

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523
BIBLIOGRAPHIC INPUT SHEET

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Batch 59

1. SUBJECT
CLASSI-
FICATION

A. PRIMARY

TEMPORARY

B. SECONDARY

2. TITLE AND SUBTITLE
Proceedings

3. AUTHOR(S)
(101) Far East Regional Manpower Assessment and Educational Planning Sem., Manila, 1965;
AID/ASIA/TR/EHR

4. DOCUMENT DATE
1965

5. NUMBER OF PAGES
134p.

6. ARC NUMBER
ARC

7. REFERENCE ORGANIZATION NAME AND ADDRESS
AID/ASIA/TR/EHR

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)

9. ABSTRACT
(EDUCATION R&D)
(DEVELOPMENT R&D)

10. CONTROL NUMBER

PN-AAD-567

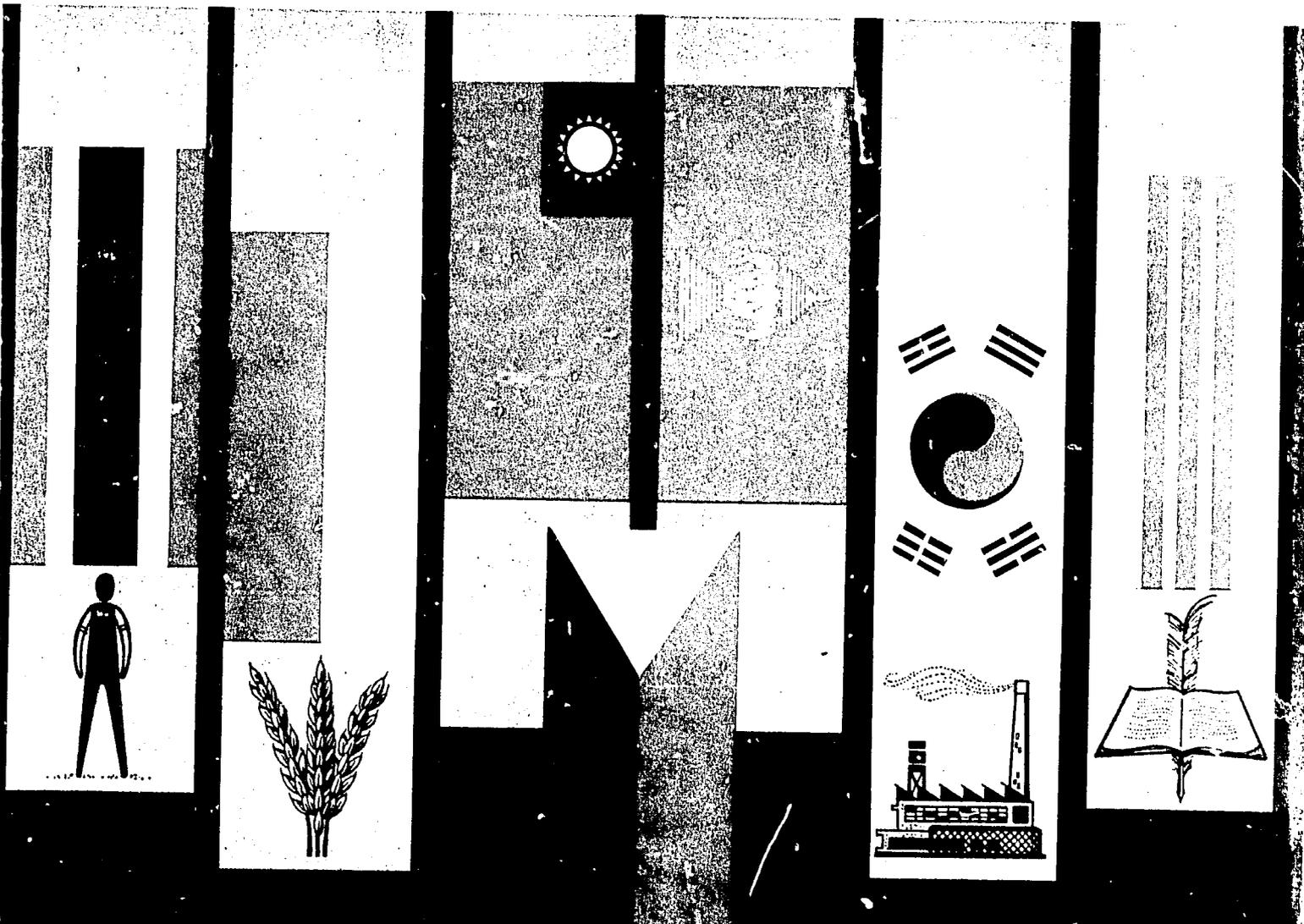
11. PRICE OF DOCUMENT

12. DESCRIPTORS

13. PROJECT NUMBER

14. CONTRACT NUMBER
AID/ASIA/TR/EHR

15. TYPE OF DOCUMENT



Sponsored by
USAID/NEC



Feb. 12-17, 1965
Manila

"... this important meeting is, I see, scheduled to last for seven days. Seven days in the life of a man are not many, and some groups of seven days may be relatively unimportant in a life span. I earnestly hope, however, that this seminar will proceed so well and will be concerned so deeply with our mutual problems that the next seven days might well influence the development of mankind..."

THE HONORABLE HILARION HENARES, JR.
*Chairman, National Economic Council
Republic of the Philippines*

"... we are to deal here, in this seminar, with the one renewable, natural resource every country in the world possesses, the power and creativity of its people..."

MINISTER JAMES H. INGERSOLL
*Director, United States Agency for
International Development, Philippines*

"... in our preoccupation with the material and capital requirements of general economic growth, we are prone to overlook the importance of investing in the development of our human resources. This is apparent in our development program; and, I am quite certain, that the countries represented here must have had similar experiences. Thus, by merely focusing its attention solely to the problems of manpower planning, this seminar has already made a valuable contribution to the establishment of manpower as a critical planning area..."

THE HONORABLE JOSE P. LINGAD
*Secretary, Department of Labor
Republic of the Philippines*

"... over-emphasis on the development of one sector of the economy at the expense of education could only lead to failure, for education is a condition *sine qua non* for all kinds of growth — whether social, political or economic..."

THE HONORABLE MAURO MENDEZ
*Secretary of Foreign Affairs
Republic of the Philippines*

"... the educational progress and economic development of any nation are mutually dependent upon one another. On the one hand, the progress of education depends upon the economic and social conditions of the people and the amount of money they invest in their schools. On the other, liberal investment in education accelerates the development of any nation..."

THE HONORABLE ALEJANDRO R. ROCES
*Secretary, Department of Education
Republic of the Philippines*

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PROCEEDINGS
FAR EAST REGIONAL MANPOWER ASSESSMENT
AND
EDUCATIONAL PLANNING SEMINAR

FEBRUARY 12-17, 1965

MANILA

SPONSORS

NATIONAL ECONOMIC COUNCIL
REPUBLIC OF THE PHILIPPINES
AND
THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

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ACKNOWLEDGEMENTS

A regional meeting such as this requires important contributions from a great many persons and agencies, and the promptness and quality of their responses determine in large part the value of the proceedings.

This Seminar was fortunate beyond expectations in the widespread cooperation and enthusiasm evidenced by all who were asked to contribute.

The five countries which prepared status papers for presentation to the Seminar—China, Korea, Philippines, Thailand, and Vietnam, brought with them the valuable papers published in this report, papers which provided an excellent base for much of the discussion as the series of meetings progressed.

Thanks are also due to those international organizations which made possible the attendance of specialists and experts. These include Mr. David Christian, Manpower Advisor in Malaysia for the Ford Foundation; Professor Pierre Feldheim, Manpower Assessment Expert, I.L.O.; Dr. M. N. Menta, Regional Manpower Planning and Employment Advisor, I.L.O.; Dr. William Morrell, Program Director for Summer Institute, National Science Foundation, Washington D.C.; and Dr. Gustavo Zakrzewski, Director, UNESCO Regional Office for Education in Asia.

Particular appreciation is due Dr. John F. Hilliard, AID, Washington, for his interest and support in planning the Seminar and for his contributions to the deliberations of the delegates.

Logistical support was efficiently planned and provided with a preciseness of detail that facilitated the holding of the Seminar and contributed to the comfort and participation of the delegates. This was made possible by the untiring efforts of the three-man committee in the Philippines—Dr. W. M. Williams, Chief Education Advisor, AID/P; Mr. Paul Schuler, Labor Advisor, AID/P; and Mr. Nicanor Fuentes, Chief, National Planner for Social Development, National Economic Council, Republic of the Philippines. They were assisted by many people but particularly by Robert Smail, Edwin Doe, Chester Shepanek, Mildred Kiefer, John Rork, Mrs. Nadine Murdock, and Charles Percy. They merit the sincere appreciation of all persons connected in any way with the seminar—they did an excellent job.

The Manila office of the World Health Organization was helpful at every turn in providing their excellent facilities for the meeting.

Finally, the deepest appreciation is extended to the Government of the Republic of the Philippines and to many individuals in the Philippines for their many gracious and thoughtful acts as host to the Seminar. Included among these are: The Philippine Army Band; Department of Foreign Affairs; College of Education, University of the Philippines; De la Salle College and Philippines Womens University.

To the official delegates, for their regular attendance, zestful participation, and intellectual contributions, thanks are extended for making this a meaningful Seminar.

INTRODUCTION

It is generally recognized that, in order to meet the needs of developing countries, substantial changes and/or improvements must be made in the quantity, quality, focus and efficiency of educational and training programs in order to insure that the right kinds of people are trained in the skills and professions that fit labor-market and social requirements. In this connection, the importance of manpower assessment and careful educational planning is evident. A related major task is the provision of necessary incentive or motivation to stimulate the movement of people into the jobs as needed.

Predicated on this basic premise, the Far East Regional Manpower Assessment and Educational Planning Seminar was organized. It was jointly sponsored by the National Economic Council of the Republic of the Philippines and the United States Agency for International Development. It was held in the World Health Organization building in Manila, Philippines, February 12-17, 1965.

The National Governments and USAID Missions in China, Korea, Laos, Thailand, Vietnam, Indonesia and the Philippines were invited to send representative delegations. Many international agencies and foundations were invited to participate and arrangements were made for the attendance of selected AID/Washington personnel. Dr. Eugene Staley, Director of Basic Research in the International Development Center of Stanford Research Institute, Stanford University, and Dr. Cole S. Brembeck, Consultant/AID, Michigan State University were employed as the principal consultants.

There were 67 official delegates, consultants and representatives of international agencies in attendance; more than 40 officially designated observers and a fairly large number of guest observers. It is to be regretted that the National delegates from Indonesia and Laos could not attend. (These countries were represented by American delegates.) The other five countries—China, Korea, the Philippines, Thailand and Vietnam were well represented by a total of 24 National delegates.

Representatives of I.L.O., UNESCO, National Science Foundation, Ford Foundation, Rockefeller Foundation, Asia Foundation, U.S. Department of State, and AID/Washington participated in the Seminar, along with two principal consultants employed by AID/Washington. Guest observers included representatives from many agencies of the Philippine Government and institutions of higher learning. One teacher brought her entire graduate class in rural development to observe the proceedings.

Delegates and representatives fell roughly into the following categories: Educational advisors and/or National Education planning-21; Labor Advisors, Attaches, Labor Statistics and other Bureaus-Manpower Advisors and Manpower Planning-8; National Planning for Economic Development and Coordination-10; Congressmen-2; Training Officers (AID)-8; International Foundations-3.

An evaluation of the Seminar indicates that the consensus of opinion was that the Seminar had achieved its objectives, which were essentially to (1) stimulate further serious thinking relative to manpower assessment and educational planning; (2) assist in developing more refined insights concerning many of the problems involved, and (3) motivate participants to consider realistic next steps of action.

Some of the more important results were:

1. Suggestions that a second such regional seminar be held approximately one year from now which should be structured to deal with specific problems of country programs. The National delegations from at least four countries requested this.

2. Projected follow-up meetings with nationals to take place in most of the countries within the next two weeks to evaluate the seminar experience and consider what action might be taken as the next step.

3. The emphasis placed on the value of arranging for nationals to visit other countries where action is underway in manpower assessment and educational planning so as to get additional in-

formation, stimulation and maintain the momentum that has been initiated.

4. The possibility of staging in-country seminars about six months from now in two or three countries and inviting observers from adjacent countries.

5. A statement by the chief national delegate of one country that on his return he would request the Mission to assign a technical advisor on manpower to the economic planning board.

6. Decisions made that reports of the Seminar, to have maximum value to the participants and to sustain the enthusiasm and desire for action, should be prepared and distributed as quickly as possible. Dr. Williams and his staff have assumed the responsibility for preparing this report on the proceedings of the Seminar.

A second report of a different character, which will include suggested procedures and other material of assistance, will be prepared by the AID/W seminar personnel with the help of Dr. Cole Brembeck, Consultant from Michigan University. It is hoped that this can be ready for distribution within 90 days of the close of the Seminar.

This seminar has been motivational in character, a means of bringing together top quality people interested and involved in the problems of human resource development in the Far East. It has made possible the intimate interchange of ideas between people from several disciplines and from official government agencies where heretofore communication has been lacking, difficult or impossible. As one participant commented: "An impact of the Seminar is that manpower and education people are talking to each other; inter-relationships are becoming clearer."

Perhaps the most illustrative comment on the success of the Seminar and the challenge for action that it hopefully stimulated was expressed in an editorial appearing in one of the major Philippine newspapers—The Times—on February 16, 1965. Although specifically relative to the Philippines, it would be just as dramatically applicable to most, if not all, of the countries in the Far East.

The editorial said:

ASSESSING ASIAN MANPOWER

Since February 12 there has been a seminar

going on in Manila, which has taken up the important subject of manpower resources in Asia. The seminar is aimed at discussing major topics, such as procedures of manpower assessment and the projection of specific needs of each country in Asia for these resources. Other topics include plans for the education and training of labor toward giving workers the necessary skills, or for creating the particular type of organization to coordinate manpower development and utilization.

The seminar would, in fact, tackle an overriding problem of Asian countries, for that matter of all developing nations, and we must admit that the Philippines has this problem as one of its main unexplored areas in nation-building.

This country has a rich resource of manpower, at least as far as idle hands and labor potentials are concerned. Our percentage unemployment is quite high compared to the percentage of employable men and women. The fact might be that many of the employable workers in this country are not qualified for anything except the simple manual jobs available, and there are not enough of them; but then again it might be that there is a way of imparting quickly learned skills to these workers except that we do not know how to do this. Or there might be many areas in the economy where these unskilled workers could be effectively used, except that we cannot pinpoint these areas and somehow we are helpless in mobilizing these workers so that they would be present where they are most needed and made most effective where they can be placed properly.

The importance of the seminar could therefore be seen at once viewed in this light. As C. Earle Hoshall, chief of the Far East education branch of the U.S. Agency for International Development (Washington), said of the seminar, it "aims to put in its proper perspective the tremendous resources common to the developing nations of Asia—the most readily available but least availed of, and the most valuable but possibly least appreciated country asset: manpower."

Our manpower will continue to grow as the country progresses and the population ex-

pands. It has expanded already in the last decade by a million per year. All these assets—the most valuable a country has, it is said—will be as nothing to us if we do not know how to utilize them to our advantage. That is why when the seminar ends, on February 17, the

government and possibly the private sector, would do well to examine the results of the seminar, and on their own initiative follow up on the findings, such that in the next few years we could set up a methodical exploitation of our manpower resources.



THE HUMAN FACTOR IN DEVELOPMENT

Keynote Address:

DR. EUGENE STALEY

*Director of Basic Research in the
International Development Center of
Stanford Research Institute and
Faculty Member of the Comparative
Education Center, Stanford University.*

Mr. Chairman, friends. There are many definitions of an expert. One says that an expert is a man with a brief case; another, an expert is a man away from home. I can qualify on both of these counts. However, I am a newcomer in the field that so many of you have been cultivating so proficiently. For a number of years, I have been saying that in my judgment, after looking over the development needs of a good many countries, the really paramount problems of economic-social-political development are problems in changing the behavior of people. So, having recently completed certain obligations arising out of a long-term program of research and field work on small industry development, I now intend to join you in research and practical action on questions of manpower, human resources development, and education in relation to the advancement of newly developing countries. Thus, I particularly welcome the opportunity of this seminar to confer and learn with you.

Development can, from one point of view, be defined as a massive problem in changing the behavior of human beings. We have in the hands of mankind these days the scientific knowledge and the technological tools which, applied to the physical resources of our world, ought to be able to provide an adequate material basis for decent living for all the world's people. The major obstacles are lack of development of latent human talents, lack of proper emotional and intellectual foundations for working together, and lack of organization.

Mutual Learning

Let me make two suggestions at the outset about the spirit in which we ought to enter upon the work of our seminar.

In the first place, the spirit should be genuinely one of mutual learning. I have already indicated that, from my own point of view, it certainly will be that. In fact, for me the learning process has already begun. One of the key aspects of our topic, and one on which I plan to undertake research, is the question, "What should be the *content* of education for development?" Yesterday, I had an opportunity to see some results of a project here in the Philippine Republic that is very closely related to this question: that is, the textbook project. It has already produced important results. Filipino experts and Filipino teachers experienced with the needs of the children of their own districts have been facing up to the question of what to put into textbooks designed specifically for use in this country and how to explain to Filipino children those concepts of, for example, biological science or civics that they need in order to be healthy persons and good citizens.

We must go into this seminar in a spirit of mutual learning, because nobody has all the answers. In fact, I doubt that anybody is yet aware of all the major questions. If in this seminar we can formulate a few of the right questions, and if we can also find a few answers, so much to the good. Each of us has experiences and ideas, and by conferring together we can multiply our knowledge.

Beware of Ethnocentrism

A second suggestion is that we should all beware of what the anthropologists call "ethnocentrism." This is the universal human tendency to assume, without taking much thought about it, that the ways of living and the ways of doing things in the society where we happened to grow

up are the natural ways, the right ways, the best ways, and that anybody who departs from these is making a mistake. In the delightful movie that has been made from the record-breaking musical hit "My Fair Lady," Professor Higgins sings: "Why can't women be more like men? Why can't they be rational—like me?" This we might label 'sexual ethnocentrism.'

Ethnocentrism is a particularly serious malady in consultants. At a conference on Economic Planning in Southeast Asia held recently at the East-West Center in Hawaii, one of the economic planners told this story: The cockroaches had decided that they needed development. Now cockroaches are animals that crawl quite close to the ground, but they called in as an expert consultant a grasshopper—an animal that does a great deal of hopping and flying. The grasshopper was a real expert, a first-class consultant, and it took him only a couple of weeks to find out what was wrong with the cockroach economy. He found that they needed certain kinds of institution-building. So he spoke to the development minister and said, "You know, you people just must face up to it. You need to develop much broader and better wings and much longer, stouter, springier legs. Without broader wings like us grasshoppers, how can you expect to take off into self-sustaining growth? And without longer legs, how can you make a great leap forward?" The cockroach minister was not too convinced by this. "After all," he said, "we think most of the interesting things are really down close to the ground. Also, we get around pretty well. But we'll think it over." After repeated pressuring from the grasshopper consultant, the cockroach minister finally agreed. "All right, we accept your recommendation. Now, let's start. What is the first move we make in order to get broader wings and longer legs?" To this the consultant replied, "I'm a consultant on planning. Implementation is your problem."

In the field of manpower planning and educational strategy for development, there is by now a fairly substantial accumulation of ideas and experiences. All of us, from whatever culture we come, with whatever national problems and limitations of means, can examine this world pool of ideas, select one idea here, another there, invent

some new ideas of our own, and gradually evolve a combination for our own situation. But it would be a serious mistake for anyone to recommend, or for any of us to agree, simply to apply without change a model that has worked in another country. In other words, a good slogan in this field as well as in other fields of development is: "Adapt. Do not adopt."

In the spirit of avoiding ethnocentrism, we will do well to confer as human beings facing common human problems. We are here not only as nationals of our own homelands but as members of mankind—world citizens. These days, in the complex world that we live in, every good man has to try his best to harmonize several layers of loyalty. He has to be a loyal member of his family. He has to be a loyal citizen of his local community, his village, his town. He has to be a good, patriotic citizen of his nation. Also, he must be a good citizen of the broader world community. Unless we can cultivate all these layers of loyalty and keep them in reasonable harmony with each other, we are not in a position to live as we should in the modern world, and in fact, it is doubtful whether mankind can survive in the atomic age unless enough of us do succeed in this endeavor.

Let us, then, try to grapple with the problems of manpower assessment and educational planning for development in the spirit of citizens of the world community. Of course, the Agency for International Development of the U.S. Department of State has brought me here, and most of you are working for your own national governments. But I believe it to be true that the national interests of my own country and of your countries require that we strive to raise the questions of economic-social-political development out of the context of competitive nationalism and out of the cold-war context into a common concern for people everywhere.

Now I propose to turn to some thoughts on which we might agree as rather basic foundations for our discussion, and then to some issues that we might usefully explore together.

The Human Purpose of Development

Human beings are both the ends and the active means of the development we all seek. First of

all, let us look at the role of human beings as the ends of development.

The success or failure of development should be rated by what happens to people. Roads, factories, schools, and the total output measured by G.N.P. are important, but only as means to more fundamental ends. Those ends relate to better life for people.

Are people getting enough of the right kinds of food to make them healthy, so that they can develop to the full the innate capacities with which human beings are endowed? Are they getting the medical services and the medicines that they need to prevent or cure disease? Are suitable job opportunities arising as a result of development? Are people getting opportunities for education? Aside from the instrumental role of education, I think we will all agree that education is a good thing in itself—or, as economists have been saying, it is a consumption good as well as in investment good.

The success or failure of development is to be rated also by what happens to human beings in groups—to families, villages, towns, cities, nations, and the world community. Are people becoming better able to participate intelligently and responsibly in these groups and communities? Does social and political development take a course which encourages people to participate and to influence decisions that affect them? Is there a growth of freedoms and responsible use of freedoms? Are our towns and cities becoming better places to live or worse?

The famous founder of psychoanalysis, Sigmund Freud, was once asked what are the chief psychological needs of normal people. He answered, "love and work." Our efforts at economic-social-political development can hardly be called successful if they create a worse rather than a better environment for the fulfillment of such basic needs. By the way, I deliberately use the awkward hyphenated phrase "economic-social-political development" to emphasize that when we talk about development we should have in mind much more than economic growth.

"Human Resources"

Human beings are not only the ends of development, they are also the active means. Nothing

really happens in development unless human beings make it happen.

It is perhaps necessary to justify the phrase "human resources." Some people object to it, and I can see why. It may seem to suggest that one proposes to treat human beings like inanimate things or like animals. Years ago, the American labor movement persuaded the U.S. Congress to write into law that "labor is not a commodity." We can all agree to that. And yet it is nevertheless true that for development, human beings are the active means, the makers of development, the fundamental "resource."

A country can have natural resources and physical capital—these are very important, too—but unless it also develops human talents, motivations, and organizations to make use of physical resources for human ends, it is not going to advance very far. Look at some of the oil-rich countries and compare them with other less-endowed countries that, because of better development of human resources, are more progressive and prosperous. You may have heard the phrase, "This is a rich land full of poor people." What counts is the way physical resources are used by human beings to achieve humanly-important ends.

In the last few years, economists have "discovered" (perhaps one should say "rediscovered," in view of the writings of William Petty and other precursors), the importance of investment in "human capital." The notion that education is not only a good thing in itself, but also an important means to produce more wealth, is working a real revolution in the thinking of the development fraternity. Whatever one may think about the accuracy of some of the calculations that have been made, it is clear that rates of return on investment in education are often quite substantial.

No doubt underdeveloped human resources are the greatest economic waste in the world. When one reflects on the social, political, and cultural losses as well, the thought is staggering. Consider for example, the case of the famous Indian mathematician, Srinivasa Ramanujan—famous though he died in his early thirties. By lucky chance, his remarkable talents were observed by a British colonial officer, who put him in touch

with a professor at Cambridge University. Ramanujan got his opportunity. But how many Ramanujans, or how many potential Einsteins or Pasteurs or Gandhi, fail to get even an elementary education and spend their lives cultivating a peasant plot?

Kinds of Human Development Required

Now let me pose this question: What developments in human beings are crucial for achieving economic-social-political development? My answer would run something like this:

1. *Knowledge.* People need to acquire images of the world that really correspond to the world, or correspond more exactly than unsophisticated, untutored images. They need to know something about cause and effect in the scientific, testable sense, and that nature can be controlled by understanding nature. This is to be distinguished from magic. They need to know about the social and political environment, especially as development brings wider contacts.

2. *Technology and skills.* It is necessary to build many kinds of occupational skills in order to achieve modern development. Systematic assessment of occupational requirements by techniques with which many of you are familiar will be discussed during the seminar. Engineers, teachers, administrators, businessmen, technicians—all have to be produced by some type of educational process.

3. *Values, attitudes, motivations.* This, in many respects, is most fundamental of all. Included here are values, attitudes, and motivations that relate to civic and social skills, especially ability to cooperate with other people, lack of which seems to be a rather frequent cause of frustrations in development efforts.

In connection with this third point, the example of the Danish Folk High Schools deserves to be recalled. Denmark, in the latter part of the nineteenth century, met with two great reverses. In the first place, cheap grain from the Americas began to compete with its principal exports. In the second place, Bismarck's Germany annexed a part of what the Danes considered to be Denmark; confronted with this rising great power in Europe, they were powerless to do anything about

it. A religious and educational leader, Bishop Grundvig, in these circumstances launched the Folk High Schools and with them put forward the slogan "Outward loss, inward gain." These Folk High Schools were essentially residential adult schools, largely for young farmers—men and women. They lived at the school for three months or so, worked together, studied together. Danish economists and other informed observers agree that the Folk High Schools were among the important factors in the successful readjustment and improvement of Danish agriculture which took place in the late 19th and early 20th centuries. Instead of simply producing and selling grain, Danish farmers turned to livestock, producing bacon, eggs, poultry, butter, and other high quality products that they could sell abroad at a good price. They organized and managed cooperatives for the processing and marketing of their output. The ability to run these cooperatives, the ability to make this highly successful adjustment in agricultural techniques, seems to have been generated in considerable part by the Folk High Schools. A noteworthy point is that the Folk High Schools *did not teach agriculture.* They gave the farmers a better knowledge of Danish history, world history, painting, languages, arts and music, folk dances,—many sorts of liberalizing influences, but not specifically agriculture. Yet they appear to have had a great effect on agricultural capabilities. It should be added, however, that Denmark had enjoyed widespread elementary education. Without this combination of factors the result might not have been so favorable. The point to note is that the motivating influence of the Danish Folk High Schools made these other factors much more effective.

Some Issues for Discussion

Let us turn now to some of the questions we should have in mind tomorrow as we listen to the status reports on manpower assessment and educational planning in different countries represented here.

Issue 1. What are, and what should be, the relations between over-all development planning agencies and agencies with operating responsi-

bilities in manpower and education?—such as ministries of education, labor, health and other agencies. Should there be some formal organization to bring these together for planning and coordination?

Issue 2. Is it feasible and useful to inventory present manpower resources in our respective countries, especially high-level manpower resources which require considerable formal education for development? Is it feasible, further, to project future requirements in relation to targets of planned development? On the basis of such projections, is it feasible to frame an educational program and an incentive program in order to fill the gaps that are indicated by the assessment? As you know, this is now being done, or has been done, in many countries. What are the benefits and what are the pitfalls? What sorts of statistical data are required? How can you translate occupational requirements into educational requirements?

Issue 3. What are, and what should be, the relations between general and vocational education? At what points in the formal and informal educational systems does training for specific jobs come in? Where should it come? One thesis that has been advanced is that the schools should produce primarily trainable people, and specific job training should be done wherever possible by employer organizations, probably with public subsidy and cooperation.

Issue 4. From the standpoint of development, what priorities should be given to different types and levels of education? For example, how much emphasis should be put on adult education? My own conviction is that adult education deserves much emphasis in every country, developed and underdeveloped, but especially in newly developing countries. As an economist, I am attracted by the idea that if something can be done to improve the productive capacity of an adult the country gets the benefit right away, instead of having to wait ten years or so. This provides more resources with which to finance more education and training.

Issue 5. What segments of the population should be educated, and how much education should they have? Should education be mainly for an elite minority, or should the aim be universal education for everybody? My own sympathies would tend towards the latter, but we

must recognize the necessity for compromises, since the resources simply are not present in many countries for making education available to everybody at once. What, then, are some of the strategic groups that have to be carried forward first—for example, to produce the teachers and technicians to make it possible later to achieve the broader goals?

Issue 6. In view of the limited resources and the virtually unlimited needs, can ways be found to increase educational productivity? The education industry is one that for hundreds of years appears to have had about the same productivity, measured in terms of the number of pupils per teacher. As you know, many people are experimenting with devices like programmed instruction, television, and teachers' assistants, to see whether we can make some breakthroughs here.

Issue 7. What is the optimum *content* of education from the standpoint of development? How is this affected by the geographical environment, by the stage of development, by the cultural heritage?

Issue 8. What general pattern or model, with respect to educational content and method, should newly developing countries move towards in constructing or reconstructing their educational systems? Of the following four alternatives, the last seems to me by far the most desirable:

1. Local, traditional type. This is usually non-innovative, serving to maintain the *status quo* in a static society.
2. Outdated Western, colonial type. Some developing countries still use the subject matter and methods of education considered good in the homeland of the colonial power before 1900, (though the colonial power has very likely changed its own system by now). "Decolonization" and updating are needed.
3. Foreign, modern type. This type is copied from some more developed country—perhaps the United States, a European country, the Soviet Union, or Japan. Direct copying is not recommendable. "Adapt, do not adopt."
4. Locally adapted, modern type. This alternative draws from the world reservoir of ideas, materials, and methods, selectively and adaptively, adding new inventions. Here is the proper direction for newly developing countries.



SUMMARY OF STATUS PAPERS

Dr. JOHN F. HILLIARD
*Deputy Assistant Administrator,
Office of Technical Cooperation and Research
United States Agency for International
Development*

In attempting to weave together the things which seem to me to represent a consensus, a difference, or even an omission on the parts of the delegates in presenting their country experience, I felt it was useful to begin with the statements made by our keynote speaker yesterday. If you recall, he made several general assertions about the philosophy and principles of human resources development. As I have listened to the reports of the delegates today, it seems to me these principles have either been explicitly or implicitly accepted as the guidelines for this Seminar. Consequently I think it is worthwhile to take note of them as an introduction to some of the more specific points which I wish to make in summarization.

First, Dr. Staley made the fundamental point that human beings are both the main reason for and primary means of development. This I think is a point of view which has profound implications for our whole approach to development and will have great influence on the kinds of social and economic policies employed in development programs.

Secondly, Dr. Staley made the observation that in talking about development we are talking about a phenomenon much broader and deeper than economic development, as important as that is. National development properly defined also means social and cultural development; I would go even further and say in its most profound sense it includes moral and spiritual development as well. In short I think all of us who are concerned with nation-building in its broad sense realize that the total aspect of development includes not only a productive economic system but a reasonably efficient social system, further development and elaboration of our cultural and spiritual values, and beyond that the creation of a system of symbols, of loyalties, and of under-

standings which give cohesion to the country internally and enable it to function effectively among the nations of the world in the whole field of international development.

Thirdly, Dr. Staley made the point that in the beginning we recognize that none of us has all the answers, and that the path of wisdom can perhaps be best followed by asking the right questions. Listening to the papers that have been presented I must say that this admonition has been well and truly followed by the delegates who have presented papers on their own experience.

And finally, it was observed that manpower and human resources planning, and development of these plans into realities, can be effective only insofar as they are rooted in intelligently conceived overall national plans; and reciprocally, the national plans must, in turn, be firmly based in a realistic estimate of manpower resources available to carry them out.

So it seems to me that these general propositions lay the base for the more specific observations made by the delegates during the past few hours.

In approaching this question of manpower and educational planning, we have tended to make certain assumptions about them without being explicit, and I wonder if it might be worthwhile to attempt at this point to establish a working definition of the terms and to indicate their inter-relationships. It seems to me that in educational planning, we are thinking largely, though not exclusively about planning for the development and use of our formal educational system to achieve certain educational objectives, one of which is the imparting of the knowledge and skills necessary for development.

Manpower planning, on the other hand, seems to me to go very much beyond the formal edu-

cational system and relates to the whole complex of activities required for recruiting, placing, training, motivating, and managing the productive human resources of the nation. It also deals with questions of labor market information, of regularizing the flow of labor from place to place, by occupation and industry; it provides facilitating services and information of all kinds so that people may make intelligent choices of careers or jobs, and thus participate intelligently in the building of their nation.

Now if we take these two together and construe both in broad terms it would seem to me we have here a separable but deeply intertwined complex of planning relating to the whole scope of human resources.

In manpower planning it seems to me that the delegates have brought out several fundamental points. As the title of this conference suggests, the assessment of manpower resources and requirement is the place where we usually begin. It is obvious, I think, that each of the five countries that have presented papers here has done a great deal of excellent work in the field of manpower assessment. At the same time they have found that the manpower assessments which they have been able to make are in no sense adequate at the present time and need to be refined and improved in every way possible. In making this observation about the inadequacy of our manpower resources and requirements assessments, particularly long range projections, I do not feel we should be unduly despondent about this. The fact of the matter is that assessments in this field, subject as they are to changes resulting from many unforeseeable factors, do not have to be absolutely precise in order to serve an extremely useful purpose. Indeed it is not even desirable to strive for the provision in manpower planning which we would in the field of physics or chemistry. We recognize that the human ferment that goes on in our countries is really the creative and dynamic element which produces a live and modern society. So while we must obviously improve, I don't think we need feel unduly cast down because of the difficulties encountered.

It is also obvious that every country repre-

sented here had made very significant efforts and achievements in the field of organization for manpower planning. If this meeting had taken place a half dozen years ago and there had been fifty countries represented very few of them could have made claims to have gone as far as the five countries which have reported today.

Even India which is rather advanced in this field at the present time had no element of an organization for manpower planning until eight years ago. India was one of the pioneers in setting the pattern for a reasonably satisfactory, workable system for the establishment of national policy, the formation of national manpower programs, and for their implementation. While some of you have gone further than others it seems obvious that all of you are on the right track and headed for the right destination if the experience of other countries which have preceded you in this field can serve as a reliable indicator.

One point mentioned by several delegates is the problem of moving from planning to action. There was a President of the United States who consulted his Cabinet on a particular question and received philosophical advice on the long term problem. The President responded, "Gentlemen, the problem is not what to do in the long run, it is what to do next." In many cases the planner and the implementer get stuck at this precise point. As noted by the delegates, the transition from policy to action is one of the most difficult problems in a development program.

It was mentioned that the question of coordination and monitoring of manpower programs poses difficulties not only in terms of organization but in terms of communication between the planning ministries and the operating ministries, between many elements of the nation, both within the government and in the private sectors. These things in some countries are done in a very centralized way, in other cases, as in the Philippines, in a highly decentralized way.

My experience would indicate that there are certain things to be said for both, depending, in part on the institutions within the country, on the organization of the government within the

country, and on the controls that are necessary to achieve certain objectives. But in every case the program and the policy laid down must be understood and there must be a clear and competent mechanism for implementation.

It was mentioned repeatedly by the delegates that the concentration of our interest on education sometimes diverts us from the very real short-term problem, the recruitment, distribution, training, and motivation of the present labor force. One way to dramatize this point is to point out that, if we are dealing in 5 or 6-year plans, the next two plans depend for their success or failure essentially on those who are already on the job. The increment in terms of leadership and technical skills of a high order from the educational system will not significantly improve within the next five or ten years. We therefore neglect, at our peril, the encouragement, development, and motivation of those people who are in positions of technical and managerial leadership today.

It seemed to me that there was one point that perhaps was omitted which is important in manpower planning—the policies relating to military manpower and civilian manpower. Every country that has had occasion to maintain military forces realizes that this is in one way a substraction from civilian manpower strength. However, if properly managed this can in the end restore that strength through new skills, new insights, in greater flexibility in adjustment, technology, and change. If this end is to be achieved the question of military manpower policy should be given careful study.

Turning to the field of educational planning, we find our problems here, as expressed by the delegates, falling in a number of rather complex problem areas. First, it has been pointed out by a number of you that education is both a consumer, and an investment good, and that in both fields it is a commodity that has almost an unlimited market. People quite properly regard education as a very personal and important thing for them to have without any necessary relationship to its economic value either to them or to their country. This, therefore, gives it a quality and significance which must be taken into ac-

count in the planning process. Secondly, education must uniquely provide the basis for effective citizenship on the part of people of the country. And then it obviously becomes a basis of the knowledge and skills required for the development of the human and material resources of the country. These complexities of educational planning are, I think, beginning to be understood. It is obvious that those of you who have reported have grappled with educational planning in all of these aspects and I feel sure that in the next few days you will return to these problems for a further exchange of views.

One particularly tough problem identified by all of you is that in the field of education, long-range commitments are absolutely required. Every educational plan that has been mentioned is projected from ten to twenty years into the future. Everyone who has mentioned this also has noted that this long-range commitment cannot realistically be based on a clear and precise understanding of the requirements of education ten to twenty years into the future and that, therefore, in a measure we have to consider a long-term commitment as being a goal which is subject to modification as we have new information or as national objectives gradually evolve and change. Again, I think it is an asset in that flexibility does not necessarily mean that we are functioning improperly but simply accommodating ourselves to the growing information and judgement which we have.

Another area of difficulty that was clearly brought out by all of the delegates who spoke was that educational planning has a whole battery of interconnecting requirements which in some instances tend to conflict with each other. It was noted that because of population growth and the needs of universal education, the educational system in every country must expand quantitatively in the years ahead. This is not something which we can elect or reject. It is something which the laws of arithmetic and political policy require. At the same time we have agreed in the meeting today, I think, that education must also be more selective in passing people from one phase of the educational system to the next higher one, in the distribution of peo-

ple among the various components of the educational system. It was pointed out that examinations potentially are a very important instrument for helping us along this road.

Thirdly, it was agreed that higher quality in education is at least as important as a larger amount of education, and in the field of higher education probably is the paramount requirement for most countries. So, while we have to expand, we have to be more selective, we have to get higher quality.

In addition it was agreed that education needs not only to serve the man, it needs to serve society by equipping him with skills that are more directly usable in the field of national development than education now generally does. The question was raised regarding the extent to which education should or could serve the needs of changing the attitudes and motivations of students. The question was put, "What is it that the educational system can be or should be expected to do in this area and what should society do outside the educational system?"

And finally it has to do all these things within the reasonable bounds of the national budget for educational investment. If anyone in this room can plan an educational system which meets all these requirements, he is going to be in very wide demand as a consultant not only among the countries here but all over the world.

It was then pointed out that the problem of coordination of public educational planning is important in connection with other educational institutions, for example with the private schools, with the employers and labor organizations, and other community and civic organizations.

Finally, there are two areas which were discussed very briefly but which I feel fully justify more detailed consideration during the next few days. One, which I believe only the delegate from Thailand mentioned, is the special problem of international education and training of developing country nationals abroad. Now, it happens that the international flow of students under various auspices is the largest peacetime movement of persons in the history of modern times. In our own country we have been increasing at the rate of about 10,000 a year and this year we

have foreign students studying in American universities totaling nearly 70,000. Other countries also are receiving very large numbers of foreign students. There are countries that currently are doing what seems to me to be an excellent job of selecting and sending students to educational institutions abroad, keeping contact with them, and in general administration of the program. There are other countries which do little or nothing in this area. There are some countries which are, in fact, through insufficient administration of this activity, exporting a large proportion of their most highly educated and talented manpower. This obviously is not only an economic waste to the country but in many ways is a human and intellectual inefficiency which few countries can afford. In the next few days we might discuss some of the systems that have seemed to be successful; we would all be interested in hearing some further elaboration on this point from the delegates at the conference here. I might mention in passing that the Agency for International Development is now actively in discussion with the Institute for International Educational Planning in Paris, with the Institute for International Educational Planning in New York, and with a number of universities, with a view to supporting careful research involving this whole flow of students between countries—what experience has seemed productive, what experience that seems not to have produced desirable results, and in fact, to lay before us all the facts in an extremely important and difficult area.

There has been observed of course the problem of educational priorities. There is a kind of a doctrine going around, especially in certain circles of economists, that countries cannot afford primary education—at least not on anything like a universal scale. This, as has been noted by a number of the delegates, becomes a human, economic and political problem. Many other countries are finding difficulties in the secondary educational area. I notice that there is an extreme percentage of dropouts mentioned by a number of the delegates here between grade one and the high school level. Some countries are experiencing an insufficient flow of qualified

students from secondary level to provide their universities with the number and quality of people that they need. This is obviously one of the really critical priorities in the educational chain.

In the field of higher education, obviously the countries represented here are much better off than many countries of the world. But you also have indicated the priorities in the field of science and engineering, the arts and cultural subjects, and others. I was a little surprised to hear agriculture relegated to the "other" category when at the present time most of world development depends more on agriculture than almost anything else, and the agricultural scientists rather imagine that they belong to the science and engineering category.

In the field of adult education, we usually think of literacy and find that our literacy programs very often are not succeeding, or after people have become literate, they have nothing to read. So the question of what we do about this is obviously a critical question.

Vocational education has been mentioned by many of you as being difficult because of the prestige system that exists in your country, and then you go on to say that there are many problems inherent in it, including the fact that it costs three to five times as much to give a person vocational education as it does to give him an academic education. So this is obviously an area in which there are both cultural and financial factors that demand very careful consideration.

Finally, there was another area which I didn't hear mentioned but which I think also warrants some consideration in the next few days, and that is the field of research in manpower and education. Dr. Staley mentioned this yesterday in his talk and it seems to me there are three or four main areas that represent extremely fruitful possibilities or potentialities for research in every country here. One is that of careful, systematic analysis and evaluation of your own experiences. You can read the books written by the experts or you can attend seminars, and these are of significant value, but the most important single source of enlightenment for any country is study and evaluation of its own real experience in this field.

Secondly, I think all of you have touched on the problems of economic and social change, the rigidities that are built into social, cultural, agricultural, economic, and legal systems. We recognize these as real problems in development and are prepared in A.I.D. to participate with countries and with private institutions in research leading us toward a better and more effective understanding of the problems of economic and social change. One of these is, for example, the matter of health. Many people tend to feel that since the mortality rate has been going down this means that there are more people capable of contributing. The practical fact of the matter is the people who do not any longer show up in the mortality tables still show up in the morbidity tables. Large numbers of them are sick people, they are not completely alive and productive and, as anyone knows who has ever been involved in military operations, a wounded man is in battle a greater liability than one that has in fact shown up in the mortality tables. I hope that you won't think that this is unnecessarily hardboiled. I simply want to call your attention to the fact that sick people of the world represent as much of an impediment to development as any other single thing and we do not have nearly enough research on the relationship of physical capabilities to development—the economics of health. This obviously is also true in connection with population.

Another area in which research is needed is urbanization. There is probably not a major city in the world which is not being rendered less efficient as a source of production or satisfaction in living through this process of rapid urbanization. It is also producing more population and manpower problems than the over-all population growth rate itself. For example, we estimate that the over-all absolute rate of world population increase at about 3 percent. A study made not long ago with regard to urbanization shows that many of the cities of the world are increasing in population at the rate of between 10 and 20 percent per year. So the tidal wave of population movement is contributing immensely to problems of education, educational planning, to employment and unemployment problems, to

slum communities, and to health—these interlocking problems.

Finally, I think that research in the field of innovation and social inventions is something that we cannot afford to overlook. It has been mentioned that the technology of education has not changed significantly in centuries. We don't know at this point the extent to which the technology of education can be improved. We do know that in many countries, unless we are successful in producing much greater efficiencies in the educational process, 20 years from now there will be more illiterate people than there are today. We obviously cannot afford to accept an equation in which the world gets less literate rather than more literate, and research seems to

be essential in this area.

Finally, the area of research which Dr. Staley mentioned as being of particular interest to him yesterday is the content of educational subject matter most effectively related to national development and here I specifically mention *national* development and not just *economic* development.

So with the possible exceptions of international education and research on manpower and educational problems, it seems to me the reports of the delegates have dealt with all the basic problems in the manpower and educational fields. They have been thoughtful and thought provoking. I am privileged to have had the opportunity to attempt to summarize them.

MANPOWER AND EDUCATION IN DEVELOPING COUNTRIES

Introduction of Topic:

DEAN WALDO S. PERFECTO
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We are in Asia; our problems are the problems of Asia; the solutions for these problems must be feasible in Asia. To make a realistic assessment of manpower needs in Asia and outline a feasible plan to meet these needs, one must first accept as basic fact the point of development in which Asian countries find themselves. Second, one must consider Asian tradition and Asian aspiration in mapping out some strategy of human resource development.

It is true that there are, both as to need and education, certain basic facts and common ideals that will hold true for peoples everywhere. But, the history of a region not only sets the constraints of milieu. It also highlights the major assumption in all manpower planning; namely, the human resources in a region are both the objects of and the instruments for change.

The Facts

Although an attempt at *generalizing* from the position-papers presented by several countries in this part of Asia is at most an indication of trends, still these four items seem to summarize the Asia situation:

1. These countries are becoming younger and younger, as indicated in the data on their age-distribution. So that with the tremendous increase in population, there is multiplied the number of those that will need schooling and training, as is made more acute the lack of the elders on whom the younger generations will depend for material and spiritual support.

2. These countries are straining their resources to meet this demand for universal education, motivated as they are by a keen desire to bring about political and economic stability.

3. These countries, by and large, are painfully aware of the poor quality of instruction in all

levels of the education systems in their countries.

4. Economic underdevelopment affects these first three facts. It accentuates the population pressures. It renders increasingly difficult the growing financial support for the schools. Finally, it apparently paralyzes any plan to improve the quality of education.

One can only be staggered by the realization of the proportions of the social disorganization 10 to 20 years from today when you have more and more of the uneducated and inadequately educated flooding the labor market.

A Cause: Dis-orientation

I submit the thought that, among other possible causes of the problems outlined above, has been a dis-orientation in the national and educational planning of many countries in Asia. There was a dis-orientation, both in the West whose coming to the East set a whole chain of reactions in motion, and in the East that reacted to this coming. For the West, unfortunately the elements which impinged themselves on the consciousness of the East were not the best elements in Western culture. For the East, the response was not oriented to the traditions of the East.

You will, I hope, bear with this attempt to analyze the facts we have presented in order that we might state the problem squarely. The geographical West and the geographical East historically started with the correct concept of manpower development; all human activities must contribute to the perfection of the individual, among which activities is the pursuit of material well-being, as a condition for the attainment of the spiritual ends of human life.

This correct orientation was true of the Greco-Roman-Christian culture in the West. It was

also true that almost all the great religions of the world started in Asia and for a long period of history formed the bedrock of the cultures of these peoples.

With the coming of the Industrial Revolution and the emergence of the secularist and nationalist states, there was introduced into the consciousness of the West a conflict in values. It was for the most part, under the compulsion of these materialistic elements in the Western countries of the time that the West intruded on what some have called the East's period of passivity, and what others have referred to as the West's period of contemplation.

The countries of the West were aroused and reacted. A newly awakened sense of national identity sharpened by an awareness of the intruder-nation's identity, inspired them to the resolve that they too must be developed in the image and likeness of these Western countries. The type of political and economic development attained by these countries of the West now became the obsession of the countries of the East.

And so too the thirst for universal education, mistakenly defined as a program to educate as many as possible in school so that the nation's political and economic ends might be realized. European nationalism spawned Asian nationalism, with one tragic difference. It was a case of *too much, too soon, with too little*, and worst of all, on the *wrong thing*. It was the problem of the little boy trying to grow up in a hurry so that he could cut the "bully" down to size.

The Right Orientation: The Primacy of the Spirit

What then should be the goals of manpower development and educational planning in Asia? If Asia is to be true to its traditions, it must reassert with all the clarity and the vigor it can command this truth; that national goals subserve the good of the individual, that the primacy of the spirit must be the ultimate end, the motive for the sacrifice we will have to make, and the instrument for the social changes we must carry out.

I hope that we are not misunderstood. The stress on the primacy of the spirit does not exclude the need for seeking material wellbeing.

All manpower discussions must start with man, and the spiritual powers that must be unleashed in him of mind and will so that he will best direct himself and others to do the things that must be done.

How exactly this stress on the primacy of the spirit can be integrated into the objectives, content, and instruments both of the educational and national plans is certainly one topic that lends itself for discussion. One could conveniently start this discussion by enumerating the dire effects on the political, economic, social, intellectual, and cultural life of a nation of this neglect of the spirit, this blatant betrayal of the spiritual traditions of Asia.

A Strategy for Quality

This pursuit of the wrong ends has also lead us to formulate a wrong educational strategy. This inordinate desire to catch up with the West has rushed us into thinking that education is the mechanical process of putting up more and more schools and packing these schools with more students, with the resultant "diploma mills" in all levels. We have ignored the very elementary principle of manpower development: to educate people, you must have adequately trained teachers; to have adequately trained teachers, you must have higher education of real quality.

It is my opinion that the strategy of manpower development in Asia must face up to this fact; we need better trained trainers of others. We must therefore pour more monies into higher education, public and private, than we are now. Or universal education, with our limitations being what they are, will in the long run become an endless process of producing mediocrity. And nations of Asia that shall be barely literate shall surely fall prey to internal disintegration, and eventually tyrannical subjugation.

The details of this re-orientation to the *spirit* and to *quality* can be worked out by each country. But, one thing is imperative; the worsening situation demands first a clear plan, followed by vigorous implementation. We of the free world in Asia are losing the war because to the missionary "spirit" of the materialists, we can seemingly commit only the vagueness and vacil-

lations of dissipated minds.

Points for discussion

I believe that we might be able to formulate a conceptual framework for a manpower and education strategy for developing countries, if we set about on a serious discussion of some such points as these:

1. What are the facts relative to manpower and education in Asia?
2. How has this problem of too much, too soon, with too little arisen?
3. What have been the consequences for Asia of the neglect of its traditional emphasis on the primacy of the spirit?
4. How can Asian countries re-direct their development along the lines indicated?
5. Should there be a change of stress in edu-

cational planning to include a greater attention to higher education?

Need for Decisions

My friends, I am sure that the manner in which I have chosen to introduce this topic has seemed to you most unusual. But, so are the times in which we live. The dramatic crises in which we find ourselves as participants will not allow us the luxury of proliferated and sometimes indecisive discussions. Our alternatives are limited; our choices are very few.

We must make up our minds, to mind the mind. And having decided that this is a solution true to our Asian traditions and well within our Asian manpower resources, let us, together with all our friends of goodwill, act for ourselves, and as ourselves.



REMARKS FOLLOWING DISCUSSIONS

MR. DAVID CHRISTIAN
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One of the pleasures of being given an impossible assignment due in a very brief period of time is that you lose some of the responsibility that goes with the assignment. I want you to realize that this is an impossible assignment to summarize this discussion this morning, particularly in five or ten minutes.

We have a general agreement on problems though there are some controversies and disagreements trying to come to the surface. The committee I was in this morning concentrated mainly on education, so in hitting the highlights, I will mix up the education and the manpower considerations and try to bring some perspective into them.

I was struck by the interest in basic philosophies set forth by our keynote speaker this morning, which apparently is the theme of one of the committees in particular. But the concern in this part of the world must be with the individual if the objective of whole-man development comes in conflict with national aims. This is significant because I heard no dissent, and I think, possibly, this may be because you have felt that there is no necessary conflict between the individual's aspirations and the national needs. If there is conflict, then you planners are really confronted with a problem in this area.

Our keynote speaker laid out for us the term "objectives"—objectives and strategy. We have had some interesting treatment of objectives here. I was intrigued by the suggestion that the basic philosophy as stated here endorses the objective of educational planning to be construed as getting the fastest possible change in the directions you desire. In other words, the procedure itself fits the definition. But does it come together with other things that were discussed by other committees? The suggestion was that you get the fastest change by the involvement of people at all levels—maximum involvement of people, the teachers being a good illustration.

But this is almost the same thing as the purpose of the question raised in Group II as to how we involve and to what extent we involve all the elements of the community? It comes back to Mr. Robinson's point that it is the community—the labor, the management, the business, the church—that are the instrumentalities which we have to involve in the process.

In the real world of more limited resources, our more limited objectives, I think, bring out some points of interest. There seems to be universal concern on the question of need for more education, particularly at the elementary level. From the interesting discussion, I draw the hypothesis that none of us or few of us would think it politically possible to step backward away from universal elementary education. We seem to be tacitly assuming that there is no turning back on this—the political imperative. The demand of the people for the consumption good of education is irresistible. This means, in turn, that the question of priorities really relates mainly to education beyond the elementary and the primary levels, and if this is indeed the fact we might as well recognize it, make up our minds to it, that even at the temporary sacrifice of quality most of our nations are going to insist on universal education up to some level. Here you start developing options. At what level does universality become less of an imperative, and selectivity, therefore, become more important and possible?

I was struck by one thing which may be incidental here but which in my own experience down in Malaysia is most important. This is the suggestion that as we consider the goals for education at the various levels, and in the elementary level, in particular, some of the content of elementary education should include one useful art so that the 40% or 60%, whatever the percentage is, of our students who stop education in the next few years at this level, will have some-

thing to rely on. In this region agriculture will be remaining perhaps as the predominant occupation in the decade ahead, and this often means some agricultural education of a practical nature in elementary school. We haven't had a chance to discuss this adequately but I threw it out as something that I thought was significant in the discussion.

In trying to list goals for each level of education, we obviously don't get very far because the question becomes one of balance. The question is asked, "What percentage of our resource should go into education of each level," and apparently there is no immediate answer. I have been disappointed a bit that there has not been more mention of adult education. We paid lip service to it but I've heard nothing on the content and the special contribution that it might make. Here also we must be selective. This is an area where we need, in the economist's jargon, some cost-benefit analysis. What specific types of adult education are important enough to merit additional investment?

In addition to the concern on quantity of education, the all-pervading theme here is concern for quality, temporarily, to get universal education. This profound unease has brought home to us this morning that quality is even more important, from some points of view, in elementary education, because improving quality requires more cost at all stages of education beyond the primary levels. Here again, there is awareness of the overwhelming problem. It is an implicit acceptance of the need for finding means to increase our productivity. We haven't heard much about how. This is another area—how are we going to move in this direction?

We have been given, by one of the committees, the framework for thinking about the development of an integrated manpower-education strategy to improve the assessment of need, the adjustment of the training programs, the assignment of priorities at various levels, consideration of the incentives and the communications, and the establishment of effective employment services. Again, we are stating the problems, or at least, some of the elements of the problem.

The manpower assessment part of our con-

ference title was treated mainly by one committee. Others recognize it as essential, as something vitally important that the educational planners need from the manpower planners. The discussions did not go very deeply. They recognize need for better statistics and for better techniques and stop there. I put this together in my mind with the recollection that the national reports the other day all listed this as one of the needs for the future. I am overstating this, overgeneralizing, but most of the nations reporting have stated in common that they wanted and planned to get the assessment problem into the future requirements, but had not done it yet. I want to return to the topic shortly.

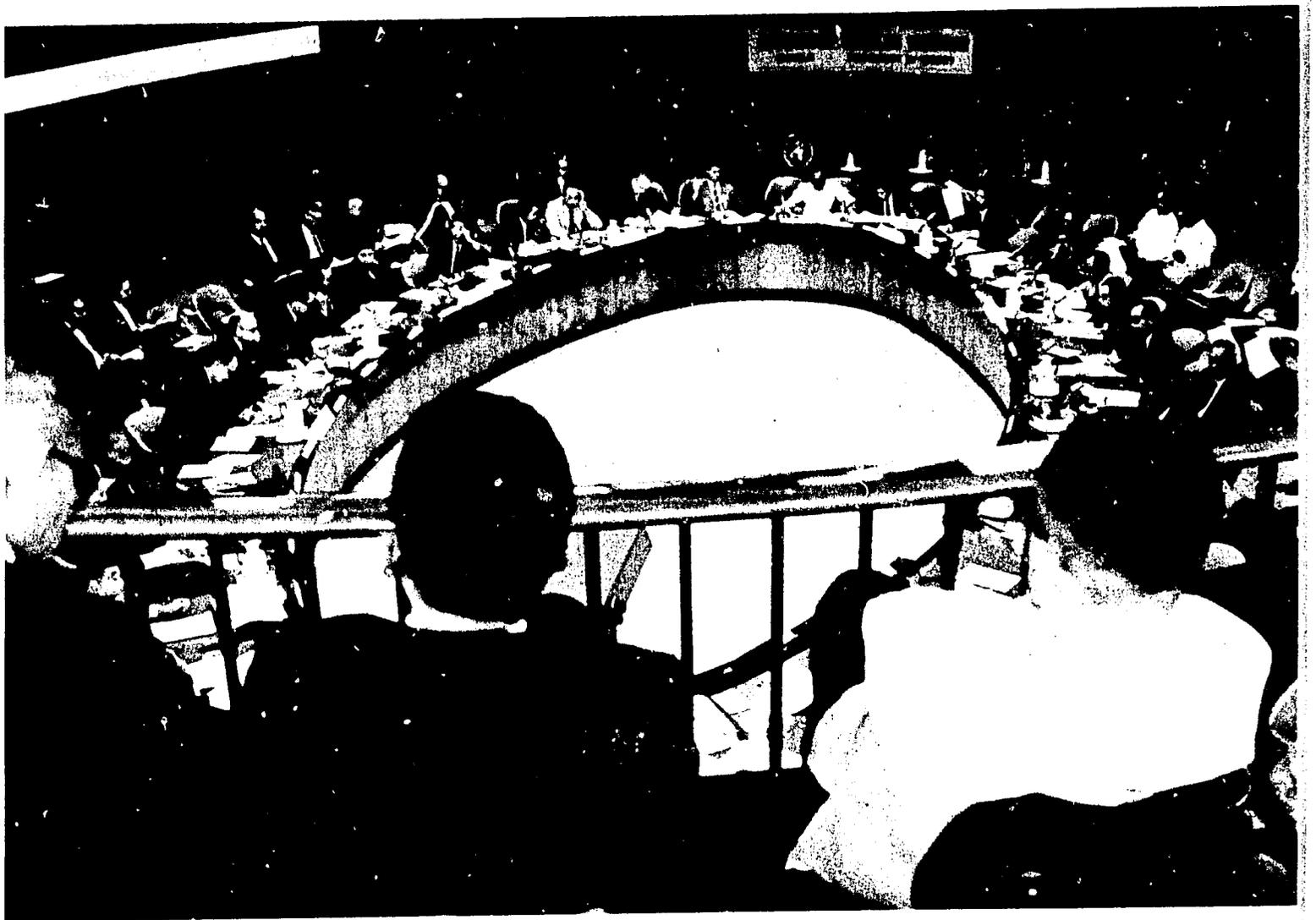
All through the discussion, the very fact that we have these open-end questions means that there are a lot of issues left for future consideration. I have noted a few: Techniques for the projection of manpower requirements, the methods for overcoming current shortages of trained manpower, followed immediately by the need for work in guidance and counseling; but here again we have reminders that it is awfully easy to waste a lot of money because the things that really affect choice are most commonly the family, the church, the community relationships, and until these are compatible, school programs are very sensitive and difficult to organize without being wasteful. We have this problem of involvement of living elements of the community, in development of objectives and strategy, questions of vocational training, and at the last moment, we get the question raised as to whether or not the government really should invest heavily in vocational training at this point in preference to concentration on quality secondary education and creation of the trainable man. This merits more discussion again as a strategy item. Where do our limited resources do the most good?

Finally, I would like to take two more minutes to cite what I feel to be one more need for further consideration, and this is not to the technique of manpower assessment but to the philosophy of it. We haven't talked much about this in this conference and I think there is perhaps room for talking more. The word "requirements", which we used liberally, connotes minimum re-

quirements. We are usually thinking of the fewest workers that are given skills that an employer can get along with. We talk about surveys to determine need and methods of projecting them. I have an uneasy feeling that the manpower fraternity, of which I number myself one, has perhaps become a little gun-shy by our concern with the educated unemployment problem. This is a major problem which we must keep in the forefront of our mind, but I think it is also useful to keep in mind that the requirements might be quite a lot smaller than the number that can be effectively utilized. We, who think that human resources change and development is the key to economic development, cannot be concerned solely with trying to prevent shortages from arising and trying to eliminate those shortages. If we do, we are neglecting our role. We are putting employers in the position of determining our needs. Now you will say the economic plan should take care of the employment requirements and we merely translate that into manpower requirements. I think this is too limited a view, because if human resources is the driving edge of this

national development that we are thinking about, it is the same human resources that creates the opportunities for its own use. I am suggesting that there must be some band in our occupational spectrum in which we want to go as fast as we can, especially if material resources permit, beyond minimum requirements to a broader concept of manpower which, in turn, will stimulate and develop the needs for more manpower. Again, I cite the problem because this is fraught with danger. It relates back to the adult education problem in part. In a broad sense, manpower assessment has to look not just to a narrow view of requirements but to a very broad view of how we can educate the most competent people in our society to make the broadest, the most fundamental contribution to development and not to educate all of the most competent just to the level of minimum requirements.

This has gone beyond the bounds of a pure reporter, for which I apologize. I was given some incentive this morning by being told that a *rapporteur* has a lot of freedom in this conference, so I am a *rapporteur* today.



**ORGANIZATIONAL RELATIONSHIPS
AND COORDINATION
MACHINERY FOR MANPOWER
AND EDUCATIONAL DEVELOPMENT**

Dr. KAW SAWASDI PANICH
*Acting Director, Educational Planning
Office,
Ministry of Education, Thailand*

*[Dr. Kaw presented and expanded the following
assumptions and questions as a guide to the
subsequent discussions.]*

Assumptions and Questions:

1. *Assumption:* It is imperative that there be compatibility of educational objectives with other national objectives.
Question: Does this dictate that educational planning be done in a centralized planning office for all facets of the regulative system?
2. *Assumption:* Educational planning is defined as the designing of a national education system directed to realistic educational goals, responsive to manpower needs, geared to available national resources for educational expenditures, and fully integrated with total national development planning.
Question: Does this mean that educational policies and objectives are formed by other agencies and handed to educational planners? If this is not the case, what kind of organizational relationships should be set up?
3. *Assumption:* Educational planning is not an academic exercise; it is an important instrument to be used in order to develop the human resources of the country to the highest level within the educational resources available.
Question: The above assumption calls for close cooperation among various agencies. What kind of organization should be set up in order to insure full participation of all concerned?
4. *Assumption:* The task of educational planning requires the joint cooperative efforts of specialists in a number of fields and cannot be performed effectively by the educator alone.
Question: Does an educational planning unit need to have those specialists attached to the planning office? It is rather difficult for an educational planning office to justify the need for a political scientist, a sociologist, an anthropologist and a manpower specialist. If that is the case, educational planners need to ask for help from busy people who work in other agencies. What kind of coordination machinery should be established so that educational planners will get the full benefit from other specialists?
5. *Assumption:* The implementation of planning recommendations will be dependent upon the decisions of major policy makers.
Question: Does this mean that the planning process involves the policy control group in an active role in order to insure their acceptance? If so, how? Can a self-study solve this problem?
6. *Assumption:* Planning is a continuous process.
Question: Does this mean that the data collecting function be related administratively to the planning function of a nation in order to insure constant analysis, review and plans with a minimum of wastage?
7. *Assumption:* Education is an object of consumption and investment.

Question: Can educational planning be done as a parallel activity with manpower assessment or must it follow manpower determination to insure effective investment?

How can an accurate quantitative assessment be made of the degree to which the educational system of any society partakes of these two functions? What agency should assess the returns of education?

8. *Assumption:* Educational planning must be

directly related to the socio-economic-political conditions of the nation.

Question: Should the educational system be designed to serve the existing society it serves or should it be designed to change or modify the existing socio-economic-political system? What agencies should make this kind of decision? If several agencies need to do it cooperatively, what kind of coordination machinery is needed? And at what level?

REMARKS FOLLOWING DISCUSSION

DR. EUGENE STALEY

*Director of Basic Research in the
International Development Center of
Stanford Research Institute and Faculty
Member of the Comparative Education
Center, Stanford University.*

Mr. Chairman, I think we all congratulate Dr. Kaw on his accomplishment in having produced such an acceptable outline that everybody agreed with his assumptions, which is a remarkable thing in itself.

Our Chairman very skillfully succeeded in eliciting some further useful discussion. In answer to the query in the discussion whether the countries represented here were already implementing a good many of the ideas on which there was agreement, I assume either that it is true that many of these ideas are already in practice in our countries, or that we have silently resolved to go back home and try to put them more into effect.

On the organizational problems that were the main thrusts of the paper we are discussing this afternoon, there obviously was a considerable degree of agreement, and I would just highlight two points brought up: One is that planning both for over-all development of national goals in relation with education, and planning for the implementation of specific sectors of those national goals, such as the labor sector, the educational sector, and so on—that this planning and implementation process has to be a back-and-forth process, or it should be a back-and-forth process. By that, I mean to say that it is not just a simple matter of a manpower commission or planning commission or an executive at the top making a decision and then transmitting this downward to be implemented, but that to be really effective in getting implementation to make the right decisions there needs to be a dialogue. The top agency needs to state, "These are the general targets as we see them." The education ministry, the labor ministry, and the others need to come back and say, "We think this about it. Is this

feasible?" "That doesn't seem to be feasible. We make these suggestions", and there has to be a working up and down in both directions, I would emphasize.

A second point about organization has already been brought out many times and that is the need for involvement, or participation, or communication. The making of a plan, and then the selling of it to people who are in the subordinate level, or to people at the top level who make decisions, is not all that there needs to be in the process of good planning, or good organization for planning, in this field. There needs to be a constant relationship to get the best plans and to get them implemented.

Perhaps I would do best to spend just a couple of minutes on the topics that we seemed to have tended to shy away from either because they came at the last of the outline or because they were most difficult. These topics are those that relate manpower and educational planning to the political process.

We did talk about the relation to policy makers and it was brought out that they, too, need to be involved in this process at an early stage, and to participate in it and influence it from the start, if we expect them to go along with the plan when it is finally made. Also we have brought out that there needs to be a relationship to the general public, to voluntary agencies, to lower levels of government, to employers, to labor organizations and private schools so the planners in this field must try to involve, and work back and forth with the decision-makers above and the general public that ultimately, perhaps, has to be regarded as the decision makers.

India has been mentioned as an example of a country in which a good deal of emphasis is put

on relating the process of planning to the people in the several states, and involving the public, and so I won't say more about that.

In Europe, France has a rather outstanding system of referring its national economic planning and educational planning to extensive systems of committees representing various aspects of the public, including the private sector organizations that have to be a part of implementation in society.

Malaysia, in this part of the world, does a very good job of relating at least some of its planning process to the lowest levels in the public. They start, in fact, in much of their planning, with going around to the districts and the villages. They elicit ideas from them on what should be included in plans for their districts in the coming planning period; and there is a back-and-forth process which seems to be quite effectively done and followed. I think it is especially important in centralized systems of educational and manpower organization to elicit this kind of interplay with the public, with voluntary organizations, and with subordinate levels of government.

In the highly decentralized systems like that of the United States, which Dr. Brembeck has described, we have the local boards of education and Boards of Regents for colleges where you get this interplay automatically.

Question No. 8, which we either didn't get to or shied away from, asked, "Should the educational system be designed to serve the society or should it be designed to change or modify the existing social-economic-political system?" I think one group reported, it really has to do both to some extent although, if I recall correctly, the reporter even for that group really said the system should serve the needs of the society but it should be flexible enough to adapt itself to the changing needs of society. That avoids the question. Should it only adapt itself, or should it try to change the society? We have to recognize that the school has definite limitations and that education ministries determine how far it can go. At the same time it can do some things,

and no matter what it does, it is going to have an influence on the changing of the society. It is a little bit like somebody in a sailboat, sailing with the wind along the coast here, and he says, "Shall I turn in and stop at Manila, or shall I not?" "Well," he says, "I'll be neutral". "I won't make a decision." And thereby, he decides not to stop. In certain instances, whatever you do you're influencing the situation. And I think we must, while recognizing the limits of the power of education to shape society, also accept a certain responsibility for guiding society or at least assisting the leaders of it to see farther ahead. Do they want to modernize or do they want to maintain the society in its traditional form? Or does the country want or need to cultivate the dominance of a very small elite—let us say a landed aristocracy connected with the intellectual elite—or does it want to democratize by spreading economic opportunities and educational opportunities in raising the general level of ability to get ahead in this society? And the kinds of educational programs you offer will have an effect on how implicitly or explicitly you may be answering that question.

I will just close with a story that I told one or two of you the other day. Some years ago I was on the faculty of the University of Chicago as an assistant professor. I used to sit in the faculty club at luncheon with some of the more experienced professors, one of whom was the head of the Extension Division of the University of Chicago. I remember he told one day that during the period of the great depression of the thirties, when we had many unemployed people in the United States, he was a member of an emergency organization that was trying to use some of the unemployed intellectuals in constructive ways. There was a program for adult education—especially in some of the more backward parts of the United States—and my friend said that he was then the supervisor for a rather socially backward, mountainous area in the Ozarks of Arkansas in the southern part of the United States. He once went there on an inspection trip, and in talking with a county leader of this

emergency adult education program he asked his standard questions. One of these was, "Do you encounter any particular resistance to this program from members of the community? Any objections?" "Well," said the county supervisor, "nothing very substantial. Now and then there is a little objection to some of our controversial subjects." "Controversial subjects? For instance?" "Well, arithmetic." "Arithmetic? How is arithmetic a controversial subject?" "Oh," said the man, "when some of these tenant share-crop-

pers around here learn how to add their own accounts there is going to be hell to pay." This has always stuck in my mind as an illustration of our subject. Apparently so neutral a subject as arithmetic can have quite serious social implications.

I think we all realize clearly that good organizational relationships for effective planning are essential; the form and character they take will naturally be adapted to the situations prevailing in each of our countries.



OBSTACLES TO AND TECHNIQUES FOR ACCOMPLISHMENT OF DEVELOPMENT OBJECTIVES

DR. M. N. MEHTA

*ILO Regional Manpower Planning
and Employment Advisor, Bangkok*

Mr. Chairman, distinguished participants, guests and observers: I feel greatly honored for the very warm invitation you have so kindly extended to me to participate today in the discussions on a most interesting, fascinating and thought-stimulating subject—"Obstacles to and Techniques for Accomplishment of Development Objectives."

The very first question that we have to ask ourselves is, "What are the basic objectives of economic development planning?" Is it the maximization of the national income and the per capita income to achieve what I may call an accelerated rate of economic growth, a self-sustaining and self-generating rate of economic growth; or is it to secure rapid expansion of employment opportunities to absorb the existing backlog of unemployed and underemployed and the new additions to the labor force; or is it to secure equality in the distribution of wealth and income; or is the objective of development planning to strengthen the infrastructure of the country, to secure diversification of economic activity, to secure more balanced development of different areas, to strengthen the different capabilities of the country, or to rectify the existing imbalances in the balance of payment or trade situation?

Many of these objectives are complementary and also competitive. Many of them are growth-oriented and many of them are welfare-oriented. The first step that confronts the economic planner is to decide the priorities that have to be accorded to the different development objectives. It is against the background and in context with the over-all objectives of economic development planning that we have to evolve the broad strategy and the broad design of policy, particularly the policy of human resources and educational development planning.

The choice between these competitive objectives would undoubtedly be governed by a number of considerations—economic, social, and political. Broadly speaking, the objectives must be, firstly, socially acceptable; secondly, economically feasible; and thirdly, technically sound. In practice however we would find that a number of non-economic factors and value judgments determine the relative preferences between competing objectives.

If we analyze and examine the economic development plans of the countries of this region, particularly Thailand, Korea, China, Philippines, Singapore, Indonesia, Ceylon, and others, we will find that a long list of objectives, some essential, and some desirable or expressed as directive principles of state policy, have been included in the development plans.

From the point of human resources and educational planning, however, the two objectives which have been expressly stated in many of the development plans are of basic and fundamental significance and in my humble opinion the broad design of human resources development strategy in the countries of this region has two-fold objectives. Firstly, the rapid expansion of employment opportunities without compromising the rate of economic growth; and secondly, the more important objective, the development of human capacities, knowledge and skills through broad-based education, vocational, and technical training, and the instruments for the organization and utilization of human resources.

Today we will discuss what have been the major obstacles in the accomplishment of the development objectives in the field of human resources development planning, what have been the planned performances as against the planned targets, what have been our accomplishments

and our failures, and what obstacles and impediments we have encountered in the evolution and development of an integrated human resources and educational planning policy and in the coordinated implementation of the programs for the organization, development and utilization of human resources.

The problem needs to be considered in my opinion in the context and against the background of the prevailing manpower situation in the countries of this region. If we analyze and examine the existing manpower and the employment situation in the countries of this region we will find that the most crucial and critical element affecting the general economic development planning, and the raising of the levels of living of the people of the countries of this region, is the rapid demographic growth and population explosion. In most countries, particularly in Far Eastern region comprised of Korea, China, Philippines, Thailand, and Malaysia, the rapid population growth has constituted the most formidable obstacle to the formation of domestic capital and to the absorption of the rapidly growing labor force in the productive system of the country. In fact the rapid population growth has tended to cancel out the margin of economic advances and any perceptible increase in the levels of living of the people in the countries of this region.

Only two months back at the Asian Economic Planners Conference, the general obstacles to development planning and the progress made during the last few years were mentioned in the statement which has been prepared and which will be distributed at the forthcoming Conference of the Economic Commission for Asia and the Far East to be held in New Zealand. The rate of economic growth during the first few years of the sixties has fallen, in almost all of the countries of this region, far short of the planned targets, and the most disquieting factor has been that the general rate of economic growth during the first few years of the sixties has been on the whole lower than in the last decade. The rate of growth of agricultural output in the countries of this region, for the region as

a whole, was only .5% as against the rate of growth of population of 2.5% to 3%, and instead of being a net exporter of food grains in the last decade, the region as a whole has become a net importer of food grains. On the other development fronts the accomplishments were far behind the targets; particularly in the field of human resources development planning, we have fallen far short of the target fixed in the development plans. The employment opportunities that have been created are lagging far, far behind the growth of the labor force and one of the biggest problems that we are likely to encounter on the front of human resources development planning is the rapid demographic growth and population which has necessitated the divergence of physical resources from production to consumption channels, leaving a narrower and narrower resource base for future development planning.

The seriousness of this problem can be judged from the fact that the population of this Asian region has been estimated in 1960 to be of the order of 1600 million people in 1960—1600 million people which comprise about 54% of the total population of the world—living in less than one-eighth of the total land area; and, what is more disquieting is that this adverse and unfavorable population-land resource balance is likely to become much more adverse during the years to come. The results of the 1960-62 census reveal that the earlier apprehensions of faster increases in the rate of growth of the population and of the labor force are likely to come true. Whereas during the last 50 years, 1900 to 1950, the population of this region has been increasing at a steady rate of 10% per ten years. The 1960-62 census revealed that it has almost doubled from 10% to 20% during 1950 to 1960, and between 1960 and 1980 the prospects are much more alarming. The population of this region is to increase from 1600 million to about 2,500 million by 1980, an increase of 900 million people within a period of 20 years from 1960 to 1980. This figure of 900 million, the net increase during the 20 years, exceeds the entire population of the United States, of the USSR, of the whole

of Africa, of the whole of Latin America and of Australia. The economic and social implications from the standpoint of human resources development planning are far greater because the number of persons who are estimated to be added to the existing labor force of the Asian countries has been estimated to be of the order of about 600 million, and it is estimated that by 1980 the labor force of this region would be around 1,000 million people in net addition in the labor force. 400 million new employment opportunities are to be created within a period of 20 years. Is it feasible to provide employment opportunities in this region to 400 million people, which exceeds the entire labor force of the United States, of USSR, of Latin America, Africa, and Australia?

It is against this background and in this context that we are to analyze and examine the problem of human resources and educational development planning. What are the implications of this rapid demographic growth and population and the growth in the labor force? What is the significance from the point of view of the development and utilization of human resources, provision of universal primary education, provision of secondary education, provision of university education, provision of training programs?

The principal failures have been that the employment opportunities lag behind the growth in the labor force, posing the most serious problem of unemployment and much more the problem of educated unemployment. The time is not adequate in this introductory speech to explain how serious is the problem of educated unemployment. This problem of educated unemployment is not confined only to the high school level and the university, but also considerable unemployment and underemployment is prevailing among professional, technical and skilled manpower while on the other hand they are faced with the situation of serious shortages of highly specialized technical, professional and skilled manpower and shortages at technicians level. What measures could be adopted for the rectification of this situation in the future would form the subject matter of discussion at the

various panels. But some of the major obstacles I would like to highlight in this introductory speech.

The most important obstacles to effective planning and programming of human resources in the countries of this region are: First, the lack of adequate organization—central organization—for the formulation of policies for the organization, development and utilization of human resources, and an agency for the implementation of the programs for the development and organization of human resources and educational planning.

The second is the lack of clarity of the objectives of human resources and educational development planning. If you analyze and scrutinize the various development plans of this region you will find that the objectives of human resources development and the objectives of educational planning have not been spelled out in the various development plans clearly, logically, and objectively, and therefore, our efforts have not been focused in the right directions for the accomplishment of those objectives. Therefore, it is necessary that while formulating the future economic development plans that the objectives themselves be clearly spelled out more logically, consistently, and objectively.

The third obstacle in the planning and programming of human resources and educational planning is that the facilities for the training of technical and skilled manpower in the countries of this region are by and large extremely inadequate, and we lack well-organized training programs to meet the current and anticipated requirements of development planning. Even where the training facilities exist, they are grossly inadequate, and by and large limited to only a few selected trades and occupations. The scope and content of the training programs also leaves much to be desired. There is general dearth of competent, trained, and qualified instructors; the facilities for practical training are often lacking; and there is a great scarcity of teaching material and equipment. In some of the developing countries there is lack of adequate coordination and integration of training programs, par-

ticularly at regional and national levels.

Another obstacle has been the lack of uniformity in standards, periodicity, duration and contents of the training courses. Not infrequently there are cases of overlapping of training programs, underutilization of available training facilities, and lack of effective supervision and efficient direction. To remedy the situation, the important techniques that could be suggested for accomplishment of the objective of human resources development include the need for a systematic and scientific assessment of the current manpower situation, estimates of demand for, and supply of various categories of strategic manpower, the likely imbalances in the demand and supply relationship, and the specific measures that appear necessary to augment the stock of specialized manpower needed for the implementation of the programs of economic and social development. The other thing that needs to be done is the setting up of a coordinated administrative machinery. This is the first prerequisite. Other important requisites are the development of an occupational classification system so very necessary for efficient organization of the manpower system. There is need to determine the relative scales of priorities to be accorded to different programs, otherwise there are possibilities of misutilization of our re-

sources. There is need for the training of the already employed manpower, and the retraining of the manpower which has become obsolete; the more effective coordination and integration of the training program at various levels; the mechanism to secure more effective cooperation between various departments engaged in the training, on the one hand, and between the government departments and the private industry on the other. Cases are not wanting where individual agencies and departments in the government have tried to compete rather than cooperate in the provision of training facilities.

The last point is that there is also need that our existing training programs in most of the countries should be formulated in view of the future requirements. At present there appears to be an urgent need to broaden the scope of the training program so as to cover all fields of economic development which are handicapped by lack of trained personnel. Adequate emphasis needs to be given to the rapid expansion of training facilities in the field of small scale and cottage industries, agriculture, animal husbandry including dairy farming, forestry, fishery, transport and communication, modern construction and services. There is need for broadening the scope of and content of these training programs.

REMARKS AFTER DISCUSSION

DR. COLE S. BREMBECK

Consultant/AID

(Michigan State University Contract)

I shall keep this report brief. We have heard four excellent reports this morning. I will follow the organization of the discussion; namely, we have been talking about obstacles to development and we have been talking about techniques for development and my brief report will be divided that way.

Under the obstacles for development, I would like to suggest three questions which I think are quite important. (1) How can we handle the human relations problems in development? (2) How can we organize ourselves effectively for development? (3) How can we plan so that the planning itself encourages action and implementation of plans? There seems to be lots of concern running through these reports about how you turn planning into action. So the question I raise then is, how can planning be so conducted that you encourage action to follow out of it?

How can we handle the human problems in planning? You will recall that we've had many human problems presented here including the population explosion which I suppose falls under that category. One of the things that we sometimes forget is that in planning there are basically two groups of people involved. These groups of people are quite different. There is the planner and there is the planned, or the persons for whom planning is done. These people tend to be different kinds of people. When you have one kind of person planning for another kind of person you're going to have human problems and resistances. A friend of mine gave me one of the most graphic examples of this. He happens to work in Africa. He was telling me about what a guidance counselor in a secondary school told him. This counselor in Africa in the secondary school related his experience of trying to persuade a boy to leave the secondary school because he wasn't doing very well, and to go to a vocational school. He didn't have any success with him. The boy came back and said he wasn't going back

to vocational school, and the counselor asked him why. He said, "My father said to tell the counselor that what he is trying to do is to keep me from being like you (pointing to the counselor)." Now think that over a little bit. Here is the planner and the planned and it is the interpretation of the planned that it is the design of the planner to keep him from being like him. This has tremendous ramifications for us. What we are dealing with are people who are upwardly mobile, and frequently we are telling them that they are to settle for something which to them seems second best and then we get quite worried when they insist on not doing it.

There are many other human problems involved, but this involves change, and some people do not want to change and we're trying to find ways to handle this.

How can we organize ourselves effectively for development?

In terms of our organizational concerns, we have lots of questions about how we organize training centers, how we organize for manpower employment agencies, how we work between education and manpower, how we develop surveys for manpower. It seems to me that one of the significant points that has been made is that before you start out to sketch an educational system or a manpower program you had better know what the facts are and develop ways of finding those facts through some kind of research technique. But the biggest thing that has struck me here in this organization business, and how we organize ourselves for development, is the inappropriateness of western models in the East. Many of our people go to Washington for manpower conferences. They go to our universities and they drop in on our highly industrialized society where certain manpower and educational techniques have been developed, and then they come home and they discover that somehow the model that we have in the States or any other

western country does not fit here.

One of the most significant statements I think I have heard here in this conference thus far was made in the session that I sat in the last hour when one of our Asian friends said that he thought the most important task was to develop an organization that fits Asia or a particular country in Asia. In a sense nobody can do this except Asians.

I recall sitting in the garden of one of Nehru's ministers several years ago, the Minister of Community Development, and he said, "If we develop in India like you did, the chances are we have no hope." What did he mean? He meant simply that our methods of development did not necessarily fit India, and that there was a heavy responsibility laid upon their shoulders to find their own means and their own models.

This is the last point that I mentioned: How can planning encourage action, how can planning itself be so conducted as to make action easy or at least possible? I think lots of times we conduct planning as though we didn't intend anything else to happen. If we deliberately set out to plan in such a way that something couldn't happen we would plan just the way we do. One of the best questions to ask yourself before you ever start to plan is what do you want to happen? And if you decide what you want to happen besides just making a book or publishing a plan, if you really decide what you want to happen, then you already have taken the first major step.

What do you want in your plan. If you know what you want, then you know whom to involve in it. I made the point the other day that you ought to plan down. I'd like to suggest today that you also ought to plan up. Is there a minister in the government who has to help implement this plan? I'd get him involved. Is there an undersecretary upon whose shoulders will rest the final decision? I'd get him involved. Is there a department head clear over in another ministry, whom you may never have met, but yet who would have something to say about it? Go sit with him. Do you want your plan to work, do you want it to have a chance? Somebody made

a very significant statement this morning. He said that frequently in educational planning, teachers don't know what it's all about. I made a survey of an Asian educational plan in a country not represented here and what did I discover? I discovered that the plan itself was an excellent plan. There were many copies in the division office. Out in the regional office there were a few copies, but in not one of 17 schools where I went was there even a copy of the plan, one year after the plan had been published. Do you want action to take place? You had better plan up, and you had better plan down.

Now, some brief techniques. Let me suggest first of all that if you want to plan for development, it is obvious that you ought to begin somewhere. It is important to begin somewhere. Now what do I mean by that? Start the dialogue between the educators and the manpower people in your government. Do you ever get together, do you take lunch together, do you share ideas? Planning does not start with plans, formal plans. It starts between people who have ideas that something ought to be done, and so they sit together, and they share their concerns, and it starts.

These are more approaches than techniques. Make sure that what you are working for is a planning society rather than a planned society. There is a vast difference. In a planning society you are constantly looking at new information, new data. In a planned society you have the answer and you are already starting on the road down. Build a planning spirit in to the organization you choose so that planning may be continuous. If you think that publishing a book called the plan might cause you to stop planning, don't publish it!

A next technique is to develop new kinds of educational alternatives. Remember that the history of educational systems indicates this. In its early stages, the educational system is a single-purpose system. As a country develops you develop other needs—one, two, three, four, five, a dozen of them. The kinds of educational systems you have should keep up with the kinds of needs you have, and if you are complaining that too

many people are going to the university, it may be that you don't have enough other good alternatives for them. This might come in vocational education, in community colleges, different kinds of secondary schools, different kinds of elementary schools, and so forth.

A small boy on the back of a carabao might

symbolize both the challenge and the problem. We have to have a school for him, we have to provide him with adequate choices, we have to have an employment agency for him—we have to have lots of things for this boy. But—we are not going to say no to him because he is a good boy and he is going to help in the cause of development.

EXTERNAL ASSISTANCE RESOURCES

Panel:

Dr. JOHN F. HILLIARD	-----	<i>Chairman</i>
Mr. DAVID CHRISTIAN	-----	<i>Representing Voluntary Agencies</i>
Mr. CURTIS FARRAR	-----	<i>Representing U.S.A.I.D.</i>
Dr. M. N. MEHTA	-----	<i>Representing ILO</i>
Dr. GUSTAVO ZAKRZEWSKI	-----	<i>Representing UNESCO</i>
Mr. NICANOR Y. FUENTES	-----	<i>Representing Recipient Nations</i>

In this session, there were presentations by each of the panel members summarizing the types of assistance that each of the various organizations can contribute to general or specific areas of manpower assessment and human resources development.

No attempt will be made in this paper to repeat the remarks made by the panel members, since each of the agencies has literature explaining its organization and scope of service. Organizations interested may write or make contact directly.

In addition to specific information obtained on the resources of these agencies, the editors gathered certain impressions as follows:

1. The agencies represented in the panel are making contributions to the development of

manpower in Southeast Asia.

2. A great deal of emphasis is being concentrated on secondary level vocational programs, higher education, teacher education, provision of technical assistance to various ministries, departments, and institutions within the nations of Southeast Asia.
3. Certain regional programs are being supported in the areas of teacher education, labor education and school building research and design.
4. Speaking for the recipient nations, the point of view was expressed that internal assistance was needed and welcomed, but that the host country strongly wished to have the emphasis and focus of its own plans respected as aid is given.

SUMMARY OF SEMINAR ACHIEVEMENTS

Panel Members

COLE S. BREMBECK	-----	<i>Chairman Consultant/AID, Michigan State University</i>
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CHAIRMAN: What we shall be doing this morning will be divided into three parts. We have a three-part panel and I'd like to tell you what those parts are because one of the parts definitely involves all of the members of the delegations.

In the first place, we are featuring our Asian colleagues this morning and we are going to feature them in this way. I have asked each country representative on the panel to make a five-minute statement which will give us his judgment of the two or three significant ideas, techniques, methods that have come out of the particular conference. We shall go around the panel for each of the country representatives and have them make this five-minute statement

Secondly, you will notice that there are Americans on the panel. I have asked these Americans to play a different kind of role and not make speeches. First, I have asked them to react, to comment, or to question the reports we hear from our Asian colleagues. So the second part of our panel will be to discuss among ourselves some of the significant points that have been raised by our colleagues from the Asian countries.

The third part of the panel involves you. After we have had our panel discussion among ourselves we want to turn to you because each person who has had anything to do with this conference should have an opportunity to put in his own summation, to list his own significant idea that he would like to have us think about and so

we invite, as a third aspect of this summation panel, your own participation.

Mr. Santiago, may we start with you please.

MR. SANTIAGO: I have a few points to raise by way of observations on what we have accomplished in this Seminar, one of which is the tendency of the Seminar to treat educational planning as being synonymous to manpower planning. I don't think this concept is correct. Education can be planned independently of economic development. It can have objectives of its own, and this has been the experience in most countries in Asia and even in western societies. This is why we are concerned with aligning the objectives of education to those of economic development. The only link of educational planning to economic planning is manpower planning. Thus, throughout our conference here what we have been actually discussing is manpower planning with education as an aspect of manpower planning. Practical dangers are involved in adopting this concept—especially for countries with limited resources. At any given time there are apt to be more people of school age who are not in schools than are, and who therefore would be denied essential training which would allow them to contribute to economic development, if we were to consider only education as the primary means of training. There are, of course, other methods by which these people can be equipped with essential or critical skills, knowledges, and capabilities.

All countries expressed concern for the availability of information for planning purposes on the principle that intelligent planning cannot be pursued without adequate information. The question I would like to raise, though, is should adequacy of information completely prevent us from doing any planning at all? I don't believe so, since the most important element in planning is judgment, and judgment can begin from impressions which later on can be supplemented by information obtained from assessments or surveys. Surveys are expensive. Aside from the expense involved you still have to raise the competence of those who undertake the survey. We have all been speaking about our limited resources. It is possible we may be able to derive much of the information we need from administrative agencies which perform certain registration functions. Perhaps we have not fully explored this possibility. We may be able to get much of the possibility that we need already in these agencies without the necessity of engaging in expensive and time-consuming surveys. The essential thing is that planning cannot wait for information to be brought forward. While we wait, our problems are multiplying.

I also look forward to some conclusions from this Seminar which would be in the nature of recommendations for techniques and methods of manpower or educational planning which are adapted to the limited resources of Asian Countries. In planning these techniques one important consideration is that many of these will have to be superimposed over existing systems. The implementation of such programs may not be difficult where they are being introduced for the first time, but where they are intended to effect changes in something that is already existing, we are bound to encounter resistance, particularly on the part of the people who have been engaged in the activity and who have institutionalized certain practices—which, in effect, becomes a problem of personalities. This human relations aspect of implementation is something that we cannot overlook.

As a whole I think this Seminar has arrived at what you might call standard approaches to manpower and educational planning. This reflects on the little experience that we have had

in this area. Perhaps two or three years from now we should be together again, compare notes, and by that time, perhaps we will be able to tell each other how adaptable these standard approaches have been to the economic, political, and social conditions prevailing in our respective countries. Thank you.

CHAIRMAN: Thank you very much, Mr. Santiago. We are going to proceed around without comment now. We will comment after we have had all of the reports. I turn now to Mr. Kang of China.

MR. KANG: Mr. Chairman, distinguished delegates, ladies and gentlemen. I am happy that I have had the chance to attend this Seminar here in Manila and have had contacts with economists, educators, planners, policy makers.

There are three points I would like to mention. First, the most impressive things to me are the papers from the Philippines, Thailand, Korea, and Vietnam. They gave me much information on methodology which cannot be found in books. Mutual learning is effectively achieved through a seminar. Secondly, in the keynote address, Dr. Staley stated that a person can ask a lot of questions and that nobody can answer all the questions—but through the Seminar all the questions might be solved.

For instance, years ago I tried to lay out a ten-year plan and an eighteen-year plan. I read lots of books such as the forecast of manpower written by the U.S. Labor Department, and the forecast in higher education of the United States up to 1970 written by the National Education Association. I understood how to project the labor demand for the next ten years and twenty years, but the theory, once applied to the practical problems in the Republic of China, presents me with a big question. That is by using that theory for predicting the manpower need in ten years or twenty years method, I discovered many questions which suggested that the method I used may not be so good. In reading over the paper called the "Manpower Plan for Thailand" written by William J. Platt of Stanford Research Institute, I noted that they introduced a way to make the forecast of manpower needs up to 1980 for Thailand. It is a great help to me to check

against the method we used in China. Third, through the paper written by Professor Brembeck for planning the education of Thailand, I am interested in the suggestion of three alternatives for secondary education of Thailand. I am not only interested about the suggestion, but also I am interested about the method utilized in the survey of Bangkok Technical Institute graduates. Mr. Brembeck found that the economic-occupational survey indicated a need for a "general stream" of secondary education and that the changing composition of economic sectors, on Page 24 of his pamphlet concludes that the education sector include preparation for trade and banking service in 1966 whereas the secondary economic sector include training for manufacturing, communication, and transportation fields. It is this sector that demands large numbers of employees with competence in language, general science, mathematics and general education. I have learned new techniques in planning through this Seminar.

The delegates of the Republic of China as well as myself appreciate very much the invitation and courtesies extended to us by USAID and the participants in the program of this Seminar, such as the National Economic Council, Program Implementation Agency, Department of Commerce and Industry, Department of Education, Department of Labor, Board of National Education, National Science Development Board, and the delegations from the host country, the Philippines. Thank you.

CHAIRMAN: Thank you, Mr. Kang. Now we turn to Mr. Chun of Korea.

MR. CHUN: Thank you, Mr. Chairman. The Korean delegates and myself think this Seminar most useful and most helpful to us. I would like to thank the sponsoring agencies, the Philippine Government, and AID.

During the last few days of the Seminar we feel that two things have proven most valuable to our delegates. A manpower development is not an isolated plan. It is a part of the national plan which is composed of the economic development plan, the social development plan, and other plans. This kind of understanding is very important. The second one is that manpower planning should be in coordination with different

agencies, the government, the public, and the legislative. These two things, from the standing of manpower planning and the sense of coordination, are very essential for us.

I feel fortunate that our delegation is composed of all sectors of government representatives. In our experience the most difficult thing for manpower planning in a developing country is understanding between the legislative part and the public. We are fortunate to have here two National Assembly members—one from pro-government party and the other from anti-government party. Bringing these two gentlemen to this Seminar means a lot. We have progressed to the point of understanding the importance of manpower planning. We will not have difficulties at all in manpower planning in communicating with these legislative parties. We have a specialist from the educational department, the Ministry of Education. He is the key man to educational planning. He can take full advantage of this Seminar by learning what we have discussed here in the last few days. We have also a representative from the Labor Department. Recently, he has been trying to study and formulate vocational training, on the job training, and so on. I am representing the Economic Development Board, which handles the entire nation's economic development, and also, I am planning to enter manpower development planning. All our delegate participants have made great progress in understanding manpower and manpower coordinations.

I feel also fortunate that I have become acquainted with many specialists on the manpower planning side, and also have shared good, valuable experiences from friendly nations which have interested me very much.

Now, the problem comes as to how we can utilize results of this Seminar. I cannot remember all the answers or all the experiences, and there are many problems yet to come out when we plan in the future. We are trying to form a manpower plan up to 1980 but we don't know where to start. There are so many things we have to think about—international problems, economic standards, social structure, and many things. Above all, we don't know how to forecast, or how to ensure that the plan will come out as precisely as we wish, because we don't know the

technique. I feel fortunate that since we have become acquainted with many specialists here, I now know where to get this information. So in the future planning I will take full advantage of these acquaintances, and attempt to utilize their experiences in formulating our own plan.

I will try to avoid mentioning specifically what I have learned, because there are too many things to say, so I will just say that this has been an over-all picture of the impressions I got here. Thank you, Mr. Chairman.

CHAIRMAN: And thank you, Mr. Chun. We turn now to the Thailand report of Dr. Kaw.

DR. KAW: Mr. Chairman, the Thai delegation and I want to thank the organizing agencies that organized this Seminar, and our host country. We are very grateful that we can be here and participate in the Seminar.

Before I came here I knew that I had problems. I knew I had to face many obstacles. After Dr. Mehta's presentation I knew I had more problems and I found that I have to face more obstacles. As we discussed along I found that the people in this Seminar were very optimistic. They discussed the most difficult problems in a very optimistic manner. That helps my outlook, too. This spirit will help me in my future work.

I was interested in the organization of the offices concerning manpower assessment and educational planning, as I am new in this type of work. I set out several questions that I thought could not be answered but at the end of that session I found that I obtained most of my answers from you. It was very interesting to observe how the group worked together and helped each other to solve their problems.

I have just one little remark to make. It seems to me that our Seminar here has overestimated the ability of educational systems. We thought about manpower requirements and things like that, and then it was expected from the Seminar that the educational system will help to train the needed manpower automatically. As an educator, I don't think so. The educational system has its own problems. After getting information from the manpower experts we have to translate those problems into educational requirements and that takes long, hard work; and it takes a

longer time to convince the people in the educational system that this is what we have to do. This was the kind of a problem that I wished I would hear from the Seminar, which I did not hear, but anyway, I see the problem, and it seems to me that we have to work out the solution or the possible solution for the educational planning later.

As I said before, the atmosphere in discussions here was highly optimistic. I think that helps me. We have problems and I think we have to face them squarely, and try to solve them later. Thank you.

CHAIRMAN: And thank you, Dr. Kaw. Now we come to the report from Vietnam and the country representative from Vietnam, Mr. Doan, would prefer to speak in French, which we are delighted to have him do. We are going to try simultaneous translation. Those of you who have earphones would you please use them. We are very appreciative to Mr. John Condon, a friend of Mr. Doan, who has agreed to do the simultaneous translation. So Mr. Doan we are very happy to introduce you now for the report from Vietnam.

MR. DOAN: Thank you, Mr. Chairman, for allowing me to speak in French

(Mr. Condon's translation.)

I find that this Seminar was very, very interesting. Among the participants are eminent educators and economists and representatives of various agencies of the government that are interested in manpower and education, and as I said before we have not failed to acquire the maximum information to draw the necessary conclusions from the speeches of the various participants, economists, educators, and others. We have talked about problems during the last few days which are common to all our countries in Asia. There are perhaps solutions which we cannot put into effect immediately; but nevertheless, I will be looking toward the future with more confidence. I am sure that Vietnam and the other friendly countries will find their way to overcome the difficulties and especially, Vietnam, the difficulties that it is going through right now.

Vietnam is now in war. It is an Asian country which has not escaped the lot of an underdevel-

oped country just like the other friendly Asian countries. There is a large agricultural population with a very young industry. Vietnam has its own problems and pre-occupations which are primarily to fight against the invader—a security problem. All these are problems which interfere with any effort to plan. One cannot undertake planning without having stability and security. This applies also in education as well as manpower. We hope to have as many children as possible in schools and as many skilled workers as possible, but we are deterred by outside extraneous factors such as the security problem and financial difficulties. Although the children are in primary and secondary schools, we have not lost sight of the fact that vocational training should interest and absorb more of the children who are until now attracted by general education. We do not forget that our population is primarily agricultural, and though parents hope to send children as workers of the government in the big cities, we must concentrate in the large sector of agriculture. If we want to promote industrialization of the country, we must think of industry, but we should continue to put priority in the agricultural sector.

We are faced with another problem—the training of technicians at various levels. The large majority of our technicians who have been, and continue to be sent to foreign countries, upon their return to our country contribute to the development of the country. But there is the problem of differences between education they have received, depending upon the country in which they have received their training. There is the problem of coordination, which is how to organize their work so as to be able to participate effectively in the work they do, after they return. Then there is the question of training for technicians. To train at all levels so that we don't have gaps, we must determine who will be

qualified, and who will be able to work productively in the interest of productivity and efficiency. We cannot forget that in addition to training at the highest levels, we are also compelled to train the lower echelon in Vietnam. How should we do that if the higher level technicians come from various countries trained in methods which are not similar? How can this cadre train the lower echelon cadre? How can we do that without creating gaps and difficulties? Despite the security problem and lack of finances, we are hopeful that in the future we will be able to develop a plan, and in this manner begin to attain our goals in the future. I believe that the discussions we have had here were essential to us as members of the Asian community, especially Vietnam, which is now suffering the consequences of war. We hope to spare no effort in following up on this conference. Right now, the Ministry of Labor, in coordination with other government agencies and technical experts from USOM and other countries has established a plan of action. The emphasis has been placed on manpower assessment, because we think that in order to accomplish something, we must know first our weaknesses and our requirements in manpower. Before I finish, I would like to add, that having followed the discussions that took place here, we have acquired information and knowledge which was communicated by the participants. If we have not had the opportunity to participate and to say what we want to say, we fear that this is because of the handicap of language. I am sure, speaking in the name of my colleagues and myself, that this Seminar will help us.

[EDITORIAL COMMENT—*The remarks of Mr. Shipp, Mr. Schuler, and Mr. Hepler were not recorded. The editors apologize.*]



CLOSING ADDRESS

DR. EUGENE STALEY

Director of Basic Research in the International Development Center of Stanford Research Institute and Faculty Member of the Comparative Education Center, Stanford University

Let us in this final session look to the future. We have to take thought not only about the near future but also about the moderately long-range future. Remember that the young men and women whose occupational choices in training we are influencing in 1965, if they live a normal working life, and are, let us say, about 20 years of age now, will be in the labor force until about the year 2010, and the child entering primary school this year will carry some of the mental equipment and the personality traits the teacher helps to shape in 1965, into, perhaps the year 2035. He will be telling his grandchildren about the good old days in the simple 1960's. In other words, investment in human capital not only can bring some fairly rapid payoff but it also will have some lasting effects.

When planning such a long-lasting investment we must try, however imperfectly, to look ahead more than just a few years. So, I propose that in the next few moments we flex our minds and ask ourselves in what kind of an environment, in what kind of a world are the men and women we are training this year going to carry on their job. In what kind of world will the children being educated now live as adults? Are the manpower plans and the education plans we are making as suitable as we can make them for this anticipated environment?

Of course, none of us can claim the gift of prophecy, but sometimes to raise just a question like this and speculate upon it is illuminating. There are some aspects of the future that are extremely important to our problems of manpower and education about which we can be reasonably certain, if we assume the existence of a number of broad trends. In all this looking to the future, I am going to assume that mankind manages to avoid destroying civilization in a nuclear war, an assumption that may or may not turn out to be realistic, but on what other basis can we proceed to make plans? I am

going to suggest then that the world of our children will be a world of these characteristics among others: (1) a world of increasingly rapid technological and social change; (2) a world where working and living is increasingly built on science and technology; (3) a world of increasing interdependence, wider contacts, and hence new types of human relationships and responsibilities; (4) a world where man will have more power than ever before to influence his own destiny, and hence more and more agonizing choices, including moral choices, to make.

Let us look briefly at each of these characteristics, noting just a few of the ways in which they affect occupational training, occupational requirements, and educational policy.

First of all we must look forward to a world of increasingly rapid technological and social change. The countries of this region particularly are affected by two strong current changes. One we may call the modernizing current. The countries here are trying to fulfill their national aspirations to catch up with technological and social developments that over the past centuries have brought what we call "the modern world."

This means very important shifts from a traditional type of society to a modern type. It means new techniques in agriculture, new industries, new communications, new political systems, movements from a family-centered society to a society where broader community relationship becomes relatively more important, movements from villages to towns and cities. You can readily enlarge the list. But this current of change among countries of the Far East to "catch up" with the modern world, may not be enough. All the countries of the world, so-called developed and developing, are being pressed by the worldwide sweep of

currents of change engendered by discoveries affecting science, technology, and eventually social organizations.

Formerly a man could live his life fairly successfully with the mental apparatus and the information that he had acquired, let us say, by age 18 or 20. Nothing rather drastic was likely to happen in his working lifetime. This is no longer true in the modernized countries today. It will not be true for very much longer in the countries today catching up with modernization. We are continually having new inventions—physical inventions, biological inventions, social inventions—and these change ways of living and force readjustment. Just look back a few decades. Antibiotics have not only changed the practice of medicine and opportunities for better health and the ability to inhabit certain regions that might not have been habitable because of disease conditions. But they have given rise to population problems, along with other things. Atomic energy—well, I don't have to spell out the problems it has raised as well as the opportunities for mankind. Jet propulsion in aircraft—the world continues to shrink even when we thought a few decades ago that the world had already shrunk so much that it had just about reached the ultimate in becoming a small area in the point of view of human mobility and communications, but then along came the jet plane.

In the social field, we have had in the twentieth century great inventions like the agricultural extension service, a social invention which I submit is just as important in the social field, as the jet plane is to transportation. The diesel engine has made its contribution in the field of physical control of nature and communication. We have had inventions in education technology and some people in this room are working actively to promote more of them. Are the inventions going to stop in the future? History and analysis both suggest very strongly that, on the contrary, we shall likely see more and more rapid technological change. We can't predict exactly what new inventions are going to appear. If we could, I presume we would make them right now.

But we can fairly confidently predict that in certain fields there are going to be changes, some of which will be as drastic as any we have seen

up to now. For example, I think it is highly probable that within, who knows how many decades, it will be possible to achieve at least a certain amount of genetic control of heredity in human beings, if wanted. Here is a problem for the social and political leaders and planners which will make controversies over plain birth control look easy. Do we want to breed for certain things? Change certain human characteristics? Should the state control this?

To come down to a lower level, what about the training of professional people, technicians, and mechanics in a world of continual, rapid change? Nobody would want to be treated by a doctor who had stopped learning medicine in 1930. He would not know anything about antibiotics and many other things. The dean of the medical school at Stanford University made a speech sometime ago dedicating a new medical building, and his theme was, "We must adjust our medical education to teach the young M.D. of 1965 so that he can learn the medicine of 1980. We don't know what that will be, but we must teach men who will not stop learning when they leave the school."

The same sort of thing applies even to the plumber. Plumbing, I gather, is not forever going to be joining metal pipes with standard old types of connections. After all, plastic pipes are here now, and who knows what kinds of materials and techniques may appear? If we educate the plumber in such a way that he knows only how to do the job today, what is going to happen when we pass on to some new techniques? It is even more clear that the electrician right now has to know some things about electronics that two or three decades ago he could perfectly well have gotten along without. Changes within the working lifetime of every individual from now on are going to be so drastic that the process of training and retraining and learning and relearning has to be a lifetime process.

This has very great implications for education and for the kinds of vocational guidance and vocational training that we prepare, and especially for the relationship between general education and specific vocational training. Certainly it is no longer going to be suitable in any country to educate people by rote learning. Rote learning

may suffice in a static society but in a society of continual, rapid change, education has to induce foresight—not acting by routine—and foresight comes from information, understanding, and the habit of thoughtfulness and critical inquiry. So the way the teacher teaches has a very important bearing on the success of our educational products in adjusting to this future world of rapid change. Again it becomes clear that adult education must assume more and more importance for reasons I have already implied. It would seem desirable that our universities need more and more to face this fact—that universities must recognize, as they do in many countries of the world, an obligation for continuing education, for keeping in touch with their graduates, and this is especially true in the newly developing countries. The universities need to recognize their increasing obligation to make use of their trained human resources in extension work outside of the immediate student body of the universities—their obligation to the community at large.

I have been working for some years in the field of small scale industry development and have been forced to do a lot of thinking about the changing world of the artisan or the craftsman in developing countries. In all of our countries, including the most highly industrialized, one conclusion which seems quite clear to me is that some predictions, made particularly in European countries around 1900, have turned out to be mistaken predictions. It was said then by many people, by liberal economists and by Marxists, that the factory was going to do away with the artisan and craftsman. His day was past. Now everybody who writes on this subject in Europe starts by saying, "Whereas we once expected the factories to do away with the artisans, today we seem to have more than ever before." The key to this apparent paradox is that today we have a different kind of artisan in the highly developed countries than the traditional artisan of the old pre-factory day.

The newly developing country can learn a great deal from this experience. Some of them have not yet learned it as fully as they should. For example, a couple of decades ago in Ceylon, a program was started for introducing handloom

weaving and training people. They do not have in Ceylon, as they do in India, a very large handloom weaving industry, but they thought it would be a good idea to introduce it. Training courses were set up, according to the report of one of the U.N. agencies. Subsequently, however, this course was not very well accepted. Parents decided they did not particularly want their children to go into what they regarded as a trade without much of a future. I think the parents were more right in this case than the people who thought they were helping by introducing this particular kind of training.

More recently a group of my colleagues from the Stanford Research Institute conducted a survey of the artisans of Ecuador. Therein was found a laudable effort to help artisans. The government had prepared, among other things, a training program, and perhaps without giving enough thought to it they assumed they ought to give the artisans better training in the same kind of things they were already doing. So they trained some shoemakers to make better shoes. But the problem was that the shoe factory already was doing away with a lot of opportunity for employment of the hand shoemakers, and to train more of them simply had the effect of glutting the market for this obsolete trade. The conclusion of the study that our group assisted in was that instead of training more shoemakers, the aim should be to train some electricians, some plumbers, some bicycle repair people for whom opportunities were increasing. I think that all through our newly modernizing societies, and in the ones that are already highly modernized and industrialized, we are seeing a rising importance of all kinds of miscellaneous, tertiary occupations, service trades, and trades of the new type, as distinct from the old traditional type. One characteristic of this new type of crafts is that instead of competing with factory goods they supplement factory goods. The modern plumber installs, repairs, and services equipment made by the factory, as does the modern electrician, photographer, or carpenter. These are only a few of the many, many implications that you can elaborate as well as I, of this general principle that we are living in a world where technological and social change is very rapid and is going to

be even more rapid.

Biologists say that there are some kinds of fish that like to live in still water, in pools. Other kinds of fish are not happy unless they live in rapidly running streams. It would appear that the kinds of human personalities we have to try to develop through our educational system must be more and more those personalities that are able to live and enjoy living in running water, in a changing situation.

Second, the world of our children is bound to be a world where working and living is increasingly built on science and technology. This has many obvious implications for occupational guidance, training, and education, and I am not going to spend much time elaborating on this. It certainly suggests that improvement in education is not a simple matter of expanding by some factor X, the educational status quo that we find in our own country. It is necessary to rebuild, restructure, and also change the content of educational systems that in their heritage of the past have stressed those things which are now still important, but relatively not all-important, as they used to be. We must put more stress on preparing youngsters to learn and relearn scientific and technological affairs. Another implication of the inevitable trend is that we must strive to match new physical and biological inventions, by improved social techniques, including improved techniques of education. The world of the future will not be a very satisfactory world if we cannot speed up the rational evolution of social science and of social technology in application to our human problems. Otherwise, we might ourselves live in a kind of a technocratic society that would not satisfy the human aspirations for freedom and responsibility that we have.

In addition to the vocational needs raised by the increasing role of science and technology we should not overlook the cultural opportunities. It's just as important that this cultural aspect of man's achievements in the field of science and technology should be highlighted all through the educational system.

Third, we are invariably going to be living, and our children more so, in a world of increasingly broader interdependence, wider human

contacts and hence new types of human relationships and responsibilities. For example, family ties, kinship ties, are going to be supplemented and enlarged more and more by ties of less direct or less personal sorts which will link all of us in interdependence with people we perhaps never even see. We have to work together solving problems presented by this kind of indirect, impersonal community. Working cooperatively is one of the great problems of all of our countries, and is probably intensified in the newly developing countries, because they not only have these problems that the industrially advanced countries face of very rapid continuing social and technological change, but they have this additional current need for rapid social modernization. Until we can educate and inspire people of all countries to work together in broader groups, to subordinate some of their personal interests, their family interest, and local interest to the interest of the wider national community, and even the world community, we are going to have very grave troubles. I remember when I was with the World Bank Mission in Cuba in 1950 many Cubans came to us and said, "We have very many great problems because we don't trust each other. We can't be minority stockholders in an enterprise because we know we'll be cheated because we are not part of the family." I have heard the same sort of thing in many countries. I think it is a characteristic of a pre-industrial society. It was a characteristic of the pre-industrial society of Europe and Europeanized countries. One of the problems of industrialization or modernization, then, is the problem of enlarging the area of responsibility, of changing the outlook of loyalties, of ethics. It is part of the process of modernization.

Next, we might consider the need for development of national spirit, national integration. Nationalization has been one of the integrative forces of the modernizing world and it still has a very important constructive role to play in building larger units of cooperation out of local units and family units, especially of course, in the countries where concern with the modernization process is still going on. But we have to recognize that nationalism has historically had, and is having more and more today, a divisive

effect with respect to the larger world community. It is necessary to have nationalism, and it is constructive when it creates larger unities out of smaller ones. It is harmful, in my judgment, and divisive, when nationalism has the effect of preventing all countries from working together on problems that they now, more and more, have in common.

In our schools we have to educate, obviously, for international understanding in the teaching of geography. People have to get information that just a decade ago would have been irrelevant to their lives. In languages, it seems pretty clear that somehow every child in the world is going to have a pretty good command of his own local language, and some kind of a second language, a world language. It won't be very long before we will have by signals from satellites, or in some other way, worldwide radio and television broadcasts, and it will have to be in some language that people throughout the world understand. Those who don't understand will be handicapped in keeping up with modern world relationships.

One might also mention, in this connection, the role of women in our educational planning. The role of women is important for two reasons: (1) if women are not educated and are not given a chance to perform productive occupations of many sorts, then about half of the potential human resource is partially wasted; and (2) women play such an important role in the early attitude formation and value formation of the youngsters. If we have ignorant women, uneducated women, forming these attitudes in early ages, we're not going to be in nearly as good a situation to meet these problems of the modern world, as we can if we have educated mothers who from the very start give the children attitudes that broaden their sense of information, broaden their sense of moral responsibility to the larger areas in which they now have to conduct their lives.

Finally, and fourth, we must plan training and education for a world where men will have more power than ever before to influence their own destiny. In the long course of organic evolution it took millions of years for *homo sapiens* to appear with his very remarkable endowment of a hand and a brain. Man emerged as the

adaptable animal. In the history of evolution it appears that the large animals with their large bony structures and heavy weights, like the dinosaurs, were not too successful in surviving. It was the animals that developed the ability to adapt who survived—and I think there is a certain lesson in that for us. Man emerged as the adaptable animal, the animal able to learn from experience and most important of all, able to transmit his experience, to pass on the learning and the inventions of one generation to the next generation, with each generation building on the past and adding its new inventions, attitudes, and improved ways of living. Thus, man became what is called a culture-building animal.

To the extremely slow process of organic evolution, that is, evolution through the changing of genetic constitution of the animal, was added the much more rapid process of cultural or social evolution. This process of cultural or social evolution is cumulative. Each generation builds on and adds to the attainments of previous generations and the process of social or cultural evolution also tends to become more and more rapid. The twentieth century has provided more additions to man's stock of knowledge, and more inventions—physical inventions, biological, social inventions—than any previous two centuries. More drastic changes in man's environment happen in a few decades now, than happened in a thousand years in the epoch of the Egyptian pharaohs.

Now, in the twentieth century a most significant new element has again been added. Man has become conscious of his own culture, aware of the processes of cultural evolution. He is even learning to direct and control these processes. This is what the meetings on development are fundamentally about. We are striving to guide and promote human evolution. So we live in an epoch-making age—the age in which mankind for the first time becomes conscious of the processes of change, and able to shape the course to some extent of his own social, cultural evolution. This is the larger significance, I submit, of what we are doing in this seminar. All this means new power in the hands of man and power means ability to choose. Man faces, therefore, important technical choices and even more agonizing moral choices. All of our countries, all of our communi-

fies, and our world community, too, desperately need to produce leaders and citizens who have the intellectual grasp, the information, the flexibility of mind, and the emotional maturity to choose and to act constructively and responsibly. Man has it in his power to create a heaven or a hell on earth or even perhaps to destroy all

life on earth and leave a scarred planet to revolve through the eons of cosmic time. Are the plans we make for human resources development and the amounts and kinds of education proposed for twentieth century children in all our countries suitable to prepare humanity for these awesome choices?

MANPOWER ASSESSMENT AND EDUCATION PLANNING STATUS OF THE REPUBLIC OF CHINA

INTRODUCTION

The Island-Taiwan is one of the 35 provinces of the Republic of China. Since 1949, it has been the temporary seat of the Chinese Government. The island, about 100 miles off the coast of mainland China, is divided over its length in north-south direction by a rugged mountain range which covers two-thirds of the total surface of 13,885 square miles. The population of 12½ million people is mostly concentrated in the plains on the west side of the island. Only one-third of the island is cultivated and the effective density of population—about 3,700 persons per cultivated square mile—is among the highest in the world.

Taiwan had hardly recovered from the ravages of the Second World War when the Government moved to the island-province. The dual task of supporting a rapidly increasing population (rate of annual increase averaged 3.49%, 1954-63) and fortifying the island against the threat of Communist invasion (military effort amounts to 10-12% GNP) soon brought its frail economy to the verge of exhaustion.

It was in those darkest days that economic development began on Taiwan. Through a program of land reform, the program of annual U.S. Aid support and the implementation of successive Four-Year Plans commencing 1953, the Republic of China now reaches an economic growth comparable to the achievement of the world's more rapidly growing economies. In spite of the poor natural resources and heavy military expenditures, Taiwan's real economic growth has averaged 7% a year over the past decade. During the last six years, agricultural production increased annually by about 4½% while industrial production has risen even more rapidly at a

vigorous annual pace of 11.6%.

The main element in the economic performance of these past years has been the human factor. The people are hard working. The literacy rate is high. The farmers are skillful in intensive agricultural cultivation and there are many people, local as well from the mainland, who are well trained in administrative and technical occupations. A growing confidence in the economic viability of Taiwan further encourages the rise of domestic savings as well as foreign investment in recent years.

I. PRESENT MANPOWER ASSESSMENT

Population Increase

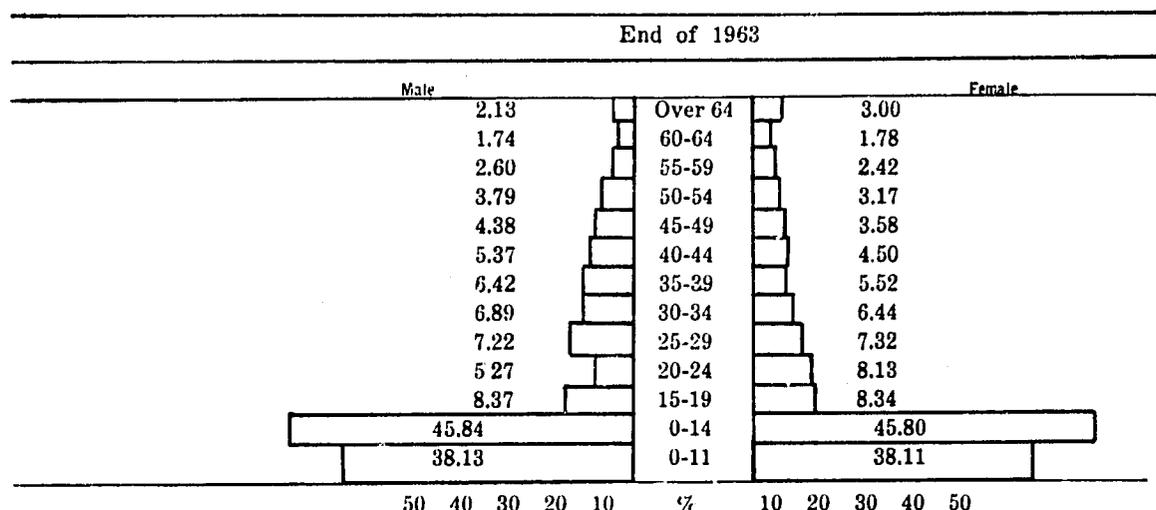
In the past ten years, the population of Taiwan has registered a growth at the rate of 3.49% per annum. Such a high population increase has caused an undesirable effect upon the manpower resource composition. Records of the past three years (1961-1963) show on the average that the number in the working age (15-64) only constitutes 51.6% of the total population (Table I). In other words, the people depending upon others for support account for such a large percentage as to constitute a bottleneck in the economic development of Taiwan. Furthermore, people ranging in the age group of 15 to 29, which also constitute a large percentage of the working-age group, are either inexperienced or inadequately trained for various professions and will be on the low productivity side as compared with that of the middle-agers. The trend toward such type of age composition is certainly not favorable to a rapid growth economy. (Fig. 1.)

TABLE I.—PERCENTAGE DISTRIBUTION OF POPULATION

Year	Total Population* 100%	Under 15	Working Age 15-64	Over 65
1961	11,149,139	45.9	51.6	2.5
1962	11,511,728	46.0	51.5	2.5
1963	11,883,521	45.8	51.6	2.6

* Excluding conscripts under Military training.

FIG. I.—PERCENTAGE DISTRIBUTION BY AGE GROUPS



A review of the rate of population increase reveals a decreasing trend, from 3.68% in 1956 to 3.01% in 1963. This is because the general realization of the population pressure on the one hand and the expanding of the family planning program scale on the other. It is predicted that the population increase in number of persons during the coming ten years will still amount to about 2.9 million. This will still be a pressure on our economy.

Labor Force and Economically Active Population

Since the statistics provided by the census-taking agencies are not always consistent with each other and are not entirely reliable, thus far no accurate assessment has been made of the labor force and employment positions. However, the 1956 Household Census and several labor force sampling surveys conducted by the Provincial Social Affairs Department presented some highlights.

TABLE II.—LABOR FORCE STATUS

(UNIT: Million people)

Year	Total Population 100%	Population 15 years of age and over				Economically Active				Economically Inactive			
		M	F	Total	%	M	F	Total	%	M	F	Total	%
1956	9.39	2.63	2.57	5.20	55.8	2.26	0.50	2.76	29.6	0.37	2.07	2.44	26.2
1963	11.88	3.18	3.27	6.45	54.3	2.67	1.14	3.81	32.1	0.51	2.13	2.64	22.2

From the above it follows that in the past seven years, the number of people in the working ages has been increased by 24%. However, because of the large population increase, the working age group has actually been on the decrease percentage-wise.

The above table also indicates that the percentage of the economically active population in 1963 has registered a little increase as compared that of 1956. However, the percentage is still rather low as compared with that of the industrially advanced countries. Thus, on the average, every

economically active person in Taiwan must assume the responsibility for the livelihood of more than three persons.

Employment

According to data available at the Provincial Affairs Department, in the year 1951, these employed constituted about 36.6% of the total population. Until 1956, the employed accounted for 27.8% of the population. The 1963 census reveals that the percentage has reached only 30.3%.

TABLE III.—EMPLOYMENT IN PROPORTION TO POPULATION

(UNIT: Million Person)

	EMPLOYED						
	Total	Economically Active	M	F	Total	% to Eco. Active	% to Total Population
1956 -----	9.39	2.76	2.13	0.45	2.58	93.6	27.8
1963 -----	11.88	3.81	2.54	1.07	3.61	95.0	30.3

TABLE IV.—PERCENTAGE DISTRIBUTION OF EMPLOYED

	1956	1963
Primary Industries -----	54.1	51.4
Secondary Industries -----	15.2	20.2
Tertiary Industries -----	30.7	28.4

It can be seen that both the number of employed and that of the unemployed tend to increase simultaneously with the growing population. One-half of all employed persons in Taiwan are associated with agriculture. Since invisible under-employment inevitably exists in rural areas as well as in the government services, the unutilized manpower could be much more greater than the 200,000 unemployed persons estimated in 1963.

A pilot study of labor force was started in October 1963 and successive sampling surveys were made at every three-months interval thereafter. More detailed study relating to labor market including wage and hour, education and training, mobility and productivity, etc. is under consideration. Experts conducting these surveys indicated some major factors of our relatively high

rate of unemployment as follows:

1. The unemployment problem is more serious than it appears to be. Disguised under-employment which cannot be easily measured should also be taken into full consideration in the formulation of national policy.
2. The unemployment rate is closely associated with the rapid growth of the labor force and the young workers form a much larger part than mature workers. Although remarkable rates of economic growth have been achieved in the past decade, the creation of working opportunities is still not fast enough to absorb the growing labor force.
3. The structural change, a recognized factor in our unemployment problem, appears to

have been taking place just as rapidly as the economic growth. The training and placement program should be properly and immediately conducted.

4. Other legal and social factors are not yet closely associated with the employment in Taiwan as they are in the U.S. and other countries.

II. EDUCATION PLANNING

The Present Education Situation

The relocation of the Central Government to Taiwan in 1949 has added an impact on the development of education in this province (Taiwan). Population upsurge and expanded economic progress have been forcing education to develop at accelerated speed and have over-taxed educational facilities. During the period 1951-1963, the illiteracy rate has dropped from 17.96% to 7.24% while the rate of in-school children increased from 81.49% to 96.8% (age group).

The current school system, the growth of education and the capacity of existing educational facilities are shown in Chart 1 and Table V to IX.

1. *The Institutional Framework*

Schools in the Republic of China are classified as follows:

Level	Grade Designation	Age Group
Elementary	Grade 1 to 6	6-11 (at least 72 months old)
Junior Secondary	Grade 7 to 9	12-14
Higher Secondary	Grade 10 to 12	15-17
Higher Education	Grade 13 to 16	18-21

The complete course of the public school system lasts 16 years. However, some boys and girls may have attended kindergarten before enrolling in the formal educational system. Kindergartens, mostly, are operated by private organization.

a. *Compulsory Education*

All children of school age from six to twelve years shall receive free primary education. Those from poor families shall be supplied with books by the government.

As the people are convinced of the need of education for their children plus the fact

that people's economical situation has been improved steadily, no compulsory means is needed to urge them to send their children to school. The attendance rate of 1963 is 96.8% of the total school age children.

b. *Secondary Education*

Institutionally speaking, secondary schools include high school, vocational school and normal school. High schools are divided into junior high school and senior high school, each with a period of study for three years.

The vocational schools are also of junior and senior categories of three years each. There are also five-year system and six-year system vocational schools, according to the fields of study.

In regard to normal education, there are two kinds of systems, ordinary and simple: In the ordinary normal schools, kindergarten normal divisions, physical education normal divisions and art normal divisions may be utilized for the training of kindergarten teachers and elementary school teachers of physical education, music and art. In order to expedite the training of elementary school teachers, simple normal departments and special normal departments may be affiliated with ordinary high schools and normal schools.

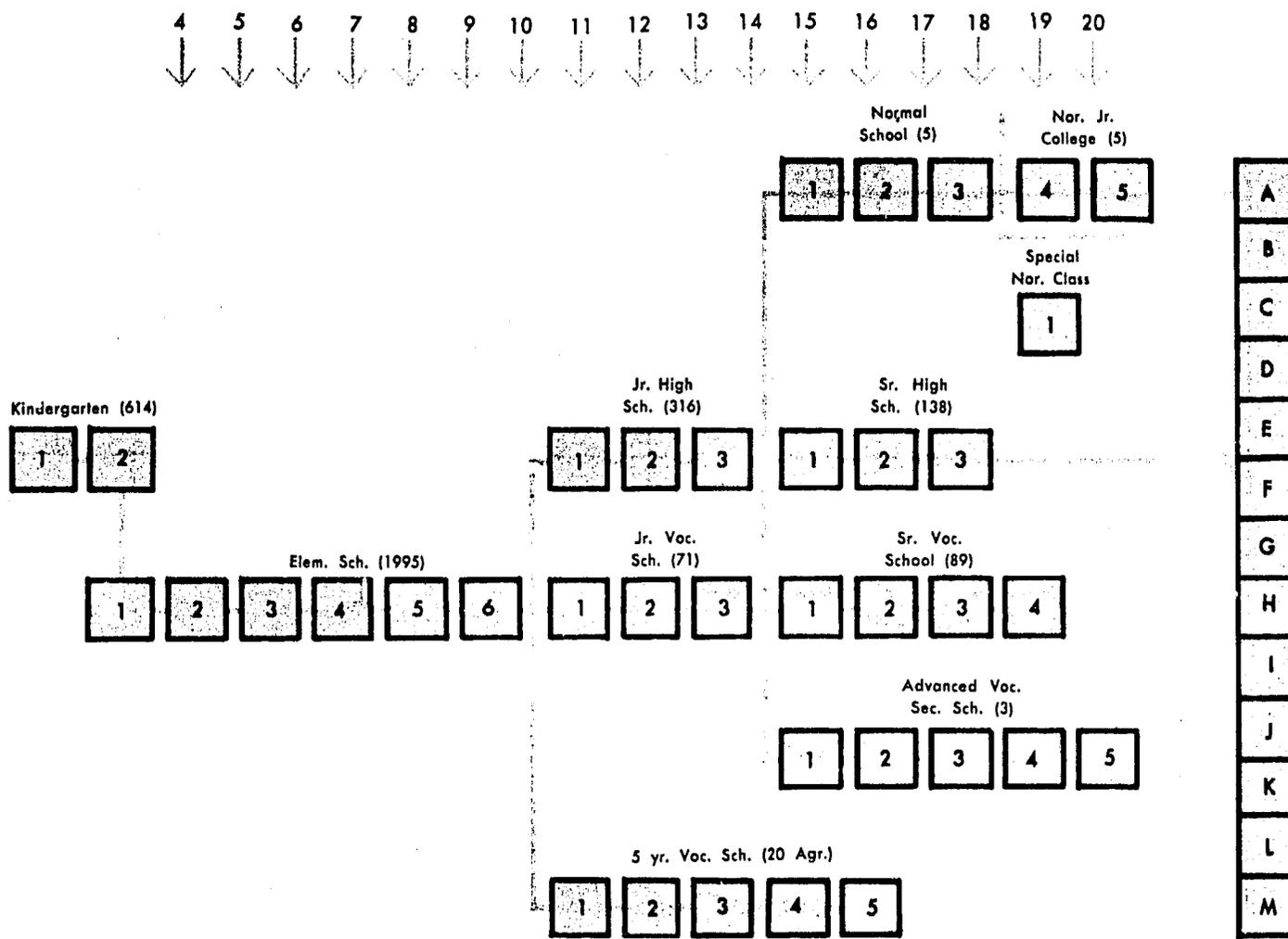
c. *Higher Education*

Higher education in the Republic of China is provided to those successfully passing a Joint Entrance Examination. It may be classified into two main categories: university or college, and junior college. In 1963, there are 11 universities, 9 colleges, and 16 junior colleges. The enrollment for 1963 registered at 51,707 persons.

2. *Overall Trends 1961-1963*

The total number of students officially enrolled in schools in 1963 was 2,801,106, which represent about 23 percent of the total population.

CHART 1.—THE PRESENT SCHOOL SYSTEM



A. University	5
B. Chengchi University	1
C. Normal University	1
D. College of Science & Engineering	1
E. Law School	1
F. Medical College	3
G. College of Arts & Science	2
H. College of Industry & Commerce	1
I. College of Chinese Culture	1
J. Technical College	1
K. Normal Junior College	5
L. Technical Junior College	10
M. Junior College for Journalism	1
N. Junior College for Physical Education	1
O. Junior College for Arts	1
P. Graduate School (Research Institute)	40

TABLE V.—SCHOOL ENROLLMENT TREND: 1961-1963

Year	Pre-school	Primary Education	High School	Vocational School	Normal School	Higher Education	Total	% to Population
1961	78,261	1,997,016	314,655	88,335	6,572	38,403	2,523,242	22.7
1962	77,898	2,097,957	366,313	91,735	5,318	44,314	2,683,533	23.2
1963	75,413	2,148,652	423,865	96,921	4,548	51,707	2,801,106	23.6

Source: Educational Statistics of the Republic of China

TABLE VI.—PERCENTAGE OF STUDENTS ENROLLED IN PUBLIC* SCHOOL, 1961-1963

Grades	Kindergarten	Elementary	Secondary	College
1961				
Number	78,261	1,997,016	409,562	38,403
Public School	33,329	1,958,782	346,612	27,704
Percentage	42.6	98.1	84.6	72.1
1962				
Number	77,898	2,097,957	463,364	44,314
Public School	29,536	2,058,257	387,497	30,842
Percentage	37.9	98.1	83.6	69.6
1963				
Number	75,413	2,148,652	525,834	51,707
Public School	26,345	2,107,753	431,835	33,508
Percentage	34.9	98.1	82.2	64.8

* The percentage of the Private school enrollment is indicated by the remaining balance.

Source: Educational Statistics of the Republic of China.

Table VI shows the percentage of the students enrolled in public schools in 1961 to 1963.

3. Trends in Vocational Education

TABLE VII.—JUNIOR VOCATIONAL HIGH SCHOOL ENROLLMENT 1956-1963 (AGE 12-15 YEARS)

	1956-57	1957-58	1958-59	School Year 1959-60	1960-61	1961-62	1962-63
Grade 1							
Total	15,209	14,180	13,479	15,761	16,782	16,345	15,813
Male	11,377	10,236	9,651	10,713	10,971	10,257	9,449
Female	3,832	3,944	3,818	5,048	5,811	6,088	6,364
Grade 2							
Total	13,537	12,773	11,955	11,117	13,118	14,383	14,161
Male	9,983	9,281	8,392	7,697	8,595	9,051	8,601
Female	3,554	3,492	3,563	3,420	4,523	5,332	5,560
Grade 3							
Total	11,393	12,188	11,010	10,198	9,617	11,347	12,620
Male	8,553	8,861	7,878	6,991	6,516	7,179	7,640
Female	2,840	3,327	3,132	3,207	3,101	4,168	4,980
Grade 4							
Total	354	304	284	129	203	152	234
Male	243	206	197	83	86	62	103
Female	111	98	87	46	117	90	131

Source: Educational Statistics of the Republic of China

TABLE VIII.—SENIOR VOCATIONAL HIGH SCHOOL ENROLLMENT 1956-1963 (AGE 15 - 18 YEARS)							
	1956-57	1957-58	1958-59	School Year 1959-60	1960-61	1961-62	1962-63
Grade 1							
Total	10,798	13,047	14,342	16,612	17,506	17,243	19,630
Male	8,967	10,487	10,909	12,531	12,514	12,066	13,252
Female	1,831	2,560	3,433	4,081	4,992	5,177	6,378
Grade 2							
Total	8,085	9,385	11,401	12,592	14,491	15,192	14,944
Male	6,788	7,741	9,121	9,424	10,724	10,669	10,292
Female	1,297	1,644	2,280	3,168	3,767	4,523	4,652
Grade 3							
Total	6,323	7,787	9,038	11,016	12,106	13,132	13,557
Male	5,393	6,542	7,468	8,823	9,017	9,633	9,243
Female	930	1,245	1,570	2,193	3,089	3,499	4,314
Grade 4							
Total	204	159	323	375	514	541	774
Male	102	62	191	196	270	294	417
Female	102	97	132	179	244	247	357

4. Trends in Adult Education

TABLE IX.—NUMBER OF STUDENTS 1956-1963							
	1956-57	1957-58	1958-59	School Year 1959-60	1960-61	1961-62	1962-63
Ordinary Supplementary Schools							
Total	3,505	3,276	3,373	3,754	4,242	4,802	5,155
Male	2,691	2,581	2,622	2,912	3,142	3,685	3,719
Female	814	695	751	842	1,100	1,117	1,436
Vocational Supplementary Schools							
Total	9,359	8,991	9,675	10,265	10,852	11,112	12,477
Male	7,779	7,441	8,087	8,330	8,535	8,252	8,910
Female	1,580	1,550	1,588	1,935	2,317	2,860	3,567
Short-Term Supplementary Schools							
Total	24,639	27,597	29,947	39,510	43,757	44,773	45,213
Male	10,121	11,822	12,371	20,186	21,503	21,049	19,466
Female	14,518	15,775	17,576	19,324	22,254	23,724	25,747
Public Supplementary Classes							
Total	150,594	108,808	86,627	47,799	35,626	27,911	18,331
Male	76,396	94,455	70,483	25,439	13,585	10,830	7,961
Female	74,198	13,353	16,144	22,360	22,041	17,081	10,370
Technical Skills Training Center							
Total	—	—	2,057	2,779	3,067	3,867	3,322
Male	—	—	1,478	1,647	1,975	2,043	2,057
Female	—	—	579	1,132	1,092	1,824	1,265

The General 18 Years Education Plan

1. The Nature of the Relationship between Economic Development and Education

In recent years, a vital interest has become apparent among economists and policy makers concerning the role of education in social development. New concepts such as "human capital" and "investment in man" have been regarded as the genuine source of productivity for economic development. It cannot be denied that there are numerous competing demands upon the allocation of limited resources of the government during the developing stage. Intelligent development planning, therefore, requires an appropriate balance between the allocation of total resources among competing agencies, all of which may be important to economic development.

The foregoing statements indicate the necessity for educational planning in light of targets for economic and social development. Not only must there be an educational plan but the problem indicates that this planning must be long-range. This is simply because there are significant time lags in the formation of human capital. It is evident that to have an effective educational plan requires an assessment of manpower needs at least ten, fifteen or over twenty years in advance.

Furthermore, sound educational planning must rely upon both approaches, i.e. "manpower-requirement" and "cultural," for neither can logically be employed alone. The "cultural approach" is necessary because economic growth is not the only objective of our society and no one would maintain that the sole function of education should contribute to that end. On the other hand, the "manpower-requirement approach" alone cannot answer the question "how much education is needed." However, it provides a useful guide to a desirable structure of whatever educational expenditure is decided upon.

It could be possible for us to identify the next 20 years' "out-put" of each segment of the educational system and to make estimates of the number of graduates needed at each level and each field of specialization if we knew by estimation the following:

- a. The number of persons required in each occupation in the economy for the next 20 years.
- b. The present number of persons in each occupation.
- c. The annual number decreased from each occupation due to death and retirement.

However, a number of factors might obstruct such an ideal model of labor supply and requirements. Firstly, precise estimates of the withdrawals from an occupation by virtue of retirement or death would require knowledge of the age distribution of persons in each occupation, and unfortunately, we have no such reliable information. Secondly, we can not describe patterns of occupation with sufficient precision, to permit making estimates of separation from the accession to specific occupations. Finally, many occupations have more than one avenue of approach so far as educational preparation is concerned.

A useful educational plan, fortunately, does not require this degree of precision. A large majority of jobs in any economy need not be differentiated. There is almost complete transferability as far as educational qualifications are concerned among the semi-skilled and unskilled occupations and in a good portion of the service occupations.

Once the manpower requirement in each occupation is estimated, it is necessary to ascertain what proportion of training or education these occupational categories require. Some of the occupational categories present no difficulties because they are quite homogeneous with respect to required educational qualification. This is largely true of highly trained manpower, virtually all of which may naturally demand a university degree; such as lawyers, teachers, mechanical engineers. But in other occupations, how can we judge the proportion of "managers and officials" requiring university training for the proper execution of their function? In the case of the skilled workers, what proportions must have had secondary vocational schooling and what proportions will have to be trained through apprenticeship, or through formal or informal on-the-job training programs? These are not easy questions, and there are no simple formulas for

arriving at an answer. Perhaps the most useful guides are data on the current educational qualifications of workers within each of the occupational categories. Unfortunately, we lack such useful information. What basis can we assume as valid? For the time being we can only assume that all skilled workers require secondary vocational schooling, that technicians should possess a junior vocational college certificate, and the professional and administrative personnel should have a bachelors degree.

2. Manpower Demands and Manpower Supply for the Expanding Economy

Three Surveys in the Manpower Field

The Ministry of Education with the help Stanford Research Institute, conducted two surveys in May 1962: one, a trained-manpower survey, and second, a survey of university and technical school graduates. Both of these qualitative and quantitative surveys have facilitated the current educational planning.

The same should be said about a third survey undertaken in the field by an Industrial Manpower Team under the sponsorship of the Ministry of Economic Affairs (MOEA).

The three different surveys will be referred to as Survey I, II, III, in the order of the presentation above.

The principal objectives of Survey I were:

1. Study the Republic's present educational system in the light of its output of trained personnel.
2. Estimate the demand for, and supply of, such persons by 1965.
3. Explore means to improve education and training programs to enable the country better to achieve its economic development aims in future plans.

The objectives of Survey III were to analyze the growth of the occupational population of Taiwan, to derive employment needs in the manufacturing industry, and to forecast investment trends for the years up to 1972. It represents a valuable expansion upon findings and projections of Survey I.

Survey II was focused on the adequacy of manpower production by the school system and was to estimate the next 10-year demand for

new graduates based upon the Third Four-Year Economic Development Plan. The objective was to predict the number and types of new graduates from colleges, universities, and secondary (including vocational) schools that would be needed in each category of industry and occupation, in order to realize the economic development program.

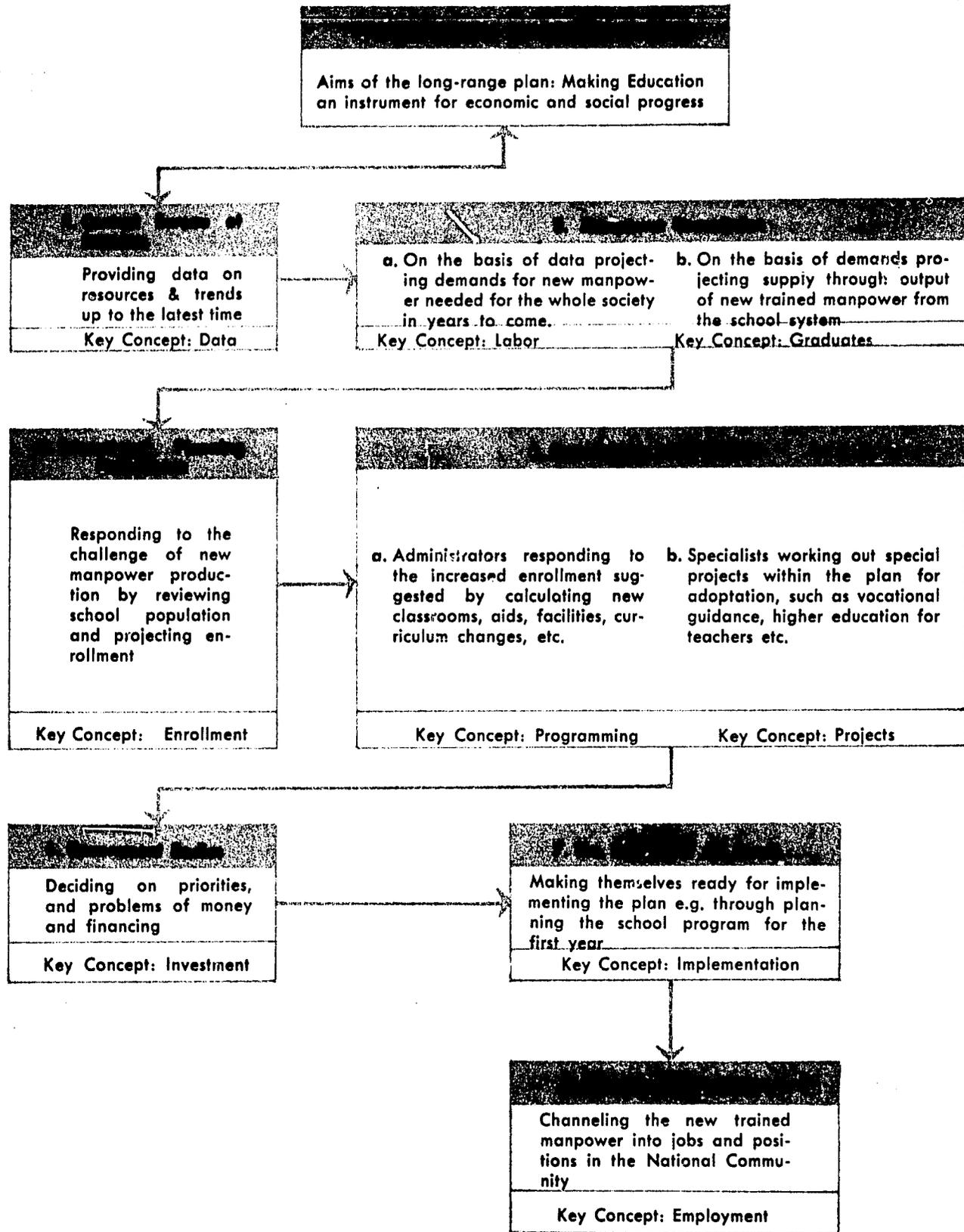
3. The Main Purpose of the Long-Range-Plan

The Plan has the following objectives:

The three surveys were centered in the two poles of the manpower problem in a growing society: 1) the manpower needs as seen from the point of view of labor, 2) the manpower development as an obligation for the educational system. Refer to Graph I.

- a. Estimates for the 18 year period, 1964 to 1982, the total "required" number of graduates from the various levels of the educational system.
- b. Extend the compulsory school age to 15.
- c. Estimate, in light of 1 and 2, the number of teachers required in the various levels of the school system.
- d. Assess the qualitative adequacy of existing educational programs and make the adjustments for needed improvements in teaching methods, curricula, organization, the entrance examination system, and student motivation.
- e. Assess the need for new and expanded educational and training programs outside the ordinary educational structure, such as apprenticeship training, and on-the-job training.

GRAPH I.—PLANNING BODIES, SEQUENTIAL STEPS AND KEY CONCEPTS



f. Estimate the total capital investment and recurrent expenditure required for educational expansion in accordance with 1 to 5 above.

g. Coordinate educational output with the economic development plans and to find by research the most feasible way by which the educational system can contribute effectively to the achievement of national economic and social goals in the future.

4. Overall Projections of School Age Population and Enrollment 1962-1982

School Age Population

Table X shows the estimated total school age population, and the school age population for the various levels of the school system. The table will furnish the background for the projections made in later tables.

TABLE X.—PROJECTED STUDENT ENROLLMENT BY LEVEL OF SCHOOLING 1965, 1967, 1970, 1972 & 1982

	August 1962	August 1965	August 1967	August 1970	August 1972	August 1982
Kindergarten (Over 5)*	7,898 (371,914)	80,742 (391,700)	82,123 (398,400)	85,257 (413,600)	87,380 (423,900)	87,070 (415,600)
Primary School (6-11)*	2,097,957 (2,111,069)	2,160,250 (2,176,900)	2,215,314 (2,253,000)	2,314,723 (2,354,100)	2,381,805 (2,422,400)	(2,418,000) (2,433,100)
Junior High School (12-14)*	388,191 (788,598)	391,120 (940,100)	458,008 (1,052,800)	462,388 (1,111,400)	478,031 (1,149,000)	(509,300) (1,187,600)
Senior High School (15-17)*	125,173 (558,935)	172,064 (804,600)	191,267 (894,400)	214,705 (1,004,000)	230,231 (1,076,600)	280,500 (1,252,400)
College and University (18-21)*	44,314 (739,311)	41,364 (833,200)	46,438 (935,400)	57,062 (1,149,400)	64,022 (1,289,600)	94,850 (1,582,400)

* Estimated age group population.

These estimates are based upon the assumption that the 1962 enrollment ratio will not change by 1967, 1970, 1972 and 1982, and that the rate of population increase will have declined steadily to approximately 3 percent per year by 1982. The formula used to project the anticipated student enrollment may be stated as follows:

$$\frac{\text{Various levels of School enrollment 1961-1962}}{\text{Population Age-group 1961}} \times \text{Population, Age-group, 1970} = \text{Age group enrollment in 1970.}$$

5. Enrollment: Minimum and Maximum

The educational projections developed in this planning were made to satisfy several conditions. First, the projections were prepared individually according to high and low targets (ratio) that could possibly be provided during the period under review. Second, they were capable of being attained within the estimated financial resources of the government. Third, they considered the future manpower requirements.

More Incentives Needed

Effective means for encouraging persons to engage in the vocations important to the economic development should be established. Presently, useful incentives are lacking for attracting capable students into vocational schools and technical institutions. Besides, general incentives are also lacking for filling needs in all the critical manpower areas.

The department quotas for student admission appear to be based more on the availability of facilities than on the anticipated skill requirements of the economy.

Guidance and Counseling Program Should Be Established

It is felt that both guidance and counseling should be strengthened among various levels of schools. The Taiwan Provincial Employment Service is also assisting in securing employment and in providing occupational information to the schools. However, with its inadequately financed organization, the information provided is not up-to-date on the future outlook for specific occupations. Furthermore, the service is generally not used by persons with education beyond the junior secondary school level.

New High Quality College Faculty Needed

Positive incentives for attracting high-quality teachers are also needed. The difficulty of providing higher educational institutions with faculty members of quality is more and more felt in recent years. The most crucial drain on potential teaching talents for colleges and universities is the tendency of graduate students to remain abroad, especially in the United States, after the completion of their studies. The percentage of students not coming back from USA is about 80. Another drain is the salary differential between industrial jobs and teaching. The relatively low teaching salaries also influence many college and university teachers to take on more than one job; as a result, research by the faculty in the colleges and universities tends to be sorely neglected.

Students' Actual Goals Should be Changed from Promotionism to Servicemindedness

The actual goals of students are often the acquisition of a degree or graduation certificate which may be regarded as an end itself. The students have little concern whether their education fits the requirements of the economy or even their own career development. The main consideration is to obtain the highest academic degree in the general stream of education.

This particular characteristic of education which prevails in all levels of schooling could be called "formalism" or "promotionism." Both teachers and students focus classroom work on passing the entrance examination to the next higher level of education without considering the importance of creative problem-solving, logical thinking, and practical knowledge of daily life. The major factor influencing the teaching methods, students' study habits, and the general approach to learning is the examination system.

Entrance Examination System Should Be Improved

The existing entrance examination system not only inhibits the development of students' analytical ability, judgment, and imagination, but also separates education from its proper role of supporting economic and social development. It also tends to concentrate the development of high-quality students in a few collegiate departments as well as concentrating them in a few universities and colleges. These concentrations usually have no close relationship to the competences critically needed for sustaining national economic and social development.

The above mentioned short-comings which exist in the present educational system will be improved and overcome under the long-range planning program. However, since overall manpower-planning is still left in a developing stage in the Republic of China, much additional manpower data will further be gathered and incorporated into the plan.

TABLE XI.—COMPARISON OF MINIMUM AND MAXIMUM
PROJECTED ENROLLMENT 1982-83 BY GRADE

Unit: 1000 Persons

School Year	Total	Age Group		Minimum Total Enrollment Percentages		Maximum Total Enrollment Percentage:	
		Boys	Girls	Numbers	Percentages	Numbers	Percentage:
K	415.6	211.9	203.7	87.6	21.07	332.5	80.0
1	412.6	210.8	201.8	408.5	99.0	408.5	
2	410.7	210.0	200.7	399.6	97.3	406.6	99.0
3	408.4	209.8	198.6	390.4	95.6	404.3	99.0
4	404.9	208.2	196.7	380.2	93.9	400.9	99.0
5	398.8	204.1	194.8	367.7	92.2	394.8	99.0
6	397.7	203.8	193.9	359.9	90.5	393.7	99.0
Sub-total	2,433.1	1,246.6	1,186.5	2,306.3	94.8	2,408.8	99.0
7	395.7	202.9	192.8	352.3	89.0	356.1	
8	393.8	202.0	191.8	338.7	86.0	354.4	
9	398.1	204.6	193.5	330.4	83.0	358.4	
Sub-total	1,187.6	609.5	578.1	1,021.4	86.0	1,068.9	90.0
10	422.9	217.2	205.7	169.2	40.0	274.9	
11	416.5	212.8	205.7	158.3	38.0	270.7	
12	413.0	211.5	201.5	148.7	36.0	268.5	
Sub-total	1,252.4	641.5	610.9	476.2	38.0	814.1	65.0
13	406.5	208.4	198.1	20.5		28.5	
14	398.3	204.6	193.7	20.1		27.9	
15	293.4	201.7	191.7	19.9		27.5	
16	384.2	194.7	189.5	19.4		26.9	
Sub-total	1,582.4	809.4	733.0	79.9	5.05	110.8	7.00
Grand-total	6,871.1	3,518.9	3,352.2	3,971.4	57.80	4,735.1	68.91

III. PROBLEMS ENCOUNTERED IN EDUCATION PLANNING

Coordination between Economic Development and Education

The major problem is the lack of coordination between the educational out-put and the manpower requirements of the economy. During the past years, little attention has been paid to detailed planning for the development of the manpower resources to the economic plans laid out.

Short-coming of Standardized Curriculum

The schools have been constrained by the standardized curriculum to teach courses which often have little relation to social and economic environment. Graduates completing the standardized courses in school frequently feel their education to be inadequate when they begin their employment.

In a survey among college and university graduates, 70% reported an inappropriateness of their education for their present employment. More than 50% of the graduates were dissatisfied with the educational adequacy in the departments of mining, nursing, civil engineering, agricultural chemistry, forestry, and mechanical engineering.

School Age and School Enrollment Should Be Extended

There are at present about one million illiterates in the country, partly due to the drop-outs of the elementary school.

There are also in this country about one million youth out of school in the age group 13-18. These are all drawbacks for a country in the "take-off stage" of economic development.

IV. UNDERTAKINGS TO MANPOWER DEVELOPMENT

U.S. Aid Projects of Manpower Development

Under the U.S. Aid Program of the past decade, one of the major efforts of aid to education of China has been in the promotion of vocational training. Beside various education and training projects, the "Job Standard and Wage Incentive Project" started FY1961 helped to establish a new job classification system for all Government enterprises. Another project titled "Labor Force Survey and Employment Services Strengthening" started 1962, explains itself the important relationship toward our manpower development. These activities are under the advice of experts in the Management Resources Division of AID Mission to China with Mr. James D. Murray as the present Division Chief.

Apprenticeship Training

An experimental Apprenticeship Training Program, conducted by a private vocational school, the Kung Tung Senior Industrial Vocational School in 1962, has proved to be very successful. The students of this school spend most of their time in doing practical work in the work shop. The working ability of students from this school is found to be far more skillful than those graduates from other similar level vocational schools. The success of this program has led to the thinking of implementation of an island-wide Apprenticeship Training Program. Under this program, the vocational schools and industrial organization will cooperate in the accomplishment of apprentice training. The employees in factories will go to nearby vocational schools one to 1½ days a week, while the rest of their time they will work in their original positions. After they complete the necessary courses in school, and pass practice tests in the work shop, skill-worker certificates will be given to them.

This program together with a skill-worker certificate system are under active study by agencies concerned.

In-Service-Training

A series of In-Service-Training courses in quality control, industrial management, commercial correspondence, industrial design, and industrial safety has been conducted by the Public & Business Training Center in the National Chen Chi University and the China Productivity and Trade Center for those employed personnel in industries, governmental organizations, and other commercial enterprises. More training courses will be included in their training schedule from time to time according to needs.

Manpower Planning Organization and Foreign Experts' Assistance

For the purpose of strengthening economic planning and bringing about close coordination in the implementation of economic development programs, the Executive Yuan of the Government reorganized the Council for United States Aid into the Council for International Economic Cooperation and Development on September 1, 1963. The CIECD is now preparing a draft Ten-Year Plan (1965-1974) of which the first four years (1965-68) will be an implementation plan successive to the Third Four-Year Plan (1961-64) just completed.

The previous Plans encompass development in agriculture, mining, industry, transportation and communications, but little emphasis has been placed on estimating and planning for the manpower resources needed to attain the goals. The Government now realizes that the human resources development must be an integral part of the national plan.

As mentioned in a previous Chapter, the Stanford Research Institute Team was invited to Taiwan in March 1962 to make a study on the role of educational planning in the economic development of this country. Although time available to this Team was limited, many valuable findings and recommendations of the Team have already laid a ground work for further study.

In 1963, Mr. Harry Weiss of USDL was invited to pay a short visit to Taiwan. Upon his recommendation, a Manpower Resources Committee has been established in CIECD. With the

Vice-Chairman of CIECD as the Committee Chairman, members consists of the following:

Vice Ministers of: Interior, Education Communications and Economic Affairs

Provincial Directors of: Social Affairs, Reconstruction, Education and Civil Affairs

Chief of Personnel, Ministry of Defense

Vice Chairman, Vocational Assistance Commission for Retired Serviceman

Commissioner, Joint Commission on Rural Reconstruction

Deputy Secretary-General, Executive Yuan

Director General of Budgets, Accounts and Statistics, EY

Director, China Productivity and Trade Center

The responsibilities of the Committee are:

1. To deliberate or screen the projects concerning the supply, demand, utilization and employment of manpower;
2. To seek coordination between educational and vocational training programs and manpower development targets;
3. To deliberate on matters concerning the coordination between the manpower development program and the economic development projects;
4. To handle other affairs pertinent to manpower development; and
5. To deliberate on matters referred to it by other agencies concerned.

In April 1964, Mr. Hiroshi Karasaki, a UN Manpower Assessment Expert from ILO invited by CIECD, arrived in Taiwan for a short-term mission. He helped to draw up a plan of action for the manpower development programs with possible further international technical cooperation.

In November 1964, Mr. Chester W. Hepler, a world reknown manpower expert, has been invited through USAID/C to assist the Government of Republic of China to map out a man-

power plan on short-, medium- and long-range basis. Upon his recommendations, the Secretariat under the Committee was established a task force to prepare relevant working papers for discussion in the meetings of the Committee.

A meeting of the Committee was held to discuss the first working paper, prepared by Mr. Hepler, in which he recommended seven aspects as follows for the manpower development program:

1. Education
2. Training
3. Recruitment
4. Distribution
5. Motivation
6. Utilization
7. Stabilization

The distribution of work on seven aspects mentioned above was decided by the members of the Committee and other experts—an employment service expert, a labor statistics expert, a vocational training expert and a labor administration expert. These experts on Mr. Hepler's backstop team will come to Taiwan immediately upon invitation. Actually, one of them, the employment service expert, has already been invited to visit Taiwan very soon.

After careful examination and evaluation of existing statistical data needed for manpower, another working paper was prepared with the effort of the Secretariat in order to strengthen the dependability of the statistics as a base of manpower planning in ensuing years.

Furthermore, another manpower assessment expert recruited by the United Nations and a vocational training expert from West Germany will be in Taiwan and work in coordination with the Committee for the future manpower development.

The two working papers mentioned above are also attached for your reference.

APPENDIX A

WORKING PAPER FOR THE MANPOWER RESOURCES COMMITTEE, DEVELOPMENT OF A MANPOWER PLAN.

December 7, 1964
Manpower Advisor Office

The Manpower Resources Committee is invited to consider, comment and recommend action with regard to the following proposals for the development of a manpower plan:

1. A manpower program for the Republic of China will provide logistic support to the economic development plan. The plan should comprise short, medium and long-term objectives at one and the same time. There are, of course, limits on what can be accomplished in the short-term since the available manpower is already on the employment market. However, the Committee should analyze existing data to determine present supply and demand, identify surpluses and shortages and take steps to strengthen existing institutions for the development and distribution of available human resources. This portion of the plan might embrace appropriate action to be taken during the ensuing year.
 2. The medium-term manpower plan should be based on the four-year economic development production targets and anticipated rates of productivity increase. An assessment of required changes in occupational skill distribution may necessitate an adjustment in the occupational structure by establishing new schools or training centers or adapting those already in operation. Although some educational planning is required, at this stage the scope for action will be limited. The educational system can be altered over a four-year period but the effects on the labor market will not be felt to any considerable degree.
 3. The long-term plan will be tied in with the ten-year objectives and goals to be set forth by the Council for International Economic Cooperation and Development. In fact, the Committee may wish to consider manpower planning beyond the next decade on the basis of certain assumptions as to probable economic trends within a span of 15 to 20 years. It takes a long time for manpower policies and programs to affect the structure of employment and manpower planning must, of necessity, be part of a long-term perspective closely integrated with both economic and educational planning.
 4. Manpower planning is approximate and experimental by its nature. The plan which will be approved by the Committee during the coming months will be largely based on theories, assumptions and hopes. This is true of all social and economic planning but more so in the case of manpower planning because of the human element involved which does not lend itself to the same accounting methods which may be applied to forecasting the production of goods and services. Therefore, the Committee will be required to keep the plan under examination, periodically assess the results and alter it when necessary to conform with new information or changing circumstances.
 5. At an early date, the Committee will be asked to give attention to the type of statistics available for manpower planning purposes. We must determine whether the data now available are sufficiently accurate and if not what can be done to improve them; whether additional statistics are needed for planning purposes and if so which agency or agencies can most effectively provide the required information.
 6. The next step in the planning process will consist of forecasting manpower supply and demand by industrial sectors and broad occupational fields with reference to the short, medium and long-term plans. Since manpower requirements can never be measured with precision the forecasts will consist of judgments, based on the best available information, as to the current situation and the most likely course of events. These judgments may be faulty since the future can never be clearly foreseen and decisions have to be based on certain assumptions such as the planned future output of goods and services; future productivity improvements and probable technological changes, future population and labor force participation rates.
 7. When the Committee has forecast future manpower requirements it must turn to considering necessary action to meet these requirements. In other words, decisions must be reached on steps to be taken immediately and in succeeding years to implement the plan. A balanced manpower program should include at least seven aspects as follows:
 - a. Education
 - b. Training
 - c. Recruitment
 - d. Distribution
 - e. Motivation
 - f. Utilization
 - g. Stabilization
- Each of these aspects will require considerable study and research to establish the present situation and to reach conclusions on when and what kind of action is needed to meet the manpower goals established by the plan. The Committee may wish to decide at this meeting,

the order of priority which should be set for their study of the program aspects. In order that the Committee may be well informed before taking action, a comprehensive report on each aspect will be prepared by the Committee secretariat and submitted as discussion papers for subsequent meetings.

8 Following are examples of the matters which may have to be considered under each item:

a. Education

- (1) The level of expenditure which the country can profitably allocate to education. For example, the expenditure on education as a percentage of gross national product in other countries was furnished by OECD in 1961 as follows:

Mediterranean countries	2.65
(Greece, Italy, Portugal, Spain, Turkey, Yugoslavia)	
All OECD countries	3.21
USSR	3.74
Canada, United States	4.47

- (2) The allocation of available resources for education between elementary, secondary and higher educational levels.
- (3) The need for expansion of facilities and increase in number of teachers and instructors.
- (4) The revision of school course content.
- (5) Changes in teaching methods and procedures.

b. Training

- (1) Need for additional or expanded facilities for training skilled workers and technicians.
- (2) Analyze the skills for which training is being provided to determine whether the proportions for each occupational group is consistent with the forecast needs.
- (3) Need to establish an apprenticeship training system; encourage employers to provide facilities for additional on-the-job training.
- (4) Explore need for management and foreman training programs.

c. Recruitment

- (1) Evaluate the operations of the Employment Service Centers; consider the need for a national employment service system with uniform standards, policies and procedures.
- (2) Determine need for and method of accomplishing improvement in the efficiency of the Employment Service Centers through increased staff resources, in-service training programs, improved procedures.
- (3) Examine methods for obtaining better public acceptance of the Employment Service Centers by both workers and employers.
- (4) Need to improve gathering and dissemination

tion of labor market and job information to the public.

d. Distribution

- (1) Determine the extent to which there is imbalance in labor supply between geographical areas; industries; occupations and professions.
- (2) Explore means of transferring or retraining surplus workers who may be gainfully employed through transfer or retraining.

e. Motivation

- (1) Explore means of encouraging workers to train for, accept and remain in jobs which promote and support the objectives of the economic development plan.
- (2) Discuss wage or other incentives which would increase productivity.

f. Utilization

- (1) Identify areas where underemployment exists and explore means for fully utilizing the work force.
- (2) Study plant organization and lay-out and other factors which would increase productivity.
- (3) Consider means of encouraging employers to provide, where necessary, in-plant upgrading training to bring about a proper balance between middle-level and highest skilled workers.

g. Stabilization

- (1) Consider the adoption of new programs for social protection including a workman's compensation system to insure workers suffering occupational illness or accident at the work place.
- (2) Survey the need for additional housing and community facilities in industrial areas.
- (3) Study problems of industrial relations, safety and health of workers and any related subjects which will contribute to reducing wasteful turnover and stabilizing the labor force.

9. Finally, the Committee may consider their future working methods including the possibility of establishing small working groups or task forces to study individual program proposals and make recommendations to the full Committee. Such task forces may, in addition to several members of the full Committee, include representatives of Ministries of agencies not at present on the Committee and representatives of employer and worker organizations where these have something to contribute to an analysis of manpower problems and a plan and program to solve these problems.

**WORKING PAPER FOR THE
MANPOWER RESOURCES COMMITTEE,
STATISTICS FOR MANPOWER PLANNING**

January 20, 1965
Manpower Advisor Office

1. At the last meeting held December 26, 1964, the Committee was advised as follows:

"At an early date the Committee will be asked to give attention to the type of statistics available for manpower planning purposes. We must determine whether the data now available are sufficiently accurate and if not what can be done to improve them; whether additional statistics are needed for planning purposes and if so which agency or agencies can most effectively provide the required information."¹

2. The statistics needed for manpower assessment and planning should include the following:

a. Population; those in labor force and not in labor force by categories; population trends and forecast.

b. Hours of Work by industry and occupation.

c. Wages by sex, age groups, industrial and occupational groups.

d. Industrial Injuries and Incidence of Occupational Disease.

e. Labor Turnover by industry and occupational groups.

f. Education; by kinds of courses; by levels; students and graduates.

g. Vocational training; in training centers and within industry; occupation, number enrolled, number of graduates, placement records.

h. Employment Service data; applicants, job openings, placements and other activities.

3. A study of all available information under the headings shown above has now been completed. The study undertook to identify the source of the data; the extent to which the same data are collected and compiled by different agencies and the degree of comparability when duplication occurs; an evaluation of the data to determine reliability. This study has led to conclusions and recommendations for consideration and appropriate action by the various national Ministries and provincial governmental units involved. The following paragraphs furnish an analysis of the study for the members of the Manpower Resources Committee.

4. *Statistics Relating to Population and Labor Force*

a. *Material Available*

There is no dearth of statistics of population and the labor force. The 1956 census by the

Government was augmented by a census of industry and commerce and a census of agriculture also conducted by the provincial government in 1961.

The Department of Reconstruction of the provincial government published a complete labor statistics report in 1963 which dealt not only with population and the labor force but also furnished data on other aspects of labor and manpower in Taiwan. The annual statistical report of the provincial Department of Social Affairs contains relevant data.

The statistics resulting from the provincial Department of Civil Affairs household registration program and the quarterly reports of the Labor Force Survey Research Group of the Department of Social Affairs are other sources of useful information.

b. *Evaluation of Data*

No attempt will be made to comment on all the sources of data relating to population and labor force. Some of these have been derived from what may be considered the four basic sources and as a result have either been revised on an arbitrary basis or contain the same accuracies or inaccuracies as the original data. With respect to these four sources, (1956 Census, Household Registration, Labor Force Survey, the annual Labor Statistics report of the provincial Department of Reconstruction), the following analysis is based on considerable research and study. The results of this study are submitted in summary form and no effort is made to highlight all the errors and inconsistencies which are contained in the reports. Nor is this an attempt to criticize the able statisticians who have been responsible for producing a wealth of informative material. Many of the errors are those which inevitably occur in this type of operation and it is recognized that each source of data represents an honest effort to reflect the true situation, subject to the lack of available means for elaboration and improvement.

The 1956 Census

In comparing the census with other data, many inconsistencies were found. For instance the data on population by age distribution varied widely from the household registration figures for approximately the same period. This was particu-

¹ Paragraph 5 of the document entitled, "Working Paper for the Manpower Resources Committee, Development of a Manpower Plan," December 7, 1964.

larly true for infants under one-year of age and up to four years and in the five to nine-year age group.

Further, the census figures need to considerably improve the information on educational levels and economic activities of the population if they are to be useful in manpower planning.

Much of the inadequacy and inaccuracy of the 1956 census data probably resulted from lack of preparation including proper training of enumerators and haste in completing the operation for reasons not under the control of the officials conducting the census. It is believed that the administration responsible for the 1966 census will benefit from past experience and greatly improve the data to be gathered next year.

Household Registration

Potentially this could be the most useful and accurate source of data in Taiwan. Unfortunately, there is no legal compulsion for citizens to report changes in industry, occupation, and other economic data which could be used for both manpower and economic development planning. A certain laxness in follow-up and record revision by the registrars and clerks renders much of the information obsolete before it is published. For instance, it has been reported that there are thousands of citizens who have been employed for many years but who are still registered as students.

The classification system used for these records is obsolete and is not comparable with occupational data compiled by other agencies.

Grave discrepancies occur because military draftees are not registered during their term of service and this may cause a population deficiency up to 200,000 persons. Another approximately 10,000 persons in jail or detention houses are not registered as part of the population. Many people who have emigrated on a long-term or permanent basis are still included in the population figures. The registration method also causes error in recording the age of infants and this may account in part for the inconsistency between 1956 census and household registration data as noted above.

Labor Force Survey

This survey provides the most current labor force information available in Taiwan. It is not considered completely reliable at this point but the capable staff responsible for collection, publication and dissemination of the data has been making an earnest and largely successful effort to profit by mistakes and to improve each succeeding survey.

The Survey staff depends upon the Household Registration data to provide a basis for sampling

stratification and hence may be led astray by faulty registration figures. Qualified statistical experts say that the sampling techniques are good. However, one may question whether the size of the sample is adequate for completely accurate results; some of the definitions are questionable and many of the assumptions which affect the final result are not always agreed between statistical experts.

It has been noted that there are sizeable variations in employment in certain categories between one survey and the next. It is not believed that these are due to seasonal or other normal factors but it may be that improved techniques have resulted in the latest figures being the more accurate and such variations may not occur in future survey reports. One will also find a large difference in the sex distribution data between the labor force survey and the household registration.

Annual Labor Statistics Report; Department of Reconstruction

This report derives information from regular monthly reports obtained from commerce and industry in both the government and private sector. The government establishments are all completely covered but the private sector data comes from a small group of 3,113 establishments employing 193,000 workers in 1961. The data is not based on a scientific sample but includes those concerns who respond to a mail inquiry for the information. There is no way to judge whether these establishments are representative and a comparison of this data with other sources which seem to be fairly reliable throws some doubt on the validity of this source.

Among the weaknesses in these statistics it was noted that self-employed and unpaid family agricultural workers are not included as members of the labor force; the data on transportation and communication workers could not be reconciled with the Ministry of Communications statistics; data on service workers was merely estimated.

There were other inadequacies which can only lead to the conclusion that these reports are of doubtful value for manpower planning purposes.

5. Data on Hours of Work

a. Material Available

The only source of information on this subject seems to be the previously mentioned Labor Statistics Report published by the provincial Department of Reconstruction.

b. Evaluation of Data

The 1963 reports of work statistics were compiled from monthly reports received from 1,087 establishments employing 150,745 workers in the

following industrial groups: Mining and Quarrying; Manufacturing; Public Utilities; Transportations and Communications. This represented about one-third of the workers in these categories. There was also a special survey of hours of work by certain occupations for the month of October from 1957 through 1963. The size of the sample was not stated and the information was incomplete. Scientific sampling techniques were not used in either instance.

The tables are drawn on the basis of average number of hours actually worked per worker, the data are redundant and would be of very limited use in studying the labor market or estimating productivity.

In brief, this data must be considerably refined and reformed if it is to serve any useful manpower planning purpose. The coverage too needs to be extended or establishments should be selected on a sound sampling basis.

6. Wages

a. Material Available

The Labor Statistics report is also the only source of wage information so far available.

b. Evaluation of Data

The same criticism can be made of wage data as was noted for information on hours of work. It should also be said that there is no relationship between the wage statistics furnished by this source and the national income data emanating from the office of the District-General of Budget, Accounts and Statistics.

7. Industrial Injuries and Incidence of Occupational Disease

a. Material Available

Again, the only information is contained in the aforementioned Labor Statistics Report and is derived from insurance records.

b. Evaluation of Data

Since insurance coverage is limited the available statistics do not reveal the full extent of industrial injuries and occupational disease. Occupational safety and health measures and their strict enforcement should be considered on the basis of economic advantage. In other words, it is "good business," to avoid the loss of trained manpower due to death, accident or disease resulting from unsafe or unhealthy working conditions. The extent of economic loss from these causes in Taiwan cannot be measured by present statistical data.

8. Labor Turnover

a. Material Available

The Labor Statistics Report of the provincial Department of Reconstruction furnished minimum data based on replies to inquiries from a limited number of employing establishments.

b. Evaluation of Data

The existing information does not provide a sound basis for a manpower stabilization program.

9. Education

a. Material Available

The provincial government furnishes information on enrollment of students at various educational levels by types of courses, graduates and other relevant data.

b. Evaluation of Data

The data on education appears to be accurate and fairly complete. It might be necessary to establish surveys to secure more precise information for forecasting purposes.

10. Vocational, Technical and Management Training (other than vocational education in schools)

a. Material Available

It has been determined that there are at least 25 private or public training or institutions in Taiwan. Information regarding courses offered, enrollment and graduates is available from each of these.

b. Evaluation of Data

The data would appear to be complete and accurate.

11. Employment Service

a. Material Available

The three Employment Centers provide current operating statistics covering every phase of their activities.

b. Evaluation of Data

As indicated above, operating statistics are complete and no doubt accurate. It is possible to determine the number of applicants and employers who elect to use the Employment Center facilities and the number who are accorded the type of service they seek.

However, the Employment Service should be able to provide area labor market information of great value. Periodic reports on the extent of employment by broad industrial and occupational groups; surplus and shortage occupations and other labor market data for the geographical area served by the centers would be of great value for manpower assessment and planning purposes.

12. Conclusions

a. A number of governmental units, both in the Ministries of the Republic of China and in Departments of the provincial government have been collecting and disseminating data which is re-

quired for manpower planning purposes. Unfortunately, the work has been largely uncoordinated with the result that there are many duplications.

- b. There are still a number of serious gaps in information as noted in the paragraphs above. In some instances no information is available and in others the data is too limited to be of value.
- c. There is great need for the adoption of standard definitions to be used for statistical purposes regardless of which governmental unit is responsible for the collection of the data and the purposes it will serve. This should include the adoption of common classification systems for industries and occupations.

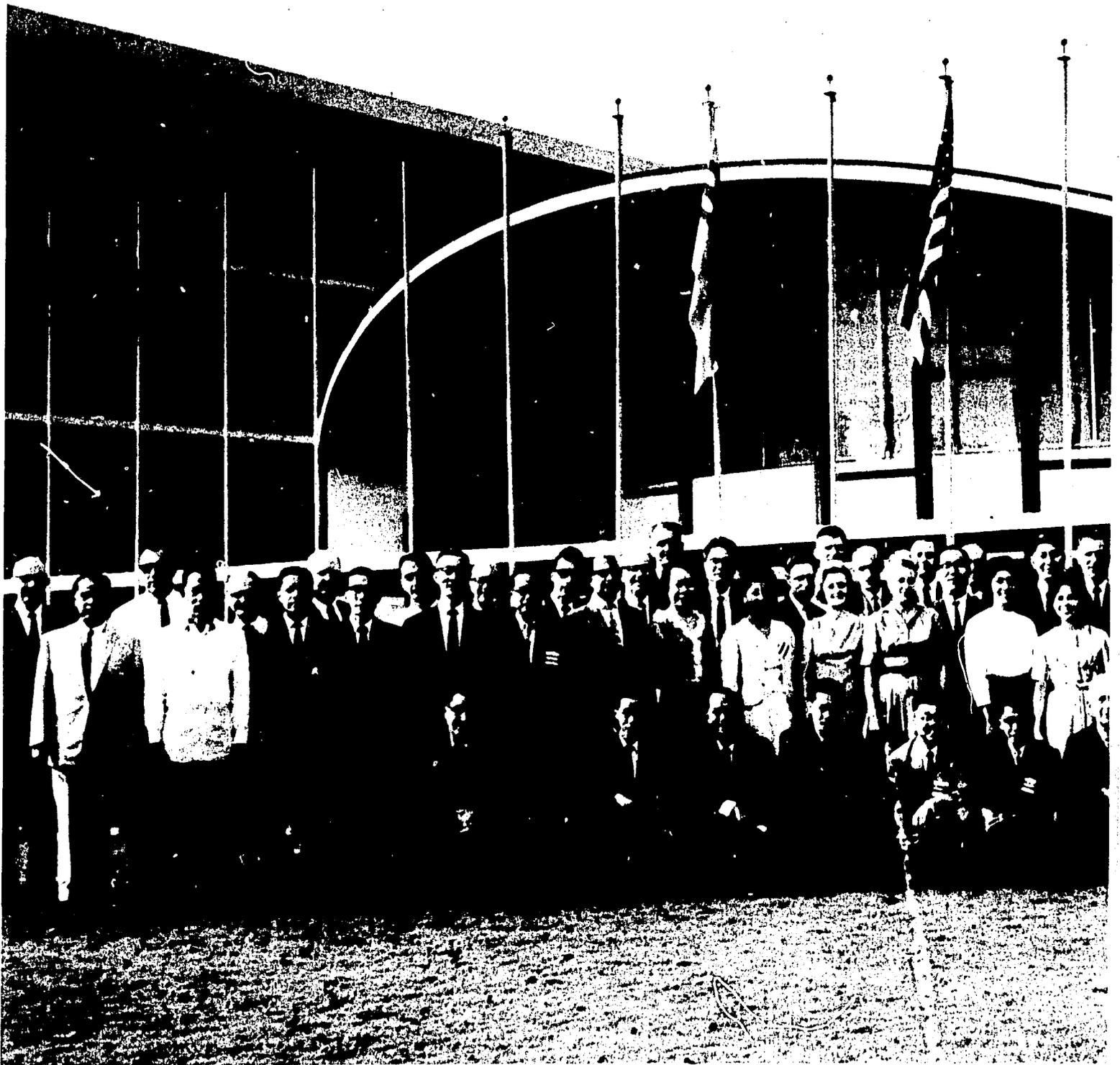
13. Recommendations

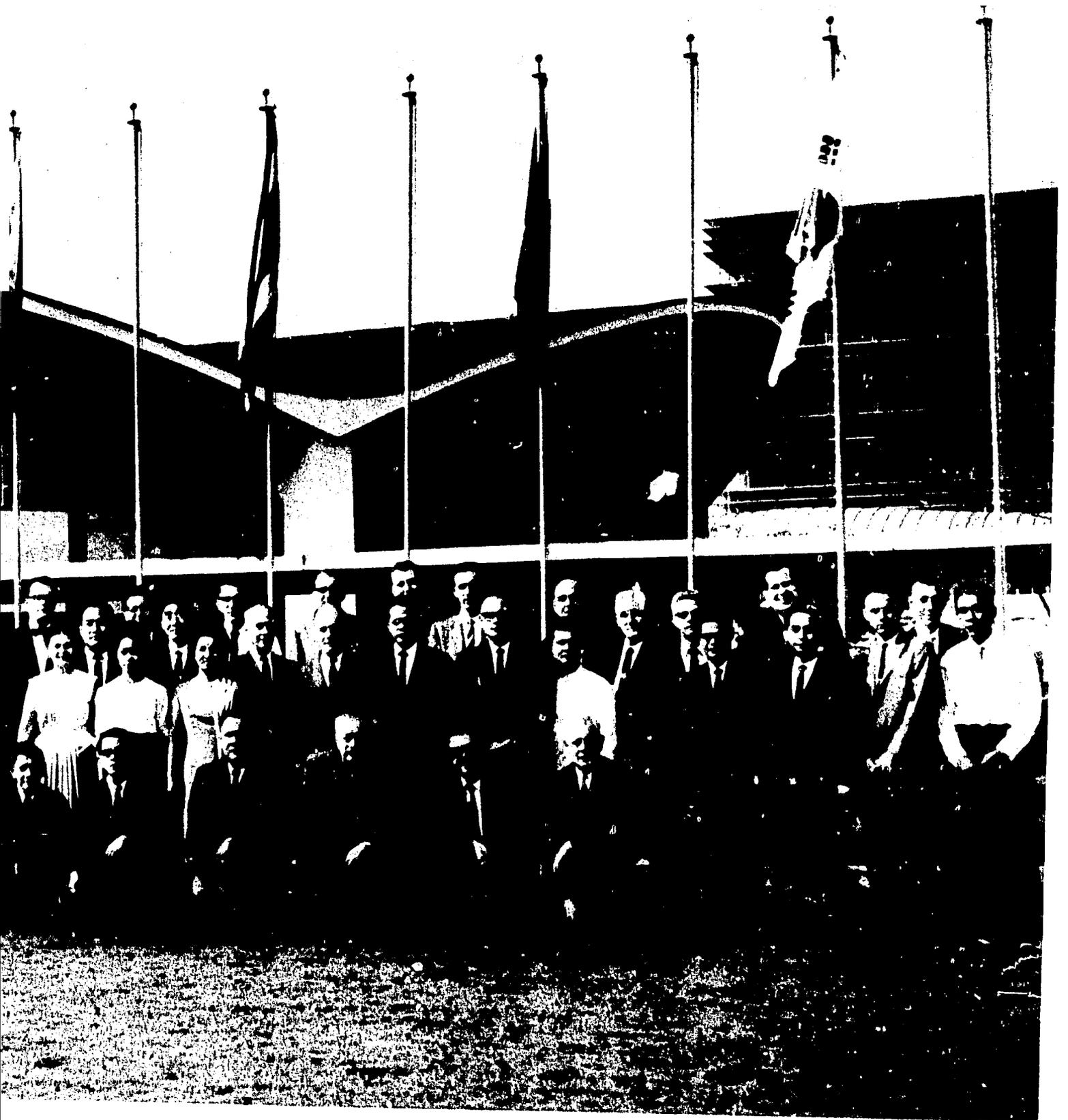
It is recommended that:

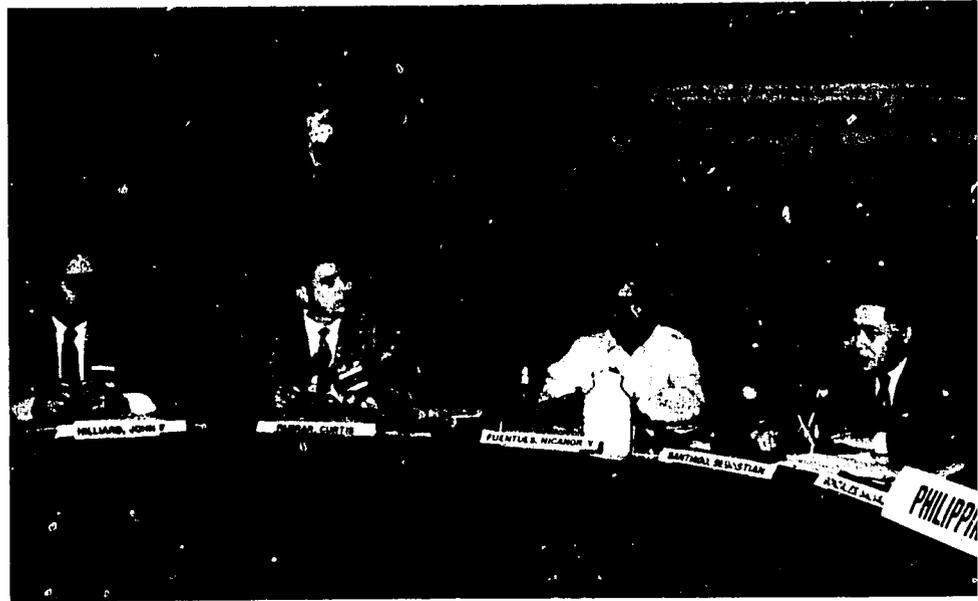
- a. the Director-General of Budgets, Accounts and Statistics be given sole responsibility for planning, coordination and standard setting functions for both the federal and provincial government divisions and agencies and that he be provided with the necessary staff and facilities to perform these functions;
- b. the functions include:
 - (1) determining the need for additional manpower data and designating the agency of government best able to obtain the information; prescribing the methods by which the data should be collected; periodicity of reports and; means of dissemination.
 - (2) reviewing any plans for the collection of power statistics; determining whether the proposed project would duplicate work being done by another agency of government; making a quantitative and qualitative review of the information collected before it is published and disseminated;

- (3) developing and enforcing the use of standard definitions and classifications for use by all agencies of government in collecting, compiling and disseminating manpower statistics;
- c. the provincial Department of Civil Affairs be requested to improve and strengthen the economic data resulting from the Household Registration through legislation, procedural changes and staff trained; it is suggested that this be accomplished by designating one area in the first instance for a demonstration project to establish the best methods and procedures for obtaining and maintaining accurate records of the population and that the lessons learned through the demonstration project be extended as rapidly as possible to include the entire province; the possibility of providing more accurate, expeditious and economical household registration statistics through the use of computers or other modern tabulating equipment be thoroughly explored.
- d. pending the improvement of manpower data through the steps recommended above, the Manpower Resources Committee proceed with a manpower plan on the basis of existing statistics supplemented where necessary by special studies and reports with the understanding that the plan may have to be revised and modified as more complete and accurate data become available.

14. In implementing the recommendations contained in this paper the various government agencies should be advised that the Secretariat to the Manpower Resources Committee is available for consultation and assistance at all times and that the number of this Secretariat should be used to the maximum extent in order that the results may be profitable in the manpower planning process.







STATUS OF MANPOWER PLANNING IN KOREA

I. PLANNING

1. Manpower Plan

Experience in economic development has revealed an extremely important fact, namely, that successful fulfillment of any plan depends largely upon the availability of adequate and well qualified manpower resources. In particular, the proper training of scientific, technical and skilled personnel has been recognized as essential. With this in mind, Korea formulated her first manpower plan in 1962. It was a plan for human resources, of scientific, technical and craftsmen level, the most important of all human resources.

The demand and supply program of human resources was incorporated, as a manpower plan, in the First Five-Year Technical Development Plan (1962-1966), formulated in 1962 concurrently with the First Five-Year Economic Development Plan. Designed to measure the supply of adequately-trained manpower and the training capacity of existing educational and training institutions, it defined the objectives of the economic plan in terms of manpower requirements, and then, weighing existing conditions and requirements, laid down general guidelines for educational, training, and employment programs.

Although, in the First Five-Year Technical Development Plan, there will be a sufficient number of engineers available during the plan period, shortages and overages will exist in various fields of specialization. This will require readjustments in the enrollment and course of science and engineering colleges to ensure a balance between manpower supply and demand for particular science and engineering fields. Furthermore, it is predicted that a number of technicians will be required in order to enable the engineers to adequately perform their functions under the plan. To satisfy this need, endeavors will be made to increase the number of vocational school students, as well as to introduce improvements in school curricula and facilities.

It was recognized during the formulation of the technical manpower plan in 1962 that, in actual implementation, the plan would require some readjustments to meet changing conditions revealed in the over-all Economic Development Plan. In 1963, the second year of implementation of the manpower plan, the First Five-Year Economic Development Plan was revised to adapt to the changed target and scope of the national economy. Specifically, the economic indices of the First Five-Year Economic Development Plan, i.e., growth rate of value added, production increase ratio, and percentage increase of employment, were revised by the Economic Planning Board in 1963.

In accordance with the revised Five-Year Plan for Economic Development, the manpower plan had to be adjusted. To assure that the changes would be made on a realistic basis, a second manpower survey was carried out, in June, 1963. And, with the results of this second survey, the technical manpower plan was revised on the basis of the new economic plan.

2. Education Plan

In the First Five-Year Economic Development Plan, an education plan was included to improve vocational education, compulsory education, vocational school facilities, etc. Hence, the Five-Year Economic Development Plan included a considerable sum for investment projects for educational measures. Original amounts projected for these educational measures were \$19,100,000 for 1962, \$16,100,000 for 1963, \$17,300,000 for 1964, \$24,400,000 for 1965 and \$25,800,000 for 1966. These totals were revised in 1963, however, to read \$17,200,000 for 1964, \$17,100,000 for 1965, and \$17,400,000 for 1966, the target year for the Plan's completion.

These investment projects for educational measures were formulated with the following goals: 1) To effectuate qualitative improvement

of compulsory education in order to decrease illiteracy, improve the forces of national defense, and increase technical manpower resources; 2) To expand vocational education of the manpower resources required by industry; 3) To improve school curricula and methods of education.

Also, some of the educational programs of the Ministry of Education have the following aims: 1) Elevation of the status of teachers' schools at the high school level to the junior college levels, establishment of a research institution for teachers in each district, and revision of the curricula of primary and middle schools; (See Appendix I for more detailed summary of the Korean education system.) 2) Construction of 31,000 classrooms and repair of 10,000 classrooms, and increasing the number of teachers by 25,000 during the Plan period in order to improve compulsory education; 3) Increasing the number of students in industrial high schools by 20% during the plan period and improving high school and college curricula and facilities in order to develop science and technology. Examples in this area are the Government's spending of some \$529,000 to expand the engineering colleges' educational facilities and \$3,027 thousand to expand vocational high school facilities. Since 1962, under the Plan, these investments for vocational and engineering education have been planned, of course, with due consideration of the manpower plan.

A further, more specific example of the measures for expansion of the engineering colleges has been the improvement of the Engineering College of Seoul National University, programmed in the annual operational plans of the First Five-Year Economic Development Plan. Under this program, the Engineering College has been bolstered, since 1962, through improvements in its educational system, curricula and quality of teaching, and through expansion of its facilities and an increase of research grants.

The manpower plan incorporated in the First Five-Year Economic Development Plan also pointed out the need for a greater number of technicians. With this in mind, the annual operational program provided for expansion of voca-

tional high school facilities and spent the amounts equivalent to \$1,415,000 for 58 schools in 1962, \$1,162,000 for 24 schools in 1963 and \$450,000 for 54 schools in 1964.

Furthermore, the Ministry of Education will formulate a ten-year plan for middle and high school expansion and a nine-year plan for compulsory education in its long-term educational planning. The ten-year plan for education will include measures to achieve a maximum school enrollment for secondary education and to rationalize this enrollment with that for higher education. The nine-year compulsory education plan will include the scope of expansion, and investment planning, for compulsory education. It is obvious that all of this educational planning should be formulated in coordination with overall manpower planning.

3. Inter-relation between Manpower and Educational Planning

There is a close inter-relation between manpower and educational planning. Based upon the First Five-Year Technical Development Plan, the government planned and executed investment projects for improving engineering and vocational education, urgently needed for the nation's economic development. In execution of the manpower plan, it will be necessary, in view of the shortage of technicians, to revise the educational system so that technicians can be trained in greater numbers, thereby bringing the existing manpower situation in Korea to the planned goals.

Engineering colleges were provided with better equipment and facilities to maximize investment effects. Although, at the present time, engineering colleges are capable of producing a sufficient number of engineers to meet the demand, there still remains room for improvement in the qualifications of these engineers. That is to say there should be a readjustment in the number of students in the various departments of colleges, and manpower planning should play an important role in this readjustment.

There is also a plan for the gradual improvement of school facilities, quality of instructors, and curricula of vocational high schools. To do

this, the facilities and equipment of such schools have been gradually improved under the responsibility of the Ministry of Education. The curricula of such schools is also being revised to meet the actual demands of the Korean economy.

4. Organizations Responsible for Administration of Manpower and Education Plans

Organizations responsible for manpower plans can be divided into two categories—those for planning and those for operations.

Since 1962, planning has been the responsibility of the Economic Planning Board, a central government planning authority consisting of the Bureau of Over-all Economic Planning, Bureau of Budgets, Bureau of Technical Development, Bureau of Statistics and Bureau of Economic Cooperation. It is seen that the Economic Planning Board deals not only with long and short-term economic planning, but also with manpower planning. The Bureau of Technical Development, which was established in August 1962, has been the agency primarily responsible for manpower planning, as well as for planning the development of science and technology in Korea.

Operation of the plan is assigned to the Ministry of Education, Office of Labor Affairs and a few other ministries. The Ministry of Education deals with all educational administration and also, with cooperation from the Economic Planning Board, directs the science and technical education programs outlined in the manpower plans.

The organizations responsible for training and appraisal of craftsmen level belongs to many different ministries, including the Ministry of Health and Social Affairs (Office of Labor Affairs), Ministry of Commerce and Industry, Ministry of Transportation and Ministry of Education. A study now underway, however, will recommend whether administration of training and appraisal of craftsmen should be centralized in the Office of Labor Affairs.

II. PROBLEMS

1. While transformation of manpower, economic and educational structures is a long-term oper-

ation, the concrete objectives such of transformation can be defined in the medium term, and market unbalances can be remedied in the short term. Manpower planning must be conducted at all three levels, because they constitute three inter-related aspects of development policy. The First Five-Year Technical Development Plan was devised as medium-term planning, and the annual programs which comprise it as short-term planning. But the development of long-term planning is still only under study in Korea.

2. Also, there are many complex problems resulting from changes in the manpower status. That is to say, gradual changes in the employment structure due to modernization and innovation in industry have to be anticipated and taken into account. At the present time, however, the expected percentage increases of the total number of employed persons in each category in sectors of each industry and service have not been analyzed.

3. It is also possible, however, to estimate the future demand for human resources on a company-by-company basis, a very valuable method of manpower forecasting in newly developing countries. Until now, surveys have been made only of current manpower status of companies. Forecasts by each enterprise of its future human resources requirement have not been obtained. The Government intends, therefore, to establish a more practical employment service system so that future demand and supply of manpower can be more practically estimated and coordinated.

4. Another factor to be taken into account in estimating labor requirements is that of technological changes. But present information on advances of technology and the current level of technological development is considered too inadequate to permit a valid estimation of their effect on manpower requirements in the First Five-Year Technical Development Plan.

III. EXPERIENCE

1. Organizations Responsible for Manpower Planning

Manpower planning was formulated and is being coordinated by the Economic Planning

Board, the agency which also directs over-all economic planning and handles statistics. These latter functions have much to do with manpower policies because the over-all economic development plan, including various investment projects, production increase ratios, percentage increase in value added, and employment policies, etc., is closely related with the manpower demand and supply plan. Therefore, it is logical that a central planning body such as the Economic Planning Board should be the most effective and efficient organization to carry out manpower planning and its administration.

2. The First Manpower Survey

In order to draw up the demand and supply plan of technical manpower resources in the First Five-Year Technical Development Plan, a nation-wide survey of employed technical manpower was conducted in August, 1961, to determine existing conditions on which to base future plans. The survey revealed that of approximately 300,000 people employed in technical work, 8,600 were engineers, 11,000 technicians, and 280,000 craftsmen, or 2.9%, 3.7% and 93.4% respectively. (See Appendix II)

The survey was conducted to determine the actual manpower status engaged in various fields of work. In taking the survey, complete figures were obtained for 1,765 large business establishments (employing 50 persons or more), 171 government offices and public utilities, and 158 science and engineering schools, while 3,405 medium and small establishments (employing less than 50 persons) were chosen and surveyed on a sampling method basis.

The survey canvassed the followed segments:

1. Mining and stone quarrying
2. Manufacturing
3. Construction
4. Electricity, gas, water-works and sanitary services
5. Government offices
6. Science and engineering schools

In the survey, the technical manpower force was divided into two categories—engineers and technical workers. Graduates of science and engineering colleges actually engaged in their spe-

cialty fields were classed as engineers.

Technical workers were grouped in four classes: lead-men (technicians), skilled craftsmen, semi-skilled craftsmen, and unskilled craftsmen.

3. The Second Manpower Survey

In 1963, the second survey of employed technical manpower was carried out. Although similar in design to the first survey, it also included primary industry and the armed forces, and defined more explicitly the various categories of technical human resources. The survey of 1963 revealed that of 211,303 people employed in technical facilities, 16,201 were engineers, 14,171 technicians, and 180,931 craftsmen, or 7.7%, 6.7% and 87.6% respectively. (See Appendix III)

This survey was also conducted to enumerate and categorize technical workers engaged in various fields of work. Business establishments were grouped in two classes—large firms; and medium and small firms. In taking the survey, complete figures were obtained for 1,586 large establishments (employing 50 persons or more), and 2,106 government offices, public utilities, and science and engineering schools, while 3,580 medium and small establishments (employing 5 to 49 persons) were chosen and surveyed on a sampling method.

To avoid some duplications or omissions in the establishments, however, all establishments throughout the country were checked in advance by enumerators of the Economic Planning Board, and all duplications or omissions were corrected. On the other hand, the other objects were selected on the basis of the various lists of establishments in Korea.

In this survey, technical workers 14 years old and over, excluding foreigners, were enumerated. If the main office and workshop were separately located, enumeration was carried out only in the workshop, but for construction firms, it was carried out only in the main office.

Other criteria for determining which workers should be included in this survey were as follows:

1. Agriculture, forestry and fisheries (primary industry):

Such workers as engineers and technicians in government organizations or public utilities which direct and bring up agriculture, forestry and fisheries were enumerated. However, skilled craftsmen, semi-skilled craftsman and learners were excluded from enumeration.

2. Mining, manufacturing and construction (secondary industry):

Technical workers in government-financed organizations, public utilities or private establishments which direct or bring up mining, manufacturing and construction were enumerated.

3. Electric utilities and waterworks (tertiary industry):

Technical workers in government organizations, public utilities or private establishments which direct or are engaged in electric utilities and waterworks were enumerated.

4. The following persons were excluded from enumeration:

a. Technical workers engaged in medical, communication and transportation services; these persons were enumerated in another survey.

b. Technical workers engaged in more than two places. For example, part-time lecturers at universities or colleges.

c. Those engaged in the following industries:

General Classification of Industry	Industries Excluded in Survey
Code No. 20 Food	Grain milling, flour milling, and noodle, bean-curd, bean sprout and wheat-gluten making.
Code No. 23 Textiles	Rush-mat and straw-bag making.
Code No. 24 Footwear	Footwear repairing.
Code No. 25 Wood and cork	Box and tub making.
Code No. 27 Paper and paper products	Envelope and cardboard-box making.

Code No. 31 Chemicals and chemical products
Vegetable oil producing.

Code No. 32 Petroleum and coal products
Briquet producing.

Code No. 33 Non-metallic mineral products
Cement, brick, and cement tile manufacturing.

In the second manpower survey, the technical manpower force was classified in three categories—engineers, technicians and craftsmen. Graduates from science and engineering colleges (including colleges of the old system) actually engaged in the field in which they were trained, or in scientific or engineering work in a closely related field, were classed as scientists or engineers. Technicians were described as those who graduated from junior science and engineering colleges or who finished at least the second year of science and engineering studies in a four-year college and who were engaged in work in the technical field which they studied; and those graduates of technical high schools engaged in work requiring high school training training, and with 3 or more years of experience. Craftsmen were classified as skilled, semi-skilled, or learners.

The difference in results found between the two surveys stemmed partially from the use of different systems for classifying the technical manpower force. While the survey of 1961 classified that force into engineers and technical workers, and the latter group further into leadmen, skilled, semi-skilled and unskilled workers, that of 1963 classified the force into engineers, technicians and craftsmen, craftsmen being further classed as either skilled, semi-skilled or learners. Consequently, the lead-man in the category "technical workers" in 1961's survey corresponded to the "technician" of 1963's survey, and other categories of workers in both surveys also overlapped. The categorization criteria for craftsmen in the survey of 1963 is shown here in detail:

CLASSIFICATION OF CRAFTSMEN (1963 SURVEY)

Technical Level of Work	Experience	Classification
Jobs requiring at least 6 months training.	More than 3 years	Skilled craftsmen.
Jobs requiring at least 6 months training.	1 to 3 years.	Semi-skilled craftsmen.
Jobs requiring at least 6 months training.	Less than 1 year.	Learners and beginners.
Jobs mastered within 6 months.	Ignore.	Simple laborers.

IV. COORDINATION

1. Once the present manpower status is analyzed, future manpower requirements may be estimated by input-output analysis. However, it is not easy to use the input-output method at present in Korea for manpower planning. Assuming there is a linear relation between output and employment, it will be concluded that a coefficient to required technical manpower will be changed in proportion to output.

Therefore, the demand and supply program of technical manpower resources was tentatively readjusted in 1964, with due consideration of the experience gained in the past ten years on the elasticity of employment.

But the above mentioned change in the technical manpower plan did not consider an estimate of total labor force changes and a statement of existing occupational shortages.

2. In order to be worthwhile for educational planning, information on requirements, by occupation, for future manpower resources needs to be supplemented by information on the types and levels of education and training required by technical personnel in assuring their adequate job performance.

3. So far as future manpower resources in various skilled occupations is concerned, an essential factor to be considered is the impact of training. For short-term planning, calculations can be based on the number of students and trainees in each academic year. For longer term plans, however, the extension of educational and training institutions and facilities must be taken into account.

4. Administration is needed to direct both aspects of the manpower plan—planning and implementation to supply the required manpower.

The organization responsible for central planning is the Economic Planning Board, while the responsibility for the plan's implementation is divided among a number of ministries, including the Ministry of Education, Ministry of Transportation, Office of Labor, etc. Regarding this matter, experience has shown it is necessary to have a coordination advisory committee, composed of manpower planners, educators, labor officers, etc., within the central planning authority.

5. The efficiency of manpower supply and coordination depends essentially on the effectiveness of education policies. Experience has shown that innovation is not self-generated in the traditional sector, and also that agrarian reform calls for preparatory education, cooperatives cannot work without having trained organizers, improved agricultural methods require a large number of extension stations, and mobilization of labor reserves demands broadly trained project supervisors and village promoters. As a result, the manpower training policy has been strongly supported by the annual economic policy, which places its emphasis on rural development.

V. TASKS

1. Long-term Forecasting of Manpower Requirements

Planned development of human resources must comprise concurrent short, medium and long-term objectives. But, as of the present, long-term objectives of manpower development have not yet been established due to lack of a long-term economic perspective plan. According to the long-term economic plan now being drawn up by the Economic Planning Board, long-term manpower forecasting will be formulated in 1965.

2. *The Second Manpower Plan*

As a medium-term manpower plan, the Government, formulated the First Five-Year Technical Development Plan for concurrent implementation with the First Five-Year Economic Development Plan. Accordingly, the second medium-term manpower plan, also a five-year program, will be devised in 1965 and will be implemented simultaneously with the Second Five-Year Economic Development Plan, also to be formulated in that year.

3. *Legislation*

Since there has been little legal support for the development of qualified technical personnel, the first step that the government took was to set up legislation of various laws and regulations to this end. The Vocational Education Promotion

Law was enacted in order to secure financial and legislative support from central and provincial governments in carrying out effective vocational education programs. The Professional Engineer's License Law was also enacted to establish a set of qualifications and duties for professional engineers, to foster public confidence in their ability and authority, and to qualify them for contributing to scientific and technical advances and national economic development.

As for organizational measures deemed necessary in executing various industrial training plans, the Office of Labor Affairs will be reinforced and entrusted with improving the quality of skilled workers through a nation-wide vocational training system. To this end, the Office of Labor Affairs is currently planning a prospective Vocational Training Law.

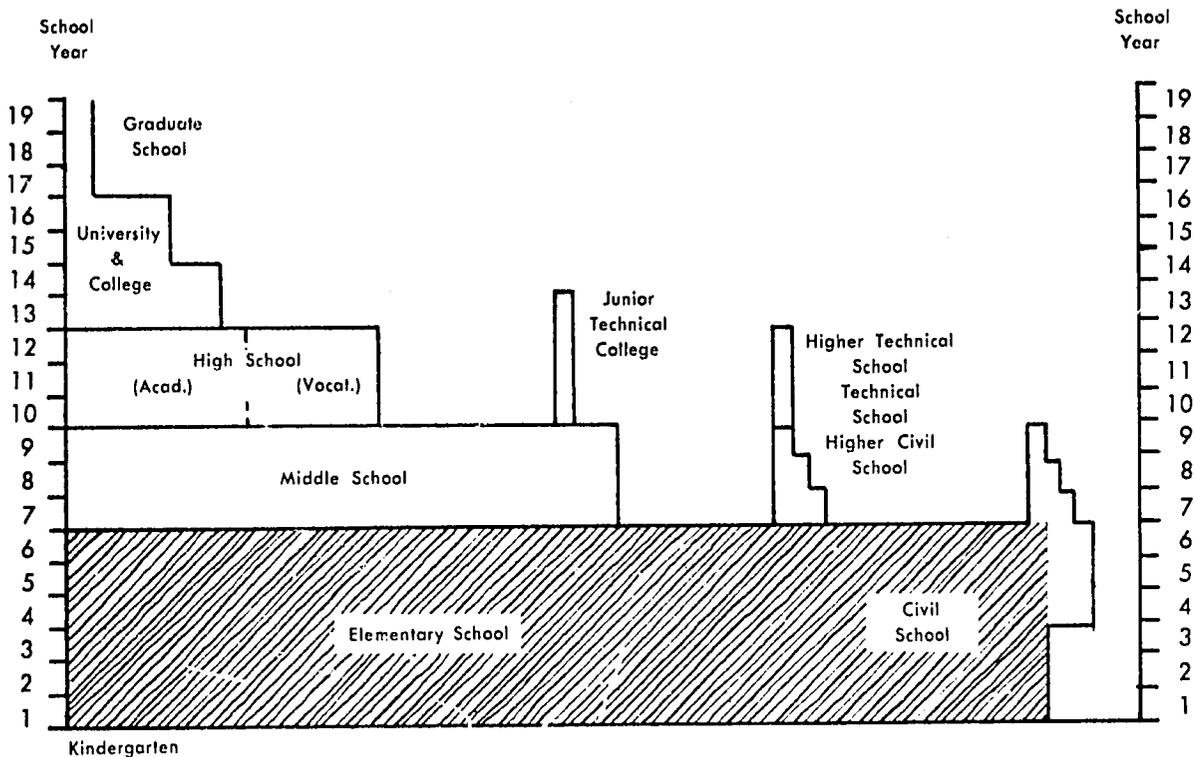
[APPENDIX I]

I. BRIEF DESCRIPTION OF THE KOREAN EDUCATIONAL SYSTEM

1. Organization of the school system

The modern Korean educational system was founded in 1948, the year of Independence, and has continued

with minor changes, until the present day. The chart below shows the framework of the "single-track" system, now universal in the Republic of Korea.



The hatched part of the chart represents compulsory education. Approximately 10 per cent of schools at the secondary and higher educational levels provide evening courses.

High School includes both the academic and vocational types. *Vocational high schools* include those offering agricultural, technical, commercial, fishery and marine, and home economics fields of specialization.

Normal school was abolished in 1961

University and college includes 2-year junior colleges, 2-year teachers colleges and 4-year universities and colleges.

Junior Technical College was established in 1963 to offset the shortage of technicians.

Civic school provides 3 years' full-time primary education for children and youths who, for some reason, have not been able to attend the regular 6-year elementary school.

Higher civic school provides from 1 to 3 years' full-time post-primary education for graduates from elementary or civic school who are not able to attend regular middle school.

Technical school is a kind of *trade school* at middle school level, offering courses of from 1 to 3 years.

Higher technical school provides skills needed in daily life such as hair-dressing, beauty culture, practical engineering, at high school level. Graduates have no qualifications to enter university and college. Technical and higher technical schools are established by private bodies and their enrollments are so small as to be negligible in number.

2. Stream

After the graduation from compulsory school, almost all pupils going on to further education enter mid-

dle school, and also more than 95 per cent of graduates from middle school going on to further education enter academic or vocational high school.

Nearly half of elementary school graduates enter middle school, 64 per cent of middle school graduates proceed to high school, and 30 per cent of high school graduates enter university and college. Students attending evening classes attached to regular middle and high schools and university and college are treated the same as day students in requirements and qualifications.

Besides this main stream—civic school—higher civic school and technical school—higher technical schools exist, but the two branches should not be termed 'stream' as the former is considered as a type of literacy campaign and the latter as giving specific job training. Accordingly, civic schools are also considered as a temporary measure. Civic schools are usually maintained by public authorities and technical schools mainly subsidized by private factories and firms.

3. Educational administration and finance

Educational Administration

The present pattern of educational administration was established in January 1964. This resulted primarily in centralizing the previously decentralized system. In order to reflect public opinion on education, an Advisory Committee to the Minister of Education has been set up. The Committee members comprise people from all professions.

Educational administration is divided into three categories, i.e., Ministry of Education, Provincial Boards of Education (including Special City of Seoul and Pusan), and city and county education offices.

The Ministry of Education carries out the following functions:

- a. establishment, maintenance and abolishment of national schools. Most of national schools are higher educational institutions;
- b. drawing up of standard curriculums and course of studies for elementary and secondary schools;
- c. publishing of national unified textbooks at elementary school level and authorization of textbooks at secondary school level;
- d. general supervision of provincial educational administration;
- e. appointment and dismissal of national school personnel and provincial superintendents in the name of the President of the Republic of Korea;
- f. certification of teachers;
- g. supervision of private higher institutions.

The provincial boards of education are composed of five members who are nominated by the provincial council. These boards make provincial educational policy and recommend the appointment and dismissal of their superintendent to the Minister of Education. The superin-

tendent is the top-executive official.

The provincial boards of education perform the following functions:

- a. establishment, maintenance and abolishment of public elementary, middle and high schools;
- b. appointment and dismissal of public elementary, middle and high school teachers;
- c. supervision of private middle and high schools.

The city and county education office is characterized as a kind of branch office of the provincial boards of education. The city and county superintendent performs his duty in the name of the provincial superintendent, and his function is to maintain and supervise the elementary schools only.

Provincial boards of education and city-county education offices have little or no connection with the provincial governor or the chief of city and country authorities.

Educational Finance

Responsibilities for educational finance are shared by the central government and provincial educational authorities. Their activities are maintained by funds derived from their own taxes and other income. Around 85 per cent of total educational expenditure on public and national schools was provided by the National Treasury in 1963.

The educational expenditure of the central government is classified into five categories:

- a. expenditure for national schools;
- b. expenditure for operation of public compulsory schools;
- c. salaries of teachers in private compulsory schools;
- d. payment of 50 per cent of teachers' salaries in public middle and high schools;
- e. subsidies for the establishment of public technical high schools.

Educational expenditure of provincial authorities is as follows:

All expenditures for public schools, with the exception of 50 per cent of teachers' salaries, which are paid by the National Treasury.

The functions of the county and city educational offices do not cover educational finance.

Private school expenditures amounted to 27 per cent of the total expenditures for public and private schools at all levels in 1962.

4. The proportion between public and private schools

In the Republic of Korea, public responsibility for education varies considerably according to educational level.

The following table shows the percentage distribution of enrollments in 1962, by types of establishing body:

	Total	Public	Private
Pre-primary	100%	0%	100%
Elementary	100%	99.8%	0.2%
Middle	100%	55.5%	44.5%
High	100%	58.2%	41.8%
Higher educational institutions	100%	28.1%	71.9%

II. CHARACTERISTICS OF KOREAN EDUCATION

The chief characteristic of the educational system and its development in the Republic of Korea is that the modern democratic school system has been available to the general public, regardless of social strata, since Independence Day, 15 August 1948. The new educational system established at that time accorded equal educational opportunity for all and thus made it possible for all young persons with ability to benefit from higher education, regardless of his social background.

As a result of the modern educational system, its quantitative development has been achieved rapidly at each level of education, particularly at the elementary and higher educational level.

Over a period of ten years, a very rapid popularization of elementary education has taken place and the percentage of ages 6-11 of elementary enrollments to corresponding school ages reached 92.1 per cent in 1963.

The number of university students has also increased nearly three times during this same period.

One common characteristic of developing countries is that the relatively limited speed of education popularization has accompanied a slow growth. Republic of Korea, the unique educational system, which is on the same pattern as the so-called "U.S. educational type", is making possible the rapid popularization of education in spite of slow and fluctuating economic growth. This is a significant point which calls for a depth study of the role education plays in socio-economic development. The characteristics of this educational popularization can now be outlined, together with appropriate statistics.

III. THE EDUCATIONAL EFFORT

It is said that never has education been attempted on such a large scale and so earnestly as in this country in recent years. Why is it that the Koreans have been and are so enthusiastic for education? Many reasons are given, such as the particular social climate, traditional atmosphere, governmental policy, and so on.

Some Koreans stress that one of the reasons must be the modern democratic educational system open to the general public, and another one may be that educational investment is relatively safer and more profitable than other economic investments owing to the specific social situation in Korea, but it would be difficult to explain this climate definitely.

1. Popularization of Education

Elimination of Illiteracy

It was estimated that 78 per cent of the adult population was illiterate in 1945. In order to eliminate this high illiteracy, central and local governments carried out a huge campaign with the cooperation of local school teachers and the voluntary services of the university students. For this purpose, a nation-wide survey of adult illiterates is conducted annually. Based on the survey findings, adult illiterates have been gradually formed into classes attached to local elementary schools and local citizen halls. The classes are held for about 70 consecutive days during non-agricultural seasons.

The literacy campaign resulted in the reduction of illiterates. The historical figures are shown as follows:

	No. of Illiterates Over Age of 12	Percentage to Total Population Over Age of 12
1945	7,980,000	78
1948	5,411,000	41
1952	3,365,000	25
1959	3,168,000	22
1962	1,833,000	11
	433,000 Male	5 Male
	1,400,000 Female	16 Female

This percentage of population illiteracy is one of the lowest among Asian countries. This is one example of the enthusiasm for education on the part of the Korean people.

Rapid spread of compulsory education

The development of compulsory education in the Republic of Korea may be characterized by its rapid rate of extension. Even in 1941, a background for compulsory education had been prepared (the percentage of the number of elementary school enrollments to corresponding ages was 46.1%); each town and village was required to establish its own elementary school, the present 92.1 per cent of elementary school enrollments to corresponding ages is indicative of the tremendous efforts made to bring about compulsory education.

Historical figures are shown as follows:

Year	No. of Elementary School Enrollments Between Age: 6-11	Percentage of Elementary Enrollments to Corresponding Ages 6-11
1948	2,426,000	62.7*
1953	1,846,000	59.6
1955	2,541,000	77.4
1957	2,692,000	77.7
1959	3,051,000	82.7
1961	3,335,000	85.3
1963	3,950,000	92.1

* The decrease in the figures of 1953 is due to economic instability and destruction of school facilities caused by the Korean War, 1950-53.

The Korean Government is endeavoring to enrich the country and strengthen its national defense forces. In order to effectively achieve these aims, the government has been emphasizing the popularization of compulsory education. The modernization of Korea is being accelerated by governmental action in establishing a nationwide compulsory education system and, as far as the quantitative aspect is concerned, this goal is being fairly well achieved at the present time. Considering international trends, the speed at which the popularization of 6 years' compulsory education has been attained, is amazing.

It should be noticed that the ratio of the average daily attendance to enrollment is about 97 per cent and the retention rate in this country shows a very favorable figure.

The following retention figures were obtained by cohorts. This is one of the highest records in the Asian countries:

Grade 1 (1957)	100
Grade 2 (1958)	95
Grade 3 (1959)	93
Grade 4 (1960)	89
Grade 5 (1961)	87
Grade 6 (1962)	81

The "drop-out" rate in Korea is low, not only within elementary school, but also within the secondary school level. This is because a school graduation certificate is indispensable for obtaining employment. Then to leave school before graduation is a very serious handicap in this country.

The Possibility of Prolonging Compulsory Education

The Final Resolution and Statement of the Tokyo Meeting of Ministers of Education of Asian Member States, read as follows:

"Although we are at various stages of educational and economic development by 1980..."

It is not so easy to estimate when Korea will be able to achieve this goal. However, judging from the historical trends in popularization of 6 years' compulsory education, and that the 3 years' middle school enrollments to corresponding ages has already reached 41.2 per cent and nearly 50 per cent of elementary school graduates are going on to middle school in 1963, it seems feasible to hope that, in the case of Korea, this target may be reached by 1980.

Extension of Secondary and Higher Education

The secondary school is classified into middle and high school. The increase in middle and high school enrollment is shown in the following table:

Middle School	No. of Enrollments	Percentage of Middle School Enrollment to Corresponding Ages
1953	324,000	21.1
1955	480,000	30.9
1957	439,000	29.9
1959	458,000	29.8
1961	620,000	40.6
1963	666,000	41.2
High School	No. of Enrollments	Percentage of High School Enrollment to Corresponding Ages
1953	171,000	12.4
1955	267,000	17.8
1957	288,000	19.6
1959	271,000*	18.6
1961	296,000	20.3
1963	364,000	23.8

Increase in university and college enrollment is as follows:

	No. of Enrollments	Percentage of University and College Enrollment to Corresponding Ages
1953	48,000	3.1
1955	85,000	5.0
1957	91,000	5.6
1959	81,000	4.9
1961	142,000	7.9
1963	132,000**	7.0

* One reason for decrease in 1959 was the suspension of student privilege regarding postponement of military services
 **Decrease in 1963 due to the national government's policy of reducing the quotas of freshmen in higher institutions.

These three tables show the increasing trends in the total enrollment in middle and high schools and higher educational institutions.

In 1963 the enrollment percentage of middle school, high school and higher educational institutions to each corresponding age group, reached 41.2 per cent 23.8 per cent and 7.0 per cent respectively.

Accordingly, the percentage of school graduates proceeding to further educational institutions in this country is very high and particularly that from high school to university and college.

	From elementary to middle	From Middle to high	From high to university and college
1963	49.5	64.4	30.0

This figure is not only one of high group in the Asian countries, but also shows a remarkably high percentage in relation to the stage of development of this country.

Generally speaking, there exist certain relations between the spread of education and the development of economy. It is obvious that in the developing countries people cannot easily send their children to secondary

school or higher educational institutions. It would be true also that in the advanced countries with higher per capita gross national product, the socio-economic needs for graduates of high schools and higher educational institutions become greater and individual households are better able to bear the educational expenses involved. However, it should be noticed that such countries with almost equal degrees of economic development, differ considerably as to the percentage of a school enrollment at each level of education, and one of the most important factors contributing to such differences is the national effort in the field of education.

The percentage of enrollments for secondary and higher education in this country far exceeds those to be expected at her particular stage of economic development. This means that the Republic of Korea is making great efforts as far as the quantitative development of education is concerned.

2. The high rate of educational expenditure to GNP

The educational effort is also observed from the aspects of the expenditure spent on education in Korea.

Educational expenditure should be studied in terms of the percentage of gross national product or national income spent for education, and also in relation to the level of the national income or per capita gross product of total population. The remarkable development of Korean education calls for a rise in the percentage of GNP allocated to it.

This fact will be observed in the following table:

	Total Educational Amount	GNP	Percentage of GNP Spent on Education
a. Public school expenditure:			
Current	10,028		
Capital	2,482		
Total	12,510	281,480	4.4%
b. Public and private school expenditure:			
Current	12,860		
Capital	3,280		
Total	16,140	281,480	5.7%
c. Combines National, local, private school, and parents contribution:	20,307	281,480	7.2%
1 lab fees			
Bldg. fees—			
activity fees			

The unit cost per pupil of total public expenditure is also relatively high in comparison with per capita income:

In 1962 Fiscal Year	Per Pupil Cost		Per Head Income	
	Won	(\$)	Won	(\$)
Elementary	1,579	(12.15)		
Middle	3,755	(28.88)	10,660	(82)
High	5,513	(42.40)		
College and University	13,689	(105.30)		

In analysing educational expenditure in this country, the important role played by the parents of school children should not be underestimated. The school facilities fee which is imposed in order to meet requirements of increasing classroom construction costs, is being borne by the parents. The following data show the extent of the financial burden falling on parents whose children are attending elementary, middle and high school respectively, during the 1963 school year.

AVERAGE ANNUAL PUPIL EXPENSES BORNE BY PARENTS, BY SCHOOL LEVEL

Primary school	1,470 won	(11.3 U.S. dollars)
Middle school	6,450 "	(49.6 U.S. dollars)
High school	9,280 "	(71.4 U.S. dollars)

These figures include tuition fees school facilities fees, expenses for textbooks and instructional supplies, expenses for extra-curricular activities and transportation expenses paid by parents during the 1963 school year.

Considering that the average total per capita income in 1962 was 10,660 won (82 U.S. dollars), the average total income per family (average number in family is reckoned to be 5.8) was

$$10,660 \text{ won} \times 5.8 = 61,828 \text{ won} \quad (\$82 \times 5.8 = \$475.6)$$

the amount of money spent on education by parents represents a heavy burden on the ordinary household. In the case of a family sending one child to elementary school and another child to middle school, the burden on this household amounts to 7,920 won (\$60.8) and its percentage to the total household income is 12.8.

Given the rate of educational expenditure to gross national product and also the rate of parents' burden to family income, it is evident that the Republic of Korea comes into the higher group among Asian countries in so far as effort is concerned. This fact means that the Korean government and its people are placing great emphasis on education.

The Tokyo Asian Education Ministers' Conference decided that "Asian countries should move by stages to invest 4 to 5% per their gross national product in education by 1980, provided their rate of economic growth as individual countries can afford it" In Korea this target is being achieved in 1963, even though it includes a certain amount of foreign aid to education. But although the percentage of educational investment to GNP

in this country is in the highest group among developing countries, the percentage is not so high in comparison with advanced countries. In this connection, it is also noted that the educational gap between Korean and advanced countries will widen, unless an effort is made to increase the percentage of gross national product allocated to education from its present level of 4 or 5 per cent.

It is necessary, in the light of economics of education, to bear in mind that the effects of educational investment are lasting and, therefore, educational investment should be considered as a very productive one.

IV. SOME OF THE PROBLEMS TO BE DISCUSSED

The salient features of Korean education are posing many problems at the present time which need to be discussed.

The most significant is the problem of the imbalance of the educational situation in this country and how to bring about a balance educational development. This may be outlined by the following five points: (1) The percentage of gross national product spent for education; (2) The percentage distribution of total school expenditure by school level; (3) The proportion of school enrollment among major fields of study; (4) The proportion of school enrollment by sex; and (5) the conflict between quantitative and qualitative educational development.

1. The percentage of gross national product spent on education

The problem here is how large a part of the gross national product or governmental budget should be allocated to education? As has already been mentioned in the previous paragraphs, the percentage of gross national product spent on education in this country is high. Accordingly, governmental budget allocated to education and educational costs borne by parents are also high.

Some of the Korean officials stress the importance of working out how the educational investment meets the socio-economic needs and the balance between educational investment and other investments such as industrial, defense, social welfare, etc., and also point out that there are many jobless university graduates in this country. And even those graduates who are fortunate enough to find employment are working under conditions which are far from satisfactory. It is obvious that in Korea there is over-investment in education compared to that allocated to other fields and consequently the number of higher institution graduates greatly exceeds the number required to meet the annual industrial needs.

On the other hand, there are other people who hold the opposite view, and their argument is as follows. It

is necessary for future economic growth that investment for development of available resources should be increased. As education is directed to the deployment of human resources, it should be considered as one of the most important investments. In this connection, although at the present time a great deal of unemployment of university graduates does exist, the educational investment accumulates in the form of increased capabilities of national human resources and the effects will be apparent in the future.

If the labor market for educated people were to remain poor in the future, the high rate of educational investment would be nonsensical. But it is equally true that only the educated are able to use the domestic or imported capital most effectively and profitably.

Undoubtedly, it might be difficult to secure a definite answer to this controversial issue. But in deciding the magnitude of educational expenditure proper weight should be given, not only on the present socio-economic needs, but also to the fact that education is essential for promoting its future growth.

2. The percentage distribution of total school expenditure by school level

The percentage distribution of total school expenditure by school levels in 1963 is shown in the following table.

PERCENTAGE DISTRIBUTION OF TOTAL EXPENDITURE FOR PUBLIC AND PRIVATE SCHOOLS IN 1963 (INCLUDING CIVIC AND TECHNICAL SCHOOLS)
(In Million won)

Total	Elementary	Middle	High	Higher
15,922	8,396	2,897	2,277	2,350
100%	52.7%	18.2%	14.3%	14.8%

PERCENTAGE DISTRIBUTION OF SCHOOL ENROLLMENT — PUBLIC AND PRIVATE 1963 (INCLUDING CIVIC AND TECHNICAL SCHOOLS)

Total	Elementary	Middle	High	Higher
5,654,000	4,453,000	730,000	373,000	132,000
100%	78.2%	12.8%	6.6%	2.3%

The popular spread of higher education and the percentage of expenditure allocated to it in this country is remarkable. The percentage allocated to higher education already exceeds the European average shown at the Tokyo meeting, 30.0% of the total high school graduates proceed to university and college and the percentage in 1963 of university and college enrollment to corresponding ages is 7.0%. The percentages in Korea are among the highest of the Asian countries.

The reason for the popularization of higher education might be explained by the fact that a school, and espe-

cially a university graduate's certificate, has a distinct advantage in the labor market; or that higher education is largely open to the general public due to the democratic school system; furthermore, educational investment is safer than other investments.

The role played by university graduates in accelerating the modernization of the country should not be underestimated, but it should be noticed also that much popularization of higher education is bound to bring about pressure in other educational fields.

As far as higher education is concerned, emphasis might be given not to quantitative development, but to qualitative development, such as the extension of opportunity for higher education to all youths who have the ability to pursue it, i.e., improvement of method of entrance examination and expansion of scholarship system.

Although the increase of secondary school enrollment is to be anticipated based on the increase of elementary school graduates, the present proportion of enrollment and expenditure allocated to secondary education is comparatively low.

3. The proportion of school enrollment by major fields of study

This item should be studied at the high school and higher educational institution level and the standard to be discussed is whether the proportion of school enrollment by major field of study is adjusted to meet current and future socio-economic needs.

In 1963 at the high school level, enrollments in academic courses constitute about 62 per cent of the total and in vocational courses about 38 per cent.

Total Enrollment:	383,000	100%
Academic	213,000	62%
Vocational	150,000	38%
Technical	36,000	9%
Commercial	53,000	14%
Agricultural	41,000	11%
Other	20,000	5%

At the university and college level, the number of students enrolled in science and engineering fields constitutes 23.2 per cent of the total in 1963.

	Percent
Total enrollment—132,000	100
Humanities*	56.8
Science and Engineering	23.2
Medicine and Pharmacy	10.5
Agriculture	7.3
Others*	2.1

* Humanities includes Education (6.7%)
Others include Marine, Fishery, etc.

In order that education may meet future socio-economic needs it is necessary to raise the standards of technological achievement. The expansion of technical high schools and faculties of science and engineering in higher education is imperative as there will be greater need for them in the future in Korea.

Recent trends indicate favorable enrollments in vocational high schools and Faculties of Science and Engineering, but it is hoped that on the basis of actual and anticipated future needs, more emphasis will be put on the vocational and technological side.

PROPORTION OF VOCATIONAL HIGH SCHOOL ENROLLMENT AND SCIENCE AND ENGINEERING FACULTIES' ENROLLMENT TO THE RESPECTIVE TOTALS

	1954	1959	1963
Vocational High School	34.9	37.3	38.0
Science and Engineering	20.0	22.2	23.2

Furthermore, in order to discuss this problem it is necessary to have more accurate information regarding estimation of the demand for graduates from high school and higher institutions by major fields.

4. Proportion of school enrollment by sex

With the introduction of the modern educational system, equal opportunities have been given to both boys and girls. As shown in the following table, however, the proportion of girl pupils is still very low except at the elementary education level, although the number of girls attending high school and higher institutions has gradually increased during the past ten years.

	Percent of Total Enrollment	
	Male	Female
<i>Elementary School</i>		
1954	59	41
1958	56	44
1963	53	47
<i>Middle School</i>		
1954	76	24
1958	72	23
1963	67	33
<i>High School</i>		
1954	83	17
1958	78	22
1963	68	31
<i>University and College</i>		
	Male	Female
1954	88	12
1958	83	12
1963	79	21

Although female enrollment over the past few years indicates an upward trend, the above figures show that general cultural, vocational and professional training of females has not been as much in demand in Korea as that of males. Female education has been provided mostly in the home.

The percentage of females in total enrollment in middle and high schools is one of the lowest among Asian countries. However, the rapid increase of girls' enrollment in compulsory education will inevitably increase the enrollment in middle and high schools in the future.

The significance of the popularization of female education lies in the contribution to the development of the social foundation for the modernization of a country. In this regard, the imbalance between male and female enrollment in Korea will be, or should be, gradually eliminated.

V. CONFLICT BETWEEN QUANTITATIVE AND QUALITATIVE EDUCATIONAL DEVELOPMENT

The development of education implies both its quantitative expansion and the qualitative improvement in its standard. The qualitative improvement means the improvement of curriculum and course of study, the adequate physical facilities and the development of adequate teacher training etc. The improvement of instructional content and methods necessary for increasing the level of student attainment must be accompanied by the provision of adequate educational facilities, instructional equipment and material, and adequate number of qualified teachers. Such qualitative improvement necessitates an adequate budget.

Within the framework of a limited educational budget, when too much emphasis is placed on quantitative expansion, as in Korea, the qualitative improvement is sometimes neglected.

Such phenomena as overcrowded classrooms, 3 or 4 shift system, high pupil-teacher ratios, overloading of teachers and unsatisfactory teaching materials, etc., occur as a result of rapid expansion of school enrollment, particularly at the elementary school level in urban areas.

Notwithstanding the fact that the unit cost per pupil is high in comparison with per capita income but, a number of problems such as (1) classes of 90 pupils or more; (2) two, three and four shift system; (3) shortage of classrooms, and (4) high pupil-teacher ratio, etc., require attention.

1. Classes of 90 pupils or more

The following table shows the percentage distribution of classes by size (number of pupils per class) in elementary schools in 1962.

Class size	Percent	Number of classes
Total	100.00	65,045
20 or less	0.1	89
21-30	0.6	394
31-40	3.0	1,978
41-50	12.0	7,768
51-60	25.6	16,671
61-70	27.1	17,591
71-80	18.3	11,886
81-90	11.5	7,500
91 and over	1.8	1,170

As the southern part of the Korean peninsula does not consist of chains of high mountains this is one reason why there are few small size schools and consequently, small size classes, in comparison with other countries. But it is an astonishing phenomenon that there are so many large size schools and large size classes in this country. As the above table shows, 59 per cent of the total number of classes have more than 61 pupils, and 1,170 classes have more than 90 pupils.

2. Two, three and four shift system

In Korea the number of classrooms in elementary schools shared by two, three and four classes numbered 14,952 in 1963. This is 23 per cent of the total elementary school classrooms and the shift system is usual in large cities.

The following table shows a sample of the shift system in Seoul Special City in 1963.

	Number of Schools	Percentage
Total	133	100
Normal	8	6.3
Two-shift	47	35.3
Three-shift	57	42.8
Four-shift	21	16.5

In order to make this extraordinary situation clear, it will be necessary to show an actual sample of the elementary school with a three-shift system which the UNESCO team visited in March, 1964.

Time	1st Grade	4th Grade
8.50 - 9.00		Teachers' meeting (morning)
9.00 - 9.40		
9.40 - 10.20		
10.20 - 10.30 (Recess)		
10.30 - 11.10		
11.10 - 11.20 (Recess)		
11.20 - 12.00		
12.00 - 12.40		
12.40 - 12.50 (Recess)		
12.50 - 15.30		

13.30 - 13.40 (Recess)	2nd Grade	4th Grade
14.30 - 14.20		
14.20 - 15.00		
15.00 - 15.10 (Recess)		
15.10 - 15.50	3rd Grade	
15.50 - 16.30		
16.30 - 17.00	Teachers' meeting (afternoon)	

- 1-3 grades have 3 shift system (4 hours unit per day)
- 4 grade has 2 shift system (5 hours unit per day)
- 5-6 grades have normal system (6 hours unit per day)

3. Shortage of classrooms

As educational planning must take into account the programs for the future supply of school facilities, it is necessary to have accurate statistical information on the present situation.

According to the estimates of the Korean Ministry of Education, the actual shortage of classrooms at the compulsory educational level in 1963 was 21,050 and the percentage of shortage to the actual total was about 40 per cent.

This tremendously high figure is calculated on the basis of the legal standard set down in Articles 92 and 93 of the Educational Law, which recommends a standard of 60 pupils per class in each compulsory school.

4. Pupil-teacher ratio

In 1962, the pupil-teacher ratio in Korea was 60 in elementary and 41 in middle schools. This ratio is one of the highest among Asian countries.

A high standard of education depends largely upon the quantity of teachers as well as on the quality. In this connection, the pupil-teacher ratio of Korea needs to be much improved.

VI. ENDEAVOR TO ESTABLISH NEW EDUCATIONAL PLAN TO MEET SOCIO-ECONOMIC NEEDS

1. Endeavor to set up educational plan

The data presented in previous paragraphs analyzed historical trends and the current status of education in the Republic of Korea. Throughout this presentation the endeavor has been to make clear the character of Korean education in order to provide a guidance for educational planning in this country.

On the other hand, educational planning should be determined on the basis of consideration both of the needs of individuals and the needs of society. Individual needs are apparent in the desire of parents for education of a higher level. By foreseeing the future needs of a developing society so, in turn, its socio-economic needs are revealed. Although both these needs are inter-related and

yet independent, the needs of society should be considered as of more importance in the establishment of educational planning.

In Korea there have been plans such as the expansion of elementary school facilities to keep abreast of the increasing birth rate, as well as the increase in the number of vocational high schools to meet anticipated shortages of technicians. The First Five-Year Economic Development Plan (1962-66) was launched in order to promote effective economic development by means of maximum utilization of the nation's resources, likewise the First Five Year Plan of Educational Reconstruction was also set up in 1961, in close relation with it. This is the first comprehensive attempt at educational planning to meet socio-economic growth.

The aims and objectives of the First Five Year Plan of Educational Reconstruction are as follows:

Aims of the Plan

- a. to maximize educational investments by means of further reeducation of illiteracy and improvement of quality of graduates of compulsory education of the assumption that this will eventually result in the increase of skilled manpower and the increased strength of national defense;
- b. to strengthen technical education to meet the manpower needs of secondary industry; and
- c. to improve the curricula and teaching methods so as to maximize the efficiency of education within the limited budget.

Objectives of the Plan

- a. In order to improve the quality of education the Plan aims to upgrade the secondary school level teacher training schools to junior college level, to establish teacher in-service education institutions in each province, and to revise curricula of elementary and secondary schools.
- b. In order to improve the quality of compulsory education the Plan aims to construct 31,000 classrooms and to repair 10,000 of them. It also aims to recruit 25,000 teachers during the Plan period.
- c. And, in order to promote scientific and technological development, the Plan aims to increase technical high school enrollment by 20 per cent and to improve in-school facilities and curricula in order to produce fully qualified technicians.

The Second (1967-71) and the Third (1972-77) Five-Year Plans of Educational Reconstruction, parallel with the Economic Plan, are now under study. The purpose of these Plans is to incorporate education in the overall long-range plan for national economic reconstruction and development. However, a definite methodology of "how to draw up an overall long-range educational plan" does not exist in Korea, a situation which is common to other Asian countries.

The Economic Planning Board carried out a "Survey of Employed Technical Manpower" in 1961 and 1963, with the aims of preparing basic data for the formation of future technical manpower projects. Through these two survey statistics on the present distribution of technologists, technicians and skilled labor employed by categories of education and education completed, are now available.

These surveys showed that the actual ratio among engineering, technicians and craftsmen were 1:1.3:33 in 1961, and 1:0.9:28.2 in 1963. Based on the survey findings, the Economic Planning Bureau is stressing the importance of the expansion of technical high schools in order to change the present ration for that of: engineers 1: technicians 5: craftsmen 25, which is acceptable to the Government at the present time.

The ration of 1:5:25 is the standard for South-East Asian countries in general, as suggested by the Colombo Plan Bureau. However, the stage of socio-economic development and the need for educated manpower vary from country to country. Accordingly, it is hoped to build a future manpower structure fitted for Korean society.

However, the endeavor should be approached scientifically and the planning should not only be limited to the

field of technical manpower but also should cover all fields of social activities. To achieve this objective it will be necessary—

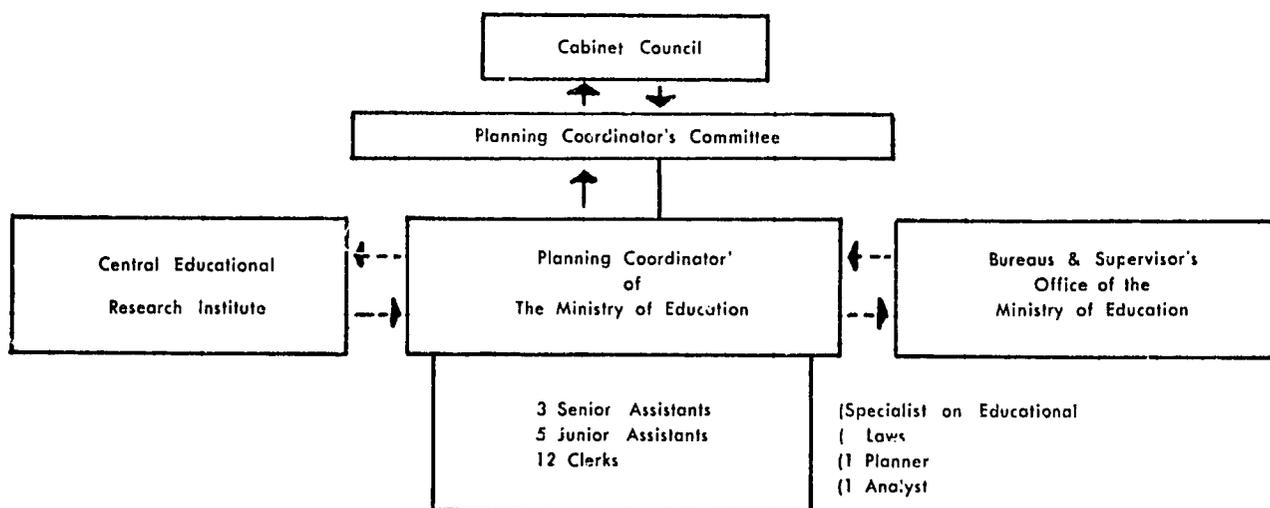
- a. to study the present distribution of persons employed in the various industries classified by occupational status and their education completed;
- b. to estimate future demands for school graduates classified by school levels and major fields of study in the light of projected future expansion of the economy in Korea.

Although the carrying out of the above would be very difficult, it is certain that such studies would contribute greatly to the solving of the problem of the imbalance in the development of education.

The Structure of the Planning

Planning has only recently been introduced in Korea. In 1961, right after the establishment of military government, the Planning Coordinator's Office in the Ministry of Education was established and took charge of setting up the national plans of this Ministry.

The following charts shows the educational planning machinery:



The Coordinator of the Ministry of Education plays a key role in education planning. The coordinator carries out this task with the aid of both the supervisor's office and the respective bureaus in the Ministry and he also remains in close contact with the Economic Planning Board. The Central Education Research Institute is responsible for providing educational statistics and for conducting basic researches which are fundamental to educational planning and policies. A draft plan when made is submitted to the Planning Coordinator's Com-

mittee (which consists of planning controller and planning coordinator of the Ministry) for discussion and must be approved finally by the Cabinet.

The role of the Planning-Coordinator's Office of the Ministry of Education is to evolve scientific methods of planning and to devote their efforts to drafting over-all long-range educational plans. To successfully carry out their important task the training of the staff should be on the broadest possible lines.

(APPENDIX II-1)

STRUCTURE OF TECHNICAL MANPOWER RESOURCES BY FIELD IN 1961

Field	Total		Engineers		Technicians		Craftsmen	
	No.	%	No.	%	No.	%	No.	%
Total	299,414	100.0	8,616	100.0	11,128	100.0	279,670	100.0
Technical Govern- Agency	16,350	5.5	1,273	14.8	742	6.7	14,335	5.1
Science & Engineering School	1,211	0.4	1,022	11.9	10	0.1	179	0.1
Mining	28,342	9.5	464	5.4	1,456	13.1	26,422	9.4
Textile Industry	84,505	28.2	529	6.1	2,174	19.5	81,802	29.2
Metal & Machine Industry	36,349	12.1	515	6.0	1,404	12.6	34,430	12.3
Chemical Industry	43,172	14.4	743	8.6	1,424	12.8	41,005	14.7
Other Industry	53,323	17.8	411	5.1	1,781	16.0	51,101	18.3
Construction & Service	36,162	12.1	3,629	42.1	2,137	19.2	30,396	10.9

Source: Employed Technical Manpower Survey, 1961.

(APPENDIX II-2)

STRUCTURE OF TECHNICAL MANPOWER RESOURCES BY SPECIALTY IN 1961

Specialty	Total		Engineers		Technicians		Craftsmen	
	No.	%	No.	%	No.	%	No.	%
Total	299,414	100.0	8,616	100.0	11,128	100.0	279,670	100.0
Mining	26,243	8.8	453	5.3	1,292	11.6	24,498	8.8
Textile	82,788	27.6	545	6.3	2,143	19.3	80,100	28.6
Metal	13,730	4.6	154	1.8	564	5.1	13,012	4.7
Mechanical	31,216	10.4	590	6.8	1,240	11.1	29,386	10.5
Electric	16,572	5.5	1,458	16.9	549	4.9	14,565	5.2
Civil Engineering & Construction	42,111	14.1	3,069	35.6	2,622	23.6	36,420	13.0
Chemical	64,297	21.5	935	10.9	2,085	18.7	61,277	21.9
Others	22,457	7.5	1,412	16.4	633	5.7	20,412	7.3

Source: Employed Technical Manpower Survey, 1961, E.P.B.

(APPENDIX II-3)

STRUCTURE OF TECHNICAL MANPOWER RESOURCES BY EMPLOYMENT IN 1961

	No.	%	Below 20		20-39		40-49		50-59		Over 60	
			No.	%	No.	%	No.	%	No.	%	No.	%
Total	299,414	100	51,346	17.15	192,311	64.22	47,537	15.88	7,541	2.52	679	0.23
Technical												
Gov't	16,350	100	588	3.60	11,575	70.80	3,699	22.62	449	2.75	39	0.24
Agency												
Science & Engineering	1,211	100	4	0.33	817	67.46	332	27.42	54	4.46	4	0.33
School												
Industry	281,853	100	50,754	18.00	179,919	63.83	43,506	15.43	7,038	2.50	636	0.24

Source: Employed Technical Manpower Survey, 1961, E.P.B.

(APPENDIX III-1)

STRUCTURE OF TECHNICAL MANPOWER RESOURCES BY FIELD IN 1963								
Field	Total		Engineers		Technicians		Craftsmen	
	No.	%	No.	%	No.	%	No.	%
Total	211,303	100 (100)	16,201	7.7	14,171	6.7	180,931	85.6
Mining	8,202	(3.9) 100 (74.8)	764	9.3	351	4.3	7,087	86.4
Manufacture	158,108	100 (3)	3,719	2.3	2,713	1.7	151,676	9.6
Construction	6,271	100 (2)	2,246	35.3	2,683	42.8	1,342	21.4
Electric, Gas & Steam	4,145	100 (15.0)	360	8.7	1,197	28.9	2,588	62.4
Office	31,865	100	6,561	20.6	7,111	22.3	18,193	57.1
School	2,712	100	2,551	94.1	116	4.3	45	1.6

Source: Employed Technical Manpower Resources, 1963

(APPENDIX III-2)

STRUCTURE OF TECHNICAL MANPOWER RESOURCES BY SPECIALTY IN 1963

	Total		Engineers		Technicians		Craftsmen	
	No.	%	No.	%	No.	%	No.	%
Total	211,303	100	16,201	7.7	14,171	6.8	180,931	85.7
Mining	8,202	100	764	9.3	351	4.3	7,087	86.4
Food, Beverage & Tobacco	4,819	100	209	4.3	126	2.6	4,484	93.1
Textile, Wearing & Footwear	81,289	100	812	1.0	753	0.9	79,724	98.1
Wood, Furniture, Paper & Printing — Publishing	17,031	100	261	1.5	261	1.5	16,509	97
Leather, Rubber, Chemical & Non-Metallic	17,726	100	1,580	8.9	568	3.2	15,578	87.9
Metal Products	34,457	100	798	2.3	973	2.8	32,686	94.9
Miscellaneous								
Manufacturing	2,786	100	59	2.1	32	1.2	2,695	96.7
Construction	6,271	100	2,246	35.8	2,683	42.8	1,342	21.4
Electricity, Gas & Steam Service	4,145	100	360	8.7	1,197	28.9	2,588	62.4
Government Office	31,865	100	6,561	20.6	7,111	22.3	18,193	57.1
School	2,712	100	2,551	94.1	116	4.2	45	1.7

Source: Employed Technical Manpower Survey, 1963

(APPENDIX III-3)

STRUCTURE OF TECHNICAL MANPOWER RESOURCES BY EMPLOYMENT IN 1963

Field	Total		Engineers		Technicians		Craftsmen	
	No.	%	No.	%	No.	%	No.	%
Total	211,303	100	16,201	7.7	14,171	6.7	180,931	85.6
Government School	34,577	100	9,112	26.4	7,227	20.9	18,238	52.7
Large Establishments	79,153	100	3,679	4.6	3,154	4.0	72,320	91.4
Medium & Small Establish	97,573	100	3,410	3.5	3,790	3.9	80,373	92.6

Source: Employed Technical Manpower Survey, 1963

(APPENDIX IV-1)

BREAKDOWN OF ANNUAL TECHNICAL MANPOWER REQUIREMENTS BY INDUSTRY
(First Five-Year Plan for Technical Development)

	Base Year (1961)	1st Year	2nd Year	3rd Year	4th Year	5th Year (1966)
Total						
(Number)	299,414	349,436	418,164	495,632	549,768	601,763
(Increase %)	100	117	140	116	184	201
Mining						
(Number)	28,342	39,449	43,845	50,130	56,355	61,902
(Increase %)	100	139	155	177	199	218
Textile						
(Number)	84,505	90,710	108,434	131,393	133,005	134,938
(Increase %)	100	107	128	155	157	160
Metal						
(Number)	36,394	39,722	61,343	77,631	100,993	120,836
(Increase %)	100	109	169	214	278	330
Chemical						
(Number)	45,172	48,387	56,507	66,743	70,549	72,918
(Increase %)	100	112	131	155	163	169
Other Manufacturing Industries						
(Number)	53,323	60,840	67,733	76,193	82,199	87,421
(Increase %)	100	114	127	143	154	164
Tertiary						
(Number)	53,723	70,328	80,302	93,542	106,667	123,748
(Increase %)	100	131	149	174	199	230

Source: The First Five-Year Technical Development Plan, 1962

(APPENDIX IV-2)

BREAKDOWN OF ANNUAL TECHNICAL MANPOWER REQUIREMENT BY CATEGORY
(First Five-Year Plan for Technical Development)

	Base Year (1961)	1st Year	2nd Year	3rd Year	4th Year	5th Year (1966)
Total						
(Number)	299,414	349,436	418,164	495,632	549,768	601,766
(Increase %)	100	117	140	166	184	201
Engineers						
(Number)	8,616	10,994	12,814	15,032	17,055	19,411
(Increase %)	100	128	149	174	198	225
Technicians						
(Number)	11,128	55,509	66,219	78,266	87,739	97,059
(Increase %)	100	499	595	703	788	872
Craftsmen						
(Number)	279,670	282,933	339,131	402,334	444,974	485,293
(Increase %)	100	101	121	144	159	174

Source: The First Five-Year Technical Development Plan, 1962

(APPENDIX V-1)

BREAKDOWN OF ANNUAL TECHNICAL MANPOWER REQUIREMENTS BY INDUSTRY

INDUSTRY	1963	1964	1965	1966
Total				
(Number)	211,303	211,546	231,933	243,127
(Increase %)	100	100.1	109.7	115.0
Mining Industry				
(Number)	8,202	8,571	9,077	9,649
(Increase %)	100	104.4	110.6	118.6
Manufacturing Ind.				
(Number)	158,108	167,120	176,312	186,185
(Increase %)	100	105.6	111.5	117.7
Food				
(Number)	4,819	5,094	5,374	5,675
(Increase %)	100	105.7	111.5	119.8
Textiles				
(Number)	81,289	85,922	90,648	95,724
(Increase %)	100	106.0	111.5	117.7
Wood				
(Number)	17,031	18,002	18,992	20,055
(Increase %)	100	105.7	111.5	117.7
Leather				
(Number)	17,726	18,736	19,767	20,874
(Increase %)	100	105.6	111.5	117.7
Basic Metal				
(Number)	34,457	36,421	38,424	40,576
(Increase %)	100	105.7	111.5	117.7
Miscellaneous				
(Number)	2,786	2,945	3,107	3,281
(Increase %)	100	105.7	111.5	117.7
Construction				
(Number)	6,271	6,553	6,848	7,142
(Increase %)	100	104.4	109.2	113.8
Electricity				
(Number)	4,145	4,431	4,710	5,026
(Increase %)	100	106.8	113.6	121.2
Government Office				
(Number)	31,669	31,669	31,669	31,669
(Increase %)	100	100	100	100
Seoul				
(Number)	2,908	3,202	3,317	3,456
(Increase %)	100	110.1	114.0	118.8

(APPENDIX V-2)

BREAKDOWN OF ANNUAL TECHNICAL MANPOWER REQUIREMENTS BY CATEGORY

	1963	1964	1965	1966
Total				
(Number)	211,303	211,546	231,933	243,127
(Increase %)	100	100.1	109.9	115.0
Engineers				
(Number)	16,201	16,850	17,352	17,901
(Increase %)	100	104.0	107.1	110.4
Technicians				
(Number)	14,171	14,558	14,949	15,366
(Increase %)	100	102.7	105.4	108.4
Craftsmen				
(Number)	180,931	190,138	199,632	209,860
(Increase %)	100	105.0	110.3	115.9



STATUS OF MANPOWER PLANNING AND EDUCATIONAL PLANNING IN THE PHILIPPINES

INTRODUCTION

In over a decade of planning the country's economic growth, development planning in the Philippines has regarded education and services to labor as social and consumption forms of expenditure. This is most evident in the chapters devoted by early development plans to education and labor. They consisted mainly of expenditure targets intended to provide educational facilities to the growing number of school-age children, and administrative devices for the protection of workers and the promotion of collective bargaining.

Later plans began to show an increasing awareness of the investment function of expenditures on education and labor in the process of economic development. The five-year plan adopted in 1957 pointed out that the "progress of the country's economic development depends to a large extent on the raising the levels of productivity of the population. To raise productivity, it is necessary that people should first be willing to accept improved production methods and equipment, as well as ways to eliminate waste and inefficiency; and second, be equipped with the necessary skills for production. These can be achieved through proper education and training." The same plan also cited the importance of establishing and maintaining a continuing system of collecting manpower statistics.

The ensuing three-year program of 1960 categorically stated that "One of the major resources of the country is its manpower. Upon its development and proper utilization depends to a great extent the development of the country." Consistent with this policy the plan sought to "develop skills to meet the demands of a growing economy" as an objective. The means proposed to achieve this objective are the expansion of vocational training, the establishment of a national apprenticeship program, development of managerial and supervisory personnel training schemes, and the collection of labor market statistics.

The current five-year development plan adopted in 1962 repeated the manpower objectives of previous plans. Unlike its predecessors, however, this plan quantifies employment targets by major economic sectors (Annex "A"). The magnitudes are thus provided but still lacking is a specific plan indicating the categories of manpower needed to fill these requirements, in what quantities they should be produced, and when, the priority scheme or strategy to employ, and the resources that must be devoted to such a manpower development program. In having failed to provide a manpower program, development planning in the Philippines has also failed to supply the most meaningful link between educational planning and economic development planning. Education, therefore, continues to be treated as a social overhead.

Yet there is that strong awareness of integrating education and manpower into the overall development plan as an accelerator of economic growth. This is increasingly being expressed not only by economic planners but, significantly, by decision-makers in business, industry and education. Translating this awareness into a rational manpower program has been hampered mainly by: (1) the inadequacy of information on the manpower characteristics of the country's human resources; (2) compartmentalized planning and implementation among manpower institutions due mainly to the absence of a centralized manpower planning machinery; (3) the shortage of manpower "strategists" to prepare the plan and direct its implementation; and (4) the traditionalistic attitude of educators, and the population as a whole, towards formal education.

I. MANPOWER ASSESSMENT

Organization

The statistical organization (Annex "B") of the Government of the Philippines is decen-

tralized. While coordination and supervision over standards are exercised by the Office of Statistical Coordination and Standards (OSCAS) in the National Economic Council, virtually every government agency collects, compiles and publishes statistical data according to its functions and needs. Some agencies have primary responsibility over certain classes of statistics. In the case of manpower statistics, seven agencies are engaged in collecting various labor statistics either as a distinct function or as an incidental activity.

The Bureau of the Census and Statistics, as its name implies, conducts the population census and the current labor force survey. These are the main sources of information on the demographic and economic characteristics of the country's human resources. Employment data are also obtained by this Bureau through the agricultural and economic census and the annual survey of manufacturers. The Department of Education provides data on public and private educational institutions, their enrollment and output by levels and courses, and the cost of public elementary and secondary education. The Department of Labor's contribution consists of a quarterly report on employment trends in selected firms conducted by its employment office, and industrial relations statistics and operational data collected by the department's Labor Statistics Service.

The Central Bank of the Philippines, which initiated a labor statistics program to fill a gap, continues to maintain the monthly employment and wage indices. It also reports on daily wage rates for selected occupations. Some characteristics of farm employment are available from the Bureau of Agricultural Economics. Quantitative data on employment in the public service, as well as the number of persons who take examinations for the practice of certain professions, are provided by the Civil Service Commission. The Social Security System, from reports submitted by member firms, has a wealth of unpublished information on conditions of employment in all economic sectors.

Data on the output of state universities and colleges have to be obtained individually from these institutions. Likewise, information on the

results and progress of special training programs, conducted by government agencies to meet their particular needs, have to be culled from reports of each agency. There is no reporting system for determining the extent of informal on-the-job training unless it is an apprenticeship program registered with the Department of Labor.

As an incidental activity, the National Science Development Board conducts an assessment of professional and scientific manpower in the country. The project is of particular value in determining requirements for high-talent manpower. It is used by the NSDB in programming government scholarships and training programs in selected fields of science.

Government ministries engaged in collecting and publishing labor statistics are members of an Inter-Departmental Committee on Labor Statistics set up by the Office of Statistical Coordination and Standards to coordinate the activity. This committee meets occasionally to consider problems or projects involving more than one agency. It does not supervise nor control. The statistical units represented in the committee are subject to the administrative control of their respective ministries.

Statistics for Manpower Planning

Of the various statistical data gathered by these agencies (Annex "C"), the most suitable to manpower planning are those available from the Bureau of the Census and Statistics. Specifically, these are the 1960 population census, particularly the section on labor force status, and the periodic labor force survey. Under the direction of OSCAS an inter-departmental committee has worked out population projections up to 1980 based on the 1960 census. On the other hand, the Program Implementation Agency (P.I.A.), in cooperation with the Department of Labor, use these projections in forecasting the size of the labor force given the participation rates obtained from the current labor force series.

Preliminary medium-term (five-year) projections of employment by major industrial groups have been established by the Program Implementation Agency by correlating employment

with national income targets. The P.I.A. is now attempting to translate the employment targets into two-digit occupational groups based on the occupational structure of industrial sectors as reported in the 1960 census. The next approach is to develop relatively broader occupational categories linked to the educational system. Further refinements of these initial estimates will be made on the strength of changes indicated by other data such as those to be provided by the agricultural and economic censuses and the survey of manufactures.

Projections of the output of educational institutions by level of education and by course are also being made by P.I.A. in cooperation with the Department of Education. Work in this area is still in the stage of developing an acceptable methodology for matching courses and occupations as a means for identifying critical manpower shortages and surpluses.

The analytical method employed by P.I.A. represents a first approach to manpower planning in this country. Its objective is to provide the initial manpower targets for a rational manpower development program. These targets will of course be subject to review and revision as more and improved data become available.

Virtually all of the statistical information on the country's manpower resources deal with the supply side. Observations on demand have to be derived empirically. In most countries, demands for specific types of workers are usually reported by the employment exchange system as a corollary function; oftentimes facilitated by an unemployment insurance scheme. The Philippines has no unemployment insurance system and has but one employment office. Because of the preference of employers to do their own hiring, this employment agency has not been able to effectively trace occupational movements in the labor market.

Cognizant of the situation, the Department of Labor initiated a quarterly employment survey in 1959. The survey includes an inquiry into prospective demands of employers in selected industries among firms employing one hundred or more workers. It is conducted by mailed questionnaire. Ninety to ninety-five per cent of those who respond do not answer this part of the

questionnaire. Those who answer merely hold their current employment levels constant or reflect decreases. Our experience in this respect has been that in forecasting future operations, employers are either pessimistic or unprepared to discuss their future employment programs.

In summary, a formal statistical organization for manpower planning does not exist. It is loosely built into the functions of various governmental institutions engaged in activities which directly or indirectly deal with manpower. A wealth of information on the supply characteristics of the country's human resources exists. But the collection and the manner of reporting these data have yet to be oriented towards the research needs of manpower planning. On the other hand, hardly any information on the demand for labor in meaningful categories are available. Nevertheless, indicators can be obtained empirically from existing studies as preliminary bases for quantifying demand. Under these conditions, manpower planning, though preliminary in nature and even primitive by sophisticated standards, can be and is being performed.

Manpower planning as a distinct and separate function is not fixed in any single agency. This does not mean, however, that manpower planning does not occur at all. On the contrary, several agencies plan and execute activities which are within the scope of human resources development (Annex "D"). These plans are reflected in the five-year fiscal programs annually submitted by the agencies to the Budget Commission for inclusion in the national budget.

These programs are developed independently of one another. They are based on the constitutional or legal concept to which the agency owes its existence. That concept, to most agencies, has become the objective to the exclusion of national goals. The whole is oftentimes viewed as peripheral or incidental. A good example is the Department of Labor. Its constitutional mandate is to protect labor and regulate employer-employee relationships. In over four decades of existence, the enforcement of labor laws has become emphasized over and above developmental functions. This is also true of education which is so steeped

in humanistic values that educators often forget that the application of knowledge is a more ennobling experience than its mere acquisition.

Until recently these agency fiscal programs were considered as they were developed: individually and only within the confines of their respective responsibilities and areas of operation. Hence, both planning and implementation were compartmentalized. Heeding the experience derived from the failure of previous development programs to even get started, an agency has been created to coordinate and integrate these programs into the socio-economic development plan. The overall goals are established by the National Economic Council. In the case of manpower, these are expressed in aggregative sectoral targets and the general approach that programs in labor and education should follow to support these targets (Annex "A").

Given these targets, the coordinating office, the Program Implementation Agency, reviews the programs submitted by the implementing agencies and integrates them. Essentially, coordination and integration consists of relating activities to one another and to the objectives of the national development plan. Wherever and whenever necessary, the P.I.A. also promotes the development of projects and incentives to fill critical gaps as they are indicated.

As the machinery for manpower development stands, therefore, planning and coordination occurs at the level of the Office of the President. Where legislative measures are necessary, these are submitted to the legislature for approval. Implementation, however, is highly decentralized among a number of semi-autonomous government institutions. These institutions may be grouped into the primary and secondary implementing agencies.

The primary agencies are those which exercise functions inherently related to human resources development. These are the Department of Education and the different state-supported colleges and universities, and the Department of Labor.

The Department of Education is responsible for the national administration of formal education. Its main concern is to provide universal elementary schooling. Vocational secondary education is also under the direct supervision of this

Department while general secondary schools are maintained by local governments. Higher education is extended by 14 state colleges and universities. The bulk of collegiate enrollment, however is in the private sector composed of 25 universities and 434 colleges.

The state colleges and universities are covered by separate charters and are governed by their respective boards of trustees. As a rule, the Secretary of Education is the chairman of these boards to insure consistency in policies and standards. General higher education is offered by the universities while courses in the state colleges tend to be specialized as in the case of the Philippine Normal School, the Philippine College of Arts and Trades and the Philippine College of Commerce.

Though the Department of Education exercises direct administrative control only over public elementary and vocational schools, the entire educational system is subject to the policies and standards adopted by the Board of National Education and enforced by the Secretary of Education. The Board of National Education is the official planning body for education. Its functions will be discussed more extensively in the following section on educational planning.

The Department of Labor, by law and tradition, enforces protective labor laws and promotes industrial peace mainly by conciliating at labor-management disputes. In recent years, it has assumed other functions of direct value to manpower planning, namely, the collection and interpretation of labor statistics, extension of employment services, and the promotion of on-the-job or apprenticeship training.

Unfortunately, as the primary manpower development agency, the Department of Labor is too involved in enforcement functions to be an effective instrumentality for modernizing the skills and capacities of the labor force. Founded on the principle of protectionism, it has succeeded in greatly expanding its enforcement facilities but to the neglect of its developmental functions. Thus, it has never been able to conduct any significant manpower studies. It has but one employment office servicing metropolitan Manila in a very limited scale. Apprenticeship has had a nominal success but still is greatly inhibited by

an enforcement-oriented law which restricts instead of giving incentives. Within the Department itself these related activities have to be coordinated and the concept of utilizing labor standards as incentive-tools has yet to be recognized.

On the other hand, this Department recently demonstrated its capacity to contribute to manpower planning in a new series of occupational monographs. Aside from being indispensable to vocational guidance and counseling, the monographs also supply useful information on the manning structure of the industries covered.

Another group of implementing agencies consist of those which perform manpower development activities as an incident to their primary functions. These activities are either specialized or limited, generally intended to meet manpower problems in their specific and respective areas of operation. These agencies are briefly described below:

1. *Civil Service Commission*—This is the central personnel office of the government. Its principal function is to recruit personnel and promote in-service training in all government offices.
2. *Department of National Defense*—This agency consolidates plans of the different branches of the armed forces which in turn conducts continuing training programs for its officers, technicians, enlisted men, and citizen-reserves. The impact of its training programs on the economy is best demonstrated by the fact that practically all pilots of domestic airlines and the majority of ground personnel were trained by the Philippine Air Force.
3. *Land Reform Council*—Composed of the various land reform agencies, the Council is responsible for the coordinated implementation of the government's land reform program. From the standpoint of manpower development, the most important agency is the Commission on Agricultural Productivity. Through its extension workers, it teaches farmers improved techniques of cultivation and principles of farm management.

4. *National Science Development Board*—The concern of NSDB is restricted to the development of scientific personnel. For this purpose it maintains scholarship and training programs to fill urgent needs for high and middle-level scientific manpower.

5. *Presidential Assistant on Community Development*—Aside from training its own community development workers, these workers in turn equip rural populations with basic understanding of the political system and simplified ways of improving their living conditions through community action. Its activities usually include literacy instructions especially for adults.

6. *National Cottage Industries Development Authority*—Its function is to promote cottage and small-scale industries. It operates mainly in rural areas where it also conducts training programs, mostly in handicrafts, to supply the staffing needs of the industries it organizes.

7. *Bureau of the Census and Statistics*—This agency, though it does not conduct any training activities outside of those for its own personnel, is the primary source of statistics for manpower planning.

This organization for manpower development is not, strictly speaking, an organization but a set of functions distributed among different agencies. More than anything else it is a product of the natural growth of a political system which responded to urgent needs as they became felt. The machinery for manpower development is present. But it exists in parts. The situation easily suggests a problem of coordinating and integrating these parts into a whole to optimize the utilization of resources already being devoted to manpower development.

III. EDUCATIONAL PLANNING

Of all the institutions that contribute to the development of human resources, none wields a stronger influence than education. Yet, to be a really effective instrument for economic growth, its goals must be in common with the population's aspiration for economic well-being.

A full understanding of the development of education to its present status in this country necessitates at least a brief survey of its past. Education was a matter of colonial policy prior to the establishment of the Republic in 1946. Its objectives were determined by the sovereign power. Thus, under Spanish rule education was administered by the Church. It functioned as a tool for the Christianization of the nation. In taking over the administration of the country from Spain, the Americans established the first truly public education system and used it in the democratization of the people. Today, the Philippines is the only Christian nation in Asia where a truly democratic form of government prevails.

Education gained prestige during the Spanish regime when only the upper strata of society could send their children to school. The Americans made primary education available to all but gave a premium to higher education as they allowed Filipinos to participate in the task of nation-building. The accent on political development created demands for politicians, administrators and teachers. Together with the professionals, a new middle class rose from their ranks. Young men and women trooped to colleges to enroll in law, liberal arts and education. To this day these courses remain popular. Recent years, however, have noted a declining proportion of enrollment in these courses in favor of commerce, engineering and technology.

The past still exerts a strong influence on the educational system. This is particularly evident in the public schools which operate along the following objectives promulgated by the Board of National Education.

1. "To inculcate moral and spiritual values inspired by an abiding faith in God.
2. To develop an enlightened, patriotic, useful and upright citizenry in a democratic society.
3. To instill habits of industry, and thrift, and to prepare individuals to contribute to the economic development and wise conservation of the Nation's natural resources.
4. To maintain family solidarity, to improve community life, to perpetuate all that is desirable in our national heritage and to save the cause of world peace.

5. To promote the sciences, arts and letters for the enrichment of life and the recognition of the dignity of the human person."

These objectives are reflected in the curriculum and standards prescribed by the Board of National Education and enforced throughout the educational system by the Department of Education.

The Board of National Education is the official planning body for education. Its broad functions, as stated by the law (Republic Act No. 1124) that created it are: "(a) to formulate the objectives and basic policies of education for children and adults in conformity with the philosophy and mandates of the Constitution; (b) to coordinate the objectives, functions and activities of different types and kinds of educational institutions of the Philippines and (c) to set up general goals of accomplishments for the entire Philippine schools system, the attainment of which shall be the objective of the policies and functions of all educational institutions in the country." With the Secretary of Education as chairman, membership in the fifteen-man board is representative of both houses of Congress, private schools, state universities, labor and industry, and the teaching profession.

Plans and policies adopted by the Board are either transmitted to the Department of Education for implementation or, where legislative approval is necessary, submitted to Congress. The implementing arms of the Department of Education are the Bureau of Public Schools, Bureau of Private Schools, and the Bureau of Vocational Schools, which translate into operational terms the broad guidelines set by the Board and the Secretary of Education (Annex "E").

The Bureau of Public Schools exercises supervision and control over all public elementary and secondary academic schools, the normal schools, and such special services as folk and community schools. It engages in planning for the substantial needs such as books, classrooms, instructional aids, teachers, etc., of the public educational system. The Bureau of Private Schools checks on the curriculum, standards, and physical facilities of private institutions for consistency with established policies and standards. The Bureau of Vocational Schools programs and super-

vises formal vocational training in three types of secondary and post-secondary vocational schools: agricultural, trade-technical and fishery schools. It also provides short opportunity courses for adults and out-of-school youth and cooperates with the Department of Labor in conducting establishment apprenticeship programs.

Administratively independent of the Department of Education, but not of the policy determining powers of the Board of National Education, are the 14 state-funded colleges and universities. These institutions plan and program their activities individually but not entirely to the exclusion of the Department of Education. The Secretary of Education sits as Chairman of the boards of trustees of these institutions.

Accidentally linked to the educational system are different boards of examiners. In essence these boards perform a licensing function intended to insure high standards in the practice of certain professions involving the public interest. As a condition to the practice of the profession, these boards give examinations in various fields, such as medicine, nursing and the different branches of engineering. Though these boards neither plan nor program, they exert a tremendous influence on the design and content of the curricula for these disciplines. Depending on the standards they employ, they can even control the size of the profession. Especially affected are private schools which vie for the honor of obtaining the highest grades for its candidates or the greatest ratio of passing candidates.

As a whole, the organization for educational planning and administration is highly centralized and coordinating links are sufficiently present. But a serious obstacle to coordinated planning and operations is the existence of an extensive profit-based system of private colleges and universities, which is quite unique to this country. These schools normally account for 60 percent and 85 percent of secondary and college enrollment, respectively. Any plan which would align the objectives of these schools with national goals should seriously consider an appropriate scheme of incentive and even subsidies as a substitute for profits.

The central planning Board of National Education has yet to evolve that plan which would

integrate the activities of the entire educational system then link them to the requirements of accelerated economic growth. Its present planning activities have been concentrated to the public school system, particularly the financing of that system, and the qualitative aspects of instruction. The reason lies partly in the Department of Education, the Board's executive arm, which as a rule, initiates policy decisions of the Board. For the same reason, the education department could initiate long range or perspective planning in the Board. Recent developments indicate that such plans may soon be submitted to the Board of National Education for its consideration.

Planning consciousness has been building up in the Department of Education in the last few years. This agency has sent ten of its senior officials to the UNESCO Training Center in New Delhi, India, for training in educational planning. The Department has also developed and introduced a subject on educational planning now included in teacher-training courses. In 1963, an *ad hoc* planning and programming committee was created by the Secretary of Education. Unfortunately, certain administrative restrictions forced the dissolution of the committee. The following year, a UNESCO Advisory team for Educational Planning made studies in the Philippines and submitted a preliminary report on "Long-Term Projections for Education in the Republic of the Philippines." This report is now under consideration by the Department of Education.

Operational planning in the Department of Education as in most government ministries, originates from its operating bureaus. In principle, these plans are consolidated at the level of the Secretary of Education. In practice, however, these bureau plans are submitted to the Office of the President as five-year fiscal programs with hardly any substantial change. These pro-

1. The terms of reference set by UNESCO for this study were:

"(a) To establish, in close co-operation with the national authorities and in accordance with objectives and targets as set by them, long-term projections till 1980 to overall educational development (educational pyramid) covering all types and levels of education, within the framework of national perspective plans of social and economic development. The minimum educational pyramid will be the one that could be attained with available present and anticipated national resources; the maximum pyramid will be the one that could be attained with concerted use of all foreign assistance to supplement national resources.

"(b) To suggest, for each country, if necessary, tentative targets to be achieved by 1980 in the field of education (educational pyramid) taking into account, as far as possible, future trained manpower needs and financial implications, as well as the cultural and economic objectives desired by the countries themselves."

grams are not coursed through the Board of National Education unless they involve changes in existing curricula and standards. The basic criteria employed in preparing these fiscal programs are the number of classes that must be provided to absorb the increasing school-age population; teacher-pupil and teacher class ratio; and administrative overhead and supervision. The goals are quantified, if quantifiable, and the activities are broken down into specific programs and projects. They are limited in scope to the operational area of the bureau concerned. These are prepared for budget purposes and revised every year. A good example is a recent five-year educational program proposed by the Bureau of Public Schools for 1965 to 1970.² The plan is quite comprehensive in terms of providing for physical resources and the program has been built into a long-range projection of enrollment in public schools.

Both the UNESCO plan and the public schools program are resources oriented. That is, both are mainly concerned with the resources that must be mobilized to support a desirable program for the various levels of education. Neither correlates education to economic development in terms of its requirements for various categories of manpower. Such a correlation has been attempted for vocational-technical education in a paper prepared by Dr. Casimiro E. Maningas of the Bureau of Vocational School.³ While taking cognizance of projected occupational requirements, the paper, however does not establish such requirements as actual physical targets but used them as parameters for planning vocational training. Its conclusions are primarily directed towards the determination of the cost of vocational education.

From these observations, it may be concluded that current educational planning, both at the policy and implementing levels, is mainly concerned with three aspects of education; (1) the promotion of humanistic values traditionally associated with education; (2) the improvement of

the quality of instruction; and (3) the determination of its cost as a "must" social service. It has yet to be incorporated into the general strategy for accelerated economic development.

IV. PROBLEMS OF ASSESSMENT AND EDUCATIONAL PLANNING

Many of the problems of manpower and educational planning are problems of assessment. Assessment is a first stage of planning, and until it is adequately maintained, rational planning for human resources development would be difficult if not impossible to achieve.

Statistical progress in the Philippines during the last decade has provided economic planners with a wealth of information which has made economic planning possible in this country. Particularly significant from the standpoint of manpower planning are the population censuses, the labor force household surveys, the census of agriculture, and the survey of manufactures. These are supplemented by other statistical series described in the preceding sections of this paper.

While these assessments have provided adequate data for determining the current and future size of the labor force, the composition of that labor force are reported in the broad classifications useful to general economic planning but not in the more precise groupings which are meaningful to manpower planning. Thus, the semi-annual current labor force surveys publish the distribution of employment by major industrial and major occupational groups. The coefficient of variation inherent in the sampling design, however, restricts disaggregation into smaller groups. Two-digit breakdowns are available from the 1960 census of population. But, aside from being unpublished, the labor force data from that census has yet to be linked to the current labor force series.

Both the census and labor force surveys do not publish tabulations on the labor force by levels of educational attainment, though this is available for the population. Levels of education cross tabulated with employment by industry and by occupation, even for selected groups, would be particularly useful in the educational or train-

2. A proposed Five-Year Educational Program of the Bureau of Public Schools 1965-66 to 1969-70; January 1965.

3. Quantitative Aspects of Educational Planning in Vocational Technical Education by Dr. Casimiro E. Maningas, Chief, Teacher Education and Related Subject Division, Bureau of Vocational Schools; November 1964.

ing content of employment. These are but some of the useful tabulations which are available from existing surveys but not published.

Also unpublished are data from payrolls and other reports submitted monthly to the Social Security System. These are in the nature of establishment reports which, if properly processed, should yield valuable information for manpower planning. Aside from general employment data, social security records can be the source of information on labor turnover, wages and hours of work, and the occupational composition of all industries by employment size. This would make possible the identification of the organized and unorganized sectors which react differently to any manpower plan.

Projections of employment based on programmed growth rates are seriously hampered by the absence of information on productivity and the very meager data on the characteristics of employment in agriculture. The traditional sector accounts for two-thirds of total employment but contributes only 35 percent of the national income. The condition of underemployment thus indicated is also measured and reported by current labor force surveys. The forty-hour workweek standard used in measuring underemployment in agriculture, however, is the same as that for the non-agricultural sector though a sixty-hour workweek is normal in agriculture during peak seasons. Moreover, no study on the length of the agricultural workyear has been conducted. Planners are thus unable to predict the effects of changes in productivity on employment particularly in the traditional sector which is most sensitive to changes in technology and methods of production.

It has already been noted that most of the manpower data available deal with the supply side of labor. Hardly any information is available on demand patterns. Part of the reason is the virtual absence of an employment exchange machinery which could undertake the collection and dissemination of labor market statistics. Another reason, which could be the main one, is that manpower planning is of recent vintage such that its methodology is still the process of development. The concept is just being introduced into this country and its requirements for data

are just beginning to be identified and realized.

The manpower planner in this country is also handicapped by the lack of economic studies dealing with manpower. Analytical dissertations and articles written about the Philippine economy have mostly dealt with such problems as monetary and fiscal policies, general economic development, and the development and utilization of physical resources other than labor. An encouraging development in this regard is the recent organization of the Labor Research Council in the University of the Philippines. This group of political scientists plan to undertake a series of studies on the political, cultural, social and economic influences which affect manpower development and utilization.

The need for research and statistics is usually associated with the need for an organization to undertake these tasks. Two things are indicated in this regard: first, the strengthening of the existing machinery for manpower assessments; and second, the centralization of authority and responsibility for manpower research.

The machinery for collecting manpower statistics need not be centralized. The activity can be performed by more than one agency. Each collecting agency, however, must be performing functions related to manpower. Within each agency, it is also essential that the research function be centralized. These are important for reasons of economy and control. The present proliferation of this activity among several manpower and non-manpower agencies is wasteful and defies effective coordination. One result has been the inadequate funding and staffing of the proper statistical agencies.

Decentralized collection of manpower statistics, however, should be subject to the control and supervision of a central research agency. This is compatible with the present government-wide statistical organization which is coordinated by the Office of Statistical Coordination and Standards. The objective is to maximize the application of limited resources for manpower research essentially by directing it towards critical areas which such an overseeing organization would be in the best position to determine.

This organization can very well be the same organization to plan and integrate manpower

planning. As the preceding analysis of the machinery for manpower development indicates, several agencies perform related manpower activities generally in isolation of one another and of the institutions outside of the government. Since these agencies plan their own activities, planning, therefore, is equally fragmented, leading to imbalances between output and requirements.

Such imbalances were made apparent by a 1961 survey of the employment status of persons who have had secondary and higher education. Unemployment rates of 22 to 49 percent among graduates of vocational courses, law, education, commerce and liberal arts were reported by this survey. Enrollment in public and private schools indicate that the situation has worsened and that surpluses in these fields will continue to build up unless steps are taken to redirect the flow of graduates.

A central planning agency is only a partial answer to the problem. In the Philippine experience implementation is the crux of the problem of integration and coordination. Within the government, the legislature is given to enacting laws independently of executive advice. Among executive agencies questions of jurisdiction and institutionalized practices which defy change present obstacles to coordinated programming and operations. Among private institutions, the profit motive, if it can, must be reconciled with national goals and objectives. Together they indicate problems of management and the creation of appropriate incentives.

Management problems are essentially staffing problems. The manpower "strategists" or "generalists" whom Professor Frederick H. Harbison speaks of are difficult to come by. Those who would qualify are probably already engaged by private industry, which has its own thirst for "generalists", and which can offer much better terms of employment than the government. Even assuming that they are available to the government raises a question of whether they should be concentrated in the central manpower agency.

To do so may create a serious problem of com-

munication between the planning and implementing agencies.

V. PROBLEMS OF EDUCATING FOR MANPOWER DEVELOPMENT

These are problems of organizing for manpower development. Given the necessary machinery, that machinery will have to contend with a host of other problems and perhaps even search for more. Critical problems which have so far been identified are outlined below for the sake of brevity:

1. The high rate of drop-outs in the elementary grades. Only about 40 out of every 100 which enter Grade I complete Grade VI, due mainly to economic reasons.
2. The low percentage of students entering high school (secondary) and the low proportion of enrollment in vocational courses. Only 20 percent of those who enter Grade I proceed to first year of high school. Less than 10 percent choose vocational courses.
3. The 10-year period of pre-university schooling (consisting of six years elementary and four years secondary) is considered by authorities as inadequate preparation for college work.
4. The Filipino passion for education as a status symbol and the preference of parents and students for what they consider prestige courses. These have encouraged the operation of profit-based schools and the growth of cheap courses which do not contribute to the economy. The situation is also responsible for shortages of middle-level and skilled manpower and surpluses in certain courses.
5. The mounting cost of universal primary education which has been preventing the government from allocating much needed resources to other levels of education and to special training programs for the out-of-school youth.

VI. PROJECTS FOR FUTURE ACTION

Several projects are planned for implementation within the next few years. These projects have been selected for the purpose of overcom-

4. Summary Report on Inquiry into Employment and Unemployment among those with High School or Higher Education, May 1961 by Office of Manpower Services, Department of Labor and Bureau of the Census and Statistics, Department of Commerce and Industry.

ing obstacles to manpower planning and to the effective coordination of programs in manpower and education. They deal mainly with problems of assessment and organization.

With the assistance of the International Labor Organization, a survey of selected industries to determine the educational content of various categories of occupations will be conducted by the Labor Research Council of the University of the Philippines. The study will be part of an extensive Asia Foundation-supported survey of labor conditions in the Philippines. The study is expected to provide much needed information on formal and informal training qualifications generally required by employers for certain categories of manpower. The information will be used in evaluating and recommending changes in existing training programs and in the establishment of industry-oriented courses.

Additional information for planning will also be obtained from files and records of the Social Security System. Full exploitation of this source of data will begin with a monthly employment series based on employer reports submitted to the System. The project will be expanded to eventually include payroll and occupational statistics.

Meanwhile, the Program Implementation Agency has been preparing preliminary medium-term forecasts of employment within the limitations of existing data. Projections of the output of formal training institutions have been established and are now being linked to expected future demand for a selected band of occupations. This study will initiate the formulation of an integrated manpower development plan.

Coordinated planning and programming among the implementing agencies of the government are expected to be achieved with the establishment of a Plans and Programs Unit in each ministry. As the central planning agency for the ministry, the Plans and Programs Unit shall develop and recommend goals and objectives in line with the priorities established by the overall economic development program, design appropriate projects, and program their implementation. Overall planning guidance will be provided by the National Economic Council and the Program Implementation Agency. To insure proper

staffing, a special course for planning and programming officers will be conducted by the Institute of Economic Development and Research of the University of the Philippines.

For manpower development, the planning machinery which has been proposed is a Manpower Development Commission composed of the Secretaries of Labor, Education and National Defense, the Chairman of the National Economic Council, the Director General of the Program Implementation Agency, and the Civil Service Commissioner. This cabinet-level commission is to be the sole authority to plan manpower development and direct the implementation of that plan. The scope of its authority will cover manpower research, formal and informal training, and placement. As proposed, executive support will be provided by the Department of Labor.

At the operating level, representations are being made for the expansion of the employment exchange system which, at present, has but one office in Manila. It is to perform the critical function of directing the flow of workers into proper areas of utilization essentially through a guidance and counseling program tied up with vocational guidance in formal institutions of learning. A corollary function of employment exchange offices is to fill the labor market statistics gap. The necessary enabling law has been passed by the legislature but could not be fully implemented due to funding difficulties.

In education, the capabilities of the existing vocational training system are being evaluated with the assistance of the International Labor Organization. The study will be used for recommending approaches to the production of skilled manpower through industry-oriented vocational training programs. A specific area of study is the feasibility of developing short-term courses directed towards the out-of-school-youth using existing facilities of vocational schools.

Under study by the legislature is a School Financing Bill proposed by the Board of National Education. This bill would identify the sources of funds for the public school system and distribute the financial burden among local governments. Should it be relieved of the full burden of financing public elementary education, the national government would be able to devote more

resources to the secondary and higher levels of education. A serious problem in these levels is the quality of the output which could be improved through a system of subsidies and entrance examinations. The Department of Education is also considering the feasibility of requiring an additional year for secondary education.

Longer term measures directed towards spe-

cific areas of action indicated by the requirements of economic development will be formulated as manpower planning progresses in this country. Much of that progress will depend on the recognition that is given to the manpower planning function and to the expertise acquired by those engaged in the activity.

ANNEX A

MANPOWER POLICY AND EMPLOYMENT*

By 1967, there will be about 12,300,000 persons offering their services for wage or profit; but available full-time or part-time jobs will probably be only a little less than 11,620,000. Thus, approximately 680,000 persons looking for work by 1967 will not be able to find jobs and of the 11,820,000 persons who manage to find jobs, about 1 400,000 will be partially employed (that is, working less than 40 hours a week). Thus, there will only be about 10,220,000 persons fully employed by 1967, or only about 88% of the total labor force.

The industrial distribution of the employed labor force by 1967 reflects significant changes in production patterns since 1959:

EMPLOYED LABOR FORCE

Industry	1959		1967	
	Number (In Thousands)	% Distribution	Number (In Thousands)	% Distribution
Agriculture	5,528	61.7	5,640	48.5
Industry	1,084	12.1	2,347	20.2
Construction	278	3.1	351	3.0
Basic Facilities, Services and Trade	2,069	23.1	3,279	28.3
TOTAL	8,959	100.0	11,617	100.0

Some 330,000 to 360,000 jobs will be provided annually to absorb a large portion of the yearly increase in the labor force.

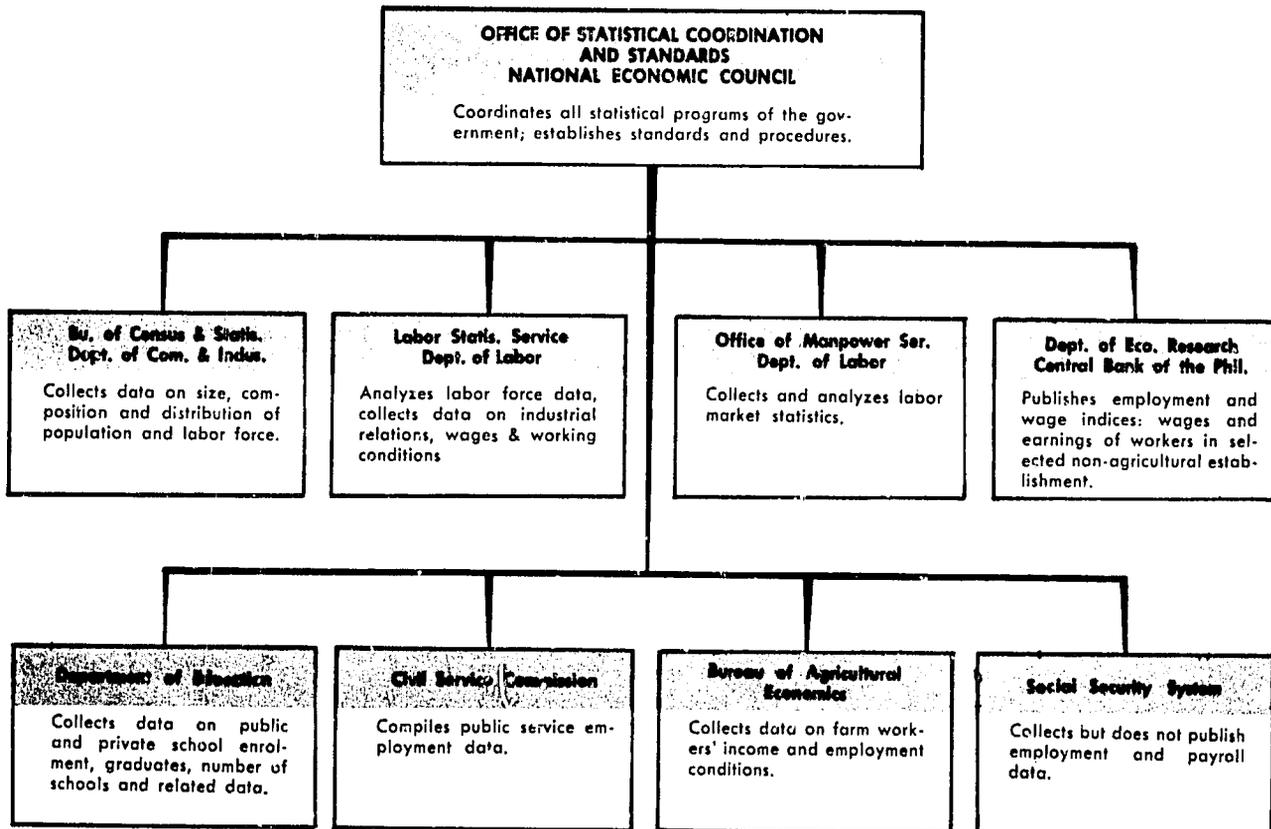
However, most of the jobs that will have to be created will be in the manufacturing and services sector: in manufacturing some 160,000 new jobs will be created yearly; and in the services sector, also about the same number. While employment in agriculture will increase in absolute terms, the rate of growth in the number of employed persons will be restricted to only about one-fourth of one per cent annually.

The shift of the labor force towards non-agricultural production will require significant changes in worker attitudes and orientation, acquisition of industrial skills and expansion of personnel management skills. To meet these necessary adjustments, training programs and education of workers will be important. Program targets include manpower training, including vocational and apprenticeship training systems and placement services.

* President Diosdado Macapagal, FIVE-YEAR INTEGRATED SOCIO-ECONOMIC PROGRAM FOR THE PHILIPPINES, Chapter XIV, Social Welfare and Manpower Policy, pp. 65 and 66.

ORGANIZATIONAL AND FUNCTIONAL CHART FOR MANPOWER ASSESSMENT

ANNEX B



ANNEX C
INVENTORY OF AVAILABLE MANPOWER
STATISTICS BY AGENCY

1. Bureau of Census and Statistics, Department of Commerce and Industry

- a. Size, composition and distribution of labor force; number and distribution of the employed labor force classified by industry, class of worker, hours worked and other labor force characteristics obtained through a bi-annual survey of households.
- b. Size, composition and distribution of the population in households; family income and expenditures and the demographic characteristics of age, sex, civil status, educational attainment, literacy, fertility, and others obtained through the same household survey.
- c. Employment and payroll data of manufacturing concerns compiled through a manufacturing sample survey of establishments employing five or more workers, compiled yearly.
- d. Wholesale and retail price statistics and indices by month and by commodities; consumer price index for low income families in Manila compiled weekly from selected commodities.
- e. Population Census (once in 10 years).
- f. Wage rates of skilled and unskilled worker in selected occupations and industries compiled yearly from schedules filled out by district engineers throughout the country.

2. Department of Economic Research, Central Bank of the Philippines

- a. Prices received and prices paid by farmers for selected commodities collected monthly from farmer-cooperators throughout the country.
- b. Farm wage rates of agricultural laborers compiled from time to time from reports of agricultural extension workers.
- c. Age-sex distribution; educational attainment and lit-

eracy; primary and secondary occupation of farmers; type of tenure by size and type of farm selected annually through the crop and livestock survey.

4. Labor Statistics Service, Department of Labor

- a. Directory on the number of non-agricultural key establishments employing five or more workers as of 1960; number employment and size by industry identification.
- b. Number of registered job-seekers, number of job openings, referrals and placements in the Manila office tabulated monthly.
- c. Data on strikes, union membership wages and working conditions of women and minors compiled quarterly.

5. Office of Manpower Services, Department of Labor

- a. Labor market data, analyses and interpretation of employment trends and labor turnover from time to time.

6. Department of Education

- a. Number of schools by level, and by province, enrollment by level, grade, sex and age, number of teachers by level and by sex, number of graduates by level and by sex in the public and private schools. Compiled yearly.
- b. Characteristics of the population relating to their educational attainment, school attendance and literacy also compiled yearly.

7. Civil Service Commission

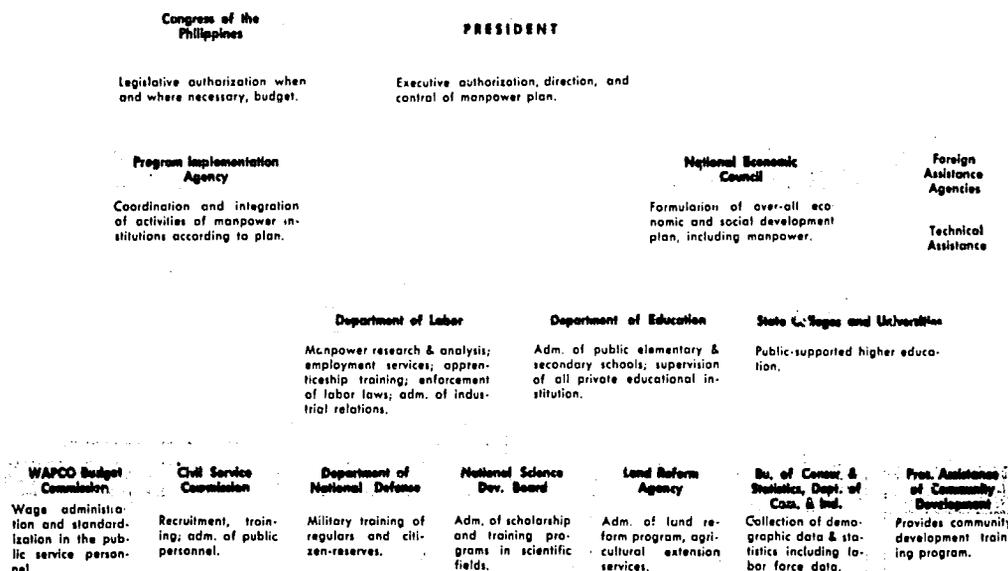
- a. Yearly data on number of government employees by agency.

8. Social Security System

- a. Size, distribution and characteristics of members, statistics on death, disability, sickness and retirement payments, employment and payroll of member firms annually collected.

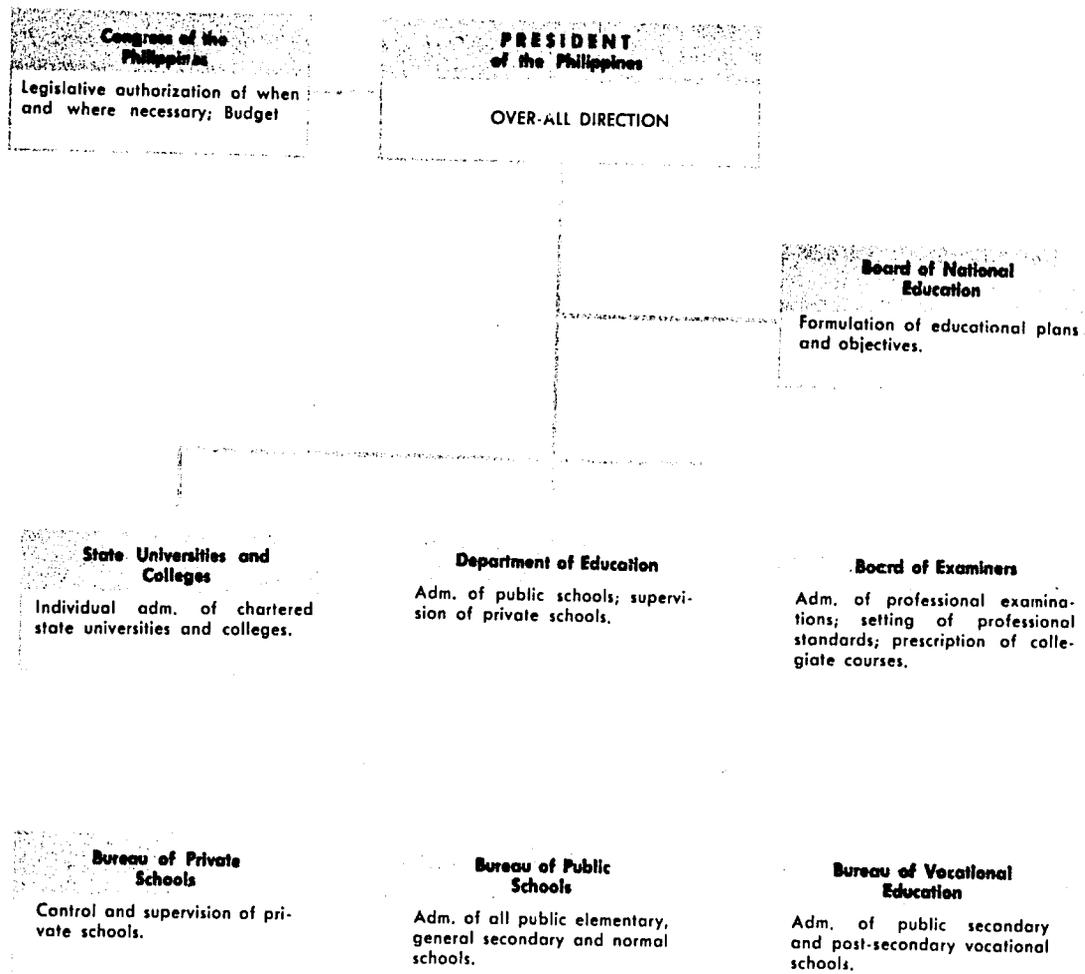
ORGANIZATIONAL AND FUNCTIONAL CHART FOR MANPOWER PLANNING

ANNEX D



ANNEX E

ORGANIZATIONAL AND FUNCTIONAL CHART FOR EDUCATIONAL PLANNING



ANNEX F

ENROLMENT, PHILIPPINE EDUCATIONAL SYSTEM
School Year 1962-1963

Educational Level	Period of Schooling	Normal School Age	Public	Private	State Colleges & Universities	Total	% Distribution	Age Group Population	% Enrolment To Normal School Age
ELEMENTARY	6 years	7 - 12	4,598,097	222,621	2,587	4,823,305*	79.75	5,034,000	95.81
GENERAL SECONDARY	4 years	13 - 16	226,890	527,002	1,969	755,861	12.50	2,804,000	26.96
VOCATIONAL SECONDARY	4 years	13 - 16	62,157	— ¹	5,978	68,135	1.13	2,804,000	2.43
COLLEGIATE	Under-graduate 4 years	17 - 22	13,910 ²	348,664 ³	37,549 ³	400,123	6.62	3,434,000	11.65
	Graduate 2 years								
TOTAL			4,901,054	1,098,287	48,083	6,047,424 ⁴	100.00	14,076,000	42.96

* Overage pupils constitute a substantial proportion (15.6% in 1961-1962) of total elementary school enrolment.
 1. Enrolment negligible.
 2. Comprises teacher-training, post secondary trade technical and agricultural enrolment.
 3. Includes graduate enrolment.
 4. Excludes enrolment of 50,723 in Special Vocational Courses offered in the Private Schools.

[ANNEX G]

1. *Report of the Committee on the Reform of the Philippine Educational System dated April 21, 1961.*—This Committee was headed by then President Vicente G. Sinco of the University of the Philippines. Using the Swanson Survey Report as working basis, the Committee recommended among others a reorganization of the secondary school system and curriculum changes in college courses to raise academic standards.
2. *International Bank for Reconstruction and Development Mission Report dated May 20, 1963.*—This Report evaluates the current educational system at all levels from the standpoint of its contribution to economic growth. It is the first report that attempts to relate enrollment projections directly with projected manpower needs. It proposes a 5-year program (1963-1967) for government expenditures on education at the elementary, secondary, and college levels.
3. *Report of the UNESCO Regional Advisory Team for Educational Planning in Asia dated September, 1964 (Preliminary).*—Using the “resources” approach, this report establishes long-term maximum and minimum enrollment projections (1960-1980) at all educational levels by general and vocational (or technical) streams. The plan proposed is a comprehensive and flexible one that lends itself to easy adjustment and adoption.
4. *Paper on “Quantitative aspects of Educational Planning in Vocational Technical Education,” November, 1964, Plan for Vocational Education prepared by Dr. Casimiro Maningas, Bureau of Vocational Schools.*—Using the “cohorts tracing” method of projecting enrollments, this plan sets enrollment targets for the period 1963-1980 for elementary, general secondary, and public vocational schools, and projects the financial requirements to support the programs of public vocational schools.

STATUS OF MANPOWER AND EDUCATIONAL DEVELOPMENT PLANNING IN THE KINGDOM OF THAILAND

INTRODUCTION

The series of questions provided by the Seminar planners was found to be a stimulating and convenient frame work on which to arrange the material in this status paper. The questions are here abbreviated.

1. To what extent is human resource development planning viewed by your government as an integral part of its national planning?

The Royal Thai Government (RTG) very definitely considers human resource development planning as an integral part of its National Economic and Social Development Plan. It has established both a Manpower Planning Office (MPO), in the National Economic Development Board, and an Educational Planning Office (EPO), in the Ministry of Education. The integration of manpower planning with economic development planning is the major task assigned to the MPO in connection with the formulation of the next (1967-1971) Five-Year Plan for Economic Development. The MPO has also been instructed to do its work in such a way that its plans may provide ready and effective guidance for educational planning.

Manpower resources as well as monetary and material resources are to be considered in the case of every proposed development project. The development of human resources must include development of educational systems, community development programs, and public health services, as well as of individual citizens in institutional and on-the-job training.

2. Has your country already produced an educational plan?

Yes, there is a national education plan which is to be revised this year, to be in-

tegrated by 1967 with the National Economic Plan. The present plan includes provisions that:

- a. Achievement measurements in higher education be standardized,
- b. Ratio of enrollments among the various fields of higher education study be subject to a moderate control, and
- c. The secondary education system be reviewed in detail (patterns, policies, and practices) for guidance in assisting it to meet the requirements of the nation's manpower development plan.

3. What is the scope of educational planning in your country? Does it deal only with the formal system of education, or does it include on-the-job training, adult education, community development, and other educational activities?

The scope of educational planning in Thailand is limited currently to the formal education system. However, existing legislation produces partial information about adult education, community development and the labor force situation.

4. Does an instrumentality for planning educational development now exist in your country? If so, please describe its functions, its staffing pattern, its responsibilities, and its relationship to administrative and legislative functions of government. If there is more than one educational planning instrumentality, please indicate any administrative channels for coordination.

The current situation in Thailand may be best understood by reference to a chart in the "Preliminary Assessment of Education and Human Resources in Thailand" (p.117) a published report of a 1963 study which led to the creation of both the MPO and the EPO. This chart shows the proposed

organizational structure which has since been, in large part, brought into existence. The process of bringing such a structure fully to life is necessarily a gradual one,

The MPO is the central organ for manpower planning with responsibility for both the public and private sectors. This includes assessment of national manpower resources, and the foundation of national programs, projects and policies for developing and utilizing human resources. These tasks are to be achieved in cooperation with other government agencies, and by cooperation among them.

The EPO describes its functions as follows:

a. Making educational plans and projections of manpower development in relation to national economic and social development scheme.

b. Studying the current status of education and problems in operating educational plans in such a manner to achieve better productivity.

c. Establishing an inventory of educational facilities and output, and analyses of programs, in order to keep pace with the overall plans.

d. Assessing and evaluating the change, both quantitative and qualitative, necessary to produce the number of trained persons required.

e. Studying the likely returns of alternative programs operated in other governmental agencies.

f. Securing coordination among educational institutions, at home and abroad, in order to perform their functions economically.

g. Rendering technical consultant assistance to the Ministry of Education.

As may be seen from the organization diagram, the need is recognized for coordination of both the MPO and the EPO with the National Educational Council (NEC).

5. Can you cite one or more examples of how educational planning has influenced the alloca-

tion of resources? Has it influenced the implementation of programs, particularly in the sense of coordinating programs administered by more than one agency?

There has not yet been time for the EPO to exert noticeable influence on agencies other than the Ministry of Education, or even for determining whether such influence is desirable. Several specific examples can be cited, however, of influence on resource allocation within the jurisdiction of the Ministry:

—Determining final choices for the national teacher training program.

—Budgeting for the comprehensive high schools and vocational institutes.

—Undertaking necessary adjustments to organization and management in various administrative units.

—Rendering consultant services to the Directors-General and to the Ministry of Education in general.

—Participating in in-service training program for the improvement of the teaching force and for competency of administrative activities.

6. Does an instrumentality for conducting manpower assessments now exist in your country?

Because manpower and education are necessarily so closely related the response to this question has been included in No. 4 above.

7. If your government does not now have an active program for assessing manpower needs, do plans exist for establishing such a program?

Thailand does not yet have an active program for assessing manpower needs. However, there are plans now under way to establish such a program through the MPO. The joint Thai/USOM "Preliminary Assessment of Education and Human Resources" estimated the demand and supply of manpower in Thailand from 1966-1970. Further detailed study has been planned to validate the existing data, in order to improve the assessment of manpower needs. The MPO also plans to conduct occupational assess-

ment studies, in order to point out the current and anticipated surpluses or shortages of manpower in specific occupational groups. This will indicate the direction toward which educational objectives shall be steered. In addition, the MPO plans to improve all the statistical information collected and to check the validity of data supplied in the future.

8. Can you cite one or more examples of how manpower assessments have influenced educational planning in your country, including the planned development of skills in the work-force?

The "Preliminary Assessment" indicated that there will be shortages in 1970 of secondary education graduates in general and vocational streams of middle level and top level technicians. The government has already launched a plan for vocational school development, supported by a loan from the World Bank. More directly the findings stimulated a study of secondary education in terms of qualitative and quantitative manpower needs.

9. Has your government experimented with more than one administrative approach to educational planning and/or conducting manpower assessments? If so, can you summarize any significant strengths or weaknesses of the different approaches?

The RTG only now is in the process of establishing planning bodies within the various government agencies, preferably at the ministerial level. The plans produced by these planning bodies go for final review to the National Economic Development Board.

A significant weakness has been noted in the manpower assessment efforts, namely that insufficient data are available from the private sector. The loan presentations to the World Bank, though completed, were handicapped in the preparation stage by the shortage of such data.

10. What are your major administrative problems in conducting educational planning and manpower assessments? Is your government now contemplating administrative changes which it

feels will deal effectively with these problems?

The establishment of a new governmental unit in Thailand is a lengthy, procedural matter, and the MPO, during this intermediate stage, has been accorded less status than it will receive later. This has particularly affected efforts to obtain adequate staff and budget.

The EPO has, in addition, become aware of an absolute scarcity of the type of personnel required, and has further felt handicapped by insufficient patterns of working coordination among government administrative units, which have hitherto enjoyed relative independence in much of their daily operations. The following specific changes are felt by the EPO to be desirable:

a. The installation of full-time consultative persons in departments in order to deal effectively with fact-finding and program analyses and planning.

b. The tailoring of functional training programs to serve exact, immediate purposes, at home and abroad.

c. A study of the whole structure of organization and management of public administration services, leading to reorganization for more effective operation.

11. Is the educational planning instrumentality expected to collect and process most of its own data, or does it rely primarily upon other government agencies? Is this also true for the manpower assessment instrumentality?

Data collection and process is at present a divided responsibility. The MPO, EPO and NEC turn to the National Statistical Office (NSO) for much of this service.

12. Does the educational planning instrumentality have a voice in the formulation of data collection policies, particularly in terms of determining the kinds of data to be collected?

Yes.

13. How adequate are the manpower and other data collection programs of your government from the point of view of the needs of educa-

tional planning? Are there major gaps in information? Are data collected and not used? How effectively is information shared among interested government agencies?

Data collection could not yet be called adequate for the purpose of educational planning, but the situation is rapidly improving. At present, data needed for ongoing planning operations of a limited nature are gathered on a case-by-case basis. Meanwhile, an interim report is soon to be published, pointing out the major gaps in data collection and the importance of increased inter-agency cooperation.

14. Are there data collection problems which you consider to be unique to your country?

Perhaps not unique, but worth mentioning are the following:

a. The average Thai citizen does not understand the purpose or the meaning of statistics. His responses to questionnaires often produce false data.

b. Follow-up letters are often needed to get questionnaires returned in time to be useful.

15. Is your government committed to any programs for improving the quality and utility of data collected? If so, what action is now underway?

This responsibility is placed on the National Statistical Office, which conducts training programs for this purpose.

a. NSO trains the statisticians for 2 levels (1 year and 2 years).

b. NSO trains government officers in certain subjects, such as manpower statistics.

c. NSO trains other government officers in short-term courses. (1 month, 3 months, 6 months and 9 months).

16. Discuss the availability in your country of professionally trained specialists needed for effective educational planning and manpower assessment. Identify critical shortages and bottlenecks as you see them.

There is a deficiency recognized in this

area, in many fields of planning. Specialists from abroad are now being used in very limited numbers, but more are desired, in all aspects of manpower planning and in school finance, educational research, and educational statistics.

17. What facilities does your country use to train needed planning specialists?

a. Sending people abroad for study, particularly the annual two months Manpower Seminar in Washington.

b. Training in Thailand, on-the-job, by foreign experts (for example, advisors from Michigan State University).

18. Are specific programs contemplated or underway to promote more effective use of existing manpower resources for planning purposes?

Up to the present, there is no organized program for this purpose.

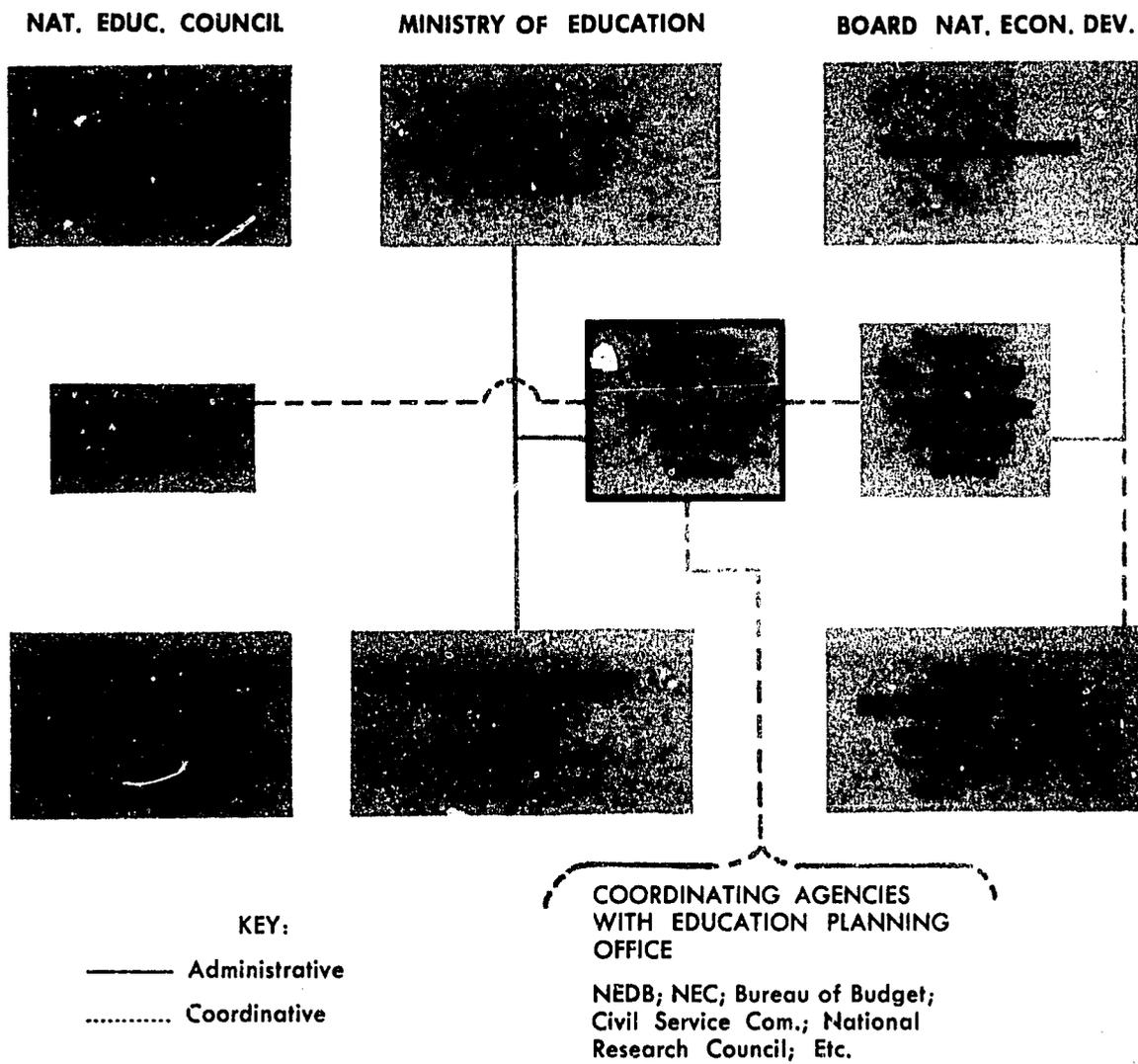
19. Are there persons in your country whom you consider to be human resource development strategists? What role do they play in the educational planning process?—In conducting manpower assessments?

This role is filled in Thailand by persons in the National Economic Development Board, the National Education Council, the Bureau of the Budget, and the Ministry of Finance. Their influence is largely directed toward policy matters. They do, however, occasionally suggest specific areas of the economy in which manpower assessment is urgent.

20. Do key personnel in your government, particularly those controlling the financing of educational programs, have an adequate understanding and appreciation of the role that educational planning is expected to play in your national development? If this is a major problem in your country, has your government any specific plans or programs for dealing with it?

It is difficult to be certain of the meaning of the word "adequate", but the situation in Thailand is very favorable on this point. The government agencies mentioned in question 19 are greatly concerned with educational planning. The EPO owes its existence to that concern.

EDUCATIONAL PLANNING
CHART 1.—MODEL FOR EDUCATIONAL PLANNING ORGANIZATION



"Preliminary Assessment of Education and Human Resources in Thailand"
 Reprinted from page 456

TAAVS Misc. 121/February 1965



STATUS OF HUMAN RESOURCES DEVELOPMENT PLANNING IN VIETNAM.

1. To what extent is human resources development planning viewed by the Vietnamese Government as an integral part of its national development planning?

The national development planning of the Vietnamese Government has always placed considerable emphasis upon the development and utilization of manpower resources and continues to do so in spite of the disruption and destruction engendered by the present state of war. Principal among the human resources development problems are the need to combat urban unemployment and rural underemployment (a problem further aggravated by a high population growth rate), and the necessity of increasing both personal and national incomes. The major entities, both governmental and private, participating in and making major contributions toward the planning for and actual development of human resources are the Ministry of Education, Ministry of Labor, Ministry of Rural Affairs, Industrial Development Center, Handicraft Development Center, and Confederation of Crafts and Industry.

2. Has Vietnam already produced an education plan? Was it formulated as an integral part of a national development plan?

A proposed national education plan, with major emphasis upon technical and occupational training, was developed by the Ministry of Education, and was submitted to the Directorate of Planning is to be coordinated with the long-range developmental programs of all other ministries and agencies. Finally, these various elements were fashioned into the National General Plan wherein the Ministry of Education and the Ministry of Labor are charged with joint responsibility to provide for the training of technicians, administrators, and other per-

sonnel essential to the Plan's successful implementation.

3. What is the scope of education planning in Vietnam? Does it deal only with the formal system of education, or does it include on-the-job training, adult education, community development, and other education activities? What are the time horizons of such planning?

Vietnam's educational planning deals with present and potential areas of educational training. In addition to the regular national education program, which includes both adult and community education, there are plans to establish short-term training courses to develop skilled workers for industry, to organize workshops to teach agricultural workers new techniques for increasing crop production, and to promote scientific research in support of national economic development. On-the-job training is promoted by the Vietnam Labor Code which stipulates that commercial enterprises employing twenty or more skilled workers must accept apprentices equal to at least 10 per cent of the number of skilled workers. Encouragement by the Ministry of Labor has induced many enterprises to establish apprenticeships beyond the minimum requirements of the Code.

4. Does an instrumentality for planning education development now exist in Vietnam? If so, describe its functions, staffing pattern, responsibilities, and its relationship to the administrative and legislative functions of government.

As pointed out in response to question number 2, basic planning for educational development is carried out by the Ministry of Education. Within the Ministry there exists a Research and Planning Office which coordinates planning of the various academic and technical-vocational education projects conducted under the aegis of the Ministry

of Education. The Labor Ministry does its own planning in regard to accelerated vocational training courses, principally in the form of evening classes and itinerant workshops, to upgrade the skills of those already employed. The planning submitted by these and other ministries and agencies is then coordinated and formulated into the National General Plan by the Directorate of Planning.

5. Cite one or more examples of how education planning has influenced the allocation of resources. Has it influenced implementation of programs, particularly in the sense of coordinating programs administered by more than one agency? Does the GVN consider it appropriate for planning instrumentalities to exert such influences?

As a result of the general acceptance of and support for the educational development plan, the budget allotted to Technical Education, to mention a single area, has been increased regularly and substantially. In 1965, the budget of the Directorate of Technical Education will be 25 per cent greater than in 1964. This is typical and is principally due to projected needs identified through parallel planning with other ministries and agencies representing all sectors of the economy. For example, industrial electricity, chemistry, and the assembly and maintenance of fishboat motors were recently added to the Technical Education curriculum in response to planning requirements set forth respectively by the Ministry of Economy, the Industrial Development Center, and the Ministry of Rural Affairs' Directorate of Fisheries. In addition, the whole question of overseas training recently received joint consideration by key representatives of various governmental and private organizations at a conference convened by the Directorate of Planning.

6. Does an instrumentality for conducting manpower assessments now exist in Vietnam? Describe its functions, its staffing pattern, its responsibilities, and its relationship to administrative and legislative functions of government,

particularly its relationship to any educational planning instrumentality.

Responsibility for conducting manpower assessments is assigned to the Ministry of Labor. In 1959, the Directorate of Manpower was established within the Ministry of Labor. It groups together the inter-related activities of research and statistics, employment services, and the vocational training service of the Ministry of Labor. Full-time staff assigned to the Office of Research and Statistics totals six, but additional enumerators may be employed during surveys. In addition, automatic data processing facilities are available through the National Institute of Statistics. This agency also provides service, advice and guidance on schedule design, sampling techniques, and tabulations. Analysis is performed by the staff of the Ministry of Labor.

A Manpower Advisory Committee to the Directorate of Manpower has been established. It is composed of representatives of the Ministries of Economy, Public Works, Education, Rural Affairs, and the Directorate General of Planning. In addition, the Committee includes representatives of Unions and Employers Associations, including the Chamber of Commerce. In addition to providing guidance and review services to the Directorate of Manpower, the Committee functions as an intermediary with other government agencies and to help solve any administrative problems as well as assuring support and understanding among interested agencies and the private sector.

The following organization chart indicates the above described structure.

It should be pointed out that the program, in the past, has concentrated on surveys of the labor force—the supply side of the manpower equation. While some attention has been given to assessment of labor requirements in the future—the demand side of the equation—a systematic assessment of future demand has been difficult to undertake. In general, estimates have been based on the requirements of the five year plan and known expansion plans. Recent coopera-

improved manpower assessment program. As a basic part of the program, the approved 1965 budget of the Ministry of Labor provides funds for a new and extended survey of the labor force with particular emphasis on measuring unemployment and underemployment.

7. If the GVN does not now have an active program for assessing manpower needs, do plans exist for establishing such a program?

The Government of Vietnam does have an active program for assessing manpower needs, as described in No. 6 above.

8. Cite one or more examples of how manpower assessments have influenced education planning in Vietnam, including planned development of skills in the work force.

Manpower assessment surveys have had considerable influence upon planning in the education field. On the basis of the assessed requirements for skilled workers, technicians, and engineers necessary to carry out various industrial development programs, the Ministry of Education has given priority emphasis to the technical education field and has more than tripled technical school enrollment from 1,800 to 6,000 students during the past ten years. By the same token, training courses have been established for managerial and clerical employees of private enterprises, and overseas training has been partially redirected to respond to assessed requirements.

9. Has the GVN experimented with more than one administrative approach to education planning or conducting manpower assessments?

No.

10. What are the major administrative problems in conducting education planning and manpower assessments? Is the Vietnamese Government now contemplating administrative changes which it feels will deal effectively with these problems?

The major administrative obstacle in conducting educational planning and manpower assessments is the lack of technically quali-

fied personnel, but this problem will be overcome in due course as a result of training programs now underway. Vietnam is at present, however, faced with other problems, much more difficult to solve, which represent a greater deterrent to progress in these areas. First and foremost, of course, is the war and its accompanying uncertainties. This in turn gives rise to national defense budgetary priorities which do not leave adequate funds for educational planning and manpower assessment activities of such magnitude as might reasonably be contemplated in a peacetime situation.

11. Is the educational planning instrumentality expected to collect and process most of its own data or does it rely primarily upon other government agencies? Is this also true for the manpower assessment instrumentality?

The National Institute of Statistics is responsible for the collection, processing, and dissemination of considerable general statistical data. More detailed data on agriculture, forestry, and fishing is provided by the Ministry of Rural Affairs. Aside from these sources, however, it is the responsibility of each using agency to collect its own statistical data. In most cases this is accomplished through a statistical section, attached to the appropriate office of the ministry, which coordinates and compiles data provided by both national and provincial sources responsible to the ministry. Each ministry stands ready to provide its available statistical information to other agencies which request it and to engage in cooperative efforts to obtain data which is likely to be of value to more than one agency.

12. Does the education planning instrumentality have a voice in the formulation of data collection policies, particularly in terms of determining the kinds of data to be collected?

To the extent that data available from the National Institute of Statistics is not responsive to its needs, the Ministry of Education may employ its own national and provincial elements to gather the required

data. Likewise, it may undertake cooperative efforts with other interested agencies to gather information which may prove mutually desirable.

13. How adequate are the manpower and other data collection programs of the GVN from the point of view of the needs of educational planning? Are there major gaps in information? Are data collected and not used? How effective is information shared among interested government agencies?

In general, information on labor supply, population growth rates, and similar data are considered to be adequate for educational planning purposes. However, information on future labor demand, work-life span, replacement needs, and similar data is spotty and not comprehensive enough to forecast long range requirements by occupation. Gross employment needs are reported by new or expanding establishments requiring the importation of new equipment. In one significant instance, the growing chemical industry met with education authorities to explain, in some detail, their professional and technical employment needs for the future. Data that are collected are used for planning purposes. However, some potentially valuable data have not been published in the past, thus minimizing the effective use of such information by all interested parties.

14. Are there data collection problems considered to be unique to Vietnam?

The basic data collection system is considered to be sound, but two problems mitigate against its full implementation. First, because of the war situation, it is not possible to conduct detailed surveys of any type, manpower or otherwise, in some areas of the country. This situation is fluid and, as additional areas are pacified, regular government services and programs are provided. Second, some of the Highlanders are both tribally nomadic and use dialects, up to 40 in number, substantially different from the Vietnamese language. Interviewing is difficult in such cases.

15. Is the GVN committed to any programs for improving the quality and utility of data collected? If so, what action is now underway?

The GVN does have a comprehensive program for improving the quality and utility of data collected. Decree Law 108-KT, dated August 7, 1956, and entitled "Statistical Organization in Viet-Nam" states, in part:

"The Board of Statistics and the National Institute of Statistics are charged with promoting the use of standard norms in establishing different types of statistics, taking into account the international and regional norms, especially those adopted by the United Nations."

With particular reference to labor force data, a few years ago a consultant assisted and advised in defining labor force components taking into account the economic characteristics of Viet-Nam. A reappraisal of some elements of the labor force definitions is underway with particular reference to manpower and educational planning needs.

16. Discuss the availability in Vietnam of professionally trained specialists needed for effective education planning and manpower assessment. Identify critical shortages and bottlenecks as you see them.

Through overseas training a limited number of individuals have been provided skills in educational administration at various levels, in statistical research and interpretation, in manpower assessment, and in other related fields which have prepared them to participate effectively in the development planning process. In view of the limitations on activities in the economic sphere imposed by present hostilities and competing defense requirements, it is felt that those specialists now available and others presently in training are probably adequate to meet foreseeable needs.

17. What facilities does your country use to train needed planning specialists?

While limited in-service training is conducted by individual agencies and some skills are acquired through the relationships of

Vietnamese officials with their U.S. and other free world counterparts, the vast majority of specialists in planning and all other fields receive their training abroad in appropriate academic institutions, on-the-job training, observation tours, and seminars.

18. Are specific programs contemplated or underway to promote more effective use of existing manpower resources for planning purposes?

Coordination among the various governmental agencies engaged in planning has been adequately effective with the result that, given the present wartime situation which embroils the nation, a very progressive educational plan is in process of implementation. Since the performance of Vietnam's planners is considered adequate, no programs to promote their more effective use are presently underway or contemplated.

19. Are there persons in your country whom you consider to be human resources development strategists? What role do they play in the educational planning process and in conducting manpower assessments?

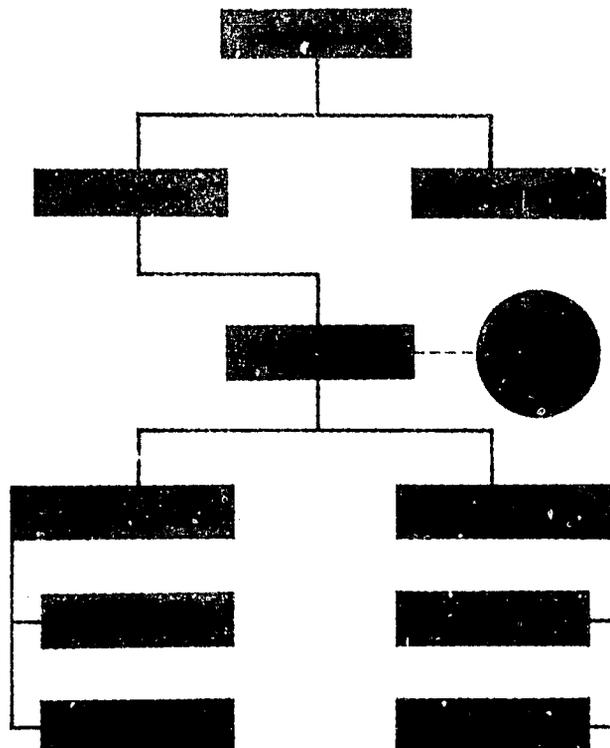
Vietnam has developed no "human resources development strategists" as such during the ten years since it became independent. To the extent that such capability exists, it resides in and is employed by the planning specialists of the various ministries. It has only been during the past seven

years that the government has been able to seriously consider the problem of human resources development and as yet no fully and comprehensively qualified experts can be claimed.

20. Do key personnel in the Vietnamese Government, particularly those controlling the financing of education programs, have an adequate understanding and appreciation of the role that education planning is expected to play in national development?

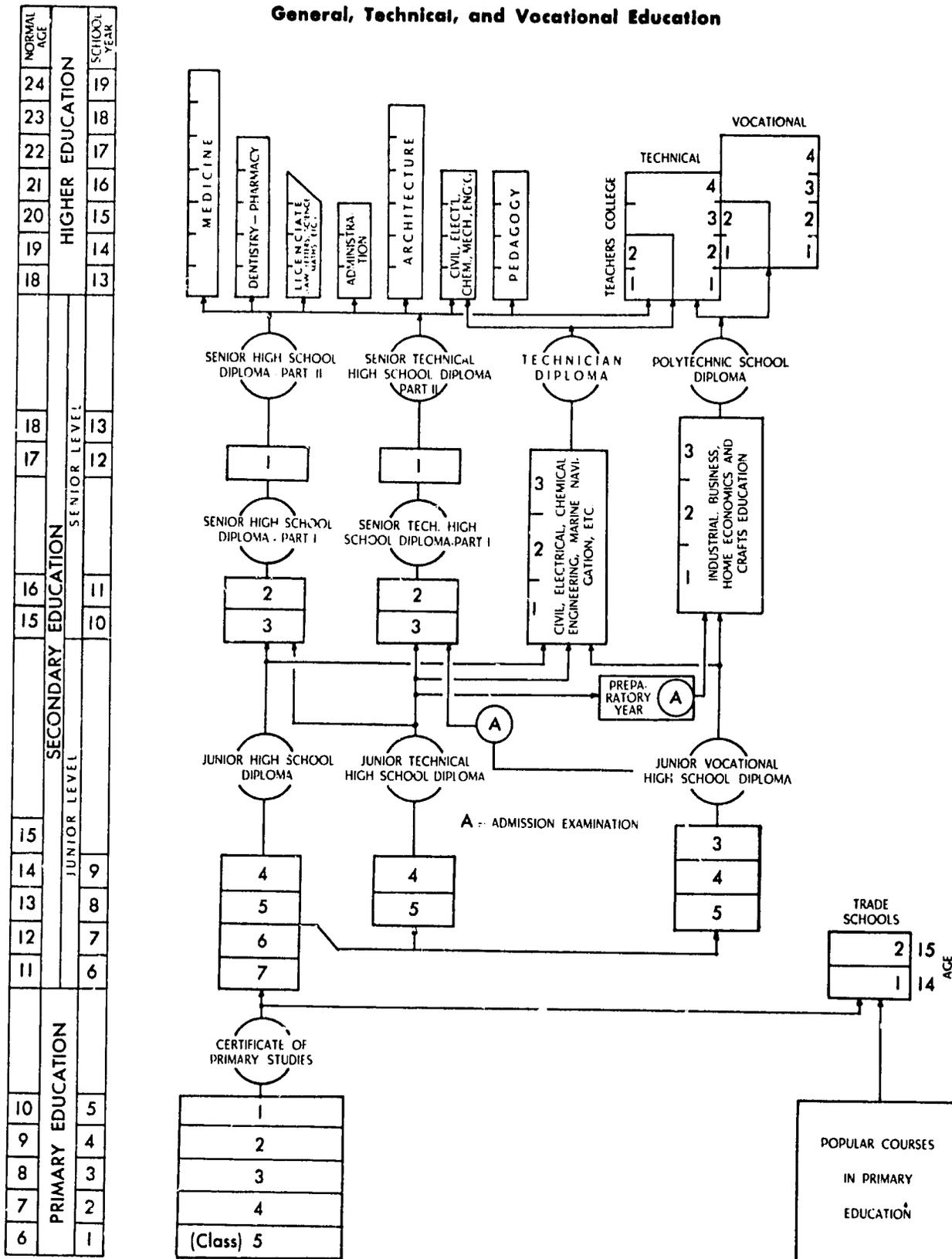
The Vietnamese Government's wholehearted support of education programs is strongly attested to by the significant increases in enrollment and facilities at almost all levels during the past ten years. Even amid present hostilities and despite the higher priority demands for national defense which command by far the major portions of both the national and foreign aid budgets, financial support to education programs continues to increase because of the importance attached to them. In addition to the Ministry of Education programs, the Ministry of Defense conducts extensive training of military personnel aimed both at providing skills immediately useful in support of the war effort and at preparing such personnel for productive civilian pursuits after their demobilization.

ORGANIZATIONAL CHART OF THE DIRECTORATE OF MANPOWER



THE SCHOOL SYSTEM IN VIETNAM

General, Technical, and Vocational Education



AGENDA

Friday, February 12, 1965

0900 *Registration Begins*

1100 *Opening Ceremonies*

Co-chairmen:

The Honorable HILARION H. HENARES, JR.
Chairman, National Economic Council,
Republic of the Philippines
and
Minister JAMES H. INGERSOLL, Director,
United States Agency for International Development
Philippines

Philippine Army Band

Introduction of Platform Guests

Introduction of Delegates

Address:

The Honorable MAURO MENDEZ, Secretary of Foreign Affairs,
Republic of the Philippines

Lunch

1400 *Presiding: Mr. NICANOR Y. FUENTES, Philippines*

Remarks:

The Honorable JOSE B. LINGAD
Secretary, Department of Labor, Republic of the Philippines

The Honorable ALEJANDRO R. ROCES,
Secretary, Department of Education, Republic of the Philippines

Keynote Address:

Dr. EUGENE STALEY, Consultant, AID/Washington

1830 *Reception for Official Delegates*

Hosted by Minister & Mrs. JAMES H. INGERSOLL
American Embassy Ballroom

Saturday, February 13, 1965

0800 *Presiding: Mr. CURTIS FARRAR, AID/Washington*

Presenting of Substance of Country Status Papers

Each scheduled for not more than 40 minutes. Discussion will be reserved for later in the sessions.

Reports will be given alphabetically by country in the following order:

CHINA

1000 *Coffee*

1100 *Reports continue*

KOREA
PHILIPPINES

Lunch

1400 *Reports continue*

THAILAND
VIETNAM

Summary of Status Reports: Dr. JOHN F. HILLIARD, AID/Washington

1630 *Special performance of the BAYANIHAN DANCES, Philippine Womens University. A bus will depart from the WHO parking area at 1615.*

Sunday, February 14, 1965 — Tour of Manila Area

- 0900 *Bus Tour* — Board bus at Filipinas Hotel
The tour will include visits to places of historic and scenic interest.
Lunch at Tagaytay
Tour guides are provided by the PHILIPPINE TOURIST and TRAVEL ASSOCIATION.
- 1500 *Return to hotel*

Monday, February 15, 1965

- 0830 Presiding: Mr. SANG KEUN CHUN, Korea
Discussion Topic: "Manpower and Education in Developing Countries"
Introduction of topic:
Dr. WALDO PERFECTO,
Academic Vice President,
De la Salle College
- 0900 Discussion Groups:
The discussion groups are arranged to permit widespread participation and contribution of ideas. Each group will select its own reporter who will make the committee report at the following plenary session.
- Group A — Chairman: Professor SALVADOR GONZALEZ, Philippines
Group B — Chairman: Dr. THAMRONG BUASRI, Thailand
Group C — Chairman: Mr. YUNG-LIANG CHENG, China
Group D — Chairman: Mr. CARLETON FALER, AID/Washington
- 1030 *Coffee*
- 1045 *Reports from Committees and Discussion*
- 1205 *Summary Remarks:* Mr. DAVID E. CHRISTIAN, Malaysia
- 1215 *Lunch*
- 1400 Presiding: Mr. HSEUH-SI YEH, China
Discussion Topic: "Organizational Relationships and Coordination Machinery for Manpower and Educational Development"
Introduction of Topic: Dr. KAW SAWASDI PANICH, Thailand
Discussion Groups:
Group E — Chairman: Mr. DOAN VAN DOAN, Vietnam
Group F — Chairman: Mr. ROBERTO REYES, Philippines
Group G — Chairman: Mr. HOWARD T. ROBINSON, Washington
Group H — Chairman: Mr. PETER TAI-KUANG KANG, China
- 1600 *Coffee*
- 1615 *Reports from Committees and Discussion*
- 1735 *Summary Remarks:* Dr. EUGENE STALEY, AID/Washington

Tuesday, February 16, 1965

- 0830 Presiding: Mr. TRUONG CONG LONG, Vietnam
Discussion Topic: "Obstacles To and Techniques For Accomplishment of Development Objectives"
Introduction of Topic: Dr. M. N. MEHTA, I.L.O., Bangkok
- 0900 Discussion Groups:
Group I — Chairman: Dr. PROM PANITCHPAKDI, Thailand
Group J — Chairman: Mr. JONG HANG LEE, Korea

Group K — Chairman: Dr. T. C. CLARK, Indonesia
Group L — Chairman: Dr. CASIMIRO MANINGAS, Philippines

- 1030 *Coffee*
- 1045 *Reports from Committees and Discussion*
- 1205 *Summary Remarks*: Dr. COLE S. BREMBECK, Consultant, AID/Washington
- 1215 *Lunch*
- 1400 Presiding: Dr. WILLIAM M. WILLIAMS, Philippines
Panel: "External Assistance Resources"
Panel Chairman: Dr. JOHN F. HILLIARD, AID/Washington
Panel Members:
Mr. DAVID CHRISTIAN
Representing Voluntary Agencies
Mr. CURTIS FARRAR
Representing USAID
Dr. M. N. MEHTA
Representing ILO
Dr. GUSTAVO ZAKRZEWSKI
Representing UNESCO
Mr. NICANOR Y. FUENTES
Representing Recipient Nations
- 1600 *Coffee*
- 1615 *Further Discussion*
- 1700 *Summary*: Dr. JOHN F. HILLIARD, AID/Washington
- 1800 *Cocktails for official delegates* hosted by DE LA SALLE COLLEGE

Wednesday, February 17, 1965

- 0830 Presiding: Dr. C. EARLE HOSHALL, AID/Washington
Panel: "Summary of Seminar Achievements"
Chairman: Dr. COLE S. BREMBECK
Panel Members:
Mr. PETER TAI-KUANG KANG
Mr. SEBASTIAN SANTIAGO
Mr. PAUL T. SCHULER
Dr. FREDERICK T. SHIPP
Mr. DOAN VAN DOAN
Mr. CHESTER W. HEPLER
Mr. SANG KEUN CHUN
- 1030 *Coffee*
- 1045 *Reconvene*
Closing Address: Dr. EUGENE STALEY
Appreciation: Dr. C. EARLE HOSHALL
- 1230 *Adjournment*

ROSTER OF DELEGATES

NAME	TITLE	HEADQUARTER
BHENG SRI, Phuchong	Actg. Deputy Secretary, National Education Council	Thailand
BREM BECK, Cole S.	Consultant/AID (Michigan State University Contract)	Washington
BRINGAS, Honesto	Chief, Labor Statistics Services, Department of Labor	Philippines
BUASRI, Thamrong	Senior Staff, Educational Planning Office, Ministry of Education	Thailand
CHANDRAVITHUM, Nikom	Director, Labor Bureau, Department of Public Welfare	Thailand
CHENG, Yung-liang	Chief, Vocational Education Section, Taiwan Prov. Dept. of Education	China
CHRISTIAN, David	Manpower Advisor (Ford Foundation)	Malaysia
CHUN, Sang Keun	Director, Bureau of Technical Development, Economic Planning Board	Korea
CLARK, Teunison C.	Chief Education Advisor, USAID	Indonesia
CONDON, John P.	U.S. Labor Attache	Vietnam
DOAN, Doan Van	Deputy Inspector General of Labor	Vietnam
DUNN, Paul J.	Training Officer, USAID	Philippines
FALER, Carleton H.	Labor Advisor, Far East Technical Advisory Staff, AID	Washington
FARRAR, Curtis	Chief, Program Planning Division Bureau for Far East, AID	Washington
FAULHABER, James	Chief Education Advisor, USAID	Laos
FELDHHEIM, Pierre	ILO, Manpower Assessment Expert	Belgium
FUENTES, Nicanor Y.	Chief, National Planner for Social Development, National Economic Council	Philippines
GONZALES, Mauro	Chief Scientist and Chief Division of Development and Assistance, National Economic Council	Philippines
GONZALES, Salvador	Consultant, Board of National Education	Philippines
GOODRICK, George	Training Officer, USAID	Thailand
GRAHAM, David	Trade and Industrial Education Advisor, USAID	Thailand
HAMBLIN, Francis	Dean, College of Education, George Washington University	Washington
HATCH, Raymond	Chief of Party, MSU Educational Planning Project	Thailand
HAMMOND, Granville S.	Chief Educational Advisor, USAID	Vietnam
HEPLER, Chester W.	Manpower Advisor, USAID	China
HEAN, Robert S.	Training Officer, USAID	Philippines
HILLIARD, John F.	Deputy Asst. Administrator, Office of Technical Cooperation & Research	Washington
HOSHALL, C. Earle	Far East Education Branch Chief/AID	Washington
JOHNSON, Robert P.	Chief Vocational Advisor, USAID	Vietnam
KANG, Peter Tai-Kuang	Convenor for Resident Members Committee for Promoting Cooperation between Economic Development & Education	China
KOH, Hyong Kon	Congressman	Korea
LANDRY, Robert	Training Officer, USAID	Korea
LEE, Chan Woo	Director, Office of Labor	Korea
LEE, Jong Hang	Chief Supervisor, Ministry of Education	Korea
LONG, Truong Cong	Deputy Director of Labor Relations	Vietnam
LUCHEK, Anthony	Labor Attache, U.S. Embassy	Philippines
MAKANAS, Elpidio	Chief Statistical Coordinator, National Economic Council	Philippines
MANINGAS, Casimiro E.	Chief, Teacher Education & Related Subjects Division, Bureau of Vocational Education	Philippines
MARBLE, Eugene	Training Officer, USAID	Indonesia
MEHTA, M. N.	ILO Regional Manpower Planning & Employment Advisor	Thailand
MORAL, Paz	Chief Educational Supervisor, Office of the Secretary of Education	Philippines

MORRELL, William	Program Director for Summer Institutes National Science Foundation	Washington
MURRAY, James D.	Acting Chief, Management Resources Division, USAID	China
NELSON, Ealton L.	Manpower Advisor, U.S. Department of Labor	Washington
ORDINARIO, Candido	Senior Statistician, Bureau of Census and Statistics	Philippines
OVERZET, Clarence	Training Officer, USAID	Vietnam
PANICH, Kaw Sawasdi	Acting Director, Educational Planning Office, Ministry of Education	Thailand
PANITCHPAKDI, Prom	Acting Director of Manpower Planning Office, National Economic Development Board	Thailand
PEMBER, Lyle B.	Vocational Industrial Advisor, USAID	Korea
PIDO, Antonio	Acting Chief, Social Science & Humanities Grants National Science Development Board	Philippines
PIERSON, Gordon K.	Program Economist, USAID	Thailand
REYES, Roberto	Asst. Director, Office of Development Services, Program Implementation	Philippines
ROBINSON, Howard T.	Labor Advisor, U.S. Dept. of State	Washington
RONEY, Donald H.	Labor Advisor, USAID	Indonesia
SALAZAR, Guillermo	Senior Development Project Coordinator National Economic Council	Philippines
SANTIAGO, Sebastian	Director, Office of Developmental Services, Program Implementation Agency	Philippines
SHIN, Kwan Woo	Congressman	Korea
SCHULER, Paul T.	Labor Affairs Advisor, USAID	Manila
SHIPP, Frederick T.	Chief Education Advisor, USAID	Thailand
STALEY, Eugene	Director of Basic Research in the International Development Center of Stanford Research Institute & Faculty Member of the Comparative Education Center, Stanford University	Washington
TIMBOE, Guy	Training Officer, USAID	Laos
WAGNER, LeRoy L.	Asst. Program Officer (Education), USAID	Vietnam
WAKEFIELD, Lohva	Training Coordinator, Far East Region, Program Division, Office of International Training, AID	Washington
WHITE, Joe	Manpower Advisor, USAID	Vietnam
WILLIAMS, William M.	Chief Education Advisor, USAID	Philippines
WOODHULL, James E.	Vocational Agriculture Education Advisor, USAID	Thailand
WRONSKI, Stanley P.	Consultant, MSU Education Planning Project	Thailand
YEH, Hseuh-si	Deputy Director, Program Division, Council for Inter- national Economic Cooperation and Development	China
ZAKRZEWSKI, Gustavo	Director, UNESCO Regional Office for Education in Asia	Thailand