The inadequacy of agricultural research capabilities to develop the technological inputs that are essential to accelerate and sustain the expansion of food output and to improve food quality.

- The highly inefficient use in agriculture of water resources already available in farming areas for on-farm applications (i.e., the "water management" problem).

- Inability to plan and implement projects.

- General lack of application of economic analysis in devising agricultural development strategies, investment programs, research and extension priorities, etc.

- Rural and urban unemployment.

- Inadequate participation of the population at large in establishment of development goals, in the execution of development programs, and in the income gains from development (i.e., the "Title IX" problem, for which PPC will continue to provide the Agency professional leadership).

We are deliberately maintaining a loose and flexible definition of the scope of problem areas to be selected for concentrated attention.

Some may be much broader than others. The test should be the breadth of the matters on which A.I.D. concentration would be particularly beneficial and administrative convenience in organizing reasonably discrete "chunks" of work.

Although problems occur in a specific time and place context, the attempt will be to identify those aspects of key problems which tend to occur in several countries over time. The current exercise is primarily intended to identify problem areas for TA Bureau attention. In the process, there will also occur some fuller definition of the specific nature of the individual problems within the selected areas. It is not expected that the analysis will go to the point of searching for alternative solutions, nor of establishing the criteria and constraints for evaluating alternatives and testing solutions. This first phase may but need not, suggest specific proposals for research, technical projects, or institutional grants. These solution-seeking activities ordinarily will evolve from the following phases. The correct identification of problems is a critical, difficult and often most important part of the solution-seeking activity. The central concern of the problem-identification phase is to begin this diagnosis and steer professional attention into the right areas of diagnosis. As greater professional attention is mobilized in these problem areas in later phases, its first and most critical task will be to sharpen further the identification of the specific nature of the individual problems that should be addressed within the selected problem areas (or perhaps outside them), i.e. sure that we are asking the right questions in our answer-seeking activities.

Preparation of Staff Papers: Problem-identification statements, referred to hereafter as "Staff Papers," eventually will be prepared in the following fields: Agriculture, Fisheries, Development Administration, Education and Human Resources, Health, Nutrition and Population. The Staff Papers are not restricted to these fields; there may additionally be statements urban development, science and technology and other multi-disciplinary subject matter areas. (See the section on "Staff Responsibilities.")

For each subject matter Staff Paper, a Staff Officer designated by the Assistant Administrator of the Technical Assistance Bureau, with the advice of the pertinent Office Director, will be responsible for preparing the final document. The Staff Officer will normally be assigned full-time to the task. He is responsible for planning and carrying out the work involved in the procedural sequence described below, including arrangements for any necessary consultants or other staff help. The problem statement that evolves is to be a staff product rather than a personal document of the Staff Officer.

As a means of organizing at least a common point of departure for this problem-identification process, a separate document will be available to the action officers suggesting selection criteria, definitions, methodology and reporting formats.

Multi-Disciplinary Panel: The problem-identification process begins with the technical sectors but it is essential that it also incorporate multi-disciplinary inputs, to assure the achievement of analysis that is broadly perceptive, technically sound, and innovative. In order to provide these broader dimensions to the problem-identification process, a Multi-Disciplinary Panel will be established. Detailed functions and structure will be provided in essence it will do the following:

- Provide cross-sectoral advice and assistance in each subject-matter field upon which problem papers are to be written.

- Initiate exploratory Staff Papers on problem identification in key cross-sectoral areas not otherwise being addressed when it considers such areas deserve attention.

- Provide or arrange for additional multi-disciplinary data and expertise to the extent appropriate, as an extra resource for the Staff Officers.

The Panel will have a Chairman and will provide expertise in economic development, political development, social development, and administrative development. The Office of Science and Technology (TA/OST) will participate in the Panel reflecting its perspective in the problem-identification process. Additional disciplines may be called upon depending on the specific context of the problems. For selected areas, sub-panels may be convened if needed. It is expected that members of the Panel will come largely from experienced A.I.D. personnel.

Procedural Sequence: The following sequence of steps would be typical in developing the Staff Paper, but is subject to variation depending on the specific context of each situation. The Staff Officers will normally:

- Consult documentary sources (memory bank evaluations, PARs and executed PROPs selected via Activity Characteristics Sheets and ACS summaries, Country Field Submissions, special studies, reports of other agencies, i.e., World Bank and U. N., etc.) for leads to major problem areas.

- Consult with the Multi-Disciplinary Panel for assistance in the approach to the problem and suggestions for resource data and people from other disciplines.

- Gather the contributions of technical offices, program officers and other knowledgeable persons in the regional bureaus, PPC and other central staff offices. Qualified sources outside of A.I.D. can be included although the time constraint precludes involvement of extensive numbers of people or formation of special advisory groups or conferences for this purpose in this first round of problem identification. For similar reasons, it is not planned to conduct visits to field missions, although mission contributions should be obtained by review of country field documents, interviews of field officers in Washington, selective correspondence and in some cases by request for particular field officers to participate in the preparation of the Staff Papers.

- Prepare a draft statement of the key problems and consult with the appropriate regional bureau technical personnel and the Multi-Disciplinary Panel. The consultation at this stage should include, as a minimum, a meeting with the appropriate technical counterparts of the regional bureaus and interested Agency staff offices to discuss the draft paper. The purpose of this consultation is to obtain the advice and suggestions of the respondents; and seek as full a consensus as possible. The methods for these consultations are flexible, but ordinarily they are expected to be fairly informal, professional discussions with a free give and take of viewpoints. The purpose is professional interchange rather than organizational agreement.

- Submit the Staff Paper to the Assistant Administrator for the TA Bureau who will review it with the advice and assistance of appropriate members of the Bureau's staff.

The Assistant Administrator of the TA Bureau will then submit the Staff Paper for consideration by the TA Executive Committee, consisting of himself and the Deputy Assistant Administrators of the Regional Bureaus and PPC. The meetings will normally involve the Regional Bureau Program Officer and appropriate Technical Officers for the subject matter under discussion, as well as the Staff Officer and key officers of the Technical Bureau and such other central staff offices as appropriate.

Schedule: While the cadence for this process cannot be rigidly set, it is expected to proceed as rapidly as possible, contingent upon a reasonable quality of effort. For planning purposes, submission of initial Staff Papers to the TA Executive Committee is scheduled as follows:

| | | |
|---|---|---|
| Education and Human Development | - | January 1970 |
| Agriculture | - | January 1970 |
| Health | - | February 1970 |
| Development Administration | - | February 1970 |
| Population | - | To be scheduled later |

Staff Responsibilities: To meet the schedules, work will need to be pushed ahead promptly and pursued vigorously in order to accomplish well the sequence envisioned above. The Associate Assistant Administrator for Operations is responsible for the direction and coordination of this effort. The Office of Program and Methodology (TA/PM) will be responsible for further development of the guidance on procedure and methodology for the problem identification process. The Office will monitor the entire process, coordinate suggestions for changes in the procedure and evaluate the system for its continuing improvement. As problem statements are adopted and become the basis for identifying appropriate solution-seeking activities, TA/PM will coordinate this process with TA Bureau programming.

Directors of each office for which a staff paper is scheduled are responsible for ensuring the timely preparation of that paper. In some cases the Office Director will be the "Staff Officer" preparing the paper. When, by agreement, another person is so designated, the Office Director is responsible for providing the Staff Officer advice and ensuring appropriate logistic and other support by his office. The Associate Assistant Administrator for Operations will expect to be consulted by the Staff Officer from time to time regarding general policy and coordination.

The Heads of the Offices of Research, Science and Technology and Urban Development will advise and assist the Bureau Assistant Administrator in the determination of the key problems. During the process, these staff offices will contribute to the deliberations of the Multi-Disciplinary Panel, advise and assist the Staff Officers in their respective areas, and initiate separate problem statements for subject matter which, in their judgment, is not adequately covered otherwise.

Joel Bernstein
Assistant Administrator for
Technical Assistance

cc: A.I D./W Bureaus and Central Staff Offices

## ANNEX B

### Steps Followed and Persons Contacted in the Education Problem Identification Process

This is an outline of the proeedural sequences in the development of the Key Problem Identification Paper for Education and Human Resources. Needless to point out, the overall background for this or for any like paper is the previous involvement of the writers and their associates in the subject area.

Given this background, Dr. W. Steen McCall spent several months during the fall of 1969 reviewing literature on education and human resources generated within and outside of A.I.D. Among A.I.D. documents consulted were: the Congressional Presentation series; statements on A.I.D. bilateral education and human resource development projects; and a wide variety of other A.I.D. Washington and Mission papers and studies on the subject.

A variety of fruitful sources outside of A.I.D. were reviewed. Some of the major institutional sources of material were publications by the:

American Association of Colleges for Teacher Education
American Institutes of Research
Brookings Institution
Education and World Affairs
Ford Foundation
International Manpower Planning Institute
Institute of International Education Planning
National Planning Association
Organization for Economic Cooperation and Development
Organization of American States
United Nations Economic and Social Organization
U.S. Department of Labor
U.S. Office of Education
World Bank

Apart from such institutional sources of publication, various writings by individual authors were reviewed, including: C. Arnold Anderson (Chicago), W. G. Armytage (Sheffield), Thomas Balogh (Oxford), Gary S. Becker (Colombia), Charles S. Benson (California), George Z. F. Bereday (Columbia), M. Blaug ( Manchester), Rudolph C. Blitz (Vanderbilt), Mary Jean Bowman (Chicago), R. Louis Bright (Baylor), R. Freeman Butts (Columbia), Lynton K. Caldwell (Indiana), Raymond Carpenter (Pennsylvania State), Ladislav Cerych (Atlantic Institute), Harold Clark (Columbia), Philip Coombs (International Council for Educational Development), and Robert Crane (Duke).

Others were: Adam Curle (Harvard), Nicholas DeWitt (Indiana), Louis A. Doyle (Michigan State), Alvin C. Eurich (Academy for Educational Development), Philip J. Foster (Chicago), Eli Ginzberg (Columbia), Torsten Hagerstrand (London), H. W. Hannah (Illinois), W. Lee Hansen (California), Arnold C. Harberger (Chicago), Frederick Harbison (Princeton), H. Field Haviland (Tufts), Clark Kerr (California), Arthur Lewis (Manchester), L. J. Lewis (London), Joseph Margolin (George Washington), Mar F. Millikan (MIT), and John Montgomery (Harvard).

Still Others were: Robert Morgan (Florida State), Selma Mushkin (Georgetown), C.A. Myers (Princeton), Gabriel D. Ofeish (Catholic), Herbert Passin (Columbia), William J. Platt (Stanford Research Institute), Simon Rottenberg (Buffalo), Wilbur Schramm (Stanford), Theodore W. Schultz (Chicago), B. F. Skinner (Harvard), Eugene Staley (Stanford), Warren D. Stevens (Indiana), and Leon Weintraub (Manpower Evaluation and Development Institute).

Throughout this period and continuing into the winter of 1969-70, there were personal consultations and meetings with knowledgeable people within and outside of this Agency. Within A.I.D., for example, this included -- with their then Bureaus identification in parentheses -- such persons as: Clifford Block (Technical Assistance), Walter Boehm (Africa), Glenn Coombs (Latin America) Edward Fei (Program and Policy Coordination), Samuel Fuhr (Africa), Michel Herve (Program and Policy Coordination), John Hilliard (Technical Assistance), Frank Holmes (Latin America) , David Jones (Vietnam), Jack Koteen (Technical Assistance), Princeton Lyman (Program and Policy Coordination), and Bernie Merson (Labor Affairs).

Others were: James Murray (East Asia), Burton Newbry (Near East), Leonard Pompa (Near East), Edward Rizzo (Technical Assistance), Robert Rupard (Africa), Louis Sleeper (Latin America), Philip Sperling (Vietnam), Edward Trethaway (Africa), Myron Vent (Technical Assistance), William Williams (East Asia), Harold Winer (Vietnam).

Outside of A.I.D., key problems in education were discussed with many experts in the field. Some of these discussions were formal and lasted for an entire day. Others were simply informal idea sessions. These consultations included personnel from such varied organizations as the World Bank, Ford Foundation, Organization of American States, the New York City school system, several universities and others. Additionally, relevant issues were discussed with the A.I.D., Multi-Disciplinary Panel.

An advisory group was formed to facilitate both the identification of problems and the selection process among them. It consisted of George Baldwin (World Bank), J. Freeman Butts (Columbia University), Frederick Harbison (Princeton University), Charles Kidd (American Association of Universities), and Ralph Smuckler (Michigan State University).

The advisory group was an active working body. It met officially three times on informal working papers in different problem areas. This group was particularly helpful in selecting the seven problem areas included in the Staff Paper.

The above indicates the general process. The Staff Paper, as presented to the Assistant Administrator at the End of January 1970, was the interaction and synthesis of the above elements.

Comments on the staff paper within A.I.D. and elsewhere were stimulated by its dissemination coupled with several briefing sessions. These comments had a decisive influence on selecting the final three problem areas. The names and Bureau or other affiliations of some of those submitting written comments were: Martin J. Forman (Technical Assistance), Michel Herve (Program and Policy Coordination), Abraham M. Hirsch (Technical Assistance), Lee M. Howard (Technical Assistance), David P. Jones (Vietnam), Lenni Kangas (Technical Assistance), Herman Kleine (Latin America), Alvin Lackey (Technical Assistance).

Others were: Kenneth Levick (Technical Assistance), Erven Long (Technical Assistance), Princeton Lyman (Program and Policy Coordination), Burton Newbry (Near East), Glenn Patterson (Near East), Gordon Potter (Technical Assistance), David Shear (Africa), Alfred White (Near East), and William Williams (East Asia).

Several university personnel submitting comments were: John Lewis (Princeton), John Montgomery (Harvard), Frank Moore (Stanford), and Robert Schmeding (Harvard).

Other unplanned reviews also took place. An unexpected opportunity occurred in February 1970 to discuss the paper with A.I.D. personnel in Thailand and Vietnam. In Thailand, the problems were discussed extensively with such persons as Robert Jacobs, Robert Johnson, Robert Van Duyn, Robert Crawford and others. In Vietnam, T.C. Clark and the Mission education staff were involved. These discussions were supportive of the problem areas identified.

Additionally, a key problem seminar was organized with six visiting Nigerian educators and another meeting on the subject was held with the Director of Elementary Education of Ethiopia. In both cases, the key problem areas were discussed fruitfully.