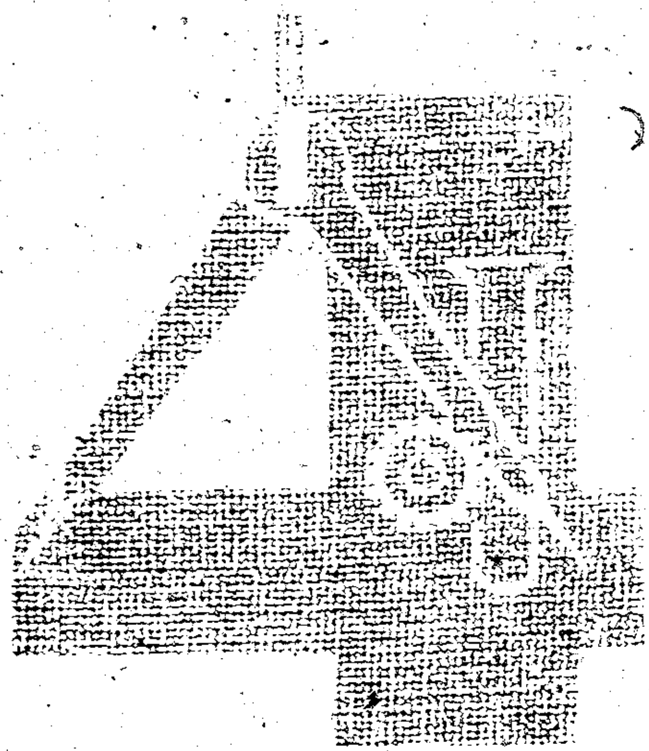
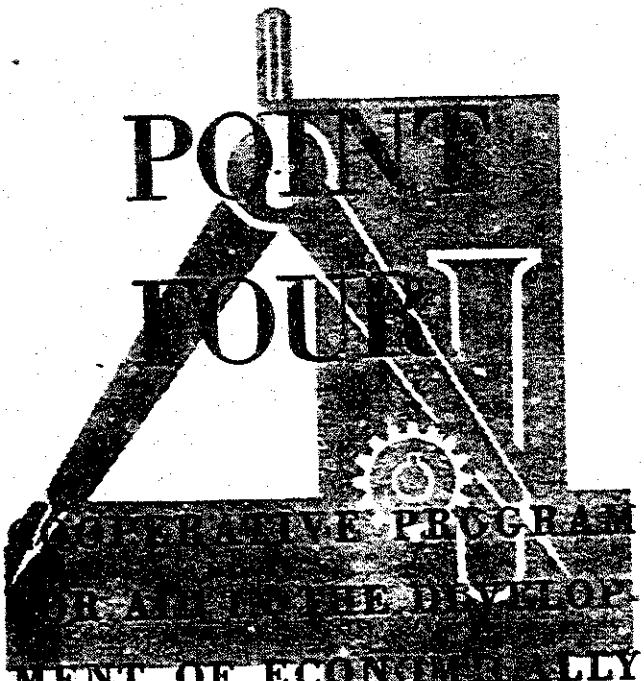
POINT FOUR



THE DEPARTMENT OF STATE



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Introduction

IN HIS message of June 24, 1949, the President recommended to the Congress the enactment of legislation to authorize an expanded program of technical assistance to underdeveloped areas and an experimental program for encouraging the outflow of private investment beneficial to this economic development. Suggested drafts of bills covering each of these programs have been informally submitted to the Senate and House of Representatives. The bill relating to technical assistance has been referred to the Foreign Affairs Committee of the House and to the Foreign Relations Committee of the Senate. Hearings have been held by the Foreign Affairs Committee. The bill relating to encouraging foreign investment through guarantees against certain risks has been referred to the Banking and Currency Committees of both houses. Both committees have held hearings and have favorably reported bills.

In the United Nations, the Economic and Social Council has approved an expanded program of technical assistance to be carried out by the United Nations Secretariat and the specialized agencies and has developed procedures and general policies to guide the operations of these agencies on a coordinated basis. The General Assembly has approved the plan.

The purpose of this document is to explain the nature, purpose, scope, and operating arrangements for the proposed Point Four Program and its relation to the United Nations program.

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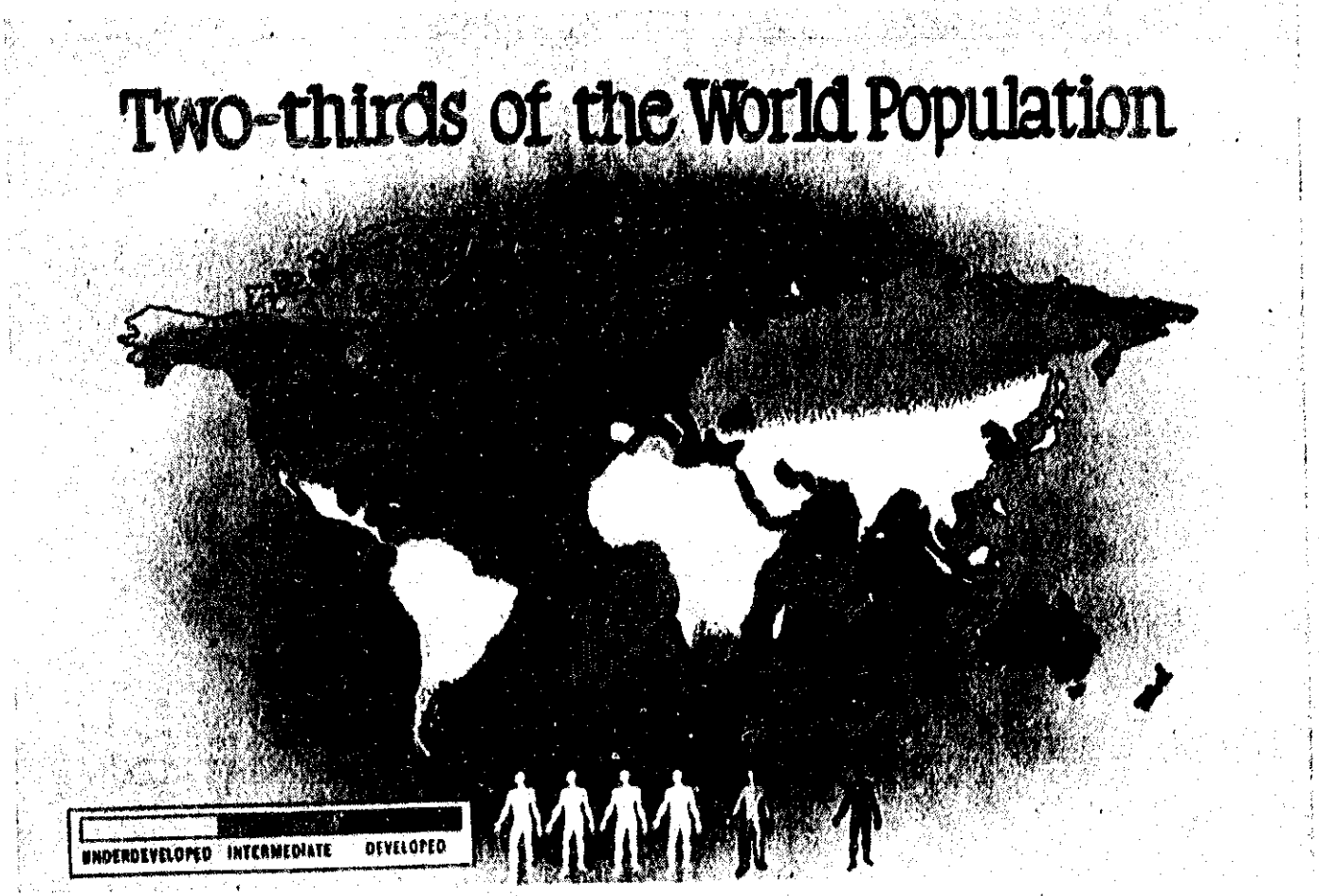
Chart A


Two-thirds of the World Population
UNDERDEVELOPED
INTERMEDIATE
DEVELOPED

I. The Nature of the Program—A Summary

THE PRESIDENT, in his Inaugural Address, outlined four courses of action which he believed the United States should emphasize in its international relations in the coming years. Assuring the world of steadfast adherence to our present policies, he said we will continue to give unfaltering support to the United Nations and related agencies; we will continue our programs for world recovery; and we will strengthen freedom-loving nations against the dangers of aggression.

Point Four. Then he added a fourth point: "we must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas . . . . we should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life. And, in co-operation with other nations, we should foster capital investment in areas needing development. Our aim should be to help the free peoples of the world, through their own efforts, to produce more food, more clothing, more materials for housing, and more mechanical power to lighten their burdens."

This challenging proposal arose from a great need and from the interest of the United States in helping to meet this need.

The Need. Two thirds of the world's population live in economically underdeveloped areas. These areas are roughly shown in white on chart A. The areas of intermediate development are shown in grey and the more highly developed areas in black. The efforts of the people of the underdeveloped areas to realize their full human capabilities and to utilize the resources of the lands in which they live are hindered by deficiencies in technical skills and in capital for essential productive machinery. As is shown in detail in appendix C, the average annual income of the people in these areas has been less than one tenth of that of the people in the more highly developed areas. The economic situation of most of the people of the underdeveloped areas is far from good. The situation of many is dire.

Primitive agricultural conditions and inadequate transportation so limit the growth and distribution of food that the average food intake for people in these areas is only 2,000 calories per day—barely enough to support life—and the diet is usually lacking in food elements essential to health. As a result, malnutrition is general and starvation

frequent. Lack of basic public-health programs, of doctor and nurses skilled in modern medical science, and of hospitals and drugs leaves many large sections of the human family prey to preventable or curable diseases. Their ability to produce the necessities of life is consequently reduced. Their life expectancies are no more than 30 years—far short of the span of which the human body is capable and of the more than 60 years which modern medicine makes possible in advanced areas. The vocational skills of many of them are limited to handicrafts assisted by primitive implements. The skills which others have are made unproductive by lack of modern equipment.

The peoples of such areas are unable to produce the raw materials and finished goods which their physical well-being requires, which are needed by people in other countries, and which they would be capable of producing if assisted by great technical knowledge and capital equipment. For most of these people the horizon of knowledge is limited to their own small community, and their opportunity for material advancement is no greater than its elementary and meager resources.

These people in recent years have been stirred by a growing awareness of the possibilities of human advancement. They are seeking a fuller life and striving to realize their full capabilities. They aspire toward a higher standard of living and better health and physical well-being. Under present circumstances their poverty is not merely a handicap to themselves. By leaving them unable to fulfill their reasonable aspirations, their misery makes them fertile ground for any ideology which will hold out to them promise, however false, of means toward a better life.

The U. S. Interest. The United States and other free nations of the world have a common concern for the material progress of these people, both as a humanitarian end in itself and because such progress will further the advance of human freedom, the secure growth of democratic ways of life, the expansion of mutually beneficial commerce, and the development of international understanding and good will. The material progress of these people can best be promoted by the cooperative endeavor of all interested nations to help them meet their deficiencies. It is in the interest of the United States as well as in the common interest that such cooperative endeavor be undertaken at once and in sufficient magnitude to be effective.

Means Toward Economic Progress. As the situation now stands, poverty and lack of the knowledge and facilities needed for production are joined in a self-perpetuating vicious circle. It is possible to break this circle by assisting the people of underdeveloped countries in their efforts to bring about economic development which will lead to higher standards of living and wider horizons of knowledge and opportunity.

The United States, acting through both private organizations and the Government, is already sharing its technological knowledge with other nations and participating in capital investment that assists them in their economic development. Yet the principles which motivate the proposed program, the magnitude of its objectives, and the scale upon which it is proposed to carry it out make it a new and positive step in a constructive American foreign policy, the enormous potentiality of which has already gripped the imaginations and raised the hopes of peoples throughout the world.

National development must be based primarily on national resources and must come largely from the people concerned. Assistance and encouragement from abroad can help, but real achievement must depend fundamentally upon the will and determination of the people and the government involved. In the last analysis, economic progress depends not only upon the resources but upon the resourcefulness of the people. It is closely related to their habits and attitudes of work, saving, venturesomeness, and adaptability. It depends also upon the sound functioning of their governments and the ability of those governments to stimulate and mobilize domestic savings and to channel them into productive investment, to maintain financial stability, and to undertake public service developments such as transportation, communications, and power.

The proposed program envisages two major methods by which international cooperative effort can aid and accelerate economic development. These are the sharing of technical knowledge and skills and the fostering of international investment in facilities and equipment.

Technical Assistance. The first method of aiding economic development is a problem in know-how and "show-how." Experience has indicated that the United States and other countries which have advanced technical and scientific resources can make them available to underdeveloped areas through channels of private enterprise and of government in a number of ways. These include helping to make basic studies and surveys of economic problems, needs, and potential lines of development; furnishing expert advisers or missions to advise governments, private organizations, or business enterprises in development projects; joint financing and administration of foreign government operations in fields essential to economic development; helping to establish and operate research and experimental centers and laboratories; developing demonstration projects; providing on-the-job training; furnishing and instructing in the use of sample materials and equipment; consulting and advising with foreign visitors; translating and publishing specialized reports; assisting technical schools and universities; exchanging students and teachers in technical fields; bringing workers, supervisors, engineers, and executives to the more advanced countries to observe or train in their industrial

and other establishments; organizing international conferences on economic problems and providing technical data, publications, and samples of materials for research and experimental purposes; and establishing and operating technical libraries and film services. Many of these means of imparting knowledge are fundamental and will be continued in or extended to each country participating in the cooperative effort for economic development. Others are adapted to particular cases and will be used where they will most effectively advance the purposes of the program.

Fostering Investment. The second method of speeding economic progress is by fostering international investment, thus helping people put to productive use the skills which they develop. New techniques can advance economic development to only a limited extent unless capital investment is taking place at the same time.

The major part of the capital invested in underdeveloped countries must come from sources within the countries themselves. Even the least developed countries have financial resources which are not being used for constructive purposes and which can, with the adoption of appropriate measures, be mobilized for effective development. An integral part of the technical cooperation program is to provide advice and assistance in techniques to encourage, mobilize, and channel domestic savings into productive investment. Nevertheless domestic savings, even though effectively mobilized, will be inadequate to support a satisfactory rate of development. Supplementary capital will be needed from abroad. Foreign investment played a significant part in the rapid development of the United States. It can play a decisive part in the accelerated development of other areas. It is important, therefore, that appropriate measures to encourage the international flow of investment capital be developed as part of the program.

Some of the capital needed can be provided through governmental loans or credits. The International Bank for Reconstruction and Development and the Export-Import Bank of Washington are expected to continue and to expand their activities particularly in connection with projects in such fields as basic utilities, port and harbor development, irrigation, reclamation, and the like which are not usually appropriate for private financing.

Particular emphasis in the program is given, however, to the stimulation of a greatly expanded flow of private investment. The importance of American private investment lies not only in the fact that it is potentially the major source of foreign funds for development purposes but also in the fact that it contributes to the development process, enterprise, managerial experience, and technical knowledge as well. While the outflow of American private capital has been substantial in recent years, it has been low in relation to the need for

development capital abroad and it has been concentrated in a few areas and a few fields of activity.

An expanded flow of private investment abroad depends upon the reduction or elimination of the risks peculiar to such investment which tend to deter investors from participating in enterprises in many foreign countries.

Among these deterrents are the unstable political conditions in the world today, balance-of-payments difficulties leading to limitations on the right to transfer earnings and capital, possibility of loss of ownership without compensation, and various restrictions imposed by governments on the operation of foreign enterprise.

Much can be done to reduce the risks involved, through efforts already under way to bring about conditions of greater political and economic security in the areas concerned. In addition the negotiation of bilateral treaties with foreign governments which would give mutual assurances of fair and equitable treatment and relieve the investor of the burden of double taxation should contribute to a more favorable climate for foreign investment and give greater confidence to investors. Some of the deterrents, however, involve factors which may be beyond the control of local governments. It is contemplated that an experimental program of guarantees, both against the inconvertibility of foreign currency and against loss from expropriation, confiscation, and seizure, be undertaken by the Export-Import Bank with regard to U. S. private capital newly invested in productive enterprise abroad which contributes to the development of economically underdeveloped countries.

Guarantees to investors should be balanced by guarantees in the interest of the people whose resources and whose labor go into the enterprise. These people have a right to expect that foreign investors will observe local laws, maintain fair labor standards, pay their fair share of taxes, and so conduct their enterprises that the local economy as well as the investor will receive full benefit from the activity. Although every proper aid will be given to private initiative and enterprise, there is no intention of asking treatment for American capital more favorable than that enjoyed by the investors of the receiving countries or of other countries or more favorable than the United States grants to foreign investors in its own territory.

Cooperation. Although the United States may take pride in its development of industrial and scientific techniques and of capital resources, and may feel a deep sense of the responsibility which springs from its good fortune and achievement, the United States recognizes that it has no monopoly of either technology or exportable capital. The greatest progress can be made only through the cooperation of other nations which are willing to pool their technological resources in the common cause or which have capital to invest abroad.

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It is proposed that this be a cooperative enterprise in which all nations work together through the United Nations and its specialized agencies wherever practicable. It is also intended to work with other international groups, such as the Organization of American States and its specialized agencies, which have objectives in common with those of the United Nations. In general, international organizations will be encouraged and aided in carrying out such technical cooperation programs as promise to be effective under international auspices. It is contemplated that the United States will undertake bilateral arrangements for desirable projects whenever international organizations cannot or will not undertake them or such projects can be more effectively operated in this manner. It will be necessary to consider bilateral, regional, and more broadly international projects in their relationship to each other so that insofar as possible they complement and mutually support each other.

Aid in Response to Requests Only. This program is not an attempt to force American ways or American capital upon the people of other nations. It has come into existence only because of the real needs and expressed desires of many peoples. What is envisaged is a program of development based on the concepts of democratic fair dealing. Individual technical cooperation projects under the program will be undertaken by the United States only in response to requests. Each such project will be devised and controlled to benefit the peoples of the areas at whose request it is being instituted. The part of the United States in any agreed project will remain that of cooperative assistance. The United States will not take responsibility for seeing that economic development actually takes place or for providing all the necessary elements. These responsibilities will remain with the country requesting assistance.

Long-Term Process. Economic development is a long-term process. Consequently, this must be a long-range program. Its duration and success will be measured in decades rather than years. Spectacular results cannot be expected immediately. The cooperation which it envisages should be thought of as continuing for many years, and long-range projects necessary for the most beneficial development of each country's resources must be included.

Today's needs are urgent. Without prejudice to the long-range development aspiration of other peoples, top priority should be given to requests for cooperation in connection with economic development projects which can be undertaken promptly and which will make the greatest net contribution within a reasonable time period.

Benefits Exceed Costs. Finally, it must be emphasized that the results which may flow from a program of this type are far out of proportion to its costs. A number of illustrations of significant accomplishments achieved by a small investment of skilled manpower and

money are set out in appendix E. In comparison with other U. S. and international assistance programs, the cost of the technical cooperation program here proposed is exceedingly modest. The appropriations requested for the first year of operation amount to approximately $45,000,000. The salaries and expenses of the few thousand technicians, experts, and students who will be direct participants in the projects to be undertaken cannot be compared with the cost of the large shipments of commodities which are essential to the success of a number of other programs. But the efforts of these few thousand persons will be multiplied many times as they stimulate increasing and more effective activities on the part of the populations of underdeveloped areas. The value of the program should be measured in human terms, not in dollars.

The guarantee mechanism proposed is a second kind of operation the results of which should far outweigh any costs incurred. The total capital guaranteed—all of it contributing to economic development abroad—will certainly far exceed claims arising for dollar payments under the guarantee program, and the cost to the U. S. Government of such claims will be reduced to the extent of the fees charged and the funds recovered from local currency assets acquired when claims are paid off.

Administration. In an undertaking as complex as this, careful groundwork must be laid for effective administration. This groundwork includes the planning that other governments and the international organizations will need to undertake, the negotiations that will need to be carried out by this Government in order to establish mutually satisfactory arrangements for the cooperative activities planned, the recruitment of qualified technicians willing to serve abroad for considerable periods of time, and arrangements within this country for the training of workers and administrative personnel, of all technical levels, from other countries.

An Evolutionary Program. It is therefore impossible to formulate far in advance complete plans for an enterprise of this sort. At this time it is possible to plan only for activities which will clearly be successful, and to undertake exploratory and experimental operations in some areas to gain new experience. As experience accumulates, additional legislation may be found necessary, and it may prove desirable to vary the nature of the activities undertaken under the program. This is an evolutionary program. It has a clearly defined and constant objective, but the achievement of this objective may require continual adjustment in the methods of approach.

II.

The Purposes and Benefits of the Program

THE PRIMARY objective of this program is to help the people of economically underdeveloped areas in their own efforts to develop their human and natural resources, to increase their productive capacities, and to raise their standards of living. As part of this primary objective the program seeks to raise the educational level and to improve the health of peoples participating in it. Successful progress toward these objectives will have both direct and indirect benefits not only for the people of underdeveloped nations but for the United States as well.

Such progress will contribute toward the development of a better balance in the world economy. In recent decades increases in production have, on the whole, taken place in areas already well developed, without adequate attention to the economic as well as human need to move ahead along the whole production front. This program will help to fill that need by developing retarded areas.

INCREASE IN HEALTH AND LIFE EXPECTANCY

In human terms, among the great benefits of the program to the people of the underdeveloped areas who participate in it will be the improvement in their health and the increase in their life span. It must not be overlooked, however, that this great humanitarian benefit will at the same time intensify one of the great problems in the success of the program—increases in the population of areas already overpopulated under present economic conditions. This fact should be considered with attention, though not with anxiety.

In the underdeveloped areas the controlling factor in population growth is primarily the death rate, the birth rate being consistently high. Economic development, and particularly improvements in health, will lead to substantial reductions in the death rate and therefore substantial increases in the population. From experience in other areas it seems probable that such increases will continue until industrialization and urbanization have become substantially advanced, when significant declines in the birth rate may be expected. Such declines in birth rate may also be expected eventually even in predominantly rural areas where there have been considerable improvements

in public health, the development of education, and media of communication and transportation.

During the intervening period population increases should be considered serious but should not be regarded as alarming. Under the most favorable circumstances large populations have rarely grown more rapidly than 2 percent a year without immigration. An intelligently administered program for over-all development should make it possible to compensate for increases in population by improving the human resources of the country and increasing their economic efficiency. Countries having a high mortality rate suffer severe losses in the productive capacity of their people because their short lives leave them with very few years of productive activity in contrast with the unproductive years of growth. For example, in underdeveloped, overpopulated countries such as India, China, and Egypt, where the average expectation of life at birth is in the neighborhood of 30 years, only 54 out of every 100 children born ever reach the age of 15 and enter the ages of maximum economic productivity. Of those who reach young adulthood all but 15 die or are incapacitated long before completing the normal span of working life to the age of 60. In contrast, in the more highly developed areas 92 of every 100 children born reach the age of 15 and 70 live a productive life span to the age of 60. Reduction of the death rate in the underdeveloped areas will mean an increase in the human resources available for production in proportion to population (see chart B, p. 11).

At the same time improvements in health and physique will bring about greater capacity on the part of the individual worker. It is not surprising, for example, that the undernourished Eastern peasant, afflicted with chronic malaria and host to a rich assortment of internal and external parasites, should commonly be a weak and lethargic worker. Other things being equal he will certainly become a more productive worker when freed of these heavy drains on his physical vitality.

Perhaps the most important gain from improved physical condition will not be greater capacity for physical labor but the intangible changes in outlook on life. Certainly some of the fatalism and lethargy of the peoples in some of the less developed countries derives from nothing more mystical than malnutrition or the debilitating diseases that sap the physical vitality of the people. A more vigorous physique and a more satisfying knowledge of their power to control diseases which have subjugated them will contribute to the initiative and receptiveness of these people to new methods, the use of which may well result in increases in agricultural and industrial productivity.

ECONOMIC PROGRESS

Increased production in the underdeveloped areas will not only benefit the inhabitants of those areas but will have far-reaching effects on the world as a whole. The United States as well as other relatively advanced countries has a very real financial and commercial stake, as well as a humanitarian and political interest in the bringing about of progress in these areas. In the economic field there are four general lines of development which are likely to flow from such progress.

Trade. In the first place there is a very close relationship between the development of an area and its volume of trade. It is a truism that the best markets are those in which there is the most purchasing power. Thus the United States has always exported at its highest rate to developed countries. In the 1936–40 period, for example, the people of the well-developed areas bought from the United States, on the average, $5.80 worth of goods per person per annum. The people of the intermediate areas bought, on the average, only $1.25 worth and those of the underdeveloped areas only 70 cents worth.

At present the low levels of production in many underdeveloped areas hamper the process of development internally because of limited domestic purchasing power for their own products. In the foreign field the lack of capacity to produce commodities for export seriously limits their ability to buy imports which can be produced and sold by other countries. Except for foreign credits or grants, the underdeveloped areas can acquire the foreign exchange with which to increase their purchases abroad only by increasing their own productive capacity and their exports. Development of productive facilities in these areas will, therefore, contribute to a general expansion of trade in which we and other nations can participate to our mutual advantage. Many problems can be more easily solved if trade is expanding. Instead of having to struggle with each other for a share of a limited market, the exporting countries will be able to participate in a constantly increasing flow of trade.

Domestic Production. Secondly, many of the underdeveloped areas not only are lacking in capacity to produce commodities for export but, because of deficiencies in skills, equipment, proper seeds, fertilizer, etc., have also been unable to produce for their own consumption food and other items even though their natural resources could well be adapted to such production. They now find it necessary to import these commodities from abroad. By increasing their domestic production of these items, the foreign exchange now used in their purchase abroad could be devoted to the purchase of other types of goods which other countries are in a better position to produce and supply.

Capital Goods. In the third place, the process of economic development means the existence of a long-term and expanded market for the

Chart B

Productive Life Span

Only 10 of each 100 children reach 60

Underdeveloped Areas

Developed Areas

Each figure equals 10

sale of equipment and other manufactured products for capital installation. Growth in knowledge and skill in the installation and operation of machinery, equipment, and facilities will result in a greater need and demand for such equipment. Facilitating the flow of capital for sound projects in underdeveloped areas also will result in purchases by them of capital equipment which they cannot themselves produce but which the United States and Western Europe can manufacture in large quantities.

Raw Materials. Lastly, the economies of many of the more developed countries are becoming more dependent upon the import of many basic minerals and raw materials. In many cases the sources of these commodities now being drawn upon are becoming exhausted. At the same time high levels of production are causing increasing demands. It is important that new sources be developed to the maximum extent. The possibilities of great expansion in the production of these important commodities exist in a number of the underdeveloped areas of the world. This can be a process of great mutual benefit by increasing the world supply of these commodities while expanding purchasing power in the countries of origin.

BUILDING POLITICAL DEMOCRACY

The greatest threat today to the democratic way of life throughout the world is the organized, insidious effort to persuade the peoples of the world, and particularly those in the underdeveloped areas, that the best way to higher standards of living is that offered by international communism. Nothing is more false. Yet it is too much to expect the hundreds of millions of the peoples of these areas, seeking as they are for some means toward a decent life, to appreciate the falsity of this doctrine and reject it unless something concretely better can be shown them. The Point Four Program, providing as it will the technical assistance of the United States and of the other members of the United Nations, accompanied by creative investments, can give such a concrete demonstration of the economic progress toward higher standards of living which can be realized through democratic means.

It can provide convincing proof to these peoples of the willingness and ability of the democratic nations to help them in their own efforts. The confidence in democratic ways which such help will engender in these peoples will encourage them to support in their homelands political leaders who are dedicated to the principles of democratic government and, at the same time, will make it impossible for totalitarian would-be leaders to gain power.

At the same time, there can be no more effective way of acquainting other peoples with the American economic philosophy, democratic

principles, and way of living than through American technicians working side by side with the leaders and ordinary people in agriculture, labor, business, and government in the underdeveloped areas in a cooperative effort to help them advance themselves. The intangible benefits to the United States of the program and of the ends which it can accomplish will be tremendous. Not only will the United States benefit from the general growth of democratic principles among the peoples of the world, but the intangible evidence which these people see of their own progress growing out of American help should greatly increase their good will toward the American people and American ideals.

STRENGTHENING THE UNITED NATIONS

A cardinal point in American foreign policy is the support and strengthening of the United Nations. The Point Four Program will strengthen the United Nations by supporting that organization and its related agencies in the accomplishment of one of its fundamental purposes: constructive international action for improving standards of living. The specialized agencies of the United Nations have already devoted much time and effort to the development of programs designed to accomplish this purpose in their various fields of interest. In many cases extraordinarily successful results are being achieved. The United Nations itself has provided in its budget funds for general economic development surveys not falling in the field of specialized agencies and has already engaged successfully in activities of this type. Progress resulting from the limited work undertaken has led to the adoption by the General Assembly in December 1949 of an expanded program of technical assistance. The successful operation of this broad program will increase the prestige and effectiveness of the United Nations and its related agencies in proportion to the importance of the tasks successfully carried out by them. As nations become aware of the fact that the international agencies established by the United Nations can assist them through constructive activities affecting so vitally their well-being, faith in the United Nations and cooperation in all its activities will grow both among governments and people.

PROMOTION OF PEACE

The ultimate benefit of the program will be the promotion of the peace of the world, with which the peace and welfare of the people of the United States are intimately bound up. This will be the total long-run effect of the substantial role the program will play in strengthening the economies and increasing the standards of living and welfare of the peoples of the underdeveloped areas, *developing*

sources of needed raw materials, expanding international trade, building good will toward us among these peoples, strengthening political democracy, increasing the prestige and effectiveness of the United Nations and other international agencies, and, most important, showing that world development can take place peacefully and with increasing personal freedom as the energies of the masses of the people are released into channels of constructive effort insuring greater production, greater exchange, and greater consumption. International tensions can be eased by the success of this fundamental attack on one important source of friction, and both current living standards and future economic development will be benefited by the additional resources thus made available.

III. The Scope of the Program

THE SCOPE of a program of this type cannot be delimited precisely in advance. To be effective such a program must adapt itself to changing conditions and circumstances, through consultations among the participating countries, through surveys and analyses and, most importantly, through actual experience in operation. However, sufficient information is available to make it possible to forecast the general lines along which the program probably will develop and the types of activity likely to be most effective in accomplishing its purposes. As outlined in appendix D, a great deal of experience already has been acquired as a result of rather extensive activities which heretofore have been conducted in cooperation with other countries primarily in Latin America, and under programs of international agencies. In addition numerous requests and inquiries for aid have been received and the U. S. Government has knowledge from many sources of economic conditions and primary needs in underdeveloped areas of the world.

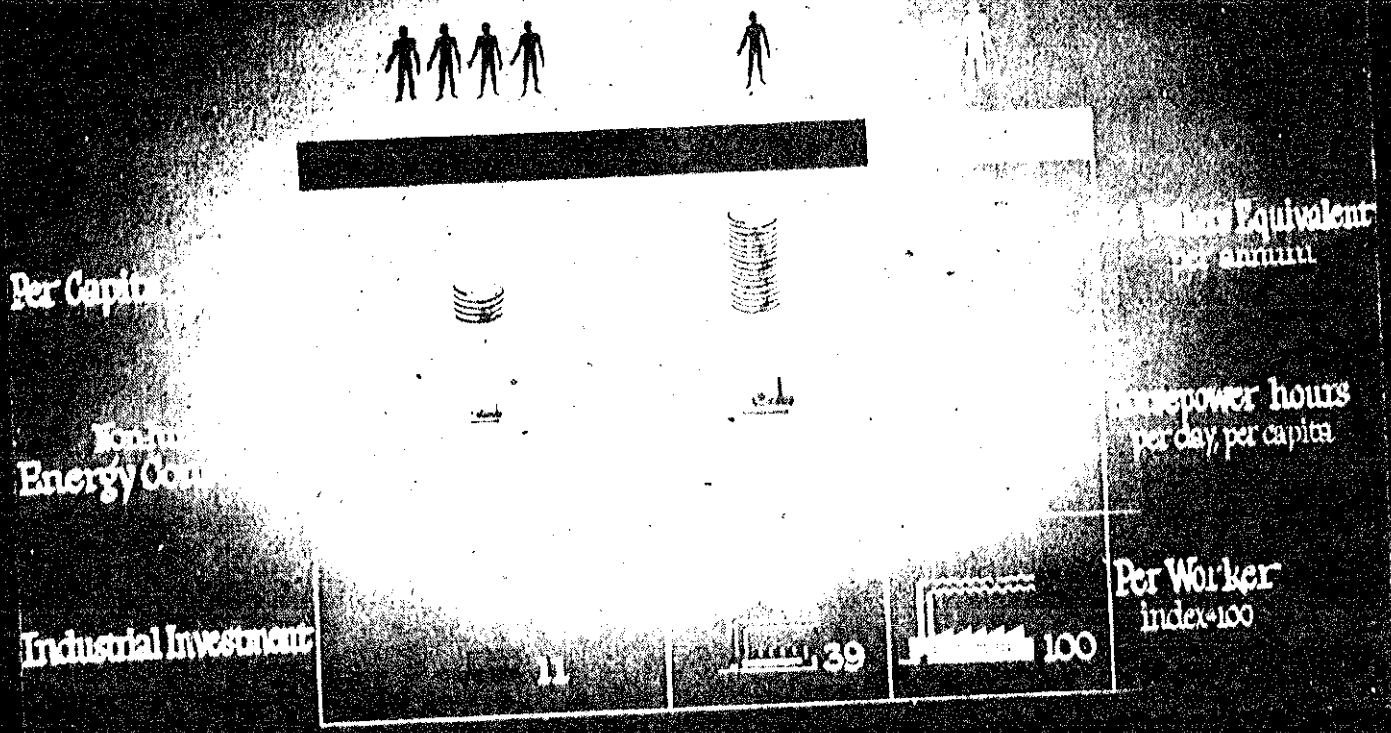
The scope of the program may be measured in terms of the geographic areas in which it will be primarily effective, the way in which it will be related to U. S. programs already in existence, and the functional fields of economic activity in which it will deal. The scope may also be measured in terms of the limiting factors which are inherent in a program of this kind, the period over which it should be carried out in order to have substantial success in achieving its objectives, and the financial requirements both upon the United States and other countries for technical cooperation and for capital development programs.

THE GEOGRAPHIC SCOPE OF THE PROGRAM

Fundamentally the program is directed toward the improvement and growth of economically underdeveloped areas. Assistance will be given mainly to those peoples whose economic life now provides relatively the lowest standards of living. Based upon the general criterion of the per capita income of a country (see chart C, p. 16, and appendix C) and generally accepted usage, most of Latin America, Africa and Asia, including the Middle and Far East should be considered underdeveloped areas (see chart A, facing p. 1).

Chart C

Economic Factors



It should not be overlooked, however, that the program is one of mutual and multiparty cooperation. For example, certain countries may be well advanced in some specific crafts or techniques which will be received with appreciation by countries which may perhaps have a higher level of general development.

So far as geographic scope is concerned, technical assistance by the United States will be extended to any economically underdeveloped country which desires to participate and which demonstrates that it in turn is ready and willing to cooperate with other peace-loving countries in forwarding the purposes of the program. Similarly, assistance which is given multilaterally through the United Nations will be based upon compliance with conditions established by the United Nations to insure the maximum effectiveness of the programs. These conditions may include appropriate contributions, permission for impartial observers, full reporting and appropriate publicity, and control of projects and personnel by the appropriate United Nations agency.

Dependencies. Many of the underdeveloped areas are dependencies. There are 72 different non-self-governing territories with over 200 million inhabitants. These areas are among the least developed. They are also key areas in the conflict of totalitarian and democratic ideologies. Aid under the program will be extended to the inhabitants of dependent and colonial areas as well as to those of independent countries.

Programs in dependent and colonial areas will be primarily for the benefit of the people of such areas and will be carried out in cooperation with the appropriate governmental authorities. The countries participating in the European Recovery Program include most of those having dependent territories. The programs contemplated by ECA in the dependent overseas territories are primarily designed to assist in the attainment of economic recovery within the relatively near future, whether this means improving the production and marketing of goods in a more highly developed area, or economic development to bring into the recovery picture increased resources. Thus, for example, long-range programs related solely to the internal development of the dependent areas will generally not be undertaken by ECA. For this reason, even in those dependent areas where ECA has scheduled technical assistance programs, technical assistance under the Point Four Program will also be provided where practicable, since it is a longer term program with broader objectives in relation to dependent areas.

No direct assistance to the dependencies of the United States is contemplated under the Point Four Program, in view of the fact that they are being given assistance in their economic development through

the responsible agencies of the U. S. Government. These dependencies may, however, benefit incidentally from programs of a regional nature undertaken by intergovernmental organizations. The U. S. dependent areas in turn may assist the general program by providing help to regions which have made less economic progress.

The normal geographic distribution of assistance will be through country projects. However, since the development of many countries will be closely dependent upon the development of neighboring countries in the same region, there will no doubt be many instances in which assistance will be provided to two or more nations engaged in a cooperative effort for economic improvement. In addition, all countries which can use them will have access to certain services of general use, such as central clearing houses of technical information, translations of technical books, and educational films.

RELATION TO EXISTING U. S. PROGRAMS

The United States is now carrying on two technical assistance programs substantially similar in kind, though not in scope, with the Point Four Program. These are the projects of the Institute of Inter-American Affairs (IIAA) in health and sanitation, agriculture, education, and related fields and the programs of the Interdepartmental Committee on Scientific and Cultural Cooperation (SCC) in agriculture, public health, industry, natural resources, labor, government services, social welfare, and education, outlined in appendix D, p. 135 ff. With a few exceptions, these projects are now confined to Latin America. These programs have in effect demonstrated the practical validity of the principle of technical assistance to underdeveloped areas which under the Point Four Program will be expanded in volume, scope, and in area of application and will be administered as a matter of national policy to achieve maximum effect for economic development. The activities of the IIAA and of the SCC (insofar as they contribute to economic development abroad) will be coordinated with other activities carried on under the over-all Point Four Program.

The U. S. is also carrying on other international programs in certain areas which have objectives related to those of the Point Four Program. These programs are the European Recovery Program and the Chinese and Korean aid programs administered by the Economic Cooperation Administration; the programs for government, relief and rehabilitation in Germany and Japan: and the Philippine rehabilitation program.

Point Four Programs are not generally contemplated for countries whose economies are in a relatively advanced state of development. However, the success of the Point Four Program in the development of economically underdeveloped areas will be very important in the

expansion of world trade, which will have great significance for European recovery. Expansion of the economies of the underdeveloped areas will assure needed products for Europe and will offer a better market for European exports.

Where the recovery programs involve underdeveloped dependencies of some of the European countries, both programs may undertake activities in the same area. In such cases, in order to avoid inefficient overlap, it is contemplated that projects under the Point Four Program will be operated pursuant to agreement with the agencies conducting recovery programs. The emphasis of the Point Four Program and its objectives generally will be quite different from, although complementary to, the objectives of such programs. It is contemplated that during the first year arrangements will be made for complete coordination of the Point Four and ECA programs.

For the most part the rehabilitation and recovery programs are aimed at assisting a country to restore or attain a viable economy by means of a temporary financing of imports, by the creation of financial stability, and by better utilization of existing resources and new sources of wealth. The Point Four Program will not be aimed at restoring previously viable economies but at basic improvements in economic well-being of the people of underdeveloped areas through an expansion of capital and the improvement in the use of technical knowledge. The objective of the Point Four Program will be development rather than balance-of-payments assistance.

FIELDS OF ECONOMIC ACTIVITY

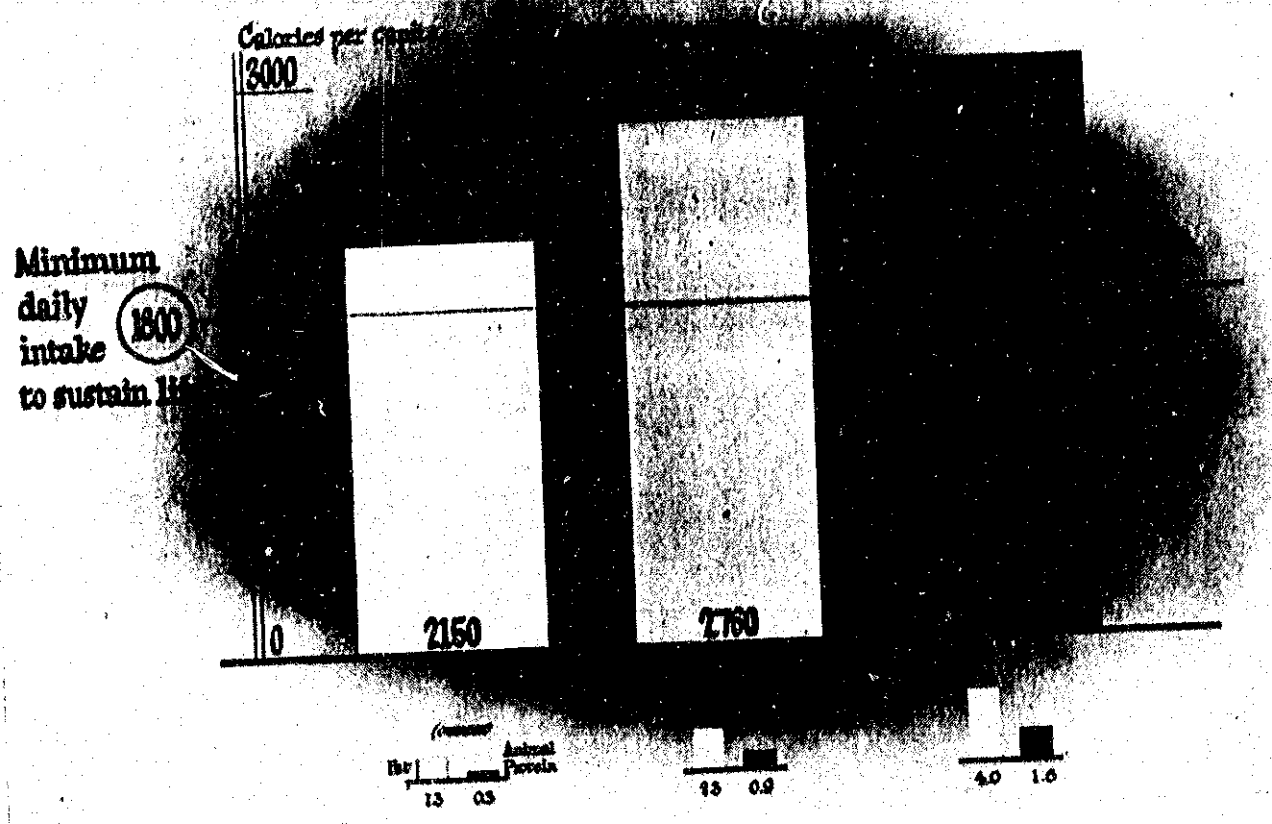
The Point Four Program will deal with the essential fields of economic activity. Technical cooperation will be important in all the fields dealt with. Fostering of capital investment will be important in many of them.

There will be wide differences among the various countries as to the order in which projects should be undertaken in the several fields and the emphasis which should be placed on each. Projects proposed for their development must take into account and so far as possible be adapted to local resources, attitudes, social and legal structures, customs and practices, and national aspirations.

Although relative to the immensities of the need economic development can take place only gradually in any one area, close integration of projects in the several fields of economic activity both in the planning stage and in operation, within each country and among different countries, will make it possible to relate each single advance to an over-all forward movement. The principles concerning the major fields of activity with which the program will deal, in one degree or

Chart D

Food Supply



another, are discussed below. The estimate of funds to be spent on programs in such fields for the first year of operation is set out in section VII.

General Economic Development. For many underdeveloped countries the first step in a program of economic development will be an analysis of their needs and resources and a determination of what action should be taken and in what order of priority. A country wishing to take this step can be greatly assisted by a comprehensive mission composed of experts in the various fields basic to economic development. This has been done successfully in the recent past by the U. S. and Brazil through the joint Brazilian-American Mission, whose comprehensive report on the economic development of Brazil is mentioned in appendix E. It has also been done by the United Nations, which sent a somewhat similar mission to Haiti in the fall of 1948. Such over-all studies, properly followed up, will be a valuable basic aid in evaluating and attacking the problems of many underdeveloped areas.

Basic Fields

In general, in the least developed areas where "economic life is primitive and stagnant", basic improvements in education, health, and agricultural methods must precede substantial increases in production of non-food products and general improvement in standards of living. Since such areas are now predominantly agricultural, and their people rely on their own agricultural production for foods and their own forest growths for housing, projects in such areas necessarily must stress the importance of efficient techniques in agriculture and forestry.

Agriculture and Forestry. In many underdeveloped areas agriculture was once highly developed and remnants of former skill still remain, but centuries of warfare, migrations, invasions, ignorance, poverty, and disease have resulted in eroded land, retarded agricultural methods, and meager production (see appendix C, p. 121). In other areas, agricultural methods have never been brought past the primitive stages. In consequence, the people cannot raise enough to feed themselves at a level which will maintain the health and productive energy necessary to develop and maintain an improved economy (see chart D, p. 20). More effective agriculture is therefore a prime necessity to economic development in underdeveloped areas, both to raise the general health level of the population and also to start the wheels of an expanding economy.

Improvement in agricultural output is essentially related to other elements in economic development. Obviously, the health programs may provide more mouths to feed as well as more workers who are physically fit. Unless agricultural improvement is rapid, the net

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result may be no advance in the per capita standard of living. Similarly, the process of industrialization means a shift from the country to the city, the plough to the work bench. The same number of people must be fed, with a smaller proportion on the farms to raise the food. Industrialization is intimately related therefore to agricultural development.

Assistance in increasing agricultural output should be accompanied by assistance in conserving soil and forest resources, in irrigation and draining techniques, in crop selection and improvement, in the production and distribution of seeds, in the control of plant diseases and pests, in the use and maintenance of agricultural machinery, and in the development of specialized export crops. This basic field includes improvement in the quality and increase in the quantity of animal production by promoting the use of improved breeding stock and of breeding methods adapted to the local environment; the adoption of improved animal feeding; the control of animal diseases; and the expansion of dairy and poultry production. It also includes assistance in providing adequate processing, transportation, and storage facilities for the efficient and safe distribution of food and other agricultural products, help in establishing marketing facilities to take care of increased agricultural produce and the development of marketing information services to develop grades and standards and to guide the flow of produce in an efficient distribution pattern.

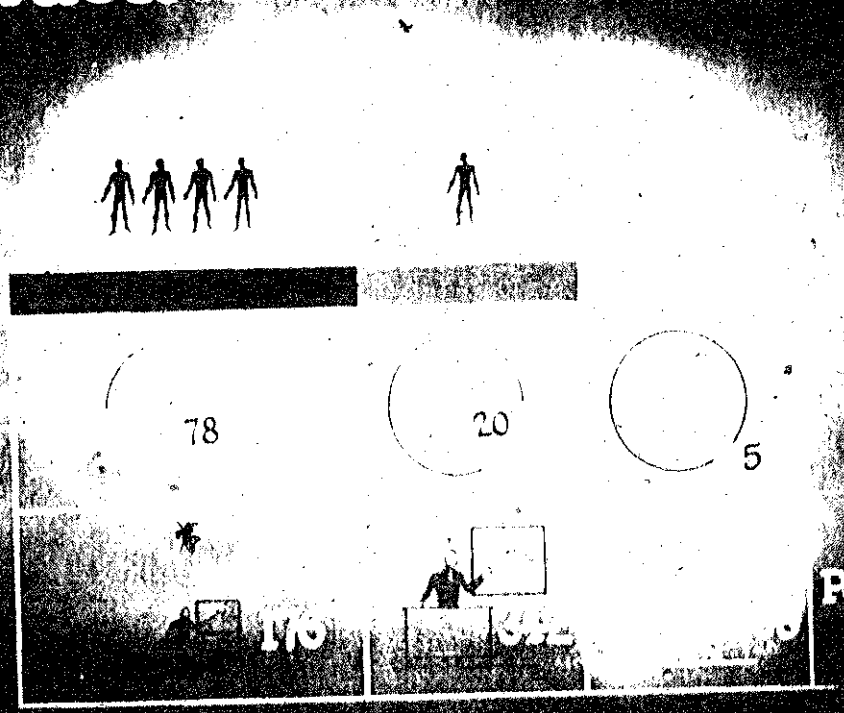
To realize the full agricultural potential, the program might also include assistance in the establishment of agricultural, forestry, and fishing cooperatives in order to secure the benefits which come from larger scale operations and to provide a coordinated approach to the problems of machinery, equipment, terminal elevators, transportation, and other marketing facilities, which could not be provided by individual producers.

A most serious bottleneck to agricultural development is the lack of trained personnel in most of the agricultural fields. Since there is a limit to the number of experts who can be spared from the developed countries to assist the underdeveloped countries, it is fundamental to all agricultural development programs that education and training in agricultural schools and in practical application be emphasized.

Education. Millions of the people in the areas in question are now held in a relatively primitive state because they have limited facilities through which they may develop their latent mental capacities (see chart E, p. 23, and appendix C, pp. 112, 115, 122). It is essential to increase their capacity to help themselves by increasing their literacy and basic knowledge. The productive capacity even of literate segments of populations cannot be materially increased without teaching them those fundamentals which are essential to acquiring mechanical

Chart E

Educational Factors



Illiteracy

Teachers

Per 100,000

skills and to understanding the principles of health, nutrition, and modern agricultural and industrial methods.

To meet the need for basic education, experts will be made available to assist the local authorities in working out and applying effective methods of instructing both children and adults. This would not therefore be an actual teaching program, but rather one for teaching teachers and aiding in establishing proper administrative systems. The assistance will include the establishment of demonstration or model schools to show the way in which children and adults may be taught to read and write and be given elementary understanding and training in sanitation, improved agricultural techniques, and other basic knowledge. This process will also include the establishment or improvement of local teacher training schools and the bringing of qualified students to advanced countries to study in the fields of basic rural and vocational education, in order that they may be better qualified to serve in responsible educational positions.

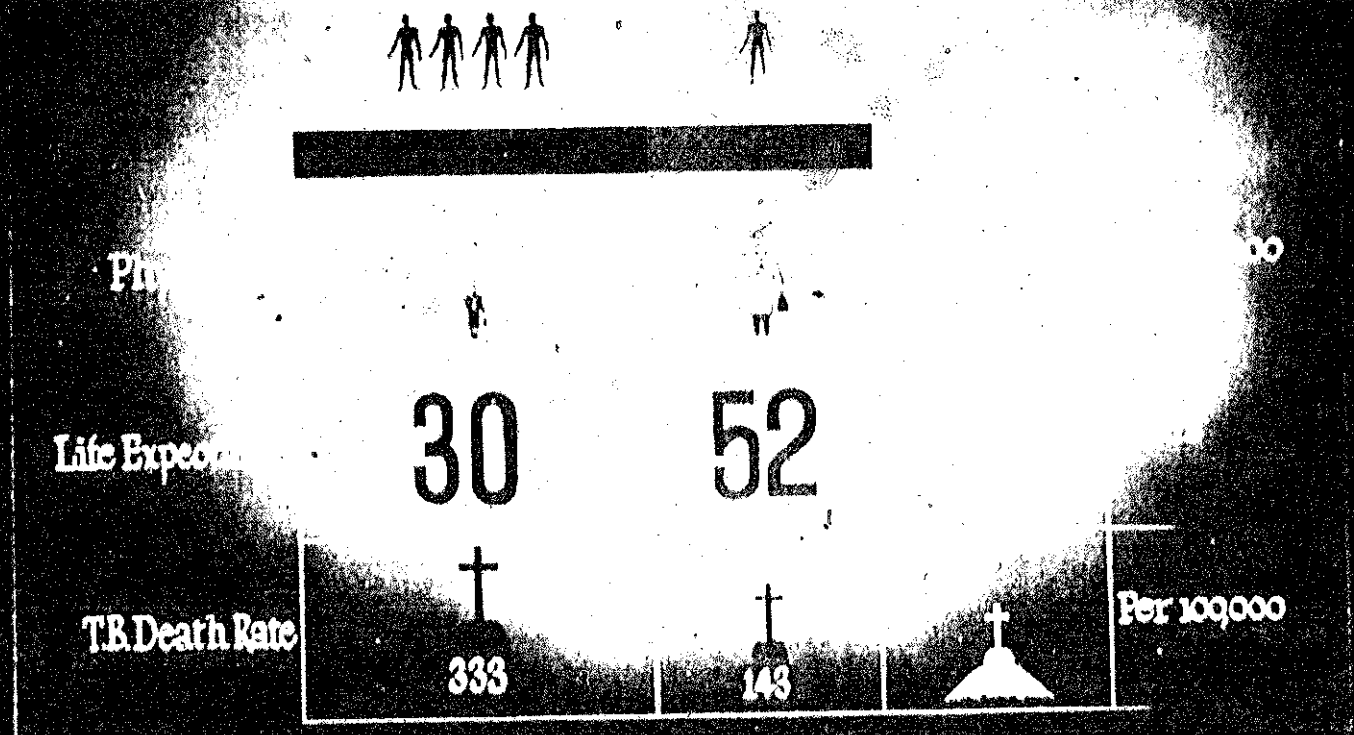
Health. Improved health is not only essential to economic development but is in itself one of the main elements of a higher standard of living. Broad-scale action in the medical field is a basic requirement in those large areas of the world whose populations are constantly afflicted with or threatened by certain endemic diseases (see appendix C, pp. 112, 115, 122). In many cases the prevalence of debilitating disease is a major factor in the low food production and poverty of a region (see chart F, p. 25). It has even been demonstrated that an effective health program eliminating an endemic disease can enable farmers to expand food production from the same amount of land by as much as 50 percent. This is not merely a problem affecting agriculture, but it also retards industrial development. Furthermore, the existence of diseases and of the pests carrying them has made it impossible in many cases to open up valuable resources. For these reasons, concentrated improvement of health and hygienic practices will form an essential part of the development cooperation program.

The economic development and continued prosperity of a population will depend on the basic physical soundness of its individuals. Education in good nutrition and the protection of the mother and child from disease and premature death will insure the greatest possible sound manpower potential for the future.

Lack of knowledge by governments and peoples of improved and advanced techniques in purification of water and sewage disposal and lack of modern equipment are largely responsible for the existing high rates of typhoid fever, dysenteries, cholera, hookworm, and other diseases over wide areas. The application of modern sanitation methods to water supply and waste disposal can substantially eliminate these diseases as major health problems. Consultative services and

Chart F

Health Comparisons



demonstrations to this end can with very little cost lead to dramatic improvements of the kind indicated by the examples in appendix E.

Infectious diseases such as smallpox, cholera, bubonic plague, yellow fever, and typhus do not recognize national boundaries. At present the United States and other governments rely mainly on quarantine measures to prevent the spread of such diseases. With the present-day accelerated transportation of people and produce, the chances of spreading virulent diseases across national borders are greatly increased. For these reasons it is important to the welfare of the people of the United States, as well as to that of the people in the underdeveloped areas where such diseases generally have their foci, that concerted efforts be directed toward the elimination of such infectious diseases at their source.

Improvements in basic health may come through a number of forms of assistance. Public-health consultants and advisers may assist governments of underdeveloped countries in the organization and administration of public-health services. Practicing experts can stimulate the development of adequate local health services by demonstrations and by actually helping the local people operate health centers and other facilities until local personnel are developed who can take full charge. Public-health teachers can help conduct public-health education programs to close the wide gap between scientific knowledge and its application to daily life.

Many successful projects, a few of which are mentioned in appendix E, have shown that a small number of doctors with a moderate amount of equipment and supplies can assist local peoples in making effective attacks on specific diseases such as syphilis, gonorrhea, malaria, and tuberculosis, which have a great adverse effect on the economy.

In many areas great potentialities for economic development are blocked by diseases whose full control is not yet fully understood. Therefore, the public-health program must include research projects designed to obtain information which will lead to the control of economically important diseases. Relatively small research units within a period of one or a few years may be able to obtain the data necessary to put into effect public-health methods which will control diseases now holding large populations in a state of misery and deterring economic development.

Housing. Adequate shelter is a fundamental objective of economic development and is essential to progress in other fields of development. Housing in many of the underdeveloped countries has in large part never advanced beyond a primitive stage which invites apathy and disease. In other areas, already poor shelter conditions have worsened since the war. In nearly all areas construction methods could be effectively improved through the application of modern techniques

with suitable adaptations to meet local conditions. It is therefore desirable to make housing experts available to countries requesting them and to bring professionals and trainees to the U. S. for observation and education.

Development of Resources and Industries

Progress in basic education, health, and agriculture will be facilitated by, and in turn will help speed progress in the development of resources and industries. With these must be associated certain allied fields, such as water control and utilization, production of minerals, fisheries, improvements in transportation and communications, advances in standards of labor and industrial relations, and direct improvements in the quality and magnitude of industrial activities.

Water. In all of the major underdeveloped areas of the world there is urgent and vast need for the scientific development of water resources. In many areas water development for irrigation, soil conservation, flood control, navigation, power—or all of them—is a necessary prerequisite to other forms of economic development. One of the functions to be carried out under this program will be to assist underdeveloped areas to develop their water resources for the benefit of agriculture, industry and transport. This will be done by providing expert assistance in reclamation activities concerned with irrigation, flood control, and hydroelectric power engineering, and by providing training opportunities and assistance in study and planning of integrated programs of water control and utilization.

Minerals. Location, development, and economical processing of mineral and fuel resources is a major aspect of the program of technical cooperation for economic development of underdeveloped countries. It is important for progress in other fields of economic development. It is also important as a potential source of foreign exchange which can be derived from the export of minerals and used in turn to finance imports of capital goods.

Many undeveloped mineral resources in the areas which will participate in the cooperative effort are of considerable importance to the more highly developed nations of the world, including the United States. The ability of mineral and fuel products to satisfy world requirements and thus to create foreign exchange should open channels both for governmental and private investment by the country concerned and for American and other foreign investment.

The development of these resources is also of major importance to the development of the country itself. If and when it moves in the direction of industrialization, it will be greatly retarded if it must use the foreign exchange to purchase raw materials and particularly to purchase fuel. Since power is the basis for all modern technology,

engineers have tended to emphasize hydroelectric developments. However, steam and heat are interrelated in modern production, and therefore the fuels such as coal and petroleum assume an important role.

The limited availability of qualified experts will make it necessary for assistance in minerals development to start on only an extremely modest scale. It may be anticipated, however, that it will eventually form one of the major elements in the program.

Assistance to participating countries will include geologic investigations of mineral reserves to provide accurate and detailed information as to available deposits and their potential availability for economic development purposes. It will include help in the development and application of mining processes and of techniques for the extraction, refining and utilization of ores. It will also include aid in training local technologists and scientists to carry on the work by themselves.

Fisheries. Fish provide a considerable part of the diet of the people in many of the underdeveloped areas and should be an important resource. In most cases, however, fishing is carried on by primitive, wasteful methods, and distribution is very unscientific, resulting in a high loss by spoilage. Modern knowledge of fishing methods and of preservation and distribution of the fish catch could lead to a substantial increase in the food supply for many peoples of the world and have a wide beneficial effect in increasing human health and efficiency. Such advances would also form the basis for new and expanded fishing industries having both domestic and international importance. For these reasons the program should include advice and assistance to the people of underdeveloped areas in increasing their production and utilization of fish, through furnishing fishing biologists and technologists, training local people in advanced methods, and establishing a limited number of demonstration projects and plants.

Transportation. Transportation deficiencies are among the worst bottlenecks in the development of many underdeveloped countries (see appendix C, pp. 110, 119). They have a detrimental effect on the level of production and on the health and well-being of the inhabitants. They contribute to economic stagnation and seriously curtail the flow of international trade. They retard mining and timber development by making it impossible to transport ores and lumber to consumers at home and abroad. They are responsible for considerable deterioration in and loss of agricultural produce and injure both producers and consumers by making it impossible to distribute surpluses to areas where malnutrition or even occasional starvation exist. They limit the markets for industrial products and make the acquisition of industrial raw materials unduly costly. For these reasons improved facilities in road, rail, and inland waterways and air transportation are fundamental to the economic development of underdeveloped areas.

Substantial capital investment is needed to increase transportation facilities. At the same time, technical knowledge in the transportation field either is lacking or is so poorly organized and applied in many countries that progress in developing transportation facilities is and will remain inadequate without outside technical assistance. Such assistance will include help in making necessary basic surveys and plans for expansion and modern maintenance of main and feeder roads, in the management, operation, and maintenance of railroads, and in the location, design, construction, and operation of air transport systems. It will include assistance in the development of inland waterways and harbors and training of local people in the U. S. and their own countries to carry on these activities independently.

Communications. Lack of modern telecommunications (see appendix C, pp. 110, 119) and a well-organized postal service also limits the economic progress of many countries. Assistance in the development of telecommunications and postal systems, both internally and internationally, will be included in the activities of the program.

Labor. Substantial economic progress in underdeveloped countries will in the final analysis depend upon the skill and determination of their working people, upon safeguarding their security, and upon protecting the gains resulting from their increased productivity. Assistance in the labor field is designed to meet these needs (1) through increasing productivity of industrial and agricultural labor; and (2) through developing and maintaining improved labor standards, which will not only create conditions favorable for productivity advances but will assure equitable conditions of manpower utilization under which the workers will be protected from exploitation and be given a fair share of the benefits of increased production.

Technical assistance in the labor field will not only encourage investments from foreign sources by developing an adequate source of supply of skilled workers, but will help to create a favorable climate for responsible long-term investors by fostering the stability and productivity of employment that results from proper attention to human relations in the economic process and from the maintenance of adequate labor standards.

Great differences in existing economies and social practices in the underdeveloped countries and variations in their labor histories and in anticipated economic development make it important that no attempt be made to advise a uniform pattern of labor relationships in all of them. Instead, where assistance in labor matters is requested, advice and guidance should be given on a flexible basis adapted to the local situation.

Projects in the labor field should be undertaken on request in the fields of industrial training, apprenticeship and employment service; industrial safety and health; employment standards, labor legisla-

tion and labor inspection; employment of women and children; employment in agriculture; productivity and other labor statistics; and labor, business, and government interrelations. Such assistance would be provided through sending experts to the countries and through the training abroad of the nationals of such countries.

Industry. Requests for assistance which have already been received from underdeveloped countries, both by the United States and the United Nations, have laid stress on the desire of these countries for industrialization, which most of them believe to be the key to economic development. The enormous need for industrial development is indicated by the fact that in the underdeveloped areas each person consumes only 1.2 horsepower hours per day of mechanical energy while in the more highly developed areas, each person is able to augment his own strength by the use of 26.6 horsepower hours per day—over twenty times as much. At the same time the worker in the more highly developed country has available to aid him in his work ten times the investment in industry of the worker in the underdeveloped area. Nevertheless, the idea that economic development requires only the creation of industrial plants with appropriate power machinery is too simple. The fact is that the development of industry cannot be separated from a much more complex process of social and economic change. It requires a trained labor force, health and training developments, a flow of raw materials, a source of power, and channels of distribution. It may require roads, railroads or inland waterways. And it obviously can be accomplished only by a gradual process.

One of the best ways in which to facilitate the transition from the primitive agricultural economy existing in so many areas to a more productive agricultural and industrial economy is to encourage the development of a number of widely diversified enterprises which will supply the local needs of farmers, using locally available raw materials and providing a wide measure of employment on a part-time or full-time basis. Most of the underdeveloped areas are essentially agricultural and advice to governments or to private bodies in the development of appropriate rural industries will help both to supply the increasing demands of farmers for industrial products and to provide work for labor which will move from the farms as agriculture becomes modernized and mechanized. Small industries, such as cement plants, small tool factories, glass factories, textile factories, or hand-weaving, have been developed in many parts of the world where this transition has already taken place, and may be applied effectively in new areas.

Considerable progress can be made toward teaching and learning advanced industrial methods through individual training, demonstration projects, the establishment of industrial laboratories and work

with existing public and private institutions in the more advanced countries. Such laboratories and technological institutes can help meet the immediate needs of a country for industrial research by developing the industrial processes best adapted to utilize local raw materials and ores; by aiding in modernizing existing industries; by recommending modern scientific practices and equipment; by setting standards and specifications for important commodities produced locally for purposes of local marketing and international trade; and by teaching and demonstrating techniques and processes which will be most effective under the conditions existing in the country.

In some circumstances the feasibility of large-scale or commercial development of potential industries can be demonstrated by the establishment of a small demonstration plant. Such plants, which can be used to train local technologists and to show the potential of the activity to prospective foreign investors can be established under the cooperation program at very little cost. Some industries which are already operating can be increased in efficiency and productiveness by engineering assistance which will be provided under the program.

Training in business administration will be increasingly important. A great part of this need may be met effectively by training local people in industrial enterprises under foreign management, established and operating in the local country. The training program should be expanded, however, by bringing able persons to the United States for specialized training.

Rapid and substantial progress in increasing industrial capacity and production will in large measure depend on foreign investment. Many enterprises in this field will be particularly well adapted to the investment of private funds from abroad.

Aids to Governmental Activities

Effective economic development in underdeveloped countries depends in large measure upon the efficiency and competence of the government involved. No program for development can succeed without sound governmental administrative practices and competent governmental administrative personnel. Therefore assistance in several fields of governmental activity should be made available to governments of countries seriously seeking their economic advancement.

Public Administration. Facilities for training and expert assistance in improving governmental administration are deficient or lacking in most economically underdeveloped countries. To meet immediate and pressing needs, substantial assistance in this field must be included in the program. Such assistance will include furnishing experts and missions to work in the participating countries and bring-

ing selected groups of officials of the public service of such countries to the United States, to other appropriate countries and to the United Nations international center for public administration, in order to acquaint them with methods of administration in more advanced governments, to improve their own knowledge in their special fields, and to make a direct, practical contribution to the solution of administrative problems involved in economic development in their countries.

Finance. Failure to organize and efficiently administer finances is one of the most important factors in retarding or preventing the economic development of underdeveloped countries. There is urgent need for technical advice on currency reform, tax structure, balance of payments and foreign exchange, government bonds, customs, and tariffs, central banking structure and procedures, and other financial matters. Therefore one of the aspects of the cooperation program will be to make technical assistance available on such matters, either in the form of experts or in-service training, or both, as individual circumstances require.

Statistics. Substantial economic progress in participating countries will require good information on their economic activity. Aid, to be most effective, should be based on sufficient knowledge of such activity. Adequate statistics are needed to show the state of agriculture and raw material production, manufacture, trade—both internal and external—transport, finance, wages, prices, national income and public debt, skills, employment and other essentials of business knowledge. Without statistical records, it will be impossible to gauge the progress of an over-all program and to determine where special emphasis should be given.

Most of the underdeveloped countries are seriously deficient in essential statistical information and in the knowledge as to how to develop it. Developing adequate statistics in agriculture, production, employment, and other functional fields will be a part of programs in such fields. Instruction in general statistical methods is also needed, however, and technical assistance should include statistical-consultant missions, training of foreign statisticians in the United States, and development of centers to teach operational techniques.

Hydrographic and Geodetic Survey and Weather. Hydrographic and geodetic survey is a phase of government closely related to economic progress. Coastal charting and hydrographic surveys are prerequisite to the improvement of harbor facilities and essential to shipping services. Geodetic surveys in the preparation of adequate maps are basic elements in all phases of country development programs, particularly in the laying out of roads and railroads and the exploitation of mineral and forest resources. Many requests for assistance in these fields have been received from many countries. It is therefore proposed to assign experts to work with the governmental mapping agen-

cies of underdeveloped countries and to train students from such countries in such fields as tides and currents, geodesy, map and chart production, seismology, hydrographic survey, and, particularly, the importance of electronic techniques and photogrammetry. Similar experience and training will be provided where requested to develop efficient weather services, which make a valuable contribution to economic development and are prerequisite to advanced techniques in various fields, particularly agriculture and aviation.

Social Services. Development in agriculture, mining, industry and most other fields in which assistance projects will be undertaken will rest in the long run upon productivity of the workers, which in turn will be influenced by the economic security of the individual and his dependents. The development of new opportunities for employment, particularly in new or expanded industries, will bring with it adjustments in economic status and social living conditions, and migration of workers and their families. The existence of social services to help provide for the economic security and welfare of workers and their families during this period of change will prevent maladjustments causing unrest and friction.

Assistance which may be provided under the program probably will include experts to advise on the establishment and development of sound social security and welfare systems and their adaptation to local conditions. It will also include the establishment and operation of social-welfare demonstration and training centers, the provision of essential technical literature and training in this country of especially competent social-welfare workers.

LIMITING FACTORS INHERENT IN THE PROGRAM

Any realistic appraisal of the situation must recognize that there are serious obstacles which must be hurdled if substantial progress is to be made towards economic development through a program of international cooperation.

Internal

The first set of limitations appears in the underdeveloed countries themselves. The extreme situation is of course that in which there is civil disorder, where obviously little can be done in an organized way through the medium of international cooperation. There are also extreme forms of nationalism which may place in direct conflict the feeling of antagonism towards things which are foreign and the benefits of a cooperative effort with the outside world. Conditions such as these will undoubtedly reduce the effectiveness of the program and will certainly limit the potentialities of foreign cooperation below that which would exist if need alone were taken as the basis of measurement.

Inherent

A second set of limitations arises from the nature of the process of economic development itself. It is clear that there is no single formula nor any one spectacular action which can lead at once to marked increases in the standard of living. Economic development is rather a process of growth. Its promise lies in the fact that the process is a cumulative one. The higher the technological level, the more widespread the skills. The greater the capital-savings use, the more rapid will be the possible further increase in living standards. However, first things must be done first. Types of assistance which are immediately needed in some areas would be completely wasted in others, where the process of development is less advanced. The time element is a most important function in any process of growth and sometimes it can not be greatly accelerated. In the same way, the full limitations and possibilities of development in any area cannot be known until its economic potentialities have been surveyed and a program for their effective use made.

Means

The third set of limitations lies in the availability of means to carry out substantial programs.

Foreign Personnel. In the field of technical cooperation the most important element is that of personnel. Although technical knowledge is constantly growing and is inexhaustible, a number of factors will limit the availability of technicians in the several functional fields involved in the program. Persons having the technical competence appropriate to this program are, in the great majority of cases, satisfactorily employed in their own countries. Many will be reluctant to leave their employment for work abroad unless they can be given reasonable assurance that they may return to their jobs. On the whole such persons are among the most competent in their countries, earn substantial salaries and have high fixed expenses. They cannot afford to participate in assistance projects unless they are adequately compensated.

Local Personnel. However, the major work of economic development cannot actually be performed by foreign technicians. Consequently, another significant limiting factor will be the lack of trained, competent nationals in other countries with whom U. S. technicians can work. Since technical assistance means effecting a transfer of knowledge of techniques to the minds of other people, it is apparent that the capacity to absorb and to apply will determine the rate at which such transfer can be made. For this reason existing and planned U. S. and United Nations programs put a heavy emphasis on training. In many underdeveloped areas the creation of a group

of trained people who can understand, apply and transfer to others the information which can be conveyed to them will depend on such fundamentals as increase in basic education, improvement of stability of governments and establishment of institutions teaching fundamentals of technology and of research laboratories.

Capital. The technical cooperation programs will be decidedly limited by the availability of competent technicians both in the contributing and the receiving countries. Similarly, the rate of economic development will be limited by the availability of capital, both foreign and domestic. In the long run the transfer of technical competence and the application of capital will be closely related. The development of industrial skills and the building of factories depend one upon the other. The same is true of knowledge of public health and the establishment of clinics and hospitals, of agricultural techniques and the commercial application of improved seeds, fertilizer and equipment, of skills in the exploitation of raw materials and the equipment with which to handle them. Even in the case of the shift from the wooden plow to the steel plow, a new investment is required. The requirement for capital within a country, funds in local currency for costs within the country, has always been the major element in national expansion. The habits of investment in land or precious stones or metals and the lack of institutions for encouraging and reinvesting savings, are basic elements in retarding the application of local capital to new means of production. Similarly, foreign investment has been greatly restricted in the postwar period, except as it has been done by the utilization by governments of budgetary funds for foreign assistance programs.

The funds needed to transmit technical knowledge and skills are of such small magnitude in comparison with the immense results in higher standards of living, improved health, expanded world trade and other benefits of the program, that government and private sources can easily finance whatever program may be realistic and feasible. However, lack of funds for the capital equipment necessary to permit the peoples of underdeveloped areas to utilize to the fullest the technical knowledge which they have gained under the program will undoubtedly be for some time, if not indefinitely, a major limitation on the rapid achievement of the objectives of the program.

Organizational. There is a final limitation on the program which should be noted—the organizational difficulties of setting up and maintaining programs of so many types in so many areas. Many different governments will be involved, as well as many different types of professional skills and experience. To the extent to which the actual operation can be decentralized in terms of immediate administrative responsibility, the difficulty can be reduced. But in turn, this ap-

proach also necessitates the highest degree of coordination as to planning, policy, and procedures.

It is apparent that, for some time, the requests of peoples of underdeveloped countries for assistance in improving their standards of living will far exceed their own ability to do their part, as well as exceeding the abilities of the peoples of more advanced nations to meet their requests. The limitations which have been suggested are not reasons for discarding the program, but for viewing it in a framework of reality and feasibility. It should encourage hopes for the future, but always with the full recognition that economic development is not easy or automatic.

DURATION OF THE PROGRAM

No specific period can now be set for the duration of the program. It is dynamic and continuing. It does not guarantee the attainment of any particular standard of living, nor does it contemplate that the cooperative effort toward material improvement will be terminated upon the achievement of any previously determined standard of living. In essence, it is an offer and a challenge to all nations which consider that they have not realized the degree of development which they could achieve with modern knowledge to join in a cooperative effort for material progress. The program undoubtedly should be carefully reconsidered from time to time by all participating countries, and new or changed approaches may be required. However, since the objective of the program is so clearly long-run, the program itself should be regarded as of comparably long duration.

THE FUTURE MAGNITUDE OF THE PROGRAM

While the technical cooperation program will be one for which no specific time limit can be set, the expenditure it will require at any particular time will be relatively small. The program which it is thought will be practical and realistic for the first year is discussed in some detail in section VII. As the program develops in the future, additional personnel will become available, additional experience will be gained, and methods of disseminating information will be improved so that the technical cooperation aspects of the program may be expanded for several years. Eventually a time will come in which certain elements of the program will have reached the point of diminishing returns, and certain techniques will have been transferred to the point that many countries can more nearly stand on their own feet with respect to technical assistance. As a result, the technical cooperation aspects of the program will taper off.

The investment aspects of the program will in most cases develop progressively after technical assistance has made the necessary surveys, trained the necessary personnel and in general prepared the way for developments requiring capital investment, and as other existing obstacles are eliminated. As this is done, investment may be expected to rise rapidly to meet the needs and take advantage of the opportunities.

In the long run, the program will develop in such a way that other countries will contribute a larger and larger share to the total effort, both in technical assistance and capital investment. This will be particularly true as the initial impetus and capacity in various fields is transferred from foreign technicians to newly trained local experts, and as local people learn how to form and usefully employ capital and organize the productive capacity to create beyond their immediate, urgent needs.

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IV. How the Program Will Be Carried Out

THE SUCCESS or failure of the program will depend upon its practical implementation. If the program is to be effective, its operation must be based on private effort, individual and corporate, profit and nonprofit, governmental activities, and the effort of the nations themselves, joined in international organizations. All these are essential to provide the measure of success which the high purpose of the program deserves. Yet the very complexity and magnitude of the program make it necessary that the many agencies and individual efforts involved be as closely coordinated as possible.

THE AGENCIES THROUGH WHICH THE PROGRAM WILL BE CARRIED OUT

The relationship between U. S. bilateral projects and multilateral projects has been illustrated to a degree by the projects which the United Nations and the specialized agencies, the Organization of American States (OAS) and other international organizations, and the United States and private agencies have undertaken in the field of economic development and which are outlined in appendix D. It is not possible, however, to state any rule which will automatically determine whether a particular project should be undertaken through the multilateral channel of the United Nations, one of its specialized agencies, the OAS or some other international organization, or on a bilateral basis between the United States and the underdeveloped country desiring the assistance. The general guide is that international agencies will be used so far as practicable.

Although the exact application of this principle will appear only as individual projects arise for allocation, it may be anticipated that the multilateral system will most readily be used where a proposed project is of direct interest to or involves coordination among several countries, as in the control of epidemic diseases or pests; where a project requires the mobilization of the technological resources of a number of countries, when the need is great and the number of trained technicians limited; where international uniformity or standardization is an end in itself, as in the case of air navigation standards; or where the international character of the source of the assistance may

be particularly helpful in achieving its purpose. However, the United States will undertake additional projects which it deems desirable and which are impracticable for the United Nations, the OAS or other appropriate international organization to undertake even with U. S. support, because of lack of funds, inability to expand activities rapidly enough, disinclination to undertake the project, inability to work in a non-member country or other reasons limiting effective operations. The U. S. will also continue existing projects which would be adversely affected if transferred and will carry out projects required by treaty.

United Nations and Specialized Agencies

The coordination of the work of the specialized agencies with each other and with the United Nations subject to the general policy guidance of the United Nations Economic and Social Council is vital to the success of the program. At its meetings in August, 1949, the Council provided for the establishment of a Technical Assistance Board, to be composed of executive heads of the United Nations and of the specialized agencies, with such planning and executive functions as will be required to assure that the program will be carried out on a coordinated basis. The work of the Board would be subject to review by the Council, which established a special committee for the purpose. The Council also considered a report prepared by the secretariats of the United Nations and specialized agencies which shows the scope and type of activities which the organizations might undertake during the first two years of the program. This report is briefly summarized in section VII. The General Assembly approved the Ecosoc resolution on an expanded program of technical assistance in November 1949 after the Economic Committee of the Assembly unanimously adopted a resolution to approve the arrangements formulated in Ecosoc. The next step in the United Nations program is to call a technical assistance conference, probably in March or April 1950, to pledge funds.

The U. S., as the largest single contributor to the budgets of the United Nations and its specialized agencies, will naturally have considerable influence in determining the general nature and purposes of the individual projects undertaken, but obviously its position is not and should not be one of control. In fact, one of the great contributions which the United Nations and the specialized agencies can make in this field arises from their bona-fide international character.

Organization of American States

In the Latin American area, the Organization of American States (OAS) can continue to make an effective contribution to the program by promoting the coordination of the various technical assistance

programs throughout the Hemisphere and by working with the United Nations Economic and Social Council, in so far as the American republics are concerned. It may be anticipated that the specialized agencies of the OAS will likewise play a part. Where desirable, they may establish appropriate relations with corresponding specialized agencies of the United Nations for the implementation of the program, following the pattern of the Pan American Sanitary Organization, which already has entered into an agreement to perform regional services on behalf of the World Health Organization.

Caribbean and South Pacific Commissions

These two Commissions are established agencies particularly qualified to further technical assistance programs in the dependent territories within their respective geographic scopes by planning projects, by serving as clearing houses for information on programs, by offering advice to governments and agencies administering technical assistance programs, and by carrying out the projects upon which the member governments agree.

U. S. Bilateral Projects

A number of agencies of the U. S. Government carry on activities in the field of technical cooperation under the coordination of the Interdepartmental Committee on Scientific and Cultural Cooperation. (See appendix D.) It is anticipated that these agencies will continue to perform the same functions in the extension of technical assistance but their activities will be greatly enlarged and their area of application expanded. They will also be closely coordinated in the planning and execution both with other U. S. bilateral projects and United Nations projects in order that the total program in any one country or region and the total over-all program may be integrated and balanced to the most effective degree possible.

The Federal agencies other than the Department of State which probably will have the most extensive responsibilities under the new program are:

Department of Agriculture	Soil conservation, plant entomology and development, extension service, forestry, statistics, etc.
Office of Education, Federal Security Agency.	Exchange of students and teachers, fundamental and vocational education
Public Health Service	Development of public-health services, research and control measures, training; improvement of vital statistics and public-health statistics, consultation and training
Social Security Administration and Office of Vocational Rehabilitation.	Social-welfare services, social insurance (old-age, unemployment), employment service, maternal and child welfare, vocational rehabilitation

Department of the Interior	Geological surveying for mineral and water resources, mining and metallurgy, multiple-purpose water development including reclamation and irrigation, fish development, public-land management, etc.; also mobilizing technical resources of our territories and island possessions (Puerto Rico, Hawaii, Alaska)
Department of Commerce	Census and statistical procedures, national income and balance-of-payments research, information on foreign economic development opportunities for American business, foreign investment research, coast and geodetic surveying, weather, standardization and laboratory testing, tidal and magnetic observations
Civil Aeronautics Administration	Aviation
Public Roads Administration	Highways
U. S. Army Corps of Engineers	Multiple-purpose water development, port and harbor development
Interstate Commerce Commission	Railroads
Department of Labor	Industrial training, apprenticeship and employment service; industrial safety and health; employment standards, labor legislation and labor inspection; employment of women and children; employment in agriculture; productivity and other labor statistics; and labor, business, and government interrelations
Housing and Home Finance Agency	Shelter and urban development
Federal Communications Commission	Telecommunications
Treasury Department	Taxation, fiscal policy, customs administration

As experts from other specialized fields are needed, they may be drawn from, or through, the Federal agency competent in the subject-matter area.

It should be noted that, in conducting their programs, these Federal agencies will draw upon the services and assistance of State and private organizations and groups in their particular fields. For example, the Department of Agriculture now draws upon the State Extension Service and the land-grant colleges for some of its personnel for overseas projects. Training in industry is given by private industry, after partial financing and arrangements are made through the Labor Department. Most of the training in public roads has been in State highway projects, an arrangement which the Public Roads Administration worked out with a private national association. The Interstate Commerce Commission draws upon the services of private railroad operators and technicians in conducting technical assistance projects to plan and improve railroad systems and maintenance.

The Institute of Inter-American Affairs (IIAA) is a government corporation governed by a board of directors who are appointed by, and responsible to, the Secretary of State. It cooperates with the governments of Latin American countries in carrying out action programs in the three major fields of health and sanitation, basic education, and agriculture. Details of such programs are set out in appendix D.

In the Latin American countries these programs are actually administered by cooperative agencies (known usually as "Servicios") which are established within the appropriate ministries of the host republics. In most cases, the IIAA's chief of field party or special representative serves as director of the Servicio and, in this capacity, functions substantially as an employee of the other government. The Servicios are financed by joint contributions of the two governments and are staffed, typically, by a comparatively small complement of United States technicians and a much larger group of Latin American nationals. All of the Servicio employees work closely together in planning and executing the specific projects. The prime significance of the Servicio as an administrative device lies in the joint financing, planning, and execution of the work which tend to create, on the part of both United States technicians and Latin American nationals, a genuine sense of common responsibility and mutual accomplishment. This cooperative approach assures stability and continuity of operations and personnel training.

At present the activities of the IIAA are limited to Latin America. In order that the effective techniques developed by this agency may be more fully utilized under the new program, the proposed legislation grants the authority necessary for world-wide use of the Servicio device by other existing U. S. agencies and by a non-corporate institute which may be established within the Department of State.

Private Agencies

The program of the private agencies, both profit and non-profit, referred to in appendix D, has in the long run been much larger than similar government-financed programs. Looking to the future, there is every reason to believe that the stimulus of a concerted, intergovernmental effort will not restrict their efforts but will facilitate their expansion.

Private groups can contribute to the objectives of the development cooperation program in two ways: first, by participating in specific projects; second, by providing advisory services and lending personnel so that their technical know-how and specialized knowledge, based on extensive experience, can be effective in developing and carrying out the program.

Wherever it is appropriate, the Government will employ or encourage the use of the services of private engineering and other consulting firms on a contract basis for surveys and investigations of the economic and technical feasibility of projects requested by foreign governments and for construction and other assistance in carrying out economic development projects.

In those fields of endeavor where economic development is of interest to private entrepreneurs, primary reliance will be placed on them for the technical assistance which accompanies their investments.

The participation of non-profit organizations will be enlisted and the effectiveness of their work increased by making available to them direct and indirect assistance in the expansion of their own health, education, and agricultural projects. The technical competence of the nationals of the areas where such agencies now operate can be immeasurably increased by the provision to such agencies of relatively inexpensive laboratory equipment for their schools, the provision of additional teachers in technical fields and in many instances by the mere supplying of such basic items as simple printing presses.

The skills and knowledge of the personnel of these agencies should be of tremendous value to the effective carrying out of the program. They embrace knowledge of the way of life of peoples with diversified cultures in virtually every part of the globe. They know what can be done and what can *not* be done. This is equally true of those who have successfully represented American business throughout the world and those who, as missionaries, have given years of their life to improving the lot of other peoples. It is applicable to agricultural and industrial undertakings as well as to health and educational projects.

Government Service to Private Enterprise

The rate of economic progress of underdeveloped areas will in important measure depend upon the degree to which business and the investing public in the United States and other relatively advanced countries increase the flow of capital to cooperating countries and provide them with the technical assistance accompanying the expansion of direct investment abroad by profit enterprises. In order to facilitate the flow of investment capital, and thereby obtain more active participation by private enterprise in the program, the Government plans to undertake, through the Department of Commerce, expanded and intensified activity directed toward the collection, organization, and evaluation of information concerning developmental plans and programs, and the dissemination of such information to appropriate segments of business. The activity will range from industrial development analyses covering entire areas, to the appraisal of individual industrial projects as an investment possibility, and will

include the provision of information with respect to specialized personnel, equipment, markets, technological possibilities, weights and measures, power sources, labor supply, and other similar facts which are vital to business in reaching decisions with respect to investment. Information existing within the Government will be used as it is available or developed and the Government would draw upon the information available in private business. The program will provide a connecting link with foreign governments to make arrangements for any additional information surveys or planning which may be necessary to bring a prospective project into a suitable stage for financing construction or other action by American business. In providing this service, the Department of Commerce would serve as a central point of contact in the Government for obtaining and providing American business with information relating to all types of foreign development.

Inasmuch as the Department of Commerce is under statutory responsibility to foster and promote the foreign and domestic commerce of the United States, it is proposed that $500,000 be allocated by the President to that Department to carry on this work during fiscal year 1951.

SELECTION OF PROJECTS

The needs and requests for assistance, both technical and financial, in developing the resources of the less advanced areas of the world, will so far exceed the immediate abilities to meet them that careful consideration must be given both by the United States and the United Nations to the selection of the projects to be undertaken first. While selection of individual projects will depend ultimately upon individual judgments, a number of general criteria will be taken into account in making such judgments.

There are two fundamental considerations which must underlie acceptance of any proposed project: First, it must represent the free choice of the country and be in its interest according to its own determination. Second, it must further the basic objective of the program to enhance the living standards of the peoples of economically underdeveloped areas by enabling them to realize more fully the potentialities of their human and material resources.

Before any requested assistance is granted it must be determined that the requesting country can use that type of assistance efficiently. There must exist in that country an adequate number of people who have the basic knowledge to enable them to learn to put into effect the technical skills involved. In many cases additional specialized knowledge will be of little value without the advent of capital equipment. Where this is so, there must be reasonable prospects of obtaining necessary funds from internal or external sources, including

the existence of conditions which will encourage private investment in fields appropriate for such investment.

Assistance will ordinarily be granted for projects which will make a greater contribution to economic development and national income than would alternative projects. As already noted, efforts in certain fields must be undertaken first as a foundation for progress on many fronts. For example, increase in agricultural productivity to relieve the drain on foreign exchange from food imports or to maintain an industrial population must usually precede advances in mining, industry, and commerce. Where assistance of advanced nature is requested in an area lacking the fundamentals to make such assistance effective, it must be postponed until those fundamentals can be developed.

As has been suggested earlier, granting of a particular kind of assistance or, in some instances of any assistance, may depend upon the degree of order and stability in the area. There may be cases where current disorders or instability make it unwise to make any immediate attempt at economic development.

Other things being equal, the greater the degree of determination to press for their own economic development which the people of a country have exhibited, the greater will be the willingness of the United States to assist them. In the same way, the greater the degree of cooperation which they show the greater will be the U. S. response. Factors in cooperation will be a willingness to pay a fair share of the cost of the program, a willingness to share their own techniques with other countries, including particularly those less advanced in any respect than themselves, willingness to take necessary steps to get maximum results from assistance received, and willingness to allow observers to note and report fully on activities carried out under the program.

V. Financing the Program—Technical Cooperation

THE TWO MAJOR aspects of the program, technical cooperation and encouragement of the flow of investment capital, will require different means of financing. Contemplated provisions for financing technical cooperation are described in this section and for capital investment in section VI.

INTERNATIONAL AGENCY PROJECTS

Certain decisions with respect to the financing of the programs of the United Nations and the specialized agencies were reached by the Economic and Social Council this summer and approved by the General Assembly on November 16, 1949. The principles now adopted, with the general concurrence of the United States, are as follows:

First, whereas the United Nations and the agencies will probably maintain some technical cooperation activities under their regular budgets, the large expansion of their programs in this field will be paid for through voluntary contributions by countries which are members of the organizations participating in the over-all program. Although this might, in the case of the United States, involve a percentage contribution to the expanded program which might be higher than the percentage which it pays of the regular budget of an organization, this would be on a voluntary basis, and every effort would be made to get widespread financial support for the program through contributions from each member country. In the case of the United States, this plan will require modification in existing legislation which now sets ceilings in terms of the dollar amount of U. S. contributions to the WHO, the ILO, and the FAO. The proposed legislation now before the Congress is intended to permit contributions to the expanded programs of the United Nations and the specialized agencies in excess of these ceilings applicable to the regular budgets of the United Nations and the agencies.

Second, contributions would be pledged at a Technical Assistance Conference to which all countries belonging to any one of the participating organizations would be invited. The Secretary-General of the

United Nations will call the conference, probably in April 1950. Contributions would be paid into a central account and allocated to the participating organizations on the basis of percentages established by the General Assembly and the Technical Assistance Conference. The proposed percentages are: United Nations, 23; ILO, 11; FAO 29; UNESCO, 14; WHO, 22; and ICAO, 1. A small reserve fund would be held back from automatic allocations in order to give a degree of flexibility. Contributions might be in different types of currencies, with arrangements made to channel the nonconvertible currencies to those organizations which could make the most effective use of them.

Third, any country which receives assistance from an intergovernmental organization should pay a substantial share of the costs involved. In most cases, this should cover at least the expenses which must be met in local currency, including such matters as office space, local travel and subsistence expenses, and local building costs if any. If equipment must be obtained for permanent installation in the country it should, if possible, be paid for by the country receiving it. It may be found necessary to make exceptions in certain cases where the situation of a country is such that it is incapable of raising even local expenses, but this type of case should be regarded as an exception.

Fourth, if an assistance program should involve the establishment in a country of a permanent or semi-permanent institution of some kind—for example, a governmental service or a teaching institution—then it should be so planned that the cost of this institution would progressively be assumed by the assisted country.

U. S. PROJECTS

Cost-sharing arrangements for future U. S. bilateral projects should, in the main, follow those established in the past.

Cost Sharing

Present arrangements are flexible and are negotiated separately with each country. The general principle is that the recipient should pay at least some part of the costs of the assistance rendered and that the proportion should vary in accordance with ability to pay. In general, at least local costs should be borne by the recipient.

The U. S. Government generally has been paying the salaries, external transportation and per diem of technical experts it sends into the field. The foreign government has been providing the local services associated with the project, such as office space, construction, land, secretariat services and internal transportation.

In the operations of the Institute of Inter-American Affairs, the United States, in addition to paying the salaries and expenses of the

Chart C

Increase in Recipients' Contributions

IIAA and SC
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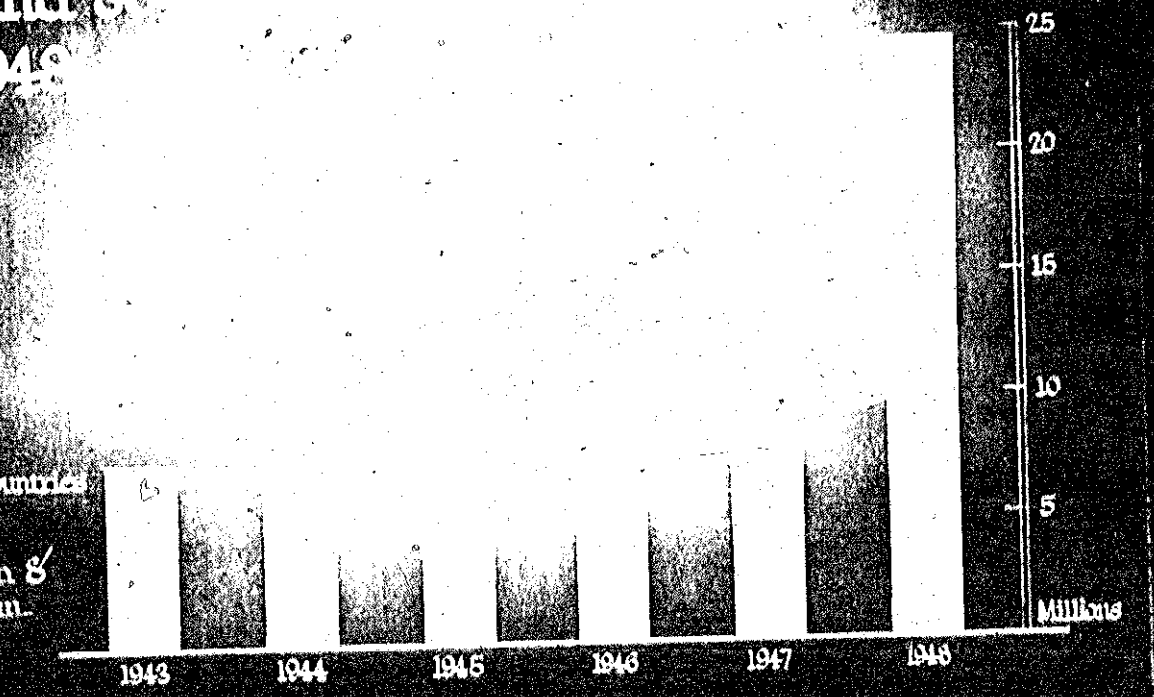

members of its field party, contributes up to 50 percent to a common pool with the local government for the continuing operation of the project. However, total U. S. contributions to such pools have averaged 16.5 percent in recent years. This payment is not based on the proportion of dollar to local costs. The fact that both parties contribute emphasizes the partnership arrangement in which management and control of the project is undertaken jointly. It is significant that during the period of the operations of the Institute of Inter-American Affairs and of the Interdepartmental Committee on Scientific and Cultural Cooperation the proportion of their contributions to project funds has steadily decreased while the proportion of the participation of the countries aided has steadily increased. (See chart G, p. 49.)

Materials

Valuable technical cooperation projects, such as demonstration installations, experiment stations, and vaccination programs, require dollar expenditures for some materials and equipment which the local government may or may not be able to afford. The U. S. Government should be in a position to cover some or all of the costs of such material and equipment.

Technical cooperation programs would not include the financing of capital investment or the export of goods or equipment other than items incidental to the transmission of knowledge or skills. These programs would not encompass more than training, experimental or demonstration facilities. They would not include the furnishing, for example, of a steel mill on the premise that it would contribute to the interchange of knowledge and skills. On the other hand, a model farm or machine shop would be included as one of the demonstration installations referred to.

CONSOLIDATED APPROPRIATION

In order to achieve full coordination among projects in the various fields of activity and between multilateral and bilateral programs, the funds both for U. S. projects and for U. S. contributions to projects of international organizations should be made available in a single consolidated appropriation. Funds can then be made available to the various operating agencies as required to carry out a coordinated over-all pattern of technical cooperation activities.

VI. Financing the Program—Capital Investment

WHILE THERE are many situations where the adoption of improved techniques alone can lead directly to increased economic well-being, economic development is closely tied to the process of capital formation. Capital investment has been taking place at a slow rate in most underdeveloped countries, and there are real obstacles to an expansion in this rate. Accelerated economic development requires that these obstacles be reduced. In particular, it is believed that the role of private investment from abroad, a type of investment which can make a unique contribution to the development of underdeveloped areas, can be expanded. To accomplish the objectives of the Point Four Program, therefore, consideration must be given to the availability of new capital, to the deterrents to capital investment, and to sound means for overcoming these obstacles and stimulating an increase in the volume of such investment.

SOURCES OF INVESTMENT

Local Investment

It is important that the major part of capital investment in underdeveloped countries be financed from sources within the countries themselves. A large part of the physical resources and labor needed in development must come from local sources, and there are limits to the amount of foreign debt which underdeveloped areas can support. Moreover, the supplies of international investment funds are not inexhaustible. Domestic savings have always played the major role in financing the transition of countries to modern, developed economies.

There are, however, great difficulties in mobilizing domestic capital in many of the underdeveloped countries. These countries, with low per capita incomes, have a low rate of current savings. Moreover, what local capital is available is frequently hoarded, sent abroad for security, used for short-term lending at high interest rates, or invested in land and speculative activities. There is need for efficient mechanisms both to encourage an expanded rate of saving and to channel available funds into productive enterprises. An essential and integral part of the Point Four Program is the provision of advice and tech-

nical assistance directed toward the improvement of domestic fiscal systems to establish confidence in the national currency and to increase revenues for essential government operations: the organization of savings, lending and investment institutions: the adoption of techniques to guide domestic investment: and the encouragement of entrepreneurs.

Foreign Public Investment

However, in some areas, and particularly in those which are least developed, domestic saving alone will not be sufficient in the near future to support any significant economic progress. Investment capital will be needed from abroad. Such foreign investment was a tremendous factor in the rapid development of the United States and Canada and in the development in the last century of countries in Latin America, the Far East and other areas of the world.

At the present time three main sources from which foreign capital may be obtained for investment in relatively underdeveloped areas are U. S. private investors, the International Bank for Reconstruction and Development, and the Export-Import Bank of Washington. The private investor generally provides technical and managerial skill as well as capital; private enterprise has real advantages for many types of economic activity; and the private investor can therefore make a most important contribution to economic development abroad. However, there remains a significant role for public lending in financing basic projects which are frequently essential to a subsequent flow of private capital. In fact, the two banking institutions were established to supplement and encourage, rather than to compete with private capital sources. They finance undertakings which are not appropriate for private investment or where private investment funds are not available on reasonable terms.

The International Bank has tended to move slowly and cautiously in extending loans to underdeveloped countries. According to the Bank, the fact that it has made only a relatively small number of loans to date results principally from the small number of adequately worked out and well-supported projects submitted to it. It may be expected, therefore, that the combined effect of the technical cooperation program and the Bank's own consultations with members regarding their needs and capacities for development will produce a considerable increase in the number of meritorious loan applications to the Bank. While the Bank depends on the private market for most of its loanable funds, it has indicated on several occasions that it expects its present sources to be able to provide funds adequate to finance all the economically and technically justified development projects which may be submitted to it over the next few years.

The Export-Import Bank, from its uncommitted lending authority and annual repayments, can continue to finance exporter transactions, development and other projects abroad which are particularly appropriate to United States Government lending or which the International Bank, because of its dependence on the private capital market, the limitations set in its Charter and other considerations, will not finance.

Economic development in foreign areas will require continued and expanded lending activity on the part of both of these institutions. The need for investment in the basic utilities: hydro-electric power, transportation, communications, port and harbor development, irrigation, drainage and reclamation projects, sewage systems and the like—all projects requiring large capital investment—is very great, and the absence of facilities of this character is in many countries a major obstacle to the flow of private equity capital, which is unable, as a result, profitably to participate in the development of known resources.

Foreign Private Investment

Primary emphasis in the present program is placed on the need to foster an expanded flow of private capital investment. A major part of the foreign capital required for economic development abroad will need to be obtained from private sources. It should be noted that the two banking institutions discussed above have an important and direct role in encouraging the flow of private capital: by facilitating the sale of private securities with the institution's guarantee and by joint participation with private investors in loan projects without guarantee. Such joint financial operations can stimulate an important flow of private investment funds to foreign areas.

In addition, there may be an expansion in the sale of foreign securities in the American market. As world conditions stabilize, more foreign governments and more corporate entities within foreign jurisdiction can be expected to seek capital in this country. The assurances which flow from the registration procedures of the Securities Act of 1933 and the regulations of the Securities and Exchange Commission may well contribute to an increased responsiveness to these offerings by the United States investor.

In general, there is abroad a vast area for private economic activity with scope for diversified talents, variety of organizational patterns, and specialized technology. In the field of manufacturing and extractive industries, fixed capital requirements are often relatively large, and patents, techniques, and management skills are essential to successful operation. In distribution and service activities, which increase more than proportionately as economic development proceeds, the need for special skills and entrepreneurial ability is high.

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It is in these fields particularly that American private investors can contribute not only capital funds but enterprise, managerial experience, and technical knowledge to the development process.

If American capital is to make its maximum contribution abroad, American investors must give due regard not only to their own interests but also the welfare of the persons directly dependent upon the enterprise in question and to the interests of the foreign community. American investors should observe local laws, maintain fair labor standards, contribute their fair share of taxes to the local community, conserve as well as develop local resources, and so conduct their enterprises that the local economy as well as the investor will receive full benefit from the activity.

Private investment from the United States can thus make a fundamental contribution to economic development abroad. However, in relation to United States income and savings and in relation to the need for American development capital abroad, recent levels of net private capital flow abroad seem low. It is apparent that the rate at which United States private capital is invested abroad will need to be greater than at present, and that capital will need to flow into more diversified areas of investment if substantial progress toward the objectives of the Point Four Program is to be made.

In recent years there have been many obstacles to the flow of U. S. investment abroad. If these obstacles can be removed or made less formidable, there is every reason to expect a considerable increase over time in the flow of productive capital to foreign areas. Such an expanded flow will not only contribute greatly to economic development abroad but will also result in certain benefits to the United States economy.

RELATIONSHIP OF FOREIGN INVESTMENT TO U. S. ECONOMY

In addition to the general economic benefits which have previously been described as flowing from development of the economically underdeveloped areas of the world, certain direct effects on our economy will follow from investment of American capital abroad. The export of capital will make more dollars available to the developing countries and enable them to finance additional purchases of capital and other goods directly from the United States and from other foreign countries. The result will be to expand U. S. exports, either to the underdeveloped country or, through the transfer of dollars, to the other foreign countries from which the underdeveloped countries buy. With the extraordinary domestic demands of the immediate postwar period now being met, expansion of foreign investment will help in maintaining domestic production and employment at maxi-

mum levels. This will become even more important as emergency foreign aid diminishes.

In particular, the domestic impact of foreign investment will be concentrated on industries producing goods for export and on such services as shipping. Among the industries producing for export, the effect is likely to be concentrated on capital goods, but, to the extent that the underdeveloped countries use dollars to buy capital goods outside the United States, our exports of all commodities that foreign countries want from us but could otherwise not afford would be raised. Without substantial foreign investment, on the other hand, a dollar stringency might arise after ERP ends which would require substantial and painful readjustments in certain of our export industries.

Continued dollar difficulties abroad would result in greater disruption of our foreign trade than these direct export effects alone would suggest. Countries unable to obtain needed goods from the United States would be forced to obtain supplies from non-dollar sources by increasing the number of bilateral trading arrangements with suppliers or by entering into regional multilateral arrangements, in either case discriminating against the United States. This formation of non-dollar trade blocs would disrupt our normal trade relations and spell the end of our efforts to secure a multilateral, non-discriminatory world trading system.

Under the program a long period of net capital export can be expected. Interest and dividends on these new investments will grow but for decades should be exceeded by the annual net outflow of net capital. Some time in the future they would presumably catch up and surpass the net outflow of capital. At that time it will be necessary for the United States to become a net importer of goods and services (other than investment income) if the real benefits of the investment income are to be realized. With a growing economy at home, this situation, which will be approached gradually, need create no great difficulties. If our income is maintained at sufficiently high levels we will have the capacity to accept, in the form of imported goods and services, the income from foreign investments.

THE COURSE OF RECENT PRIVATE FOREIGN INVESTMENT EXPERIENCE

The Point Four Program calls for an intensification of existing efforts to foster the international flow of capital, particularly private investment. It is relevant, therefore, to examine existing U. S. investment abroad, its geographic and industry distribution, and its earning record. Particular attention should be given to new investments made

during the last 2 or 3 years, as a point of departure for analysis of the factors hindering the foreign flow of U. S. capital.

U. S. Investment Abroad

The experience of the United States as an investing country dates from about 1900, although investments were not large in the aggregate before 1914. During and after World War I private capital was invested abroad on a large scale. This movement, in which the public flotation of foreign bonds predominated and direct investments were of lesser importance, lasted until 1930. After that, stemming from the extensive defaults of the early 1930's, investments in securities virtually ceased, and the existing portfolio decreased sharply due to the fact that new flotations were at an extremely low level while redemptions and repatriations were continuous and in substantial volume.

Private long-term investments abroad, as of the end of 1948, totaled about $17.0 billion. Of this total, 32 percent was invested principally in securities—bonds and non-controlling holdings of equities—and 68 percent in direct investments, that is, foreign enterprises controlled in this country. Direct investments abroad at that time totaled $11.3 billion. (See table I, p. 57.) Approximately 20 percent are located in Europe and the remainder primarily in Latin America and Canada. Investments in other parts of the world are relatively much smaller. Approximately one-third of these direct investments are in manufacturing operations, a somewhat smaller amount in service operations such as electric utilities, railroads, wholesale and retail distribution, while the remainder—about 40 percent—are in extractive enterprises.

Postwar American Investments Abroad

The net movement of American long-term capital to foreign countries in the four years, 1945–1948, amounted to $14.2 billion, including subscriptions to the International Bank and Monetary Fund. Of the total net capital outflow in this four-year period, $12.1 billion or 85 percent was supplied by the United States Government, and the remainder came from private sources.[1]

[1] In addition the Government provided about $10 billion in the form of grants during this period. Detailed information regarding Government loans and grants in the postwar period has been presented elsewhere, notably in the quarterly reports of the Clearing Office for Foreign Transactions and in the reports to Congress of the National Advisory Council. Therefore they will not be discussed here. It should be noted, however, that the bulk of these Government investments has taken the form of loans to the war-devastated countries of Europe and the Far East, including, principally, the British loan, the reconstruction loans of the Export-Import Bank, ECA loans, and the loans made to finance the sale of surplus property including ships. Only a relatively small proportion of the loans was made for development projects in the ordinary sense, and those were made chiefly in Latin America.

TABLE I. TOTAL UNITED STATES DIRECT INVESTMENTS ABROAD, BY AREA

(Billions of dollars; end of year)

Area	1919	1929	1940	1948 [1]
Canada	.8	2.0	2.1	3.3
Latin America	2.0	3.6	2.6	4.1
Europe	.7	1.4	1.9	2.3
Other (incl. undistributed)	.4	.7	.7	1.6
TOTAL	3.9	7.7	7.3	11.3

[1] Estimates for 1919 are not directly comparable with those given for later years since the comprehensive census of the Treasury Department is the basis for the latter.

Sources: 1919 data—Cleona Lewis, America's Stake in International Investments, Brookings Institution, 1938. 1929, 1940, 1948—International Economics Division, Office of Business Economics, Department of Commerce.

Public Flotation

The movement of private American capital into foreign portfolio investments has been relatively insignificant in the postwar period. New loans, including the debentures of the International Bank, have been more than offset by repayments on previously existing debts. The bulk of the small foreign financing by public sale was for the purpose of refunding existing indebtedness to the United States. Only $168 million of the issues of foreign countries have been floated for the purpose of raising new capital, including $150 million raised by the Canadian Government in 1948 to repay the Export-Import Bank loan contracted a few months earlier.

The inability of foreign countries to raise any large amounts of loan capital in the American capital market is undoubtedly accounted for by two major factors: (1) The previous unsatisfactory experience with this type of investment, notably the many defaults on foreign issues which occurred during the depression of the early 1930's—although not as widespread as is sometimes believed, these defaults made the U. S. capital market relatively unreceptive to foreign issues; (2) the unstable political and economic conditions abroad which have made it difficult to market obligations even of countries which before the war had good debt records.

Direct Investments. On the other hand, the new outflow of American direct investment capital in 1947 and 1948, about $650 million and $800 million respectively, exceeded the totals reached in the previous high years. In addition foreign investments have been increased substantially each year by the reinvestment of earnings of foreign subsidiaries. Such reinvestment in 1945–48 averaged about $375 million a year.

This direct investment has been concentrated both by area and industry. (See table II, p. 58.)

TABLE II. NET UNITED STATES DIRECT-INVESTMENT CAPITAL MOVEMENTS BY AREA AND INDUSTRY, 1945–1947

(In millions of dollars; increase (+) or decrease (−) in investments abroad)

	Total	Canada	American Republics	ERP countries	ERP dependencies	Other Europe	Other countries [1]
Total, all industries:							
1945	+100.0	+39.0	+140.4	−6.8	−16.2	−87.0	+30.6
1946	+139.8	+14.6	+55.7	+14.7	+4.4	+1.0	+49.4
1947	+666.4	+28.8	+407.7	+43.1	+26.9	+1.7	+158.2
Manufacturing: [2]							
1945	+67.5	+42.2	+21.2	+3.8	------	+.7	−.4
1946	+16.5	−11.1	+16.3	+4.8	+.6	+.7	+5.2
1947	+72.9	−.5	+50.8	+9.6	+.3	+1.9	+10.8
Distribution:							
1945	−12.7	------	+3.8	−12.5	+.1	+.2	−4.3
1946	+24.2	−.2	+8.1	+4.2	+.6	+.1	+11.5
1947	+43.0	−4.8	+31.4	+6.4	+1.7	------	+8.3
Agriculture: [3]							
1945	+43.1	+.3	+46.7	+1.2	(4)	------	−5.1
1946	+6.8	+.6	+6.3	------	−.9	------	+.8
1947	−9.4	+.3	−11.2	------	+.8	------	+.7
Mining and smelting:							
1945	−3.0	+2.5	−6.7	------	+1.0	------	+.2
1946	−12.9	(4)	−12.2	------	−.5	------	−.1
1947	+18.4	−.7	+18.2	+.2	−2.0	−1.5	+4.2
Petroleum:							
1945	+87.8	−3.9	+71.1	−2.7	−17.3	+.1	+40.5
1946	+158.2	+12.1	+104.3	+6.6	+4.5	−.1	+30.7
1947	+454.6	+26.9	+260.8	+18.7	+25.1	+1.3	+122.0
Public utilities:							
1945	−96.1	−5.9	+1.7	+.1	------	−88.1	−3.9
1946	−84.1	−5.5	−79.7	------	(4)	+.1	+.9
1947	−9.7	−26.1	+17.9	+.1	------	------	−1.6
Miscellaneous: [5]							
1945	+13.4	+3.8	+2.6	+3.3	(4)	+.1	+3.6
1946	+31.1	+18.7	+12.6	−.9	+.1	+.2	+.4
1947	+96.6	+33.7	+39.8	+8.1	+1.0	------	+13.8

[1] Includes minor investments unallocable among areas.
[2] Includes paper and pulp.
[3] Includes fishing.
[4] Less than $50,000.
[5] Includes insurance.

NOTE.—Detail does not necessarily add to total due to rounding. Excludes reinvested earnings of foreign subsidiaries.

International Economics Division,
Office of Business Economics,
Department of Commerce, March 21, 1949.

Petroleum. This investment occurred chiefly in northern South America, notably Venezuela, and in the Middle East. The apparent prospect of a continued increase in the world demand for petroleum coupled with the discovery of extremely rich low cost reserves in the Arabian Peninsula stimulated both American and European companies to expand their foreign production. In addition, the petroleum law of Venezuela was modified to provide that 10 percent of the Venezuelan output of crude oil must be refined within that country. A large program of refinery construction was subsequently initiated.

Manufacturing. Most of this went to Latin America, although a significant net movement into Canada was evident in 1945 and 1948. These figures represent investments by various industries—automobiles, electrical machinery and equipment, meat packing, pharmaceuticals, and others.

Distribution. The increase in this category was widespread geographically. Although it includes some retail stores, it represents largely the postwar expansion of the assets—presumably chiefly inventories and accounts receivable—of the foreign sales subsidiaries of American manufacturing enterprises.

Agriculture. Investments here are significant only in Latin America. The expansion was due mainly to the fruit companies, which were going into new areas and new crops, partly to offset the effect of plant diseases. Cuban repatriation of American-owned sugar properties was partly offset by additional investments in other sugar interests.

Mining and Smelting. Non-ferrous metals shortages and the prospective exhaustion of domestic iron ore supplies have induced significant investment abroad. American companies have been expanding in Chilean copper, and are developing the iron ore resources in Venezuela, Liberia, Labrador, and Australia.

Public Utilities. Liquidations dominated this field although there has been some outflow of capital to Latin America.

Earnings on Foreign Investment

The estimated income from these direct investments has been increasing steadily since the war. (See table III, p. 60.) From 1938 through 1945 it amounted to about $400 million a year. After that time it increased consecutively to $622 million, $834 million, and $997 million (preliminary) in 1948. Reinvested earnings not included in these figures (see table III) rose from $221 million in 1945 to a preliminary estimate of about $570 million in 1948. In each year, it will be noted, reinvestment amounted to about one-third of total earnings (excluding reinvested earnings of branches, which it is not possible to estimate separately).

TABLE III. INCOME ON U. S. DIRECT INVESTMENTS ABROAD, NET CAPITAL OUTFLOW (+) OR INFLOW (−), AND REINVESTED EARNINGS OF FOREIGN SUBSIDIARIES

(In millions of dollars)

Years	Income [1]	Net capital outflow (+) or inflow (−)	Reinvested earnings [2]
1938	437	−16	54
1939	397	−9	140
1940	413	−32	43
1941	400	−47	181
1942	358	−18	184
1943	368	−98	176
1944	418	−71	173
1945	425	+100	221
1946	622	+140	303
1947	834	+666	398
1948 (preliminary)	997	+793	569

[1] Includes net profits of American companies operating directly abroad, plus dividends received from foreign subsidiaries.

[2] Undistributed profits of foreign subsidiaries only.

Source: International Economics Division, Office of Business Economics, Department of Commerce

Data of the Department of Commerce indicate that the total earnings of American direct investments abroad, after foreign taxes, in 1945, 1946, 1947, and 1948 were 9.2, 12.2, 15.2, and 17.1 percent of the value of the U. S. investment (at the beginning of the year, and excluding investments in countries not readily accessible to private investment, principally Germany and Japan). It is difficult to make accurate comparisons with domestic operations. Nevertheless it is worth noting that the National City Bank calculations of net income after U. S. taxes, in proportion to net worth of domestic corporations (roughly adjusted to eleminate industries in which there is no corresponding investment abroad), showed 7.7, 9.1, 12.0, and 13.8 percent returns respectively in the same years. This indicates that the postwar differential between domestic and foreign earnings is not high. Its small size is probably a significant factor in the unwillingness of U. S. capital to move abroad. In some industries the differentials are of course greater.

Other Aspects of Postwar Investment Abroad

There are important differences between direct investment abroad in the prewar and postwar periods. In earlier years, it was common for securities to be offered to the public in order to finance direct investments abroad. Of the net outflow of direct investment capital

of $558 million in 1928 and $602 million in 1929, 28 percent and 42 percent respectively were financed through public offerings of securities. In the postwar period, on the other hand, there has been practically no recourse to the capital market for funds. New capital invested has come almost entirely from the undistributed domestic and foreign earnings of the companies.

Although there are between two and three thousand American companies with foreign branches and subsidiaries, over 75 percent of the net outflow of American direct investment capital in the postwar period is accounted for by the activities of 10 companies. About 12 companies accounted for half of the income received on our foreign direct investments in 1947—evidence of the large size of some of these concerns.

Experience has indicated that American companies which invest in export industries abroad have had in general a better experience with foreign exchange controls than those companies whose products or services are sold solely in domestic markets and/or which involve the import of parts or finished materials. In most cases the former companies have been allowed to retain abroad whatever portion of their foreign exchange receipts was not needed to cover local production costs. This has enabled them to pay dividends and meet outside expenses without the necessity of applying for exchange permits. In some countries this advantage has been at least partially offset by forcing the companies to purchase local exchange at discriminatory rates.

The flow of direct investment capital is highly desirable under the Point Four Program because it takes its own technology with it. While the amount of new investment of this type has been quite extensive, the geographic distribution has been limited. The countries of Europe have not been attractive fields for investment, presumably because of international political tension. The bulk of the new capital has flowed to Venezuela, Panama, Canada, Brazil, and the Middle East. The restricted spread, both geographic and industrial, substantiates the fact that there are serious obstacles to the flow of private capital abroad.

OBSTACLES TO PRIVATE FOREIGN INVESTMENT

In recent years, the United States has itself provided attractive investment opportunities. American corporations can employ their funds in profitable undertakings here. At the same time they have found it difficult to raise equity capital. Accordingly they have used part of their earnings for domestic undertakings and have not gone into foreign projects except when considerations other than relative

profits have been involved or when the spread between prospective domestic and foreign earnings seemed very large. As the process of domestic capital replacement and expansion slows down, there may be a greater amount of interest in the foreign field.

Unstable political conditions are a deterrent to the flow of private investment abroad. Fear of war with its threat of damage and destruction, fear of revolution with its additional threat of confiscation and seizure—these constitute important obstacles to the prospective investor. Until further progress is made toward general world political stability, continued reluctance of American capital to invest abroad, at least in certain parts of the world, can be expected.

As already indicated, profitable opportunities for private investment in some underdeveloped areas must await the development of basic services in these countries. The lack of railroads and port facilities, for example, may make the utilization of certain resources impossible. Manufacturing industries may not be feasible, because there is an insufficient supply of electrical current. Significant investment, usually in the basic sectors of the economy, may be required before a situation economically attractive to private U. S. investors is created. The technical cooperation program can contribute significantly to such basic development in foreign areas, taking advantage both of local resources and the facilities of intergovernmental loan institutions.

Another obstacle is the fact that in many areas the knowledge and skills which are required for successful operation of an enterprise are lacking. In addition, the effectiveness of local labor is seriously reduced because of widespread disease, lack of proper nourishment, and inadequate living conditions. The technical cooperation program can also contribute materially to the alleviation of these difficulties.

Unfortunately, there is also considerable misconception among potential American investors about foreign areas. These areas are frequently unknown, their opportunities are unfamiliar, and difficulties encountered in one foreign area are too readily generalized to encompass all foreign areas. For example, some investors are inclined to say that, because certain countries have defaulted on their dollar bonds, none of them has high standards with respect to the validity of contracts. As a generalization such views serve unjustly to discourage foreign investment. It is probable that this attitude will diminish as more U. S. investors become familiar with conditions in various countries abroad.

Restrictions Imposed by Foreign Governments

Although the clearing up of misconceptions on the part of investors as to actual conditions abroad may help to increase the flow of investment, major additional obstacles exist as a result of action by foreign

governments. These actions generally take the form of restrictions or impositions on private enterprises, some of which apply to all private investment whether local or foreign, while others apply only to foreign investments.

Restrictions on the Right To Do Business. Very important among the obstacles is a threat to the safety of property rights—such as nationalization or expropriation without effective compensation. There are countries in all parts of the world that have carried out such measures. The constitutions of foreign countries may make such seizures easy. The policy of other governments makes clear a future intent to take over many industrial activities now in private hands. In these circumstances neither domestic nor foreign private capital will invest on a large scale unless there is assurance of prompt and adequate compensation, or unless the opportunities for profit are so large that the quick return of principal plus net income is assured. Such operations are not usually the most suitable for sound development. Government competition with private industry may be classed as a threat to property rights if governments intend to make their competition an effective means of putting private capital out of business.

In addition there may be definite prohibitions against foreign capital entering certain reserved industries and locations. Where licenses are necessary before a new foreign-owned company can start in business, such a license can be denied on the grounds that there are at present sufficient plants in the particular industry. Such laws (sometimes called saturation laws) make it easy to protect existing monopolies.

Restrictions on the Right To Manage One's Enterprise. Many countries have regulations requiring 51 percent local interest in the voting stock. While exceptions are usually permitted, the existence of such regulations constitutes a hindrance to many types of new investment.

There are regulations which prevent the discharge of inefficient employees, or the hiring of foreign technicians even when local technicians of the necessary quality are not available. Frequently labor unions may have such privileges under the law that they can dictate the personnel policies of the companies.

In some countries governments have insisted on representation on boards of directors or on having local citizens constitute a majority of the board members.

Restrictions on the Right to Income from the Investment. Double taxation is one form of such a restriction. Occasionally too, there is tax discrimination based on size or some other distinction that clearly makes its effect anti-foreign. More prevalent, however, are measures stipulating limits on profits earned, requiring profit sharing, or preventing the transfer of any or of more than a given percentage

of profits to the currency of the investor. This last type is a common result of exchange controls in which foreign investors have been given low priority.

Reasons for Such Restrictions

It is possible to categorize roughly the factors which have given rise to the imposition of obstacles by governments abroad.

Experience with or Reputation of Private Capitalism. Certain countries of the world have had what they regarded as unsatisfactory experience with private capitalism. The experience of the United States, with its regulation of monopoly practices and with other kinds of social control, has tended to hide from Americans the abuses sometimes associated with private capitalism in other countries, where such social controls are not, or have not been, in effect. International cartels have characterized much industry in Europe, with effects leading to nationalization of basic industries both in Europe and in countries familiar with European experience. In the underdeveloped countries themselves, local capitalists have generally had a much worse record than foreign investors, in terms of wasteful exploitation of resources, poor wages and conditions of labor, graft and bribery, and resistance to social control. It is small wonder, therefore, that some of these countries have enacted far-reaching programs of social legislation and that some of them have taken measures to protect their natural resources and to nationalize many industries. Their suspicion of all capitalism, local and international, has resulted in a body of legislation, a political climate, and an extension of direct government operation into a widening economic sphere that are antithetical to private capital of any nationality.

Nationalization of industry, of course, prevents private investment in the fields where nationalization is most common and discourages private investment in other fields because of uncertainty as to the next extension of the nationalization program. Statism, as exemplified in communist areas, makes private foreign investments impossible because of its denial of the right of private property. Such obstacles impede private enterprise, whether domestic or foreign.

Experiences with Foreign Investments. Many countries have had experiences with specific private foreign investments which have caused loyal and intelligent citizens to question their general desirability. Those experiences have provided fuel for anti-foreign propaganda and for regulatory devices which have created a basic hazard in the way of private foreign investments. The ideas arising from a limited number of particular cases seem in some countries to have established confirmed prejudices with respect to all private foreign investment. So powerful have the ideas become that many

who feel that foreign capital could contribute to the well-being of the country dare not publicly favor private foreign investments lest they lose public influence.

Unfavorable judgments about foreign investments have related particularly to foreign enterprises engaged in raw material production. When there was little other development, such enterprises, which naturally tend to become large, played an important role in the economies and sometimes even the political life of such countries. In this early period the relative freedom of large extractive enterprises from government controls and, when successful, their large profits helped to foster the mistaken belief that such enterprises did not contribute to the economy of the country and that they only removed its natural wealth. There was no recognition of the fact that value is created and income is obtained by sale in the market place. The occasional activity of some of these enterprises in years past in opposing the objectives of some political groups also helped to foster the feeling that all private foreign investments interfered in local political affairs. The prevalence of such ideas has induced underdeveloped countries to refuse to grant to foreign enterprises concessions containing terms essential to effective development.

Nationalism

Nationalism, in the extreme forms which it sometimes takes, is responsible for the erection of basic obstacles to private foreign investment, although nationalism intelligently directed can be a strong contributory factor encouraging such investment. It is easy to criticize the foreigner and to condemn all foreign enterprise.

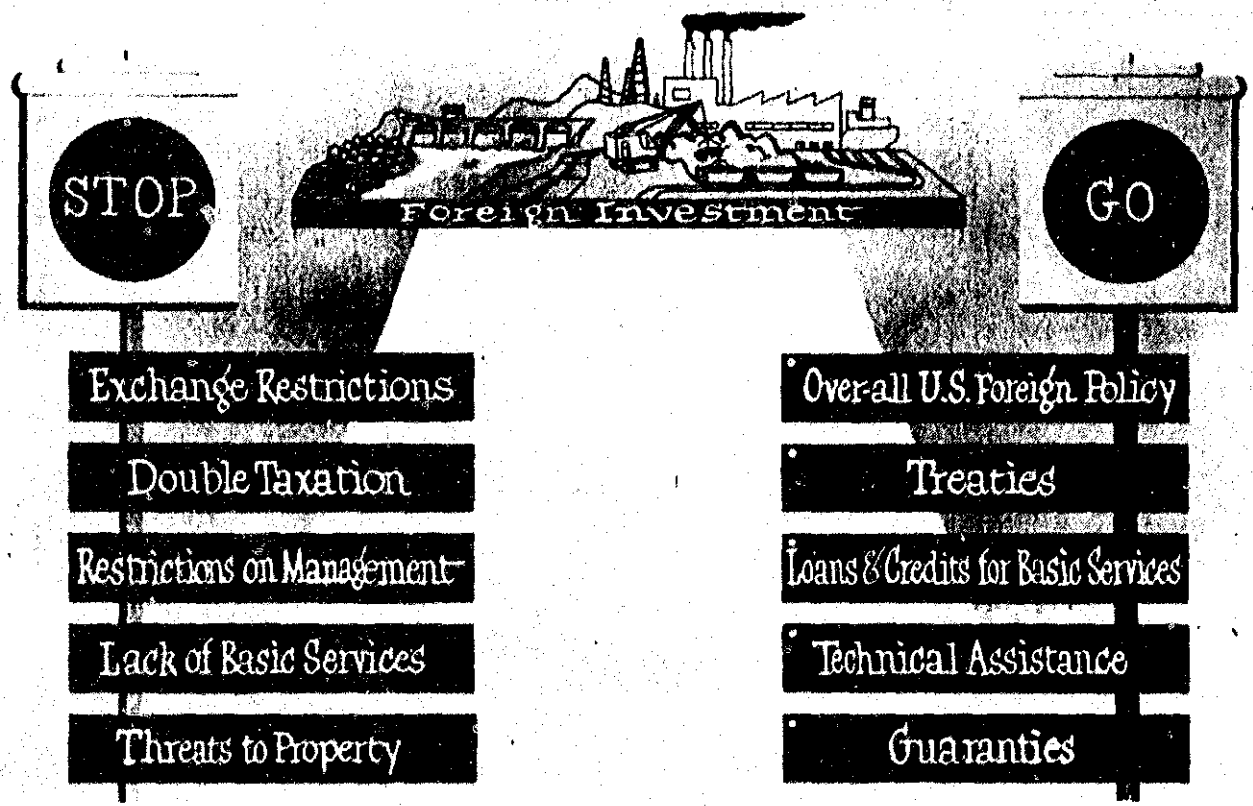
The results of nationalist thinking take various forms. They may be simple prohibitions against the entry of foreign capital in strategic and military industries or in specified areas along national boundaries. Often they take the form of the prohibition of the ownership of specific enterprises, such as hydroelectric installations, or lead to government ownership and operation of all activities related to the exploitation of natural resources. By appealing to nationalism, local vested interests are often able to prevent the development of industries and resources and to keep to themselves the control of economic activities in their country.

Economic Difficulties—Exchange Stringencies

Today, governments have assumed responsibility for preventing too great sacrifices by their people. Hence, when economic difficulties necessitate restriction of the use of foreign exchange, the procurement of the necessities of life is frequently given priority over all other types of transactions that require foreign exchange. Inasmuch as

Chart H

Fostering Investments



public sentiment in underdeveloped countries is often opposed to foreign investments, it is natural that the remittance of income from them is given a low rating. Inasmuch, also, as private foreign investments are made in the expectation of receiving income therefrom, the inability to transfer income into the currency of the investor constitutes a substantial obstacle to new investments. Still lower ratings are usually assigned to capital transfers with the result that the transfer of the proceeds of the sale of an investment is even more difficult than that of earnings. Private investors prize greatly the ability to shift their capital from one use to another, and the restriction inherent in exchange controls thus constitutes a further and important obstacle to private foreign investment. Too often, moreover, these restrictions are aggravated by arbitrary administrative changes in rates and priorities, with the result that caprice rather than principle may govern.

OVERCOMING THE OBSTACLES OF PRIVATE FOREIGN INVESTMENT

Many of the principal obstacles to private foreign investment stem primarily from actions of foreign governments. These actions are not equally justifiable or condemnable. Some have roots in basic differences in political and economic philosophy; others are motivated by temporary political and economic maladjustments. A composite program is thus needed if an effort is to be made to provide a common meeting ground for the foreign country and the United States investor. This program must include measures which will contribute to a new way of thinking about foreign, and even domestic, investment in certain countries abroad: obviously such measures will require the most careful preparation and negotiation, and their effects will become manifest only over a considerable period. Other measures will seek to mitigate a temporary maladjustment. There has been too great a tendency to assume that a single measure can eliminate the difficulties at once. The problem calls rather for various activities, each focusing on special problems in part, while also contributing to the fundamental objective of the creation of a healthy investment climate.

Through Over-All United States Foreign Policy

Many of the obstacles which arise from extreme forms of nationalism, from the fear of world instability, and from economic dislocations due to the imbalance in the world trade pattern will be affected by the broad programs and policies which are now a part of the whole foreign policy of the United States. Through participation

in the European Recovery Program, the Military Assistance Program, the United Nations and its specialized agencies, through the reciprocal trade-agreements program and sponsorship of the Ito, and through many other activities, the United States is exerting influence toward the establishment of more stabilized political conditions and more satisfactory economic relationships throughout the world. These efforts to help create a sense of security and an expanding and balanced world trade pattern, and to alleviate economic dislocations arising from the war, will, as they achieve success, eliminate many of the basic causes for imposition by foreign governments of deterrents to mutually advantageous investment.

Through the Negotiation of Treaties

Of prime importance are efforts to improve the climate for foreign investments and give greater confidence to investors. To assist in accomplishing this end this Government is endeavoring to negotiate bilateral treaties with foreign governments which will give assurance of fair and reasonable treatment on a reciprocal basis. Treaties of friendship, commerce and navigation are currently under negotiation with a large number of countries and contain more comprehensive provisions for the protection of investments than did earlier treaties. The situation in each country differs with respect to the exact nature of the treaty which can be negotiated; modifications are made to meet such special needs.

It is to be expected, however, that in view of the attitude, previously described, which exists in some countries regarding private capital, there will be varying degrees of receptivity to our treaty proposals. In some cases the real benefits which private investments can bring to a country will come to be appreciated only gradually and through a process of education. The technical cooperation program itself can be an effective means to this end.

In preparing treaty provisions for the protection of U. S. enterprises, private business organizations have been consulted.

The proposed treaty commitments seek to secure for U. S. investors the assurance of nondiscriminatory, reasonable, fair and equitable treatment. Such treatment should in general be no less favorable than that accorded to the nationals of the foreign country. The treatment accorded U. S. investors should also be no less favorable than that accorded to nationals of a third country.

Assurances are also sought of reasonable freedom to operate, control and manage enterprises.

The treaties contain a commitment of prompt, adequate and effective compensation in the event of expropriation of an investor's property. If compensation is paid otherwise than in the currency of the investor,

such compensation is to be convertible into the investor's currency on a basis which protects his interest.

The treaties deal with the right of the investor to withdraw earnings and reasonable amounts of the principal of the investment. They seek to define the conditions under which exchange restrictions may be imposed and to protect the interests of the investor with respect to such restrictions.

The treaties also deal with certain aspects of taxation and contain assurances regarding tax discrimination against foreign investors. Questions of double taxation are dealt with by separate treaties.

The purpose of these treaties is to provide the basic legal climate in which the citizens and enterprises of each party may do business in the other's country. They are of a long-run nature and cannot address themselves to all the problems now confronting the prospective investor. Though the signing of a treaty will do much to encourage investment abroad, it cannot of itself result in an immediate and large flow of such investment.

The treaty program must therefore be paralleled by other measures, such as those aimed at establishing a reasonable balance in international accounts. This will permit the gradual elimination of exchange restrictions. For the immediate future, a program directed at current difficulties, such as the inconvertibility problem, must also be considered.

Through Tax Incentives

Considerable discussion has taken place with regard to the possibility that a differential alleviation of the tax burden of American investment abroad would serve as a marked inducement to the expanded flow of such investment. There are undoubtedly many cases in which such alleviation would constitute a real financial inducement, particularly in areas where the local tax burden is low. However, it is important to remember that a relatively small proportion of the income from foreign direct investments of American corporations is now absorbed by U. S. taxes. The total margin for offering inducements is thus relatively small in the average case. In general, investigations of the subject indicate that U. S. taxes have little weight in the corporate investors' appraisal of foreign investment opportunities.

The relatively low percentage of income from foreign investments which is absorbed by U. S. taxes is a result of present law which (a) allows income taxes paid abroad as a credit against U. S. tax liability, and (b) affords preferential tax treatment to domestic corporations whose business activities are largely confined to certain areas, chiefly within the Western Hemisphere. The rate of U. S. tax paid on income from foreign investment varies of course above and

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below the average, according to country, because of variations in the rates of foreign income taxation, and according to whether the enterprise qualifies for preferential tax treatment.

Present law also offers advantages to foreign investment by (a) permitting foreign net losses to be deducted from taxable income derived in the United States, and (b) exempting from tax the earned income of American citizens resident abroad. In addition, since the income of foreign subsidiaries of American concerns is taxed only when remitted to the United States, their foreign earnings can be reinvested indefinitely without incurring U. S. tax liability.

Experience in the actual operation and application of existing tax laws to income derived from foreign sources indicates, however, the appropriateness of additional measures such as are outlined below:

(*a*) The present law places certain limitations upon the allowance of taxes paid to foreign countries as a credit against U. S. tax liability in order that taxes paid to foreign governments may not be used to reduce the Federal tax yield on income derived from sources within the United States. However, in the interest of stimulating foreign investments and to give additional recognition to the net result of foreign operation upon taxpaying ability, the conditions governing foreign tax credits should be liberalized so that greater tax relief might accrue where some foreign activities result in net profits and others in net losses.

(*b*) Liberalization of the foreign tax credit in the situation where the American corporation holds less than a majority control of the foreign corporation is appropriate. At present the credit may be allowed only where the American corporation holds majority stock control of the foreign corporation. There are situations where under local requirements the American corporation is not allowed to hold the controlling interest in a foreign corporation and does not, therefore, receive the foreign tax credit for taxes paid by the foreign corporation.

(*c*) Liberalization of the tax-exempt status of U. S. citizens while abroad would encourage them to participate more actively in developmental activities abroad. At present, the individual citizen must be out of the United States for the entire taxable year before his earned income is exempted and then only if he is a bona-fide resident of a foreign country. It would seem appropriate to liberalize the exemption of earned income in these situations to enable citizens who subsequently establish residence abroad to qualify retroactively for the exemption of income earned during their first incomplete year of residence abroad.

(*d*) Under the present Federal estate tax, there is no credit allowed for foreign death duties paid on property owned by U. S.

citizens in foreign countries. This has a deterring effect on individuals contemplating service abroad. The excessive tax burden in such cases should be relieved by means of a credit against the Federal estate tax similar in principle to the credit for foreign taxes allowed for Federal income tax purposes.

(*e*) If practicable, the income derived by domestic corporations from branches and agencies abroad should be given the same tax treatment that is available to foreign subsidiaries. Thus taxation of such income might be postponed until the income is returned to the United States. This would appear to be desirable in the interest of stimulating foreign investment and should encourage both direct foreign investment and reinvestment by domestic corporations with branches and agencies abroad.

To accomplish the liberalization outlined above, proposed legislation will be submitted to the Congress at the appropriate time. In addition to the foregoing, major attention is being given to the expeditious conclusion of international tax treaties. This would not only resolve issues of taxability in the United States and abroad, but should also work toward a reasonable allocation of sources of taxable income. The foreign tax credit employed in the U. S. income tax is designed for the purpose of minimizing international double taxation but is sometimes deprived of its effectiveness as a result of varying types of income taxes, varying concepts of taxable net income and the overlapping concepts of source of income.

At present the United States has bilateral tax conventions in force with six countries, and others are in various stages of negotiation or ratification. This program is being actively pursued independently of the legislative revisions in the tax system mentioned above.

Through Technical Cooperation

The technical cooperation phase of the Point Four Program will, in and of itself, operate toward overcoming some of the obstacles which are now deterrents to the flow of private investment abroad. While it is true that some of the results of this program will take considerable time to become manifest, there are others which may almost immediately show prospective U. S. investors a more attractive promise in business opportunities in foreign areas.

Major benefits in this direction can be expected along the following lines:

Awareness of Opportunities. Our foreign policy's new emphasis on development of underdeveloped areas, the publicity that will attend the technical cooperation program, the clear indication of foreign communities' desires to take constructive measures for economic progress—all these can be expected to have a psychological impact on investors

generally. In addition, reports of diagnostic missions, findings of specific survey teams, improved statistical reporting, and demonstration and experimental projects can bring to light specific investment opportunities.

These factors will also have an effect on local investors. They may also be prompted to take a longer run view of the earning prospects of their investment, with beneficial results on management policy. Expanded local investment activity will constitute a large inducement to foreign capital.

Productivity of the Labor Force. Labor that is debilitated by disease or malnutrition, or is illiterate or untrained, may not be cheap labor even at low wage scales. Improvement in the condition of the labor in foreign areas will result in more favorable cost calculations for foreign investment.

Improvement of Government Techniques. The technical cooperation program can contribute to an improvement in local community services, such as police and fire protection and maintenance of roads; in government statistical services; in export-import controls and management of foreign exchange resources; in budget techniques; and especially in government fiscal management. While such improvements may lead to higher taxes, they will reduce the haphazard, intermittent and extraordinary tax levies that some governments have resorted to when casting about for new sources of revenue. Such improvements should provide a stimulus to foreign investment.

Receptivity to Private Foreign Investment. As foreign governments study their needs and capacities for economic development and as they receive advice on the best means to achieve development, they may come to recognize the constructive role that private foreign investment can play in appropriate fields. Moreover, as government techniques of management and administration improve, it can be expected that concern about the dangers of foreign investment within their countries will diminish. On both accounts, the attitude of governments to capital from abroad can be expected to improve.

Development of Local Capital Market. The technical cooperation program will be concerned with measures for mobilizing savings and stimulating local investment. An organized capital market can facilitate investment by providing credits as needed. Moreover, such a market provides some publicity for investment opportunities; it permits a greater degree of liquidity to any investment. Opportunities for joint participation with local capital will tend to increase.

Larger Domestic Markets. Decisions to invest are determined by calculations of cost and demand. As indicated above, both costs and demand will be favorably affected by the technical cooperation program. The effect of the program on real national income will mean

enlarged domestic markets and increased opportunities for profitable investment to meet local demand.

As the above listing suggests, the effect on potential United States investment will be through the awakening of interest on the part of American investors in what were formerly unknown possibilities abroad, as well as through encouragement of conditions abroad which will result in a more receptive attitude to foreign investment and in greater opportunity for the successful employment of such new investment. Again, this phase of the Point Four Program will ably contribute to the creation of an improved investment climate. It cannot do more than part of the job and must be complemented by other measures directed toward the same objective.

Through Aid in Financing the Development of Basic Facilities

The increasing interest and activity of the International Bank and the Export-Import Bank in financing the development of basic resources of underdeveloped countries, such as power, transportation, communication and port facilities, should stimulate private investment in enterprises dependent on such facilities and open new areas to development by private capital.

Through United States Government Guaranties of Private Investment Abroad

The deterrents to private investment abroad cannot be completely removed by investment treaties, by tax incentives, or by technical advance alone. Certain risks peculiar to investment abroad, particularly in the world economic and political situation of today, will remain excessive from the point of view of U. S. investors. For example, although a treaty may assure no discrimination against U. S. investors seeking to remit profits, it cannot assure that sufficient dollars for that purpose will actually be available. Similarly, although there may be a completely faithful intention to refrain from expropriation, or, in the event that expropriation becomes unavoidable in the public interest, to pay promptly for expropriated property, dollars may, nevertheless, not be available to permit prompt and adequate payment. Also, risks of confiscation or seizure cannot be fully eliminated through treaties so long as the possibility exists of a change in government in the foreign country through revolution or war. Consequently the elimination, or at least a significant reduction, of these difficulties should stimulate a substantial additional flow of private investment funds abroad. The extension of guaranties by the U. S. Government against risks peculiar to investment in foreign countries is a means of attacking these difficulties and should thus contribute importantly to this objective.

Outstanding among the risks peculiar to investment abroad which are feasible for a program of U. S. Government guaranties are the risks of (*a*) loss through non-convertibility of returns derived from the investment, including earnings as well as capital returns; and (*b*) loss through seizure, confiscation, or expropriation without prompt, adequate and effective compensation.

Not included among such risks peculiar to investment in foreign countries are ordinary business risks such as those encountered by any investor or businessman in the United States. Although it is obvious that the offer of guaranties against these ordinary business risks would increase the flow of private capital abroad, that flow would not further the basic objective of the Point Four Program. It would result in an uneconomic diversion of investment funds from the United States to foreign countries. Furthermore, it would justifiably open the United States to the charge of imperialism in that the U. S. Government would thus be assuring earnings to U. S. entrepreneurs abroad. It would place U. S. investors in an overwhelmingly favorable and unfair competitive position relative to local investors in foreign countries. Moreover, it would remove many of the usual incentives to efficient and economic operation.

The risk of loss resulting from non-convertibility of returns from investments is clearly a risk peculiar to foreign investment. To a considerable degree the extent of this risk is determined by the policy and practice of the government of the country in which the investment is made. Consequently, it is subject to material reduction by action taken by foreign governments either unilaterally or under treaties with the United States. However, even under the best of circumstances exchange stringency may develop in certain years which may force the imposition of restrictions on the remittance of returns from investments as well as on payments for imports and services. The guaranty of the U. S. Government that U. S. investors, after having exhausted all legal means of converting local currencies derived from their investments into dollars, would be able to call upon the U. S. Government under a contract to provide dollars in exchange for local currencies might thus remove a significant deterrent to foreign investment.

With respect to expropriation, confiscation, or seizure, the investor fears the loss of the capital investment itself, rather than the loss of returns from the investment. While such acts are not really peculiar to foreign areas, the risk of loss from them is greater in many foreign countries. This is particularly true because compensation may not be made promptly in dollars. Hence, this risk may have much in common with the risk of loss resulting from non-convertibility.

The guaranty program should be limited to the guaranty of productive new investment against risks which are peculiar to investment in foreign countries and are significant deterrents to such investment. Obviously the non-convertibility problem poses such a risk and should be covered by the guaranty program. So do risks of loss arising from expropriation, confiscation, and seizure.

Accordingly it is proposed that the Export-Import Bank undertake, in consultation with the National Advisory Council, an experimental program for the guaranty of U. S. private capital newly invested in productive enterprises abroad which contribute to economic development in underdeveloped areas. The Congress, therefore, is being requested to amend the Export-Import Bank Act of 1945 in order to provide the necessary authority for the Bank to assure (1) the conversion into United States dollars of foreign currency derived from an investment and (2) compensation in United States dollars for loss resulting from expropriation, confiscation, or seizure of the investment.

It is recognized that the extension of guaranties in order to stimulate the flow of private capital to underdeveloped areas of the world involves embarking on a new program, the details of which can evolve only from continued study and actual experience. It will be necessary that the Export-Import Bank and the National Advisory Council continually study the problem. It is therefore considered essential that the authorization from the Congress be broad and flexible. Such an authorization will permit the Bank, with the advice and approval of the National Advisory Council, to initiate, modify, improve, or perhaps discontinue, the guaranty system in the course of its operation.

No additional funds for this purpose are being requested for the Bank at the present time. It is contemplated that, in the event experience demonstrates that the program will be effective in achieving the purposes and that there is a substantial demand for guaranties, the Congress will be requested to increase the funds available to the Export-Import Bank to carry out these functions.

It should be emphasized that it is impossible to predict in advance the actual effectiveness that the guaranty program will have in stimulating the flow of U. S. private capital abroad. All available evidence suggests that if a guaranty program were joined with a successful program of bilateral treaties, with loans by governmental or intergovernmental agencies to finance development in those fields not appropriate for private enterprise, with certain tax incentives and with technical assistance, then it might well serve significantly to increase the flow of U. S. private capital abroad. However, only trial will indicate what results can be obtained.

VII. Technical Cooperation Program for First Year

To be successful, a program to assist in development of economically underdeveloped areas must contribute to the balanced and integrated development of their economic resources and productive capacities. In estimating the program for the first year, this objective has been kept in mind. However, it should not be considered to be a typical year's program, even in miniature. It represents in large measure an extension of existing activities. It necessarily indicates a high proportion of investigations and studies and does not have the proportion between its various parts which will be typical of later years. It is a positive effort to move ahead as rapidly as good judgment will allow into a vast field.

The secretariats of the United Nations and of the specialized agencies submitted to the Economic and Social Council at its summer session in 1949 a report which set forth their estimates concerning the scope and type of activities which each organization might undertake in the first two years of the expanded program. Since the programs cannot be reduced to actual concrete projects until there have been detailed discussions with individual underdeveloped countries and until the amount of funds which can be raised by voluntary contribution can be more clearly estimated, these plans were necessarily tentative. They showed that, in the first year of such an expanded program, the organizations concerned might voluntarily spend between $35 million and $40 million, and that in the second year this might be increased to slightly more than $50 million. The members of the Economic and Social Council, which reviewed the report submitted to the Council, made some very practical comments as to the priorities which should be followed under the expanded program and transmitted these comments to the organizations concerned.

The program so submitted by the respective secretariat places primary emphasis upon economic development and would involve projects in the fields of agriculture, industry, transportation, public administration, labor, education, health, and welfare. The organizations which plan to participate in the over-all program during its first years are the United Nations; the Food and Agriculture Organiza-

tion; the World Health Organization; the United Nations Educational, Scientific and Cultural Organization; the International Labor Organization; and the International Civil Aviation Organization.

Even more fundamental than the plans which the United Nations is working out on a functional basis is the planning which must be done by the individual countries which wish to receive technical assistance in the field of economic development. The success of the program depends in large part on the initiative of the underdeveloped countries themselves. Therefore, planning by these countries for effective use of assistance must come at the very beginning of the developmental process when plans are being originated.

There is a great deal known at present about the needs of most countries for technical assistance. This knowledge is based upon an accumulation of information drawn from many sources over many years and on actual experience in operating technical assistance programs abroad. There is also a great deal known about the desires of various countries for technical assistance. Nevertheless, before projects can actually get under way the details must be worked out with the individual countries and, within the limits of the types and amounts of assistance available, plans must be based upon what the countries themselves want.

On November 16, 1949, the General Assembly of the United Nations approved the arrangements and guiding principles proposed for the over-all program. It is now anticipated that a United Nations technical assistance conference will be held about April 1950 to raise funds for the new program. Since it is not yet possible to foresee what funds can be raised from member governments and since authorizing legislation will be required in many countries, the estimated program requirements are stated by regions rather than in terms of individual projects by countries. The total sums for each function are made up of known minimum needs in individual countries assembled from the very considerable information available, but they cannot be considered as fixed or firm. Funds will be used only for approved projects negotiated by the U. S. with individual countries or for contributions to budgets negotiated within the international organizations. It is essential that funds be available for such projects in order that meaningful negotiations may be undertaken with countries needing and asking assistance. The result of such negotiations may be, of course, to increase the number of projects in some fields and reduce those in others. But it is anticipated that the demand for projects will substantially exceed the proposed program. The limitation has been one much more of time needed to recruit, organize, and administer than of the need for assistance.

HOW THE PROGRAM HAS BEEN PREPARED

The proposed first year program has been prepared by integrating, first, the needs which the various countries and regions are known to have for technical assistance in economic development and, second, the amount of technical assistance which the various agencies working in this field believe that it would be possible to provide in the first year of the program.

Information on country and regional needs came from requests countries had made for technical assistance and the information provided in justifying such requests. In addition, there is a body of material on the economic conditions of various countries and the fields in which technical assistance might be advantageous which originated in official government reports, in reports of diplomatic missions, from past experience in conducting technical assistance programs and from miscellaneous intelligence drawn from experts, both in and out of the United States, from numerous public and private economic surveys, et cetera.

On the basis of this information, conclusions were reached as to needs of individual countries which might lead to requests for various types of technical assistance. An estimate was made of the numbers of experts and numbers of trainees that could usefully be employed to meet those needs in the first year of the program.

Information on aid which appropriate agencies could supply in the first year came through the Interdepartmental Committee on Scientific and Cultural Cooperation from U. S. agencies which have been conducting technical assistance programs and, by request, from the secretariats of the international organizations operating in the field of technical assistance.

The proposals made by both sets of agencies were based on the judgment of the agencies as to the type of and relative need for technical assistance in the first year of the program and on the scale of effort which could be organized and put into operation. Many worthwhile projects were eliminated because of shortages of trained personnel and of time required for recruitment and organization.

The needs of individual countries were compared with the proposals made by the international and by U. S. organizations. Proposals which did not meet needs were eliminated. Proposals which were in excess of needs were reduced in scope. In some cases, where proposals were inadequate to meet needs, the agencies making the original request were consulted as to the possibility of expanding the scale of operation in the first year, and, if such expansion was deemed possible, the program was increased in order to more nearly meet requirements.

Proposals were tested not only against country needs but also for compliance with the objectives and principles of the development cooperation program, for absence of duplication between projects of U. S. and international agencies, for feasibility under political conditions in the particular country, and for balance in the particular economy.

The screened program was then reassembled on a functional basis and forms the basis of this presentation.

While the proposed program for the first year rests upon these appraisals of country needs, it should be emphasized that this does not imply any commitment to spend funds in specific countries. As outlined above, decision on projects must await decisions by the international agencies and negotiations with individual countries.

RELATIONSHIP BETWEEN UNITED NATIONS AND U. S. BILATERAL PROJECTS

The proposals selected for inclusion in the first year's program have not been selected solely on the basis that they were proposed by U. S. agencies or international organizations. They are those which appear best to meet country requirements.

A tentative division of program between the United Nations and the U. S. is necessary because other contributing countries may be expected to finance part of the program administered through the United Nations.

The screening described above has insured that the programs do not overlap but fit together to meet country requirements. Appropriate adjustments are made in the estimated requirements.

WHAT THE PROGRAM INCLUDES

Most of the existing programs, both multilateral and bilateral, involving technical cooperation activities for economically underdeveloped areas have been included in the estimate for the Point Four Program for the first year. Specifically the following programs, which have been operating under existing law have been included:

1. Those parts of the activities heretofore conducted under the Smith-Mundt Act which are primarily related to economic development in economically underdeveloped areas (e. g. programs in agri-

culture, health, mineral resources, transportation, etc.). The amount of the budget requested under Public Law 402 included in the program is $2,600,000.

2. The entire budget request of the Institute of Inter-American Affairs for its program, which includes projects in agriculture, health and education in the amount of $7,000,000.

3. An amount of $4,300,000 from the regular budgets of the United Nations and its specialized agencies which, it is estimated, will be expended for technical cooperation programs for economically underdeveloped areas.

It is anticipated that local currencies made available under the Fulbright program for educational exchange will be utilized to finance the local currency costs of such students, teachers, professors and research scholars in economic development fields of importance under the Point Four Program as can qualify under the existing provisions of the Fulbright Act. The possibility of dollar financing from Point Four funds to supplement the local currency Fulbright aid will bring about a marked stimulus to educational exchanges in these economic development fields. By thus supplementing each other, these two programs will forward the objectives of both.

For various reasons certain programs involving technical cooperation have not been considered to be an essential part of the Point Four Program for the first year. Certain programs, such as that authorized by the International Aviation Facilities Act, although involving activities in other countries, are primarily for the benefit of the United States or of general international benefit rather than for the benefit of the particular area in which activities are conducted.

The Philippine Rehabilitation Act of 1946 includes technical assistance as a part of a program of reconstruction. When the act expires on June 30, 1950, the technical assistance activities which contribute to economic development will be taken over as part of the technical cooperation program.

A technical assistance program is carried on under the authority of the Foreign Assistance Act of 1948. This program is primarily designed to assist in the attainment of economic recovery within the relatively near future of the countries, with their dependencies, which participate in the European Recovery Program.

The Point Four Program will include projects in the major fields of economic activity which have been discussed at length in section V. There follow tables showing the cost of projects for each of these major fields.

Table IV shows the breakdown of the proposed first year technical cooperation program by the several categories of activity and the breakdown between the estimated costs to be borne by the United

States or the appropriate international agency and by the recipient country.

TABLE IV. PROPOSED FIRST YEAR TECHNICAL COOPERATION PROGRAM BY FUNCTIONAL CATEGORY—ESTIMATED COSTS TO RECIPIENT COUNTRIES AND TO U. S. OR INTERNATIONAL AGENCY

Category	Costs borne by United States or international agency	Costs borne by recipient countries	Total
1. General economic development	$2, 365. 545	$1, 182, 772	$3, 548, 317
2. Agriculture and forestry	12, 659, 553	6, 329, 777	18, 989, 330
3. Fisheries	909, 300	454, 650	1, 363, 950
4. Reclamation, hydroelectric power, and flood control	4, 515, 710	2, 257, 855	6, 773, 565
5. Mineral resources	1, 868, 950	934, 475	2, 803, 425
6. Industry	5, 063, 694	2, 531, 847	7, 595, 541
7. Labor	3, 242, 050	1, 621, 025	4, 863, 075
8. Transportation	3, 811, 950	1, 905, 975	5, 717, 925
9. Health	10, 887, 748	5, 443. 874	16, 331, 622
10. Education	6. 153, 280	3, 076, 640	9, 229, 920
11. Social security and social services	1, 788, 450	894, 225	2, 682. 675
12. General statistics	600, 870	300, 435	901, 305
13. Public administration	987, 700	493, 850	1, 481, 550
14. Finance	268, 900	134, 450	403, 350
15. Housing	775, 350	387, 675	1, 163, 025
16. Communications	341, 150	170, 575	511, 725
17. Hydrographic and geodetic surveys	640, 300	320, 150	960, 450
18. Weather	199, 500	99, 750	299, 250
TOTAL	57, 080, 000	28, 540, 000	85, 620, 000

Table V shows the total program for first year by the several categories of activity broken down among three major geographic areas.

Table VI adjusts the total estimated technical cooperation program for anticipated contributions of other countries, for funds in other appropriation requests, and for "lapse" due to the time required to initiate projects, and shows the net estimated requirement for U. S. funds for the technical cooperation program. It also shows the estimated requirement for the Department of Commerce's service to business for foreign economic development and the total estimated U. S. funds required.

TABLE V.—GEOGRAPHIC DISTRIBUTION OF PROPOSED FIRST YEAR TECHNICAL COOPERATION PROGRAM BY FUNCTIONAL CATEGORY (TOTAL COST INCLUDING ESTIMATED AMOUNT TO BE BORNE BY RECIPIENT COUNTRY)

Category	American Republics [1]	South Asia, Near East, and Africa [2]	Far East [3]	Total
1. General economic development	$1,239,600	$1,842,949	$465,768	$3,548,317
2. Agriculture and forestry	7,087,125	7,925,205	3,977,000	18,989,330
3. Fisheries	440,700	616,875	306,375	1,363,950
4. Reclamation, hydroelectric power, and flood control	1,510,800	4,146,465	1,116,300	6,773,565
5. Mineral resources	1,215,075	1,100,850	487,500	2,803,425
6. Industry	2,549,925	4,031,065	1,014,551	7,595,541
7. Labor	2,242,650	2,028,375	592,050	4,863,075
8. Transportation	1,912,050	3,098,085	707,790	5,717,925
9. Health	7,432,916	7,181,979	1,716,727	16,331,622
10. Education	3,420,450	4,654,920	1,154,550	9,229,920
11. Social security and social services	926,250	1,006,917	749,508	2,682,675
12. Statistics	407,700	436,005	57,600	901,305
13. Public administration	328,950	937,800	214,800	1,481,550
14. Finance	68,550	250,200	84,600	403,350
15. Housing	433,050	729,975	----------	1,163,025
16. Communications	99,450	259,650	152,625	511,725
17. Hydrographic and geodetic surveys	313,500	420,078	226,872	960,450
18. Weather	63,000	178,800	57,450	299,250
Total	31,691,741	40,846,193	13,082,066	85,620,000

[1] Includes European dependencies in the Caribbean.
[2] Includes European dependencies in Africa.
[3] Includes European dependencies in the Far East and the Pacific.

NOTE: No programs have been scheduled for Europe since most European countries are relatively advanced. Furthermore the ECA is in a position to take care of most of the technical assistance requirements of the Western European countries. The United Nations agencies may have some programs in this area, but it is not anticipated they will be on a substantial scale.

TABLE VI. ADJUSTMENTS IN PROGRAM ESTIMATES TO ARRIVE AT ADDITIONAL APPROPRIATION REQUIREMENT

A. *For the Technical Cooperation Program*	
Total program including cost to recipient countries	$85,600,000
Less costs to recipient countries	28,500,000
Cost of program to U. S. or international agencies	57,100,000
Less programs for which appropriations have been separately requested or which will be met from regular budgets of international agencies	13,900,000
Additional first year program	43,200,000
Less costs of United Nations program borne by other United Nations member countries and "lapses" in U. S. programs	11,600,000
Net additional program costs to the U. S. in first year	31,600,000
Net administrative cost	2,900,000
Total appropriation requirement for technical cooperation first year	34,500,000
B. *For the Department of Commerce Service to Business for Foreign Economic Development*	500,000
Total appropriation requirement for first year	*$35,000,000

*Excludes certain other programs which will be operated as a part of the Point Four Program, specifically $7,000,000 for the ITAA and $2,600,000 for certain activities now being carried on under Public Law 402.

VIII. Administrative Organization in U. S. Government

THE SUCCESSFUL operation of the technical cooperation program will require close coordination of the activities of a large number of U. S. Government agencies and several international organizations and their specialized agencies, and the maintenance of close liaison with many private organizations and enterprises. The administrative organization within the U. S. Government responsible for the program must endeavor to secure the greatest possible contribution to the total program from all of these organizations and agencies and to maintain a coherent over-all program with proper balance between areas and types of activity and with such central general direction over operations as may be necessary.

The administrative organization established by the United States Government should provide for adequate coordination of U. S. policy with respect to technical cooperation programs carried out by intergovernmental organizations. It should provide effective means for coordinating U. S. programs with those of intergovernmental organizations. It must also adjust its activities to those carried out directly by other countries. The organization should be such as to permit broad flexibility in the methods of program development and execution. It should make full use of the technical and administrative skill and experience available in existing U. S. agencies in the planning and execution of U. S. policy toward programs of intergovernmental organizations. It should provide sufficient centralized authority, responsibility, and initiative to assure the development of well-balanced U. S. programs and adequate coordination in their execution. It should be able to relate technical cooperation programs to the other activities of the United States designed to assist in the economic development of underdeveloped areas.

In view of the complexity and diversity of the program and the important role to be played in it by many agencies of the Federal Government, broad responsibility for establishing general policies and controlling activities should be vested in the President. He should be free to assign duties under the program as he deems necessary in order to maintain continuing sound administration of the Point Four Pro-

gram as it expands and as new means of achieving its objectives are developed.

It is now contemplated that the President will delegate to the Secretary of State the bulk of the job of coordinating and directing the planning and execution of U. S. programs of technical cooperation and the development of U. S. policy on similar programs of international organizations. The execution of the program requires U. S. contributions to the programs of several international organizations, negotiations with many foreign countries in the planning and conduct of United States programs, and the coordination of these two major phases of the technical cooperation program with each other. Thus the Department of State would appear to be the logical agency in which to place these responsibilities.

Under this arrangement, the responsibilities of the Department of State would include the following:

1. Coordinating and directing the formulation of and approving properly balanced programs of technical cooperation to be carried out through U. S. agencies.
2. Establishing basic standards and procedures for the operation of U. S. programs.
3. Relating such programs to other activities of the U. S. Government designed to facilitate capital investment in underdeveloped areas.
4. Conducting or coordinating economic development surveys in cooperation with other countries.
5. Developing for submission to Congress the appropriation requests for the total technical cooperation program.
6. Coordinating the U. S. position with regard to negotiation of the U. S. contribution to programs of intergovernmental organizations.
7. Authorizing the expenditure of funds by agencies administering United States technical cooperation programs and approving U. S. contributions to the programs of intergovernmental organizations.
8. Evaluating the contribution of United States programs to the basic objectives of economic development.
9. Preparing periodic reports on the operation of the programs and on the progress achieved.

The Secretary of State would make one official generally responsible for the planning and execution of the program. He would be responsible for seeing that the above functions are properly carried out within the Department of State. He would recommend to the Secretary of State the allocations of funds among U. S. projects, the U. S. position on contributions to United Nations and other international agencies, and the allocation of these funds among projects.

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The existing agencies of the U. S. Government, including the Institute of Inter-American Affairs, would be given responsibilities within the respective areas in which they are competent to provide technical assistance. These responsibilities would include consultation with the Department of State on programs proposed by international organizations, initiating programs and assisting the Department of State in the evaluation of programs requested by other governments, and the actual management and execution of projects within their fields. They would also assist the Department of State in evaluating program accomplishments in their respective substantive fields.

In addition to the usual processes of interdepartmental liaison, the Department of State would establish, after consultation with other Departments principally concerned, formal methods of interdepartmental consultation on general problems under the program. An interdepartmental committee of responsible officials of the participating agencies would be established for this purpose.

It is anticipated that the existing public advisory groups to the several departments will be very helpful in developing programs. The Secretary of State may find it advisable to establish additional formal methods of securing advice on the program from private citizens and private groups. It may become evident that a broad public advisory committee is required; it is more apparent at the present moment that specialized committees representing specialized groups will be useful in facilitating the participation of such groups in the program.

DEVELOPMENT OF U. S. POSITION REGARDING PROGRAMS OF INTERGOVERNMENTAL AGENCIES

The U. S. positions regarding the programs of the various intergovernmental organizations would be presented by the official U. S. representatives to such organizations after that position has been developed by the usual procedures within the executive branch of the Government. While the State Department would have central responsibility for the development of such positions, it would do so in consultation with appropriate departments of the U. S. Government, for example, the Department of Agriculture in the case of FAO proposals. After the basic decisions concerning programs of international organizations have been made by their policy bodies, the negotiation of contributions by the member governments will be undertaken. The position of the United States in such negotiations would be developed in the same way.

The central responsibility in the State Department, referred to above, does not mean that presently existing procedures for coordination with respect to policies and operations of the International

Bank and the International Monetary Fund would be changed. The statutory coordinating functions of the National Advisory Council on international finance and monetary problems, including the coordinating of the position of the United States representatives in relation to the activities of the Fund and the Bank, would continue, with the State Department represented as a member agency of the Council.

PROJECT PLANNING

It is contemplated that planning for projects and programs will involve the following distribution of functions:

1. The Department of State would be responsible for establishing general policies and procedures to be followed in program planning.
2. Under the direction of the Department of State, with assistance in the various substantive fields from other agencies, officers in the U. S. embassies abroad would work with officials of the local governments in preparing their plans for technical cooperation.
3. Projects would be proposed by countries requesting assistance and would be forwarded with the evaluation of the embassy.
4. Project proposals would be reviewed and screened within the State Department and by the substantive agencies.
5. The requirements of the bilateral programs developed by the above processes would be balanced with the programs being developed by the international organizations.
6. The substantive agencies would develop the operating plans and procedures for carrying out bilateral projects in accordance with the policies and general standards established by the Department of State.

PROJECT MANAGEMENT

After funds had become available and were allocated to U. S. agencies in accordance with the approved project plans, the participating agencies would be responsible for carrying out the projects. They would do so, however, within a general framework of policy and procedural requirements established by the Department of State. The general plan of project administration is described below.

The necessary agreements with the foreign government in connection with the projects would be developed through State-embassy channels in accordance with the general pattern of form and content for such agreements developed by the Department of State. The substantive agency would be responsible for developing the content of

the agreements concerning the technical scope, methods, and objectives of the projects within this pattern.

When a project had been finally approved for operation, the substantive agency would proceed to carry it out. It would recruit, select, and appoint the technicians required. It is expected that it will be necessary for the Department of State to review the selections of other agencies only for suitability of assignment to the areas proposed. Project personnel should be appointed on a scale of salaries, allowances, leave, and other benefits equivalent to those provided to the Foreign Service Reserve. It is believed that this personnel system will best provide the necessary recruitment attraction and stability of staff required for the program, although it need not be assumed that all technical personnel will be appointed on the same basis; many employees serving in Civil Service positions may well be assigned to brief periods of project duty abroad without change in their status.

U. S. project personnel would be subject to the administrative direction of the agencies responsible for the projects and would be supervised by those agencies in carrying out their technical activities. However, in order to assure necessary coordination of operations, project personnel would be subject to guidance and instructions from the Ambassador within limits determined by the Department of State in consultation with the substantive agencies involved.

The Department of State would establish requirements for reporting, channels of communication and relations with the embassy, designed to keep the embassy and the Department of State currently informed of the progress of projects and to maintain the necessary overall coordination of all of our technical cooperation activities within the country. The Ambassador would provide guidance to project personnel on their conduct in relation to local political conditions and their relations with the local government.

The host government ordinarily would provide the necessary working space, supplies, clerical and support personnel, and other local services. However, the embassy should be prepared to supply certain services which cannot be reasonably secured from the local government. These services would include the initial reception of and assistance to newly arrived personnel, provision for stenographic and clerical assistance in special situations, assistance in securing housing, health services provided under the Foreign Service Act, and arrangements for overseas travel for technicians and their families and for the shipment of household goods.

The procurement and shipment of technical materials and supplies furnished to projects by the United States would be the responsibility of the agency administering the project. The cost of such materials and supplies would be included in project estimates and allocations.

AGREEMENTS WITH COUNTRIES RECEIVING ASSISTANCE

It is essential to the success of the program that the patterns of technical assistance developed meet the actual needs and desires of the underdeveloped countries and that those countries make the best possible use of the assistance in accordance with the plans and understandings under which it is supplied. The nature of the program is such, however, that these objectives can be accomplished only as a result of a broad initiative and understanding on the part of the recipient countries. Successful use of the knowledge and skill supplied under this program cannot be assured by mere commitments—the eventual use to which such knowledge and skill is put cannot be controlled by policing an agreement, as might be the case with commodities supplied under a relief program. In view of this fact, it will be far more important to encourage the increase of this essential understanding and initiative than to negotiate rigid agreements.

However, written agreements on the executive level may prove advantageous. These agreements might include:

A joint definition of the purposes and methods of the activity.

A commitment to pay a fair share of the costs of the activity, to supply certain facilities and services, and to facilitate the operation in every way possible.

An undertaking to reciprocate in the granting of specific types of technical aid to the United States or a third country.

A commitment to supply information to the United States relative to the development and results of the activity.

A reciprocal undertaking to inform the public concerning the activity undertaken and the results obtained.

An undertaking to promote the domestic application of the knowledge derived through the activity.

It is also to be expected that the United Nations, the specialized agencies, and other international organizations will wish to make certain agreements with countries to which they supply assistance. The resolution on an expanded program of technical assistance for economic development approved on August 15, 1949, by the United Nations Economic and Social Council included a statement of principles to serve as guides to the United Nations and specialized agencies in carrying out their technical assistance activities. One of these principles was that the governments requesting technical assistance from the United Nations or the specialized agencies should be expected to agree:

(*a*) To facilitate the activities requested from the participating organizations by assisting them to obtain the necessary information about the problems on which they have been asked to help, such

information to be limited strictly to questions directly related to the concrete requests for technical assistance, and, whenever appropriate, to facilitate their contacts with individuals and groups, in addition to government agencies, concerned with the same or related problems;

(*b*) To give full and prompt consideration to the technical advice they receive as a result of their cooperation with the participating organizations in response to the requests they have initiated;

(*c*) To undertake to maintain or set up as soon as practicable such governmental coordination machinery as may be needed to insure that their own technical, natural, and financial resources are mobilized, canalized, and utilized in the interest of economic development designed to improve the standard of living of their peoples and through which the effective use of any major international technical assistance resources could be assured;

(*d*) Normally to assume responsibility for a substantial part of the costs of technical services with which they are provided, at least that part which can be paid in their own currencies;

(*e*) To undertake the sustained efforts required for economic development, including continuing support of and progressive assumption of financial responsibility for the administration of projects initiated at their request under international auspices;

(*f*) To publish information or provide, for study and analysis, material suitable for publication regarding the results of the technical assistance rendered and the experience derived therefrom so that it may be of value to other countries and to the international organizations rendering technical assistance;

(*g*) To inform the participating organizations, whenever technical assistance is requested, of all assistance which they are already receiving or requesting from other sources in the same field of development;

(*h*) To give publicity to the program within their countries.

ASSURANCE OF EFFECTIVE USE

There is no simple answer to the problem of assuring that the countries given assistance will make effective use of the knowledge and skill conveyed to them. This is, in a sense, the full objective of the program. There is no realistic answer other than to provide, throughout the planning and execution of programs, full attention to the possible methods of stimulating initiative, to the improvement of our methods for conveying knowledge and skill, to the continuous evaluation of past accomplishments, and to the application of the lessons of that evaluation to future operations.

ADMINISTRATION OF GUARANTIES AND OF SERVICE TO BUSINESS

It is proposed that the Export-Import Bank, with the advice of the National Advisory Council, administer the program for guaranteeing private investment abroad. The Department of Commerce will conduct a program for providing service to American investors abroad as outlined on page 44.

APPENDIXES

Appendix A—The Fourth Point of the President's Inaugural Address

Fourth, we must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas.

More than half the people of the world are living in conditions approaching misery. Their food is inadequate. They are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas.

For the first time in history, humanity possesses the knowledge and the skill to relieve the suffering of these people.

The United States is preeminent among nations in the development of industrial and scientific techniques. The material resources which we can afford to use for the assistance of other peoples are limited. But our imponderable resources in technical knowledge are constantly growing and are inexhaustible.

I believe that we should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life. And, in cooperation with other nations, we should foster capital investment in areas needing development.

Our aim should be to help the free peoples of the world, through their own efforts, to produce more food, more clothing, more materials for housing, and more mechanical power to lighten their burdens.

We invite other countries to pool their technological resources in this undertaking. Their contributions will be warmly welcomed. This should be a cooperative enterprise in which all nations work together through the United Nations and its specialized agencies wherever practicable. It must be a world-wide effort for the achievement of peace, plenty, and freedom.

With the cooperation of business, private capital, agriculture, and labor in this country, this program can greatly increase the industrial activity in other nations and can raise substantially their standards of living.

Such new economic developments must be devised and controlled to benefit the peoples of the areas in which they are established. Guaranties to the investor must be balanced by guaranties in the interest of the people whose resources and whose labor go into these developments.

The old imperialism—exploitation for foreign profit—has no place in our plans. What we envisage is a program of development based on the concepts of democratic fair-dealing.

All countries, including our own, will greatly benefit from a constructive program for the better use of the world's human and natural resources. Experience shows that our commerce with other countries expands as they progress industrially and economically.

Greater production is the key to prosperity and peace. And the key to greater production is a wider and more vigorous application of modern scientific and technical knowledge.

Only by helping the least fortunate of its members to help themselves can the human family achieve the decent, satisfying life that is the right of all people.

Democracy alone can supply the vitalizing force to stir the peoples of the world into triumphant action, not only against their human oppressors, but also against their ancient enemies—hunger, misery and despair.

Appendix B—Message from the President to the Congress

To the Congress of the United States:

In order to enable the United States, in cooperation with other countries, to assist the peoples of economically underdeveloped areas to raise their standards of living, I recommend the enactment of legislation to authorize an expanded program of technical assistance for such areas, and an experimental program for encouraging the outflow of private investment beneficial to their economic development. These measures are the essential first steps in an undertaking which will call upon private enterprise and voluntary organizations in the United States, as well as the Government, to take part in a constantly growing effort to improve economic conditions in the less developed regions of the world.

The grinding poverty and the lack of economic opportunity for many millions of people in the economically underdeveloped parts of Africa, the Near and Far East, and certain regions of Central and South America, constitute one of the greatest challenges of the world today. In spite of their age-old economic and social handicaps, the peoples in these areas have, in recent decades, been stirred and awakened. The spread of industrial civilization, the growing understanding of modern concepts of government, and the impact of two World Wars have changed their lives and their outlook. They are eager to play a greater part in the community of nations.

All these areas have a common problem. They must create a firm economic base for the democratic aspirations of their citizens. Without such an economic base, they will be unable to meet the expectations which the modern world has aroused in their peoples. If they are frustrated and disappointed, they may turn to false doctrines which hold that the way of progress lies through tyranny.

For the United States the great awakening of these peoples holds tremendous promise. It is not only a promise that new and stronger nations will be associated with us in the cause of human freedom, it is also a promise of new economic strength and growth for ourselves.

With many of the economically underdeveloped areas of the world, we have long had ties of trade and commerce. In many instances today

we greatly need the products of their labor and their resources. If the productivity and the purchasing power of these countries are expanded, our own industry and agriculture will benefit. Our experience shows that the volume of our foreign trade is far greater with highly developed countries than it is with countries having a low standard of living and inadequate industry. To increase the output and the national income of the less developed regions is to increase our own economic stability.

In addition, the development of these areas is of utmost importance to our efforts to restore the economies of the free European nations. As the economies of the underdeveloped areas expand, they will provide needed products for Europe and will offer a better market for European goods. Such expansion is an essential part of the growing system of world trade which is necessary for European recovery.

Furthermore, the development of these areas will strengthen the United Nations and the fabric of world peace. The preamble to the Charter of the United Nations states that the economic and social advancement of all people is an essential bulwark of peace. Under article 56 of the Charter, we have promised to take separate action and to act jointly with other nations "to promote higher standards of living, full employment, and conditions of economic and social progress and development."

For these various reasons, assistance in the development of the economically underdeveloped areas has become one of the major elements of our foreign policy. In my inaugural address, I outlined a program to help the peoples of these areas to attain greater production as a way to prosperity and peace.

The major effort in such a program must be local in character; it must be made by the people of the underdeveloped areas themselves. It is essential, however, to the success of their effort that there be help from abroad. In some cases, the peoples of these areas will be unable to begin their part of this great enterprise without initial aid from other countries.

The aid that is needed falls roughly into two categories. The first is the technical, scientific and managerial knowledge necessary to economic development. This category includes not only medical and educational knowledge, and assistance and advice in such basic fields as sanitation, communications, road building, and governmental services, but also, and perhaps most important, assistance in the survey of resources and in planning for long-range economic development.

The second category is production goods—machinery and equipment—and financial assistance in the creation of productive enterprises. The underdeveloped areas need capital for port and harbor development, roads and communications, irrigation and drainage projects, as well as for public utilities and the whole range of extractive,

processing, and manufacturing industries. Much of the capital required can be provided by these areas themselves, in spite of their low standards of living. But much must come from abroad.

The two categories of aid are closely related. Technical assistance is necessary to lay the groundwork for productive investment. Investment, in turn, brings with it technical assistance. In general, however, technical surveys of resources and of the possibilities of economic development must precede substantial capital investment. Furthermore, in many of the areas concerned, technical assistance in improving sanitation, communications, or education is required to create conditions in which capital investment can be fruitful.

This country, in recent years, has conducted relatively modest programs of technical cooperation with other countries. In the field of education, channels of exchange and communication have been opened between our citizens and those of other countries. To some extent, the expert assistance of a number of Federal agencies, such as the Public Health Service and the Department of Agriculture, has been made available to other countries. We have also participated in the activities of the United Nations, its specialized agencies, and other international organizations to disseminate useful techniques among nations.

Through these various activities, we have gained considerable experience in rendering technical assistance to other countries. What is needed now is to expand and integrate these activities and to concentrate them particularly on the economic development of underdeveloped areas.

Much of the aid that is needed can be provided most effectively through the United Nations. Shortly after my inaugural address, this Government asked the Economic and Social Council of the United Nations to consider what the United Nations and the specialized international agencies could do in this program.

The Secretary-General of the United Nations thereupon asked the United Nations Secretariat and the Secretariats of the specialized international agencies to draw up cooperative plans for technical assistance to underdeveloped areas. As a result, a survey was made of technical projects suitable for these agencies in such fields as industry, labor, agriculture, scientific research with respect to natural resources, and fiscal management. The total cost of the program submitted as a result of this survey was estimated to be about 35 million dollars for the first year. It is expected that the United Nations and the specialized international agencies will shortly adopt programs for carrying out projects of the type included in this survey.

In addition to our participation in this work of the United Nations, much of the technical assistance required can be provided directly by the United States to countries needing it. A careful examination of

the existing information concerning the underdeveloped countries shows particular need for technicians and experts with United States training in plant and animal diseases, malaria and typhus control, water supply and sewer systems, metallurgy and mining, and nearly all phases of industry.

It has already been shown that experts in these fields can bring about tremendous improvements. For example, the health of the people of many foreign communities has been greatly improved by the work of United States sanitary engineers in setting up modern water supply systems. The food supply of many areas has been increased as the result of the advice of United States agricultural experts in the control of animal diseases and the improvement of crops. These are only examples of the wide range of benefits resulting from the careful application of modern techniques to local problems. The benefits which a comprehensive program of expert assistance will make possible can only be revealed by studies and surveys undertaken as a part of the program itself.

To inaugurate the program, I recommend a first-year appropriation of not to exceed 45 million dollars. This includes 10 million dollars already requested in the 1950 budget for activities of this character. The sum recommended will cover both our participation in the programs of the international agencies and the assistance to be provided directly by the United States.

In every case, whether the operation is conducted through the United Nations, the other international agencies, or directly by the United States, the country receiving the benefit of the aid will be required to bear a substantial portion of the expense.

The activities necessary to carry out our program of technical aid will be diverse in character and will have to be performed by a number of different government agencies and private instrumentalities. It will be necessary to utilize not only the resources of international agencies and the United States Government, but also the facilities and the experience of the private business and nonprofit organizations that have long been active in this work.

Since a number of Federal agencies will be involved in the program, I recommend that the administration of the program be vested in the President, with authority to delegate to the Secretary of State and to other government officers, as may be appropriate. With such administrative flexibility, it will be possible to modify the management of the program as it expands and to meet the practical problems that will arise in its administration in the future.

The second category of outside aid needed by the underdeveloped areas is the provision of capital for the creation of productive enterprises. The International Bank for Reconstruction and Development and the Export-Import Bank have provided some capital for under-

developed areas, and, as the economic growth of these areas progresses, should be expected to provide a great deal more. In addition, private sources of funds must be encouraged to provide a major part of the capital required.

In view of the present troubled condition of the world—the distortion of world trade, the shortage of dollars, and other after-effects of the war—the problem of substantially increasing the flow of American capital abroad presents serious difficulties. In all probability novel devices will have to be employed if the investment from this country is to reach proportions sufficient to carry out the objectives of our program.

All countries concerned with the program should work together to bring about conditions favorable to the flow of private capital. To this end we are negotiating agreements with other countries to protect the American investor from unwarranted or discriminatory treatment under the laws of the country in which he makes his investment.

In negotiating such treaties we do not, of course, ask privileges for American capital greater than those granted to other investors in underdeveloped countries or greater than we ourselves grant in this country. We believe that American enterprise should not waste local resources, should provide adequate wages and working conditions for local labor, and should bear an equitable share of the burden of local taxes. At the same time, we believe that investors will send their capital abroad on an increasing scale only if they are given assurance against risk of loss through expropriation without compensation, unfair or discriminatory treatment, destruction through war or rebellion, or the inability to convert their earnings into dollars.

Although our investment treaties will be directed at mitigating such risks, they cannot eliminate them entirely. With the best will in the world a foreign country, particularly an underdeveloped country, may not be able to obtain the dollar exchange necessary for the prompt remittance of earnings on dollar capital. Damage or loss resulting from internal and international violence may be beyond the power of our treaty signatories to control.

Many of these conditions of instability in underdeveloped areas which deter foreign investment are themselves a consequence of the lack of economic development which only foreign investment can cure. Therefore, to wait until stable conditions are assured before encouraging the outflow of capital to underdeveloped areas would defer the attainment of our objectives indefinitely. It is necessary to take vigorous action now to break out of this vicious circle.

Since the development of underdeveloped economic areas is of major importance in our foreign policy, it is appropriate to use the resources of the Government to accelerate private efforts toward that end. I recommend, therefore, that the Export-Import Bank be au-

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thorized to guarantee United States private capital, invested in productive enterprises abroad which contribute to economic development in underdeveloped areas, against the risks peculiar to those investments.

This guaranty activity will at the outset be largely experimental. Some investments may require only a guaranty against the danger of inconvertibility, others may need protection against the danger of expropriation and other dangers as well. It is impossible at this time to write a standard guaranty. The Bank will, of course, be able to require the payment of premiums for such protection, but there is no way now to determine what premium rates will be most appropriate in the long run. Only experience can provide answers to these questions.

The Bank has sufficient resources at the present time to begin the guaranty program and to carry on its lending activities as well without any increase in its authorized funds. If the demand for guaranties should prove large, and lending activities continue on the scale expected, it will be necessary to request the Congress at a later date to increase the authorized funds of the Bank.

The enactment of these two legislative proposals, the first pertaining to technical assistance and the second to the encouragement of foreign investment, will constitute a national endorsement of a program of major importance in our efforts for world peace and economic stability. Nevertheless, these measures are only the first steps. We are here embarking on a venture that extends far into the future. We are at the beginning of a rising curve of activity, private, governmental, and international, that will continue for many years to come. It is all the more important, therefore, that we start promptly.

In the economically underdeveloped areas of the world today there are new creative energies. We look forward to the time when these countries will be stronger and more independent than they are now, and yet more closely bound to us and to other nations by ties of friendship and commerce, and by kindred ideals. On the other hand, unless we aid the newly awakened spirit in these peoples to find the course of fruitful development, they may fall under the control of those whose philosophy is hostile to human freedom, thereby prolonging the unsettled state of the world and postponing the achievement of permanent peace.

Before the peoples of these areas we hold the promise of a better future through the democratic way of life. It is vital that we move quickly to bring the meaning of that promise home to them in their daily lives.

HARRY S. TRUMAN

THE WHITE HOUSE,
June 24, 1949.

Appendix C—The Need for Assistance

The fact that the vast majority of the people of the underdeveloped areas live under conditions which contrast startlingly with those in the more economically advanced areas of the world is only too apparent to those who have actually seen these conditions. Statistical evidence of this contrast cannot compare in impressiveness with visual evidence. Furthermore, the poor and incomplete statistics now available from these areas in most cases fail to reflect living conditions as they really are. Nevertheless, the statistical information which is available gives overwhelming evidence of the wide disparity in the major elements in standards of living as they exist in the well-developed, the intermediate and the underdeveloped nations. It also can show some of the significant differences between the major elements in the economies of the three groups which underlie the standard of living and, finally, the trained people available in a few of the fields of knowledge which are fundamental to the state of advancement of the major elements in the economy.

MAJOR ELEMENTS IN STANDARDS OF LIVING

The annual income of the people of a country is probably the most representative single indicator of their standard of living. It also provides the most logical criterion for dividing the countries of the world into general groups of well-developed, intermediate and underdeveloped countries in order to make comparisons between them in terms of several criteria which can indicate or roughly measure their need for assistance.

The years just before the war are the last which are generally representative of the relative standards of living of the world's peoples as a whole. They also form the period for which the broadest and most representative figures exist.

The National Advisory Council on International Monetary and Financial Problems presented to the Senate in 1947 estimates showing the national per capita income in the last prewar year, 1939, of 53 countries with 85 percent of the world's population. Ranked in order of highest income, as measured by equivalent value in U. S. dollars,

these countries fell into three definite, clearly distinguishable groups (appendix C–1). Group I contains 15 countries with average annual per capita income valued at over $200. (Table VII, below.) These countries, which include one-fifth of the world's population, were the United States, Germany, United Kingdom, Switzerland, Sweden, Australia, New Zealand, Canada, Netherlands, Denmark, France, Norway, Belgium, Eire, and Argentina. Group II included ten countries the average income of whose people ranged in value from $100 to $200 These countries, comprising one-sixth of the earth's population, were Union of South Africa, Finland, Chile, Austria, U. S. S. R., Italy, Greece, Czechoslovakia, Hungary and Bulgaria. Finally there were 28 countries in Group III whose people received on the average less than $100 per year in value of income. This group, representative of the remaining two-thirds of the world population, were Cuba, Yugoslavia, Poland, Japan, Venezuela, Egypt, Palestine, Costa Rica, Colombia, Peru, Panama, Ceylon, Mexico, Uruguay, Dominican Republic, Haiti, Nicaragua, Guatemala, Bolivia, Honduras, El Salvador, Brazil, Ecuador, Paraguay, India, Philippines, China, and Indonesia.

TABLE VII. PER CAPITA NATIONAL INCOME

COUNTRY GROUPS ACCORDING TO PER CAPITA INCOME 1938

Index	Upper (over $200)	Middle ($100–$200)	Lower ($100 and below)
Per capita income, 1938 (U. S. dollars per annum):			
Mean (weighted)	461	154	41
Median (unweighted)	389	149	53

In Group I the people of the United States had the highest average per capita annual income of $554. This large and prosperous population raised the mean average per capita of income of the people of the countries in Group I to $461, although the median of the countries in the group was $389.

The mean average annual income of the people in the countries of Group II was $154.

In sharp contrast to the countries of Group I and even of Group II, the incomes of the two-thirds of the world's people in the Group III averaged only $41.

Grouping the countries by the income of their people, as shown above, it is possible to compare a number of the major conditions of life of the people of the well-developed, intermediate and underdeveloped countries.

Life Expectancy. In human terms, a most revealing indicator of the application of technical knowledge by a people and its value to them is the simple, quantitative index of their life expectancy. (Appendix C–2.)

The average life expectancy of children born in the nations in Group I, in 1939, was 63 years. (Table VIII, below.) In several of the most advanced of these countries it was as high as 67 years—approaching the Biblical allotment of "three score years and ten." The technological backwardness in India, on the other hand, has been a major factor in withholding some 40 years of life from the average baby, who might expect to live no more than 27 years! And the people of India are not notably worse off in this respect than half the world's population.

Entirely aside from its human losses, such wastefulness of life is a heavy economic liability. In India only 54 of each 100 infants born attain age 15, and a substantial share of the low national income is used for children who never attain the productive years of adulthood. Correspondingly the average working life of those who do attain the productive ages is curtailed by high death rates. According to average life experience before the war only 15 out of 100 infants born in India would live to age 60. In the U. S., according to the life tables of 1939–41, 92 out of 100 children born would reach age 15 and about 70 percent would reach age 60, thus contributing 40 years or more of productive, adult life to their own and to national income.

TABLE VIII. INDICATORS OF PREWAR LIFE EXPECTANCY, HEALTH AND EDUCATION FOR SELECTED COUNTRIES

COUNTRY GROUPS ACCORDING TO PER CAPITA INCOME, 1939

	Upper (over $300)	Middle ($101–$300)	Lower ($100 and below)
1. Expectation of life at birth:			
Mean (unweighted)	*63	*52	*40 (30)
Median (unweighted)	63	52	40
2. Tuberculosis death rates in 1939 (per 100,000 population):			
Mean (weighted)	64	143	333
Median (unweighted)	62	138	172
3. Percent illiterate (population age 10 and over):			
Mean (weighted)	Below 5	20	73
Median (unweighted)	Below 5	20	64

*Unweighted averages for countries with data. (Data were available for only 8 out of 28 of the lower-income countries.)

A weighted mean for Group III would approximate 30 years if China and Indonesia were assumed to have the same average expectation of life as India.

Health. Among the brightest chapters in modern history is the splendid record in the struggle against disease. Few would deny that the improvement in the physiological well-being of the individual is one of the truly great achievements of the age and one of the most significant indices of relative standards of living and of the ability to apply modern technical knowledge. The facts show, however, that this achievement has thus far affected the lives of only a small part of the human race.

The incidence of many diseases may be used to compare the condition of people living in the three groups of nations. Tuberculosis, however, is typical and representative, since it is a serious disease in every country of the world and does not vary radically with climate as do some other widespread diseases, such as malaria. Tuberculosis is a disease of poverty and overcrowding, generally higher in the cities than in the rural areas and almost everywhere higher among low income groups than among high income groups within the same country. Similarly the death rates from tuberculosis are strikingly different as between countries of low and high income (appendix C–2). The average annual tuberculosis death rate in the higher income group is only 64 per 100,000 of population, which is less than half of that in the middle income groups, 143 per 100,000, and less than one-fifth of that in the lower income groups, 333 per 100,000 (table VIII, p. 105). At the extremes, the tuberculosis death rate is ten times as high in China (450 per 100,000) as it is in the most advanced western countries (34 in Denmark; 47 in United States).

Illiteracy. Few characteristics of contemporary civilization distinguish it more sharply from its predecessors than the existence of free public education. No previous civilization has been so broadly based on the general understanding of the written word, and an ability formerly confined to the privileged classes has in some countries become the property of all. Just as modern public-health controls have made possible a great extension of the span of life for the common man, so has universal education opened the doors of knowledge to everyone with the will and intelligence to absorb it. The education of all its citizens is a generally accepted responsibility of the modern state, and the extent of public education is an appropriate measure of a nation's place in the scale of cultural development. Opinions differ as to the merits of various forms of advanced education but there is universal agreement that the ability of a country's people to read and write is a significant measure of its advancement—and of its potential for further economic progress.

With a single exception, all of the countries in the upper income group have reduced illiteracy to a small fraction of the total population (appendix C–2). In the middle income countries, illiteracy

has been reduced to an over-all average of 20 percent (table VIII, p. 105). Though illiteracy is still an important problem in these countries, they are well on the way to conquering it. In the low income countries, on the other hand, three-fourths of the population ten years of age and over are illiterate, though in these underdeveloped countries the illiteracy ranges from less than 10 percent in Japan to 90 percent or more in India, Indonesia, and most of Africa. The two higher income groups have less than 40 percent of the world's total population but they contain close to 80 percent of the world's literate people.

Food. A vital factor in the standard of living of a people is the kind, quality, and quantity of the food which they eat. The simplest and most readily comparable measure of food consumption is the energy content expressed in calories per day of total food supplied for each individual (appendix C–3). The commonly accepted minimum daily intake needed to sustain life is 1,800 calories. The average food supply of 3,000 calories in the top income group countries is about 1,200 calories above this minimum (table IX, p. 108). The average of 2,750 calories for the ten middle income countries provides about 1,000 calories above the life-sustaining minimum. Again the vastly poorer living conditions in the low income countries is indicated by the fact that the average food supply of 2,150 calories is only 350 calories above the life-sustaining minimum. This small difference between average calorie intake and minimum requirements means that many consumers are continually below the danger level of food consumption and that the margin of safety is so low that seasonal or local variations in food production frequently have serious or even fatal consequences.

Caloric comparisons do not take into account the qualitative differences in food consumed, which are subject to even greater variation than the quantity of food consumed. Some indication of the greater differences in the quality of food eaten in different countries is given by the daily animal protein and fat supply (table IX, p. 108). Of course, these quantities do not in all cases reflect the use of meat substitutes in the form of soybeans, etc. However, the fact that the average daily consumption of animal proteins in the underdeveloped countries is less than one-fifth of that in the well-developed countries is significant. So also is the fact that the daily consumption of fats is less than a third.

Clothing. Another major factor in the standard of living of a people is the clothing which they have. Clothing varies greatly throughout the world with climate and custom. However, the weight of fabric consumed by each person is a fair index of the standard enjoyed (appendix C–3).

In the high income group of countries the average person uses about 19 pounds of cotton, wool, and rayon clothing materials per year (table IX, below). Only one-fourth as much is available to the average person in the low income countries. This great disparity is made even more striking by the fact that the comparison by weight alone does not take account of differences in the utility and quality of the materials used.

TABLE IX. PREWAR FOOD AND CLOTHING CONSUMPTION IN SELECTED COUNTRIES

COUNTRY GROUPS ACCORDING TO PER CAPITA INCOME 1939

	Upper (over $200)	Middle ($101–$200)	Lower ($100 and below)
Daily per capita food supply:			
1. All foods (calories):			
Mean (weighted, rounded)	3,040.00	2,760.00	2,150.00
Median (unweighted, rounded)	3,100.00	2,730.00	2,130.00
2. Animal proteins (oz.):			
Mean (weighted)	1.60	0.90	0.30
Median (unweighted)	1.80	.90	.70
3. Fats (oz.):			
Mean (weighted)	4.00	2.30	1.30
Median (unweighted)	4.10	2.50	1.50
Net annual consumption per head of cotton, wool, and rayon (lbs.):			
Mean (weighted)	18.63	7.52	4.80
Median (unweighted)	17.06	8.22	6.72

ELEMENTS IN ECONOMIC DEVELOPMENT

The preceding discussion has compared certain major criteria of the standards of living of the people in the three groups of nations. The reason for the substantial differences can be indicated by comparisons of the relative development of a few of the major elements in the economic life of the countries included in the groups. It will be apparent that the marked differences in standards of living indicated in the preceding divisions are closely associated with the degree of economic development.

Figures are not available to compare the development of all elements of economic life. A few such elements, however, can be taken as generally indicative of the whole.

Mechanical Energy. Reduced to its essence economic development is simply a measure of man's ability to control the world around him. The primitive with no tools—or the most rudimentary hand implements—can do little to transform this environment. The peasant with

his farm animals may extend his control to several times his own physical capacity. But the man with the machine, backed by the power of an industrial economy, may have at his command a multiplier of tens or hundreds or even thousands of times his own physical strength. Thus the extent of control of the people of the world over their physical environment may be indicated by the number of horsepower hours of energy equivalents available to them. (Appendix C-4.) The two-thirds of the world's people with an income of less than $100 per year have at their command only about the equivalent of 1.2 horsepower hours per day in addition to their own human energy. (Table X, p. 110.) The middle income groups now in an intermediate stage between an agricultural and an industrial economy have some five times as great resources of energy, with a daily consumption of 6.4 horsepower hours per capita. The upper income groups have an average of 26.6—over twenty times that of the underdeveloped area. The average person in the United States, with 57.6 horsepower hours of energy available to him each day, has at his command over thirty times the mechanical extension of his own strength which can be commanded only by the average person in the underdeveloped areas—and perhaps seventy-five times that of half the people of the world.

Translated into rough human equivalents (12 manpower equals 1 horsepower) every American man, woman, and child commands on the average every day of the year energy in addition to his own equal to the physical labor of 56 men for eight hours. At the other end of the scale the Chinese controls only six manpower hours per day of non-human energy in addition to his own labor.

Agricultural Income. The amount of energy consumed is a good measure of the degree of industrialization. It does not so accurately measure differences in the development and efficiency of agriculture. But here also the differences between the developed countries and the underdeveloped countries are enormous. Labor productivity in agriculture may be estimated from the per capita incomes of people dependent upon agriculture. According to estimates prepared by the Food and Agriculture Organization of the United Nations, if the average income of the population dependent upon agriculture in the upper income groups is measured at 100 units, the agricultural income in the middle income countries measures only 39, and the low income group only 8. In other words the average farmer in the first group has an income some twelve times as great, and impliedly produces about twelve times as much, as the farmer in the low income category.

Industrial Investment. Generally speaking, national income and standards of living are closely associated with investment in industrial plant. One of the major objectives of the development cooperation

program is to rectify deficiencies in industrial capacity in the underdeveloped areas. The need for such assistance is illustrated by the fact that, taking the investment in industry for each man who works in the highly developed countries as an index of 100, corresponding index of investment in the middle group is 39, and in the underdeveloped areas only 11.

TABLE X. ELEMENTS IN PREWAR ECONOMIC DEVELOPMENT IN COUNTRIES BY INCOME GROUPS

COUNTRY GROUPS ACCORDING TO PER CAPITA INCOME 1939

Index	Upper (over $300)	Middle ($101–$300)	Lower ($100 and below)
1. Energy consumed per day (horsepower hrs. per capita):			
Mean (weighted)	26.6	6.4	1.2
Median (unweighted)	15.4	6.6	1.4
2. Annual freight carried (ton miles per capita) (short tons):			
Mean (weighted)	1,517	327	58
Median (unweighted)	491	399	43
3. Miles of railroad (per 1,000 square miles of area):			
Mean (weighted)	40	29	13
Median (unweighted)	140	41	17
4. Motor vehicles (per 1,000 population):			
Mean (weighted)	111	7	1
Median (unweighted)	36	5	2
5. Telephones (per 1,000 population):			
Mean (weighted)	90	7	2
Median (unweighted)	74	11	3

Transportation. If industry and agriculture may be regarded as the sinews of the body economic, transportation forms the arteries, and communication is the nervous system. A few comparisons of these essentials to a developed economy are shown by countries in appendix C–4 and by groups in Table IV, p. 81.

About 1,500 ton miles of freight per capita were carried annually in the high income areas, which is over twenty-five times the average of less than 60 tons carried in the low income areas. At the extremes are 2,977 tons in the United States and 0.7 ton in the Dominican Republic.

The three countries in which the ton miles are greatest, the United States, Canada, and the U. S. S. R., are three of the largest countries in the world. Relating mileage of railroads to area, these larger countries have a lesser development than smaller countries like Belgium, Switzerland, and Denmark, but the contrast between the upper and

lower income groups in railroad mileage transportation is enormous no matter how measured.

The comparative index of motor vehicles in use, an indicator which measures both transfer of goods and living conditions, shows equally marked contrasts. In relation to population there are over one hundred times as many motor vehicles in use by the people of the advanced countries as compared with those of the low income countries. For the people of the United States itself, in comparison with the peoples of low income countries, the ratio is 250 to 1.

Communication. Mechanical means of rapid communication, so essential to production, trade, and economic activity in general, are found in widespread use only in the upper income countries. (Appendix C–4.) Of the various means of such communication the telephone is probably the most characteristic. Measured by the number of telephones in use, the people of the top fifteen countries with 90 instruments per 1,000 population had forty-five times the facility of communication of the people of the twenty-eight low income countries with 2 instruments per 1,000 population. (Table X, p. 110.)

Crop Yields. The large gains which the application of technical knowledge may bring in food production are illustrated by a comparison of the yields per acre between selected countries, although the inherent differences in the physical factors of climate, soil, and topography must be allowed for if such comparisons are to be meaningful. (Appendix C–5.) Yields of wheat, the staff of life for a large part of the world's population, in the period of 1935–39 were only 6, 11, and 14 bushels per acre in Palestine, India, and China. Compared to these countries of underdeveloped agriculture, wheat yields in the countries of Western Europe were 40 bushels per acre and even higher. In most of the densely populated parts of Asia, rice is the main source of food energy upon which life depends. However, in India and China where food supplies are inadequate to support a decent level of food consumption, rice yields were only 26 and 53 bushels per acre respectively. In Japan, on the other hand, where the inherent physical factors for producing rice are no better, yields have been raised to 76 bushels per acre through the application of more modern agricultural technology.

The yield of potatoes per acre varies considerably among the countries within each income group. In general, however, the yield in Group I ran from well over 200 to 300 or more bushels per acre in countries where potatoes are a staple crop. In contrast, the yield in the countries in Group II was generally less than 200 bushels per acre and the yield in the underdeveloped countries of Group III was in most cases well below 100 bushels per acre.

Technical personnel. In order to achieve an accelerated rate of economic development, the underdeveloped countries of the world must be enabled to make better use of their own natural resources.

They can do this only if provided with the technical skills that can make such things possible. Yet in many fields of technical specialization the native personnel in underdeveloped countries is extremely scarce or totally non-existent.

The underdeveloped countries suffer from serious shortages even in the basic personnel necessary for the establishment of elementary educational and public-health systems, both of which are important as a basis for economic development. These deficiencies may be illustrated by the accompanying table XI, p. 113, relating to physicians and elementary school teachers available in the three major income groups of countries considered. In the countries of over $200 per capita income there was an average of about one physician for each thousand people. The figure for the middle income countries was substantially lower at one physician for each 1,300 people, but the lack of physicians was markedly more acute in the lower income countries, in which there was an average of only one physician for each 6,000 people. At the extremes, there was only one physician for each 60,000 in Indonesia as compared with one for each 700 people in the United States. This comparison, of course, takes no consideration of the wide differences in the qualifications of physicians. Thus in the more advanced countries physicians must be certified according to certain standards of medical practice, whereas in many of the underdeveloped countries persons may become "doctors" on the basis of the scantiest medical training.

Similarly, there were substantial differences in the number of elementary school teachers available in the developed countries as compared with the underdeveloped countries. The upper income countries average one elementary school teacher to each 250 people of all ages, the middle income group one to roughly 300 population, and the lower income group only one to each 570 population. Thus even in primary education the upper income group is quantitatively over twice as well staffed in relation to total population as the lower income group, entirely aside from the differences in quality of instruction. The figures for the middle and lower income groups do not reveal the additional fact that many of the teachers in these areas have little more than an elementary school education themselves. Furthermore, this comparison is a conservative one in that the lower income countries have far higher proportions of their population in the school ages.

If it were possible to restrict such global comparisons to higher levels of technical personnel there would be a much greater disparity between the upper and lower income countries. The lower income countries do not have sufficient personnel to provide elementary basic education; much less do they have the qualified technical personnel necessary for industrialization, and less still the scientists and teach-

ers necessary to provide advanced instruction in the higher scientific and technical fields.

TABLE XI. PHYSICIANS AND ELEMENTARY SCHOOL TEACHERS IN SELECTED COUNTRIES

COUNTRY GROUPS ACCORDING TO PER CAPITA INCOME 1939

	Upper (Over $200)	Middle ($101–$200)	Lower ($100 and below)
Physicians (per 1,000 population):			
Mean (weighted)	1.06	0.78	0.17
Median (unweighted)	.94	.76	.24
Elementary school teachers (per 1,000 population):			
Mean (weighted)	3.98	3.42	1.76
Median (unweighted)	4.11	3.45	1.76

APPENDIX C–1. PER CAPITA INCOME, POPULATION, AND POPULATION GROUPS OF 53 COUNTRIES, 1939

Country	Per capita income [a] (U. S. dollars per annum)	Rank	Population (in thousands) [b]	Population types [c]
Upper income group (over $200):				
United States	$554	1	131,416	1
Germany	520	2	69,317	1
United Kingdom	468	3	47,778	1
Switzerland	445	4	4,206	1
Sweden	436	5	6,341	1
Australia	403	6	6,997	1
New Zealand	396	7	1,642	1
Canada	389	8	11,368	1
Netherlands	338	9	8,834	1
Denmark	338	10	3,825	1
France	283	11	41,950	1
Norway	279	12	2,937	1
Belgium	261	13	8,396	1
Eire	248	14	2,946	1
Argentina	218	15	13,132	2
Middle income group ($101–$200):				
Union of S. Africa	188	16	10,251	[b]2
Finland	184	17	3,684	1
Chile	174	18	4,940	2
Austria	166	19	6,650	1
USSR	[d] 158	20	[e] 196,500	2
Italy	140	21	43,864	1
Greece	136	22	7,200	2
Czechoslovakia	134	23	15,239	1
Hungary	125	24	9,129	1
Bulgaria	109	25	6,308	2

See footnotes at end of table.

APPENDIX C–1. PER CAPITA INCOME, POPULATION, AND POPULATION GROUPS OF 53 COUNTRIES, 1939—Continued

Country	Per capita income [a] (U. S. dollars per annum)	Rank	Population (in thousands) [b]	Population types [c]
Lower income group ($100 and below):				
Cuba	98	26	4,253	3
Yugoslavia	96	27	15,703	2
Poland	95	28	35,090	2
Japan	93	29	72,520	2
Venezuela	92	30	3,650	3
Egypt	85	31	16,650	3
Palestine	81	32	1,502	3
Costa Rica	76	33	639	3
Colombia	76	34	8,986	3
Peru	72	35	7,000	3
Panama	71	36	620	3
Ceylon	63	37	5,922	3
Mexico	61	38	19,380	3
Uruguay	56	39	2,147	3
Dominican Republic	51	40	1,650	3
Haiti	50	41	2,600	3
Nicaragua	50	42	883	3
Guatemala	48	43	3,260	3
Bolivia	47	44	3,400	3
Honduras	45	45	1,090	3
El Salvador	45	46	1,745	3
Brazil	46	47	40,900	3
Ecuador	44	48	3,000	3
Paraguay	39	49	970	3
India	34	50	382,000	3
Philippines	32	51	16,300	3
China	29	52	450,000	3
Indonesia	22	53	69,435	3
Total			1,836,145	

[a] Source: Per Capita National Income, *Foreign Assets and Liabilities of the United States and Its Balance of International Transactions*. A Report to the Senate Committee on Finance by the National Advisory Council on International Monetary and Financial Problems, Dec. 18, 1947.

[b] Source: *Statistical Yearbook of the League of Nations*, 1941–42.

[c] Countries are grouped by population types as follows:

Type 1. *Low growth potential.* Birth rates below 25 per thousand population. Low death rates. Small natural increase with prospect of relatively stationary populations in the future.

Type 2. *Transitional growth.* Birth rates 25–35. Both birth and death rates generally falling. Rapid population growth.

Type 3. *High growth potential.* Birth rates over 35. Death rates (but not birth rates) generally declining. Rapid growth in absence of civil disturbance, famine, and epidemic.

The birth rates refer to average annual figures for the period 1931–40. Official vital statistics were used where available, though for a number of countries these were corrected to take account of apparent underreporting of births. Birth rates were estimated from other demographic information for countries lacking official vital statistics.

[d] Source: P. A. Baran, "National Income and Product of the USSR, 1940," *Review of Economic Statistics*, November 1947. This applies to enlarged area after the annexations in 1939 and 1940.

[e] Source: OIR, Department of State. Population after annexations in 1939 and 1940. Prior population 174,000,000.

[f] White population only.

APPENDIX C-2. INDICATORS OF PREWAR HEALTH AND EDUCATION FOR SELECTED COUNTRIES

Country	Expectation of life at birth			Tuberculosis death rates per 100,000 population, 1939	Percent of population age 10 and over illiterate (about 1930)
	Years				
	Date	Male	Female		
Upper income group (over $200):					
United States	1939–41	62	66	47	Below 5.
Germany	1932–34	60	63	50	Below 5.
United Kingdom	1937	[a] 60	[a] 64	[a] 62	Below 5.
Switzerland	1939–44	63	67	80	Below 5.
Sweden	1936–40	64	67	75	Below 5.
Australia	1932–34	63	67	40	Below 5.
New Zealand	1934–38	[b] 65	[b] 68	60	Below 5.
Canada	1940–42	63	66	53	Below 5.
Netherlands	1931–40	66	67	41	Below 5.
Denmark	1941–45	66	68	34	Below 5.
France	1933–38	56	62	137	5.
Norway	1921–31	61	64	86	Below 5.
Belgium	1928–32	56	60	68	6.
Eire	1940–42	59	61	113	Below 5.
Argentina	1914	*52	*52	103	17.
Middle income group ($101–$200):					
Union of South Africa	1935–37	[c] 59	[c] 63	low	60.
Finland	1936–40	[d] 54	[d] 60	190	14.
Chile	1940	38	40	264	24.
Austria	1930–33	54	59	40	Below 5.
USSR	1940	[e] 47	[e] 50	160	19.[f]
Italy	1930–32	54	56	76	22.
Greece	1928	49	51	128	41.[g]
Czechoslovakia	1929–32	52	55	124	Below 5.
Hungary	1930–31	48	51	148	9.
Bulgaria	1925–28	*46	*47	138	31.
Lower income group ($100 and below):					
Cuba	----------	----------	----------	76	35.
Yugoslavia	----------	----------	----------	234	45.
Poland	1931–32	48	51	195	27.
Japan	1935–36	47	50	297	Below 10.
Venezuela	----------	----------	----------	233	63.
Egypt	1927–37	*30	*32	52	86.
Palestine	----------	----------	----------	56	69.
Costa Rica	1927	*41	*41	172	35.
Colombia	1939–41	*46	*46	low	44.
Peru	----------	----------	----------	high	90.
Panama	----------	----------	----------	119	47.
Ceylon	----------	----------	----------	62	60.
Mexico	1929–33	*37	*37	56	62.
Uruguay	----------	----------	----------	101	30.

See footnotes at end of table.

APPENDIX C–2. INDICATORS OF PREWAR HEALTH AND EDUCATION FOR SELECTED COUNTRIES—Continued

Country	Expectation of life at birth			Tuberculosis death rates per 100,000 population, 1939	Percent of population age 10 and over illiterate (about 1930)
	Years				
	Date	Male	Female		
Lower income group ($100 and below)—Continued					
Dominican Republic	----------	----------	----------	medium	71.
Haiti	----------	----------	----------	high	90.
Nicaragua	----------	----------	----------	medium	57.
Guatemala	----------	----------	----------	medium	72.
Bolivia	----------	----------	----------	medium	92.
Honduras	----------	----------	----------	low	68.
El Salvador	----------	----------	----------	high	73.
Brazil	1890–1920	*39	*39	250	62.[h]
Ecuador	----------	----------	----------	high	80.
Paraguay	----------	----------	----------	102	65.
India	1931	*27	*27	283	91.
Philippines	----------	----------	----------	298	51.
China	----------	----------	----------	400–500	85.
Indonesia	----------	----------	----------	high	92.

[a] England and Wales.
[b] Excluding Maoris.
[c] Data for whites only; for "colored" (generally mixed bloods, not including full blooded Negroes and Indians) as of 1935–37: male 40, female 41.
[d] Not including war losses.
[e] Estimated by Frank Lorimer, "The Population of the Soviet Union" (Geneva, League of Nations, 1946, p. 176).
[f] Census of 1939 relating to persons age 9 or over.
[g] Age 8 or over.
[h] As of 1940: population age 5 and over.

Sources:

The materials on expectation of life at birth are drawn from Population Index, July 1949, compiled chiefly from official life tables. These figures are a conservative statement of the differences between the more advanced and less developed countries since underreporting of deaths in the latter results in an upward bias in the recorded expectation of life. In other words the true expectation of life in underdeveloped countries is generally below that officially recorded.

The tuberculosis mortality data are drawn from Sarah E. Yelton, "Tuberculosis Throughout the World" in Public Health Reports 61 (31): 1144–1160, Aug. 2, 1946. Many of the rates given are estimated or derived from adjusted official data. As the author states "There is serious underregistration of tuberculosis deaths in many countries, particularly those where medical services are not common, and the collection of vital statistics rudimentary." In view of this circumstance many of the rates reported above for such areas are highly tentative.

The illiteracy data are from a study prepared by the Office of Population Research, Princeton University, for the Division of Geography and Cartography, Department of State, 1943–44. In this study literacy is defined as the ability to both read and write: in other words a person stating ability to read but not write is classified as illiterate. The data relate to about 1930. Unfortunately no later compendium on a comparable basis is available.

* Approximate.

APPENDIX C–3. PREWAR FOOD AND CLOTHING CONSUMPTION IN SELECTED COUNTRIES

Country	Daily per capita food supply [a]			Net consumption per head of cotton, wool and rayon [c] (pounds)
	All foods (calories)	Animal proteins (ounces) [b]	Fats (ounces) [b]	
Upper income group (over $200):				
United States	3,098	1.8	4.3	29.01
Germany	2,920	1.3	3.9	13.93
United Kingdom	3,095	1.6	4.3	21.80
Switzerland	3,151	1.8	3.7	17.24
Sweden	3,171	2.2	4.1	18.67
Australia	3,396	2.3	4.5	16.49
New Zealand	3,197	2.2	4.3	16.18
Canada	3,037	1.8	4.2	19.89
Netherlands	2,958	1.3	4.0	19.38
Denmark	3,421	2.0	5.3	16.49
France	2,979	1.3	3.0	15.12
Norway	3,179	1.6	4.2	15.50
Belgium	2,969	1.3	3.4	18.65
Eire	3,349	1.6	3.6	.....
Argentina	2,777	2.2	3.3	16.89
Middle income group ($101–$200):				
Union of S. Africa	2,354	1.2	1.8	.....
Finland	3,016	2.0	3.1	12.35
Chile	2,322	0.8	1.5	.....
Austria	2,918	1.5	3.4	.....
USSR	[d] 2,827	.....	.....	6.70
Italy	2,636	0.7	2.1	8.55
Greece	2,323	0.7	2.6	7.76
Czechoslovakia	2,721	1.0	2.6	12.06
Hungary	2,748	0.9	2.5	8.22
Bulgaria	2,901	0.8	2.0	7.76
Lower income group ($100 and below):				
Cuba	2,626	0.8	1.7	.....
Yugoslavia	3,013	0.7	2.1	7.76
Poland	2,710	0.8	2.2	5.69
Japan	2,230	0.4	0.9	13.71
Venezuela	.....	.....	.....	.....
Egypt	2,469	0.4	1.5	.....
Palestine	.....	.....	.....	.....
Costa Rica	[d] 2,014	.....	.....	.....
Colombia	2,004	0.7	1.5	.....
Peru	1,835	0.5	1.4	.....
Panama	.....	.....	.....	.....
Ceylon	2,059	0.3	1.6	.....
Mexico	1,855	0.7	1.5	.....
Uruguay	2,426	1.0	3.3	16.89
Dominican Republic	[d] 2,130	.....	.....	.....
Haiti	.....	.....	.....	.....

See footnotes at end of table.

APPENDIX C–3. PREWAR FOOD AND CLOTHING CONSUMPTION IN SELECTED COUNTRIES—Continued

Country	Daily per capita food supply [a]			Net consumption per head of cotton, wool and rayon [c] (pounds)
	All foods (calories)	Animal proteins (ounces) [b]	Fats (ounces) [b]	
Lower income group ($100 and below)—Continued				
Nicaragua	.....	.....	.....	.....
Guatemala	.....	.....	.....	.....
Bolivia	.....	.....	.....	.....
Honduras	[d] 2,079	.....	.....	.....
El Salvador	[d] 1,944	.....	.....	.....
Brazil	2,173	1.1	1.8	.....
Ecuador	.....	.....	.....	.....
Paraguay	[d] 2,813	.....	.....	.....
India	1,976	0.3	1.0	4.37
Philippines	1,855	0.7	1.2	.....
China	2,234	0.2	1.4	3.51
Indonesia	.....	.....	.....	.....

[a] Source: The State of Food and Agriculture, FAO, September 1948, pp. 106–7. Average for years 1934–38.

[b] Grams converted to ounces with conversion factor of 1 gram = .0353 ounces.

[c] Source: *World Fiber Survey*, FAO, August 1947, p. 174. Net consumption per head of cotton, wool (clean) and rayon. Average for years 1934–38. Figures of average fiber consumption per head are calculated on a net basis, i.e., domestic fiber production and for trade balances of raw fibers, semi-manufactured goods and manufactured goods, all expressed as raw material weight equivalent. Converted to pounds from kilograms with conversion factor of 1 kilogram = 2.2046 lbs.

[d] Source: Proposals for a World Food Board and Food Survey, FAO, 1946, pp. 35, 37.

APPENDIX C–4. ELEMENTS IN PREWAR ECONOMIC DEVELOPMENT IN SELECTED COUNTRIES

Country	Energy consumed per day (horse-power hours per capita)[a]	Annual freight carried (ton-miles per capita)[b]	Miles railroad (per 1,000 square miles of area)[b]	Motor vehicles (per 1,000 population)[c]	Telephones (per 1,000 population)[d]
Upper income group (over $200):					
United States	37.6	2,977	80	250	148
Germany	17.8	795	253	24	50
United Kingdom	27.1	424	222	53	59
Switzerland	11.0	289	230	18	102
Sweden	18.5	491	60	36	114
Australia	15.4	660	9	125	86
New Zealand	12.6	464	32	167	110
Canada	30.4	2,611	12	125	114
Netherlands	13.9	174	140	18	46
Denmark	11.1	116	196	43	107
France	13.4	604	189	59	37
Norway	20.0	180	20	54	74
Belgium	22.8	578	267	27	47
Eire	10.7	73	98	23	13
Argentina	5.0	671	23	21	27
Middle income group ($101–$200):					
U. of S. Africa	10.1	777	30	37	15
Finland	12.1	508	26	2	2
Chile	10.7	324	20	11	13
Austria	6.5	464	139	-------	41
USSR	6.8	[b]1,134	[b] 14	5	3
Italy	3.9	194	119	11	13
Greece	1.4	20	36	2	5
Czechoslovakia	11.0	492	171	7	9
Hungary	3.6	229	159	2	15
Bulgaria	1.7	218	46	.8	3
Lower income group ($100 and below):					
Cuba	2.6	119	70	11	11
Yugoslavia	2.1	43	72	1	3
Poland	5.6	432	89	1	8
Japan	[e] 6.6	138	102	3	16
Venezuela	5.1	-------	2	10	5
Egypt	1.7	69	9	2	3
Palestine	1.9	77	30	10	12
Costa Rica	1.4	43	22	6	5
Colombia	1.5	12	5	4	4
Peru	1.1	45	4	3	3
Panama [e]	12.3	26	17	23	11
Ceylon	1.4	-------	38	5	0.3
Mexico	2.2	182	19	5	7
Uruguay	3.2	514	26	31	16
Dominican Republic	.5	0.7	8	2	2

See footnotes at end of table.

APPENDIX C–4. ELEMENTS IN PREWAR ECONOMIC DEVELOPMENT IN SELECTED COUNTRIES—Continued

Country	Energy consumed per day (horsepower hours per capita)[a]	Annual freight carried (ton-miles per capita)[b]	Miles railroad (per 1,000 square miles of area)[b]	Motor vehicles (per 1,000 population)[c]	Telephones (per 1,000 population)
Lower income group ($100 and below)—Continued					
Haiti	.4	-------	14	.8	.8
Nicaragua	.7	10	4	.7	1.5
Guatemala	.6	13	17	1	0.7
Bolivia	.3	-------	5	.6	0.9
Honduras	1.4	19	17	1	3
El Salvador	.6	9	30	2	2
Brazil	1.9	94	6	4	5
Ecuador	1.0	18	7	1	3
Paraguay	.6	23	4	2	3
India	.5	60	26	0.3	0.2
Philippines	.6	-------	8	3	1.9
China[f]	.5	17	3	.2	0.5
Indonesia	.4	9	21	1	0.6

[a] Source: *Energy Resources of the World*, published by Department of State, 1949 (pub. 3428), tables 42, 43. Data cover consumption of energy from inanimate sources for 1937 expressed in kilowatt-hours electricity equivalent, after deduction of losses (estimated at 80 percent) in the conversion of fuels to useful heat or power.

[b] Sources: *International Railway Statistics*, International Railway Union (for European countries only), *Foreign Commerce Yearbook*, U. S. Department of Commerce, 1941, *Statesman's Year-Book*, *Universal Directory of Railway Officials and Railway Yearbook*, 1941–1942. Statistics for certain countries were also taken from country statistical yearbooks. Data for 1937.

[c] Source: *Automotive World News*, Department of Commerce, 1940, covers 1939 figures.

[d] Sources: *Statesman's Year-Book*, *Foreign Commerce Yearbook*.

[e] Including Canal Zone.

[f] Excluding Manchuria and Jehol.

[g] 1936 data.

[h] European Russia only.

APPENDIX C-5. AVERAGE YIELDS OF WHEAT, POTATOES, AND RICE IN SELECTED COUNTRIES, 1935-39 a

Country	Average yield per acre in bushels a		
	Wheat	Potatoes	Rice
Upper income group (over $200):			
United States	13.2	117	49.7
Germany	34.6	b 245	. . . . .
United Kingdom	33.8	254	. . . . .
Switzerland	33.1	220	. . . . .
Sweden	35.6	215	. . . . .
Australia	12.9	113	92.0
New Zealand	32.3	232	. . . . .
Canada	12.2	125	. . . . .
Netherlands	45.7	312	. . . . .
Denmark	45.4	253	. . . . .
France	22.8	165	30.0
Norway	29.9	258	. . . . .
Belgium	40.2	305	. . . . .
Eire	34.2	300	. . . . .
Argentina	14.0	71	59.8
Middle income group ($101-$200):			
Union of South Africa	8.3	70	. . . . .
Finland	26.5	228	. . . . .
Chile	16.1	129	99.9
Austria	25.3	204	. . . . .
USSR	11.9	131	42.3
Italy	22.1	97	103.9
Greece	14.0	101	. . . . .
Czechoslovakia	26.2	200	. . . . .
Hungary	22.3	108	. . . . .
Bulgaria	20.5	88	54.8
Lower income group ($100 and below):			
Cuba	. . . . .	122	21.4
Yugoslavia	18.1	85	. . . . .
Poland	22.7	131	. . . . .
Japan	28.8	165	75.8
Venezuela	. . . . .	50	. . . . .
Egypt	31.3	172	71.6
Palestine	6.1	131	. . . . .
Costa Rica	. . . . .	. . . . .	33.4
Colombia	. . . . .	79	. . . . .
Peru	11.5	62	42.8
Panama	. . . . .	60	32.0
Ceylon	. . . . .	. . . . .	. . . . .
Mexico	11.5	66	42.2
Uruguay	11.0	63	66.6
Dominican Republic	. . . . .	24	36.3
Haiti	. . . . .	. . . . .	. . . . .
Nicaragua	. . . . .	. . . . .	. . . . .
Guatemala	. . . . .	41	. . . . .

See footnotes at end of table.

APPENDIX C–5. AVERAGE YIELDS OF WHEAT, POTATOES, AND RICE IN SELECTED COUNTRIES, 1935–39—Continued

Country	Average yield per acre in bushels [a]		
	Wheat	Potatoes	Rice
Lower income group ($100 and below)—Continued			
Bolivia		52	
Honduras			
El Salvador		68	26.9
Brazil	10.5	93	28.6
Ecuador		55	
Paraguay		75	46.0
India	10.7	150	[d] 25.9
Philippines		70	21.6
China	15.3		52.5
Indonesia		[c] 73	32.0

[a] Source—*Foreign Crops and Markets*, Department of Agriculture, volume 58, Nos. 11, 18, 6.
[b] Trizone and U. S. S. R. zone average.
[c] Java and Nunda.
[d] Indian Union.

APPENDIX C–6. INDICATORS OF AVAILABILITY OF TECHNICAL PERSONNEL IN SELECTED COUNTRIES [a]

Country	Physicians [b]			Elementary school teachers [c]			
	Date	Number	Number per 1,000 population	Date	School years covered	Number	Number per 1,000 population
Upper income group (over $200):							
United States	1947	197,605	1.37	1946	8	[d] 606,023	4.29
Germany	1939	47,725	.69	1938	4–8	180,323	2.63
United Kingdom	1947	55,771	1.13	1937	6	194,268	4.11
Switzerland	1947	3,806	.84	1946–47	6–8	13,539	3.01
Sweden	1947	6,360	.94	1943	4–6	26,163	4.03
Australia	1947	7,137	.94	1936	7	[e] 25,623	3.78
New Zealand	1947	1,800	1.00	1947	8	8,266	4.58
Canada	1947	11,901	.95	1949	8	70,000	5.43
Netherlands	1947	8,000	.83	1946	8	38,642	4.10
Denmark	1947	4,250	1.03	1946	4–5	18,517	4.51
France	1947	30,000	.73	1946–47	7	152,869	3.77
Norway	1947	2,900	.93	1942–43	7	11,345	3.80
Belgium	1937	6,682	.80	1937–38	6	47,940	5.73
Eire	1947	2,000	.67	1948	8	12,791	4.23
Argentina	1946	16,900	1.05	1945	6–7	82,809	5.24

See footnotes at end of table.

APPENDIX C–6. INDICATORS OF AVAILABILITY OF TECHNICAL PERSONNEL IN SELECTED COUNTRIES [a]—Continued

Country	Physicians [b]			Elementary school teachers [c]			
	Date	Number	Number per 1,000 population	Date	School years covered	Number	Number per 1,000 population
Middle income group ($100–$200):							
Union of South Africa	1947	4,800	.41	1937	8	12,548	1.28
Finland	1947	1,737	.45	1937–38	6	13,391	3.68
Chile	1945	3,350	.63	1945	6	13,592	2.54
Austria	1936	7,211	1.07	1945–46	8	27,540	3.99
U. S. S. R.	1941	130,000	.76	1939	4	621,633	3.65
Italy	1940	38,983	.87	1945–46	5	153,556	3.41
Greece	1937	6,000	.86	1944	4–6	15,573	2.17
Czechoslovakia	1947	9,300	.76	1945–46	4	31,161	2.31
Hungary	1941	13,274	.97	1946–47	6–8	32,760	3.50
Bulgaria	1947	4,563	.65	1938	7	26,095	4.18
Lower income group ($100 and below):							
Cuba	1944	3,100	.63	1945–46	6	[d] 15,924	3.18
Yugoslavia	1938	4,754	.31	1947–48	7	23,811	1.52
Poland	1946	7,732	.32	1947	[e] 8	73,641	3.10
Japan	1947	67,981	.87	1946–47	6	268,544	3.47
Venezuela	1946	1,749	.41	1946	6	[f] 4,032	.94
Egypt	1947	4,000	.21	1942–43	[g] 5	[h] 28,000	1.58
Palestine	1947	2,677	1.38	----	----	----	----
Costa Rica	1946	190	.25	1944	6	3,436	4.74
Colombia	1946	2,977	.29	1945	4–5	14,198	1.41
Peru	1946	1,343	.19	1944	6	12,971	1.93
Panama	1945	144	.21	1942–43	6	2,232	3.41
Ceylon	1943	928	.15	----	----	----	----
Mexico	1946	11,526	.51	1939	6	46,653	2.40
Uruguay	1946	1,615	.71	1946	6	6,818	2.99
Dominican Republic	1946	425	.20	1944	8	2,813	1.45
Haiti	1946	300	.09	1943	6–8	2,200	.63
Nicaragua	1946	299	.28	1945	6	2,340	2.15
Guatemala	1946	365	.11	1945	6	4,328	1.24
Bolivia	1946	569	.15	1946	6	6,132	1.62
Honduras	1946	130	.11	1942–43	6	1,682	1.45
El Salvador	1946	310	.16	1944	6	3,477	1.81
Brazil	1946	14,591	.31	1941	4–5	83,000	1.97
Ecuador	1946	793	.24	1942	6	3,198	1.03
Paraguay	1946	340	.28	1943	6	3,702	3.34
India	1946	47,500	.12	1948	5–6	[h] 420,000	1.27
Philippines	1941	4,401	.26	1946	7	[f] 33,592	1.76
China	1947	20,000	.04	1945–46	6	785,224	1.73
Indonesia	1938	1,139	.02	----	----	----	----

See footnotes on next page.

[a] *Explanatory Note.*—It is to be emphasized that the data in Appendix C-6 involve serious elements of non-comparability. The data were compiled from a variety of international and national sources and reflect differences in official organization and concepts. Thus, some of the figures for physicians include both retired physicians and doctors in the armed services. Other figures exclude either or both of these categories, and it is not always possible to determine what is actually covered. In less developed countries the definition of what constitutes a "physician" is sometimes nebulous, and there is reason to believe that the figures often include more or less trained personnel who would scarcely qualify as physicians elsewhere. Another element of non-comparability is the different dates to which the materials refer. Thus the comparatively low figure for Germany in 1930 reflects the flight of refugee Jewish doctors, and if postwar information were available the German figure would probably be even lower. Similarly, the outstandingly high figure for Palestine obviously reflects the presence there of refugee doctors from all over Europe. Under the circumstances, specific comparisons between countries must be made with great reservation, though the differences between major groups unquestionably reflect true disparities. If anything, these data are a conservative statement of such differences in view of variation in the quality of medical personnel.

The data for elementary school teachers are equally suspect as regards the precise figures given. As is evident from the table, differences between countries partly arise owing to differences in the number of years of "elementary school" and other differences in the educational systems. It is not always clear whether or not the figures include or exclude private schools, special training schools (e.g., for defective children), adult education at the elementary level, etc. In some countries the materials include only full-time teachers; in others they apparently include many part-time teachers such as in China, where instruction may be of very limited duration and of a rather informal nature. Some non-comparability is introduced by the differences in the dates to which the figures apply. Finally it is recognized that the index would be more accurate if related to children of school age rather than to the total population. Since a far higher proportion of the total population falls in the school ages in countries of lower income, the general comparisons between the major income groups are therefore conservative, quite aside from differences in the quality of instruction.

[b] Basic information on physicians was supplied by the Office of International Health Relations in the U. S. Public Health Service, which compiled the materials chiefly from the *War Department Technical Bulletin* (Medical and Sanitary Data) and for the American republics from information secured from official agencies and medical societies by the Health and Sanitation Division of the Institute of Inter-American Affairs. This basic information was supplemented, wherever possible, by more recent data taken from: World Medical Association, *Draft Report on the Medical Profession in Twenty-Three Countries* (Special Investigation No. 1, New York, 1949). The figure for the Soviet Union is drawn from *American Review of Soviet Medicine*, October 1943. Rates were calculated on the basis of population estimates for the respective dates.

[c] Basic information on teachers was supplied by the Division of International Educational Relations, U. S. Office of Education, from its own publications or from reports of the Ministries of Education or other official agencies of the respective countries. Other sources of information were: *The Statesman's Year-Book*, 1948 (Austria, Eire, Greece, Italy, Netherlands, New Zealand, Poland, Switzerland); *Annuaire International de l'Education et d'Enseignement*, 1939 (Belgium, Bulgaria, Finland, Union of South Africa); British *Year Book of Education*, 1939 (Australia, United Kingdom); *Kulturnoye Stroïtelstvo*, Moscow, 1940, p. 247 (U.S.S.R.). Rates were calculated on the basis of population estimates for the respective dates.

[d] Estimated by the Office of Education, Federal Security Agency.

[e] Public schools only.

[f] Half days.

[g] Rough estimate.

[h] After separation of Pakistan.

Appendix D—Efforts to Meet the Need

A considerable number, volume, and variety of efforts have been and are being made by private, governmental, and international agencies to meet the needs of and to rectify the conditions in the underdeveloped countries which have been illustrated above. The work which these agencies have done is the foundation for activities proposed under the Point Four Program and therefore valuable for a full understanding of the proposed program.

PROGRAMS OF INTERNATIONAL AGENCIES

United Nations and Specialized Agency Projects

The Charter of the United Nations calls upon that organization to promote high standards of living and conditions of economic progress and development. The Charter confers on the United Nations powers to take action to accomplish these results.

It has become increasingly apparent that the "underdeveloped" countries, which comprise the great majority of the membership of the United Nations and the specialized agencies, give economic development high priority among their national aspirations and are seeking assistance in the achievement of this purpose from the international organizations. Many of the members of the United Nations are more intimately concerned with this aspect of United Nations work than they are with its political aspects.

In the field of economics, the United Nations itself has direct international responsibility to act in such fields as industrial and mineral development, general statistics, and public administration, in which there has not been established any specialized agency charged with responsibility for assisting member governments in technical problems and technical training. In most of the other economic fields, specialized agencies have been set up which have specific responsibility for assisting their members in technical problems. Accordingly, in these cases, the United Nations functions are in the nature of coordinating the work done by the agencies, filling in gaps, and organizing joint efforts. Thus the economic development mission organized and sent to Haiti by the United Nations in the fall of 1948 was made up in

part of specialists from the United Nations and in part of specialists delegated for the task by the agencies, including the International Monetary Fund, Food and Agriculture Organization (FAO), World Health Organization (WHO), and United Nations Educational, Scientific and Cultural Organization (UNESCO), all of which supplied experts in their respective fields.

The United Nations has also been active in the social welfare field. It has sent out consultants to advise governments and has granted well over a hundred fellowships in this field each year since 1946. It has done advisory work on housing problems.

The work of the specialized agencies may be considered separately from that of the United Nations itself. The United States is a member of each of these agencies and participates actively in their work.

One of the most active agencies in rendering technical assistance has been the Food and Agriculture Organization. FAO attacks the basic agricultural problem by sending experts to diagnose the methods used in underdeveloped countries and advise their governments on what changes should and can practically be made, organize demonstrations in the field to show what can and should be done, and arrange training programs. The FAO Mission to Thailand, which analyzed the agricultural and forest resources of Thailand, and advised the government on how to improve present techniques; the FAO training programs on technical problems, which demonstrated in Europe modern methods of artificial insemination, food refrigeration and storage, and hybrid corn development; and the laboratories established in Asia for production of vaccine for rinderpest are typical of the many enterprises which it has undertaken in a great many underdeveloped areas.

The World Health Organization has similarly been active in spreading technical knowledge. WHO's prime function has been to assist governments in the development and strengthening of permanent national health services and in the prevention of the international spread of disease. It has done this by advising governments on problems of organization and administration and, at the same time, by actually assisting them with the solution of specific health problems. It has given priority, in its over-all planning, to programs aimed at the control and possible eradication of diseases such as malaria, tuberculosis, and the venereal diseases, the effects of which are world-wide and which can be attacked most effectively on an international basis. It is also concerned with programs for the improvement of maternal and child health, nutrition, and environmental sanitation, and for the modernization of international quarantine regulations.

UNESCO has been active in promoting fundamental education and the spread of scientific knowledge, as well as in advising on the improvement of national educational systems from the elementary schools

through the universities. General education and training of scientists are essential parts of the foundations of sound economic development. An important technique used by UNESCO in its world-wide campaign against illiteracy is the training conference, attended by education officials and teachers from a number of countries for the study of teaching methods and materials. Another technique is the Advisory Commission of educational experts from a number of countries, which is sent to survey the educational system of a country at its request and to recommend steps for its improvement. UNESCO has also established four regional scientific information offices which help the scientists of underdeveloped countries to keep in touch with scientific and technical advancements in other countries. These and similar activities are further supplemented by the award of training fellowships to a few outstanding, mature students from underdeveloped countries.

The International Labor Organization (ILO) has made substantial contributions to the improvement of working and living standards throughout the world and is now devoting increasing emphasis to practical operating programs concerned with manpower problems. Through the ILO, standards based on world experience and opinion have been developed in such fields as manpower, freedom of association, social security, vocational training, labor statistics, and problems relating to the employment of women and children. The ILO provides technical service to members with respect to the development and better utilization of skills urgently needed in less developed areas. Vocational and on-the-job training, the organization of employment services, and migration are examples of such services. The ILO also is able to place at the disposal of less developed areas experience of more advanced countries with respect to industrial safety and the entire scope of labor standards and practices and statistics.

The effective work done by these agencies in their fields of responsibility is matched by other specialized agencies in theirs. The International Monetary Fund assists its members in the improvement of their fiscal administrations and advises them as to measures for improving their balance-of-payments positions. The International Civil Aviation Organization (ICAO) has responsibility for establishing uniform standards and recommended practices for safety of air navigation throughout the world. It assists member governments in the installation and maintenance of facilities essential to safety of air navigation throughout the world. The International Telecommunication Union (ITU) helps member states improve their communications systems.

The International Bank for Reconstruction and Development is playing an important role as a source of capital for economic development and will probably play an increasingly important role in the

future. In connection with its study of possible loans the Bank also provides technical assistance to countries in the assessment of their development potentialities, advice as to their optimum lines of economic development, and advice as to means of improving their credit standing.

Projects undertaken by the United Nations and the specialized agencies in the field of technical assistance have not in all cases been accounted for under that heading. It is therefore difficult to state exactly the cost of the projects which have been undertaken. In addition, the work of some of the agencies in technical assistance has been a minor part of projects of broader scope and cannot be estimated satisfactorily. Estimates can be made, however, with sufficient accuracy to give a close indication of the funds spent by the agencies carrying out substantial projects in this field. Such estimates are set out in table XII.

TABLE XII. SCHEDULED EXPENDITURES FOR TECHNICAL ASSISTANCE PROGRAMS OF THE UNITED NATIONS AND SPECIALIZED AGENCIES IN UNDERDEVELOPED AREAS, 1949

Agency	
United Nations	$564,520
Food and Agriculture Organization	[1] 1,250,000
International Labour Office	[2] 450,000
World Health Organization	1,100,000
United Nations Educational, Scientific and Cultural Organization	1,046,750
TOTAL	$4,411,270

[1] Includes projects financed from UNRRA funds which will be exhausted in 1950.
[2] Some of these funds will not have been spent in strictly underdeveloped areas.

Organization of American States Projects

In the Latin American area, the Organization of American States (OAS) has a substantial history of successful international cooperation in technical assistance through the international system of the American republics. The Pan American Sanitary Bureau, for example, has been an agency for technical cooperation among all the American republics since its creation in 1903. The Inter-American Institute of Agricultural Sciences, under the Council of the OAS, has already been carrying on projects of research and experimentation at its field headquarters in Turrialba, Costa Rica, looking toward the improvement of crops and agricultural practices in the Americas. The geographical sciences, which are inextricably involved in the development of natural resources, have been promoted on an inter-American basis by the Pan American Institute of Geography and History. The Pan American Union itself, for over 20 years, has been

engaged in administering and promoting a variety of cultural exchanges among the countries of the hemisphere, including exchanges of academic and technical personnel and of technical publications. Finally, the Inter-American Economic and Social Council has been discharging its responsibilities for facilitating and promoting cooperation among all the American republics for their economic and social development, through the work of an expert staff.

Caribbean and South Pacific Commissions

Two intergovernmental regional bodies, the Caribbean Commission and the South Pacific Commission, have been operating as consultative and advisory agencies to their member governments on economic and social matters relating to their dependent territories in the Caribbean and South Pacific regions.

The primary objective of these two Commissions has been to promote scientific, technological, and economic development by facilitating the use of resources and research on a cooperative basis, surveying needs, and avoiding duplication in the work of existing research agencies. These Commissions concern themselves with agriculture, communications, transport, education, fisheries, health, housing, industry, labor, social welfare, forestry, marketing, production, trade, finance, and public works. While neither of these Commissions has an organic relationship with the United Nations, both cooperate with the United Nations and its specialized agencies on matters of mutual interest.

UNITED STATES PROGRAMS

Summary

U. S. participation in international technical cooperation activities on a bilateral basis has been concentrated primarily in Latin America and the Philippines. Activity in Latin America has represented a U. S. effort to fulfill various inter-American resolutions and conventions agreed upon in conferences, particularly those in 1936, 1938, 1945, and 1948. Action was initiated in 1938 with the passage of Public Law 545, 75th Congress, which authorized the temporary detail of U. S. employees to the Governments of American republics, the Philippines, and Liberia. This act was amended by Public Law 63, 76th Congress, on May 3, 1939. Public Law 355, 76th Congress (1939), authorized the use of government agencies to carry out cooperative enterprises based on inter-American agreements. In May 1939 the President created a committee which was known as the "Interdepartmental Committee on Cooperation with American Republics" for the purpose of implementing cooperative projects with the Americas. It

began operation with a modest budget of $370,500 in fiscal 1941. Today the Committee is called the Interdepartmental Committee on Scientific

TABLE XIII. PARTICIPATION OF THE UNITED STATES IN TECHNICAL COOPERATION IN THE AMERICAN REPUBLICS THROUGH AGENCIES OF THE INTERDEPARTMENTAL COMMITTEE ON SCIENTIFIC AND CULTURAL COOPERATION FROM JULY 1, 1940 TO DECEMBER 31, 1948

	Assignments of U. S. Government experts	Foreign trainees brought to the United States	Amount obligated
Cooperation in Agriculture	885	202	$5,698,599
Cooperation in Public Health	156	198	787,286
Cooperation in Industry, Labor Resources, Government Services:			
(a) Statistical Services	45	120	739,583
(b) Railway Transportation	1		5,979
(c) Highway Transportation		1	995
(d) Civil Aviation	63	1,021	2,193,188
(e) Industrial Training		79	130,765
(f) Women's Employment	9	16	75,159
(g) Labor Standards	1	17	70,389
(h) Geologic Investigations	117	18	832,387
(i) Mining and Metallurgy	20	1	136,643
(j) National Income and Balance of Payments Research	2	16	42,788
(k) Industrial Research and Standardization	2	23	53,715
(l) Tariff Research and Administration		8	41,767
(m) Public Administration		35	134,395
(n) Telecommunications Regulations		3	8,600
(o) Weather Investigations	18	65	711,573
(p) Tidal Observations	82		61,524
(q) Magnetic and Seismological Observations	84		157,572
(r) Fishery and Wildlife Resources	30	27	343,730
Cooperation in Social Welfare:			
(c) Child Welfare	58	19	385,610
(b) Social Security		14	22,630
Cooperation in Education:			
(a) Exchange of Students		[1] 1,744	2,563,090
(b) Exchange of Professors and Specialists	[2] 265	[3] 558	1,588,270
(c) Aid to U. S.-Sponsored Schools in Latin America			965,825
TOTAL AMOUNT OBLIGATED			$17,752,062

[1] Includes U. S. students sent to Latin America as well as Latin American students brought to U. S.
[2] U. S. professors and specialists to Latin America.
[3] Latin American professors and specialists to U. S.

and Cultural Cooperation. At one time or another, some twenty Federal Departments and agencies have conducted programs under this Committee. It now operates under Public Law 402, 80th Congress, which authorized activities in the Eastern as well as the Western Hemisphere, and also continues to operate under Public Law 355, 76th Congress, since this act was not rescinded. Its fiscal year 1949 budget of $4,100,000 covers activities in the Western Hemisphere only. From 1940 through December 31, 1948, the U. S. Government spent $24,947,240 on activities under the Committee, of which $17,952,062 were directly related to economic development programs (table XIII).

During the war period (1940–1946) the Office of the Coordinator of Inter-American Affairs carried on emergency programs aimed at improving the basic economy of the Americas, with long-range action programs in health and sanitation, food supply, and education. This program was based on a resolution of the conference in Rio de Janeiro in 1942.

The Office of the Coordinator of Inter-American Affairs was terminated in 1946 and its functions in the field of technical cooperation transferred to the Department of State. In 1947, Public Law 369 authorized the Institute of Inter-American Affairs to carry on its program in basic economy for three years. The sum made available for expenditure in the field by the U. S. Government for cooperative action programs of the Institute of Inter-American Affairs and its predecessors relative to economic development from 1940 through December 31, 1948 will total approximately $58,953,000 by the end of fiscal year 1949. (Table XIV.)

TABLE XIV. PARTICIPATION BY THE UNITED STATES IN TECHNICAL COOPERATION IN THE AMERICAN REPUBLICS THROUGH THE INSTITUTE OF INTER-AMERICAN AFFAIRS AND PREDECESSOR AGENCIES

CUMULATIVE ESTIMATE OF FUNDS FOR FIELD PROGRAMS 1940 TO JUNE 30, 1949

Program	Expenditure
Health and Sanitation	$46,443,000
Agriculture	9,008,000
Education	3,502,000
	$58,953,000

Funds were made available from the President's Emergency Fund during the war period for the exchange of specialists with a number of Far Eastern, Near Eastern, and African countries. Many of these specialists worked in fields directly involved in economic development.

Technical cooperation activities have been carried out in the Philippines since 1946 under the authority of Public Law 370, 79th Congress. Eight U. S. agencies have been operating in the Philippines, carrying out construction programs, extending technical and scientific advice, and training Filipinos both in the United States and in the Philippines.

It is contemplated that 700 Filipinos will have been provided training in the United States under the Act, which expires June 30, 1950. Of that number 164 had, as of December 31, 1948, received their training and were back in the Philippines in the service of their country, 209 were in the United States receiving training, and arrangements were being made to bring to the United States the remaining 345.

The educational exchanges made possible by the Fulbright Act (Public Law 584, 79th Congress) include many students, professors, and research scholars in fields contributing directly to economic development. Under this Act, local currency funds or credits secured from the sale of United States surplus war property may be used to cover travel, maintenance, and other local currency expenditures within the cooperating country, both for United States citizens and for citizens of countries that have signed agreements under this Act.

The Economic Cooperation Administration has carried on technical assistance activities in a number of countries as a part of its economic recovery programs. Similarly, technical assistance has been an incidental but significant part of the Greek-Turkish Aid Program. The Department of the Army has provided such assistance in the occupied areas as a part of its effort under Military Government to help such areas become self-supporting.

The greatest number of United States technical cooperation programs have been in Latin America. These have been carried out by the Institute of Inter-American Affairs and by a number of departments and agencies of the Government working through the Interdepartmental Committee on Scientific and Cultural Cooperation. Although a part of these programs were in cultural fields outside of the field of economic development, a substantial portion of the programs were directly related to economic progress in the countries involved. The principal programs conducted under the auspices of the Interdepartmental Committee and the Institute of Inter-American Affairs are enumerated below.

Cooperation in Agriculture

The economy of the countries of the Western Hemisphere outside of the United States is predominantly agricultural. In spite of this fact, many countries have difficulty providing enough food for their populations. This condition was particularly serious during the recent world war. For this reason technical cooperation in agriculture has been one of the primary programs carried forward by the United States with other American republics.

Since 1942 the U. S. Department of Agriculture has been working cooperatively with ministries of agriculture of the other republics on their agricultural problems. The cooperative program generally has

been carried out by advising and working with the ministries of agriculture, other national and local agricultural officials, and the schools and colleges; by establishing and maintaining joint cooperative agricultural experiment stations; by training Latin Americans in the United States and in the other countries; and by making available technical information regarding scientific and administrative developments in the United States, as well as in the other American republics.

At the present time, the Department of Agriculture is cooperating with 15 other American republics in the operation of agricultural stations or in conducting specific projects at stations of the cooperating governments. The countries involved are Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, and Peru. More than 200 research and demonstration projects are currently in progress under this cooperation program. Research in rubber is proceeding in all cooperating countries. Studies are also being made of coffee, fibers, rotenone crops, mahogany and other woods, essential oil crops, tea, vegetable oil crops, and others.

Cooperative work is not limited to research. About 300 articles have been written, and very extensive work has been done in developing extension services which will carry modern agricultural techniques to the farmers. In addition, from the beginning of the program Latin Americans have been trained in the United States under the training program of the Department of Agriculture.

Funds for agriculture cooperation, exclusive of that carried out by the Institute of Inter-American Affairs, have increased from approximately $40,000 in 1942 to approximately $1 million in 1948. The total expenditure up to December 31, 1948, was $5,698,599. (Agriculture collaboration $3,821,978; Rubber development $1,876,621.)

The program of the Institute of Inter-American Affairs was initially concentrated on increasing the production of food crops urgently needed for local consumption. In general the projects of the Institute involve (*a*) demonstration of improved methods of soil conservation and cultivation, (*b*) assistance in obtaining seeds and fertilizers, (*c*) strengthening of agricultural education, (*d*) assistance in food storage and marketing, and (*e*) training.

The programs are carried out under agreements which provide for the establishment of a cooperative service (called a *servicio*) within the ministry of agriculture of the host government. Both governments contribute funds, materials, services, and facilities.

Since 1942, food-supply programs have been carried on in ten countries, in four of which joint activities are still in operation. In Brazil, Honduras, Panama, Venezuela, El Salvador, and Nicaragua activities have been terminated. In Haiti, Paraguay, Peru, and Costa

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Rica work is still progressing. Training in the United States has been provided for about 200 agriculturists. From 1942 through fiscal year 1949, the U. S. Government will have spent about $9,008,000 in the food-supply program of the Institute of Inter-American Affairs.

Cooperation in Public Health

Cooperation in improving health in the Western Hemisphere is being carried out by the Pan American Sanitary Bureau, established in 1902. The U. S. Public Health Service has cooperated with this Bureau through additional services supplementary to the contribution the U. S. makes to the regular budget of the Bureau. This assistance has included advisory service in public health, in fields such as water supply and infectious diseases, and in training in the U. S. Between 1940 and December 31, 1948, experts were detailed on 156 assignments in the other American republics, and 198 Latin Americans were given training in the U. S. For this purpose the U. S. Government expended $787,286.

The joint health programs of the Institute of Inter-American Affairs have the objective of elevating the health standards in the hemisphere. By the end of fiscal year 1949 the United States will have obligated $46,443,000 for this work, including certain construction and equipment costs in addition to expenses for personnel. There are now about 8,000 physicians, sanitary engineers, nurses, other technical personnel, and unskilled workers employed in cooperative health programs; some 120 of the cooperating technicians are from the United States.

The governments that have been participating in this joint work since March 1942 are Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. Operations are continuing in all these countries except Costa Rica, Dominican Republic, Nicaragua and Panama.

In the cooperative health program there are over 550 projects or activities under way. These include:

1. Training of health workers locally and in the United States. Over 5,000 persons have been given instruction
2. Improving health facilities through the construction of hospitals, health centers, et cetera
3. Improving sanitation through construction of water-supply and sewage systems
4. Field and laboratory study of health problems
5. General health education

Cooperation in Industry, Labor, Resources, Government Services, Etc.

(*a*) *Statistical Services.* The need for better statistical information about the principal elements of the economy of the Western Hemisphere has long been recognized. The first Inter-American Demographic Congress, which met in Mexico City in 1943, approved in principle the basic plan elaborated by the Inter-American Statistical Institute, providing for a census of the American continents during the years 1950 and 1951. In January 1946 the Institute appointed a committee composed of an officially designated technician from each country, which has been working toward the development of procedures and standards to be used in taking the 1950 Census of the Americas. Through the Interdepartmental Committee on Scientific and Cultural Cooperation, the United States Government has for the past four years been aiding in the cooperative preparations necessary for the taking of the 1950 Census. Under the leadership of the Bureau of the Census a coordinated program has been conducted by that Bureau, the Bureau of Agricultural Economics of the Department of Agriculture, the National Office of Vital Statistics of the Federal Security Agency, and the Bureau of Labor Statistics of the Department of Labor.

The objectives of the program are to give technical assistance in connection with other statistical work as well as with the 1950 census.

To implement the program United States statistical agencies have sent one or more consultants to each of the other American republics. Training grants have been made to over 100 technicians.

Since fiscal 1943 there has also been a program in the field of vital statistics with the objective of fostering greater comparability of statistics in the hemisphere. The total spent for technical cooperation in statistical services through December 31, 1948, was approximately $739,583. Consultants have been detailed to 11 countries for this program. Trainees from 15 countries have had instruction in the United States.

(*b*) *Railway Transportation.* The Office of the Coordinator of Inter-American Affairs began a cooperative program with the other American republics in 1942 with the objective of putting the railways of the American states in good operating condition. Experts were sent to Bolivia, Colombia, and Ecuador. The most extensive program was in Mexico, where approximately $6,700,000 was spent. Operating railway executives and personnel from six countries were trained in the United States.

The Office of International Trade of the Department of Commerce continued the Colombia mission after taking over from the Office of

the Coordinator. At the present time, however, the United [illegible]s not paying for any technical cooperation projects in this fi[illegible]

(*c*) *Highway Transportation.* Cooperative projects in [illegible]y transportation were also initiated by the Office of the Coordinator of Inter-American Affairs. Surveys of transport needs were made in Mexico, Paraguay, Colombia, Peru, Venezuela, Ecuador, and Brazil. Forty-three highway specialists from 13 countries were brought to the United States to observe American equipment and methods.

(*d*) *Civil Aviation.* The program of cooperation in civil aviation was begun in 1941 as part of the means to secure the defense of the Western Hemisphere. In fiscal 1944 it became part of the program of the Interdepartmental Committee on Scientific and Cultural Cooperation. From 1941 through December 1948 approximately $2,193,188 from Scc funds was spent for this program by the United States.

The program was first designed to train pilots and mechanics, and training was later extended to administrative and other personnel. During the nine years of the program there have been 1,021 training grants to persons from all of the American republics. Expert assistance on various aviation matters has also been provided to Mexico, Brazil, Colombia, Peru, Chile, Costa Rica, Ecuador, and Venezuela.

(*e*) *Industrial Training.* A program was started in 1941 to give Latin Americans practical experience in specialized lines of United States industry. Training was provided by United States private firms. The Office of the Coordinator of Inter-American Affairs spent $275,000 on the program, which brought 229 young men from all of the other American republics to the United States. With the end of the war, the program was transferred to the Department of State, which awarded 72 grants in 1946 and 1947. The Department assisted in the initiation of almost 100 projects by private firms. In fiscal 1948, administration of the program was transferred to the Department of Commerce. During the current fiscal year this program is being administered by the Bureau of Apprenticeship in the Department of Labor, and $22,500 is being expended for this purpose in fiscal year 1949.

(*f*) *Women's Employment.* A part of the program for cooperation with the American republics on special welfare problems is carried out by the Women's Bureau. In 1947 an expert advised with the Division of Women and Children, National Department of Labor, on working conditions of women in Chile. In 1948 an expert worked with the Office of Women and Children, Department of Labor, in Mexico on problems of industrial home work. In 1945 and 1946 two series of lectures on the employment of women and labor legislation in the United States were given in Uruguay and Mexico. Two survey trips to seven South American countries have been made. Sixteen experts from Brazil, Chile, Colombia, Cuba, Mexico, Peru, and Venezuela

have received special training in the United States. Informative materials have been distributed. The United States Government made a total expenditure of $75,159 on the program from January 1941 to the end of 1948.

(*g*) *Labor Standards.* The United States Government has cooperated with the other American republics and other countries in demonstrations of proved methods of effective administration of labor laws and safety standards including the reduction of work hazards in industry, contributing to increased industrial output with equitable benefits to workers. Since 1946 the Bureau of Labor Standards has sent technical consultants to Argentina, Brazil, Chile, Mexico, Peru, and Uruguay. A training program for personnel responsible for accident prevention was organized in Uruguay by one of the consultants and assistance in child-labor administration was rendered to Mexico by another consultant. The training program for government officials from other countries includes observation of State safety and labor-law administration. Since the beginning of the fiscal year 1946, officials from Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Guatemala, Peru, and Mexico have participated in the training program. The United States Government has spent $70,389 on this program during 1948.

(*h*) *Trade-Union Activities and Interrelations between Labor, Business, and Government.* In a program not under the Scc but of a related kind, the Department of Labor has administered for the Department of the Army and the Department of State during 1949 a program of observation in the United States for about 60 trade-unionists and other labor specialists from Germany. Similar programs are now in the final stages of planning for Latin American, Austrian, and Japanese visitors. The German visitors have been given an opportunity to observe the operations of labor unions and the interrelations between labor, business, and Government in the United States. After receiving general orientation from the national headquarters of trade-unions, national management organizations, and Government representatives, they have observed the work of the trade-unions and other democratic organizations at the "grass roots" levels. Through cooperative relationships with local trade-unions and other organizations, they have had close association with American workers in their unions, on their jobs, and in their homes, and have thus learned, through firsthand contact with the American people, the role that trade-unions and the individual play in the economic, social, and political processes of the U. S. democracy. Through such observations the foreign trade-unionist or labor specialist becomes better equipped to strengthen the democratic processes in labor and other affairs in his country and thus contribute to, and safeguard, sound economic development.

(*i*) *Geologic Investigations.* The United States share in cooperative geologic appraisals of mineral deposits in the American republics has been conducted by the Geological Survey of the Department of the Interior since fiscal year 1941. The results of these investigations have been published in a bulletin series entitled "Investigations in the American Republics". Investigations of particular mineral resources have been made in Argentina (tungsten), Chile (mercury and tungsten), Cuba (chrome and manganese), Haiti (manganese). More general surveys have been completed for the Dominican Republic, Ecuador, and Peru, and intensive work covering many minerals has been carried out in Brazil and Mexico. From the fiscal year 1941 through December 31, 1948, approximately $832,387 was spent by the United States on these projects.

(*j*) *Mining and Metallurgy.* Cooperative work in mining and metallurgy was initiated with Brazil in 1942 by the Foreign Economic Administration. This work was continued by the Bureau of Mines when it entered the program of the Interdepartmental Committee on Scientific and Cultural Cooperation. Projects have also been undertaken with Bolivia (tin mining), Mexico and Peru. From 1943 to December 31, 1948, approximately $136,643 was spent on these projects.

(*k*) *National Income and Balance-of-Payments Research.* The Office of Business Economics of the Department of Commerce has cooperated with Venezuela and Colombia in the development of techniques for estimating national income and international balance of payments. On-the-job training in Washington has been extended to 31 technicians from Costa Rica, Mexico, Paraguay. For this purpose the United States Government expended $42,788 through December 1948.

(*l*) *Industrial Research and Standardization.* Since 1945 the National Bureau of Standards has had many cooperative working relations with Latin American scientists and students in industrial standardization techniques, measurements, and research. Beginning in 1947 a training program has been financed by the Interdepartmental Committee on Scientific and Cultural Cooperation, and $53,715 has been spent on the program. Thirty trainees from Brazil, Chile, Colombia, Mexico, and Uruguay have participated.

(*m*) *Tariff Research and Administration.* The United States Tariff Commission since 1939 has detailed staff experts to Venezuela, Paraguay, and Panama. Eight trainees from 11 countries have been given courses by the Commission at a cost of $41,767.

(*n*) *Public Administration.* As part of the cooperative program with other American republics, the Bureau of the Budget provides opportunities for Government officials from the American countries to obtain advanced study in universities and practical training in public administration. Over 35 Latin American officials have received train-

ing through the Bureau of the Budget at a cost to the United States of $134,395. Many of such trainees now have important positions with their governments and with international organizations.

(*o*) *Telecommunications Regulations.* The Federal Communications Commission has conducted training projects with the other American republics in the field of government regulation of telecommunications. Nationals from Chile, Cuba, Brazil, and Mexico have been trained for a short period of time, and two one-year fellowships have been provided. The cost to the United States has been $8,600.

(*p*) *Weather Investigations.* Since 1942 the Weather Bureau has cooperated with the national meteorological agencies of Cuba and Mexico in operating radio code stations in those countries. Pamphlets on meteorological subjects have been translated into Spanish. Meteorological classes have been held in New Orleans and in Medellín, Colombia. Since 1942, 83 students have received training in the United States. (Funds spent by the United States: $711,573.)

(*q*) *Tidal Observations.* The Coast and Geodetic Survey began in 1941 a cooperative program with the other American republics to establish and maintain tidal-observation stations. Stations are now maintained in Mexico, Cuba, Costa Rica, Peru, and Chile. The cost to the United States of these stations was $61,524, up to December 31, 1948.

(*r*) *Magnetic and Seismological Observations.* The Coast and Geodetic Survey has also cooperated with the other American republics in accumulating and studying magnetic information. Expert seismologists have been detailed to work with and coordinate the activities of technicians in other countries. Seismographs have been installed at Santiago, Lima, Quito, Bogotá, San José, and Guatemala City. In 1944 a training program was initiated and 101 Latin Americans have received training in geodetic survey, map and chart production, and hydrographic surveying. From 1941 through December 31, 1948, $157,572 was expended for these programs.

(*s*) *Fishery and Wildlife Resources.* The development, conservation, and management of the fishery resources of the American republics have been greatly aided by a cooperative program initiated by the Fish and Wildlife Service in 1941. Modern methods of catching, preserving, and marketing fish have been introduced. Surveys and investigations of fishing reserves have been made in Chile, Guatemala, Mexico, Peru, and Venezuela. Twenty-seven representatives of 11 countries have come to the United States to obtain instruction and training in various branches of fishery science. From 1941 through December 31, 1948, $343,730 was expended on these programs.

Cooperation in Social Welfare

(*a*) *Child Welfare.* The cooperative program of maternal and child welfare has been administered by the Children's Bureau, Federal Security Agency. In Paraguay and the Dominican Republic, the cooperative work has been concerned with the organization of national services in maternal and child health and welfare; in Bolivia, with drafting children's legislation. Nutrition specialists have visited Argentina, Brazil, Guatemala, Mexico, Paraguay, Peru, and Uruguay. Consulting services in connection with the development of schools of social service or training courses in social work have been provided in Argentina, Brazil, Costa Rica, Cuba, Ecuador, and Peru. A special training course for aides in child welfare was organized in Brazil. Since the training grant program was initiated in the fiscal year 1942, 19 specialists have come for study in the United States from Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Haiti, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Hungary. From 1941 to the end of 1948, approximately $385,610 was expended for the cooperative services of the Children's Bureau.

(*b*) *Social Security.* A program of cooperation with other American republics was initiated under the leadership of the Social Security Administration by the First Inter-American Institute on Social Security, held in Washington in June 1947. Nine American republics were represented at the Institute: Costa Rica, Cuba, El Salvador, Guatemala, Haiti, Honduras, Mexico, Panama, and the United States. The Institute covered such topics as old-age and survivors' insurance, unemployment insurance, public assistance, etc. A training program was begun and 14 trainees from Guatemala, Panama, Argentina, Chile, Mexico have studied various aspects of the problem. The cost to the United States totaled $22,630 through 1948.

Cooperation in Education

Several large and important programs of cooperation with the other American republics have been in educational fields. The objective of these programs has been to promote mutual understanding and the interchange of culture, and to improve education for the purpose of economic development. Some programs have been related to this latter purpose more directly than others.

(*a*) *Exchange of Students.* The Office of Education, Federal Security Agency, administers the United States Government program for exchange of students with the other American republics through the Institute of International Education in New York, to which a yearly grant of funds is made. From 1940 through 1948 there were 1,744 Latin American students who came to study in the United States

with the financial assistance of the United States Government. The students awarded grants under this program have been graduate students. A great many of these students have concentrated on fields such as agriculture, biology, dentistry, education, engineering, and medicine, etc., which are directly related to economic development. The cost of this program to the United States Government through 1948 was $2,563,090.

(*b*) *Exchange of Professors and Specialists.* A program for exchange of Latin American and United States professors, leaders and specialists, which was begun in the fiscal year 1941, has been administered by the Division of Exchange of Persons, Department of State. Since 1940, 524 distinguished leaders and specialists from 20 other American republics have been awarded grants by the United States Government for professional visits to the United States. These specialists, together with a large number of others who have been guests of other departments, have included persons in many fields related to economic development, and the opportunity to learn American institutions and developments has aided them in their work at home. Since the fiscal year 1941, 68 United States specialists have received grants to visit other American republics: 197 professors have been given grants to conduct regular classes and lectures in Latin American universities and other institutions of higher learning. From fiscal 1941 through December 31, 1948, the United States spent $1,588,270 on this exchange program.

(*c*) *Cooperation with Latin American Schools.* A cooperative program in vocational, rural, and secondary education has been carried on since 1943 by the Inter-American Educational Foundation, Inc., established by the Coordinator of Inter-American Affairs, and continued by his successor, the Institute of Inter-American Affairs. The objectives of this program are to raise the general levels of education and literacy standards in all the American republics, and to provide healthy, well-trained workers and technicians for their expanding industrial enterprises. To achieve these objectives it has been necessary to emphasize the training of teachers and to develop instructional materials which would satisfy local needs.

From 1943 through fiscal year 1949 $3,502,000 was provided for this program by the United States.

The program has been carried on under bilateral agreements signed with Bolivia, Brazil, Costa Rica, Dominican Republic, Ecuador, El Salvador, Nicaragua, Panama, Paraguay, and Peru. The programs now in operation differ among countries in order to meet local needs and wishes.

In Brazil, Panama, Paraguay, and Peru the cooperative program is primarily vocational. In Brazil, which has the most varied program, activities include industrial education training for all types of teach-

ers; shop organization and management and safety education; development of instructional material and visual aids; specialized equipment and technical books for school libraries; surveys of industrial skills; job analyses; and organization, operation, administration, and supervision of industrial education on the national and local levels.

A type of program concerned with the training of rural school teachers was developed in Costa Rica, El Salvador, Guatemala, Haiti, and Honduras. In Guatemala, Haiti, and Honduras pre-service training programs were developed in rural normal schools; and in Costa Rica and El Salvador in-service training programs were developed. Training in the United States has been given to a number of Costa Ricans, Haitians, Hondurans, and Salvadorans.

A program of rural and agricultural education is now in operation in Bolivia, Ecuador, and Guatemala. Essentially this is a community school program directed toward the solution of community problems of agriculture, health, and sanitation. New rural school centers have been established, teaching training reorganized, and the curriculum adapted to actual conditions in rural communities.

PROGRAMS OF PRIVATE AGENCIES

Private United States agencies, both non-profit and profit, have long carried out programs contributing to the process of economic development in other countries. For many years non-profit organizations and institutions such as religious societies, colleges, and foundations have contributed to the advancement of health, education, and agricultural and industrial productivity in underdeveloped areas.

Some of the foreign-mission organizations have been providing technical assistance in virtually every part of the world. At the present time they are operating hundreds of projects in fields of education, health, and agricultural methods. They have conducted extensive research and projects designed to increase the output and the standard of living in underdeveloped areas. Such undertakings, under the direction of both Protestant and Catholic groups, are in existence in Asia, Africa, and certain parts of the Western Hemisphere. Certain Jewish organizations have elaborate training schools throughout Europe where vocational training is taught Jewish displaced persons and refugees.

The activities of these organizations range all the way from elementary education—the teaching of the Three R's—to operating universities, hospitals, and agricultural projects. The overseas work of the Christian Medical Council illustrates the widespread geographical compass of the activities of some of these organizations. It carries on medical activities in China, India, Iran, Manchuria, Syria, Iraq,

Guatemala, Egypt, Liberia, Nigeria, Congo, Colombia, Palestine, Thailand, Java, Formosa, Korea, Japan, and Brazil. In addition to its activities in the field, this organization also helps to orient doctors and nurses from abroad in courses of study and hospital residences in the United States and has the machinery for placing its furloughed missionaries in appropriate places for graduate study and hospital experience.

Among the non-sectarian institutions, organizations like the American-Scandinavian Foundation have for 25 years been carrying on a program of training foreign nationals through such activities as training in industry in the United States. During the past two years this organization has aided more than 500 persons from Scandinavia and Iceland to pursue industrial and scientific training in the United States.

The Rockefeller Foundation has been active on a very wide scale over the decades in assisting public-health units abroad in research and control work, particularly in yellow fever and malaria. Its support of education has been very substantial and it has had a long maintained program of fellowships to visiting experts. It has also played an important part in restoring and rehabilitating educational institutions in China and in Poland.

The Near East Foundation, operating on a highly restricted budget, has had experience in Albania, Bulgaria, Greece, Cyprus, Palestine, Lebanon, and Turkey. It now has under way successful demonstrations in rural improvement with particular emphasis on agriculture, home welfare, and sanitation in Lebanon, Syria, and Iran.

There are also certain farm organizations in the United States which are actively engaged in the interchange of persons for agricultural training. During 1948 a project for the interchange of American and European farm youth was successfully undertaken under the auspices of farm organizations, including 4-H Clubs, and the Extension Service of the U. S. Department of Agriculture. This project is being continued in 1949.

The Institute of International Education is another private organization which helps to make American technical and scientific knowledge available abroad.

Profit enterprises, particularly the larger corporations, have effectively contributed to economic development in many parts of the world by exporting along with their capital investment American know-how in production, and in the installation and maintenance of industrial equipment. In recent years many of these concerns have undertaken additional activities, particularly in the fields of health and education, aimed at increasing the effectiveness of their local labor forces and, in the long run, the economic and social well-being of the countries concerned. Some of these enterprises conduct training

courses in the United States for foreign employees in sales, maintenance, and supervisory fields. In some instances professional training in engineering and other technical fields is made available. The cumulative effect of these many activities forms a large and important part of the total of technical assistance now being provided the underdeveloped areas.

Appendix E—What Cooperative Assistance Can Accomplish

It would take several volumes to set forth in detail the concrete results of the governmental projects which have been enumerated above and of the many additional ones of a comparable nature undertaken by private profit and non-profit organizations. The progress which has been made as a result of these projects as a whole may be appreciated from the very real accomplishments, in some cases spectacular, of a few projects. The remarkable characteristic of these projects and of technical cooperation as a whole is the very great value, frequently the direct monetary value, of the end result in comparison with the very small cost of the skilled personnel and special materials required. As can be seen from a few examples, the accomplishments of many technical cooperation projects may be easily measured in terms of lives saved, sick cured, man hours of labor made available, illiterates taught, kilowatt-hours generated, experts trained, crops increased, and so on. The results of others, such as improved nutrition, over-all health conditions, care of children, general level of education, increased garden products, improved sanitation, better water supply, and so on, are not so clearly measurable in specific units but they can be recognized from general experience as of equally real value.

BASIC SURVEYS

Although many successful and valuable projects have been carried on, particularly by private non-profit agencies, to make needed advances in individual fields, a broad program of technical assistance and cooperative development should rest on thorough surveys of the needs and potentialities of the country requesting assistance. The recent survey of Brazil is illustrative of the kind of basic study which can and should be made.

In accordance with an agreement between the Governments of Brazil and the United States, the Joint Brazil–U. S. Technical Commission was established in 1948 to prepare a report which would analyze the factors in Brazil which were tending to promote or retard the economic development of that country. The Commission was to give particular

attention to the capacity of Brazil for economic expansion through the maximum use of its internal resources and also to consider measures to encourage the flow of private capital to Brazil. The Commission consisted of five Brazilians and three Americans, together with a number of advisers and technicians. The Commission began its work in September 1948 and completed its report in February 1949.

Although the report has been only recently completed, it has already had a number of substantial results.

One outstanding result of the Commission's activities has been the increased recognition by key officials of the Government of Brazil and by leading business men of Brazil's need for balanced development emphasizing agriculture as well as industry. The report has also resulted in a sober appraisal of the concrete possibilities for development and the steps necessary to achieve the objectives. This increased understanding by the Brazilians of their basic problems, together with the additional information the report gives to the U. S. Government, will make a sound basis for accomplishment of the Brazilian objectives.

Since the report was published, a number of specific steps have been taken to implement its recommendations. The following might be noted:

1. In order to conserve dollar resources and to balance accounts the exchange-control authorities are taking steps to coordinate import licensing and exchange permits, and further necessary legislation has been presented to the Brazilian Congress.
2. Arrangements are being completed which will reduce the backlog on commercial payments.
3. Preliminary discussions between the two governments have begun on an investment treaty for the purpose of attracting additional capital to Brazil. To the same end Brazilian legislation is being discussed which will amplify constitutional provisions as well as clarify the position of Brazil on treatment of foreign investment.
4. A convention to eliminate the burden of double taxation is under consideration by the two governments.
5. As an important measure to enhance financial stability, the Brazilian administration is pressing for enactment of central banking legislation.
6. To stay within available resources, revised estimates of expenditure under the Brazilian development plan have been submitted to the Brazilian Congress.

This represents considerable progress in view of the short time since the report was issued. A longer time will, of course, be required to achieve concrete results in economic development.

Crop Improvement

This is a phase of technical cooperation the results of which may most easily be measured in improvement in crop production. The work of a single U. S. horticulturist spearheading a cooperative research effort between institutions, countries, and private coffee growers is typical of what has been and can be done in this field. This man, as a member of the agricultural station in Guatemala which is cooperatively managed by the U. S. Department of Agriculture and the Ministry of Agriculture in Guatemala, conducted and directed experiments on increasing coffee yields through seed selection. Three years of experimental work under commercial conditions at the agriculture substation coupled with similar data furnished from cooperating coffee growers in five different coffee-growing areas in the 1948 crop season have demonstrated that, by planting in nurseries coffee seed from known high-yielding trees, coffee yields per unit of area doubled or tripled. The monetary value of such an increase in yield would pay the salary of this technician and the local country's expenses many times over in a single year of production.

Cooperative agricultural experiment stations such as the one in Guatemala are maintained in a number of Latin American countries. At these stations American technical experts work side by side with local technicians on soil, fertilizer, crop, and pest problems. The immense value of their presence to individual farmers and the total agricultural production of the country in which they work is typified by the case of the farmer who came to the San Andres Valley station in El Salvador for advice on corn production. The specialist from the station studied his farm and recommended the use of sodium nitrate fertilizer. The farmer, following the station's advice, reported that his corn yield had been tripled.

New Crops

Agricultural and industrial production can be greatly benefited by the introduction of new crops. On one project of this kind the U. S. Departments of Agriculture and of Commerce have been collaborating with an American machinery manufacturer, a trade association, the University of Florida, the Government of Cuba, and private industry in Cuba to develop kenaf, a fibrous plant, as an effective substitute for jute fiber in the manufacture of sugar bagging. Kenaf can be made fully competitive in yield, cost, and strength. Its production is susceptible to mechanization and therefore can compete with jute at the high labor costs of the Western Hemisphere. The kenaf season

dovetails with the sugar season and therefore gives good opportunities for employment during what otherwise would be a slack period. Kenaf fiber has already been produced commercially in El Salvador, where 1,200 acres will be planted during the current season. In Cuba some five commercial producers are expected to plant some 1,000 acres during 1949. Haiti is experimenting with 250 acres. The investment of the United States in this technical-cooperation program to develop an agricultural-industrial product of immense value in supporting another great local industry has been limited to an average rate of effort of only two technicians. Associate technicians and all other expenses have been borne by the local Latin American country.

The development of the barbasco plant, from which the insecticide rotenone is made, is another instance in which technical knowledge has made possible the development of a valuable agricultural industry. Prior to the war the normal source of rotenone supply was the Far East. When it was cut off, Peru, which had had only a few hundred acres in barbasco before the war, raised its production to a peak of 30,000 acres and 12,000 pounds in 1946, one-fourth more than the total world production before the war. A young Peruvian chemist working with the agricultural experiment station operated cooperatively by the Government of Peru and the U. S. Department of Agriculture has developed a new product from the barbasco plant which, because of its superior qualities, may replace the rotenone powder commonly used today. Two American companies have indicated interest in supplying pilot plant facilities for further investigation of the potentialities of this product.

New Uses for Crops

New uses for waste from agricultural products are a valuable net gain to agriculture. Joint work between the U. S. and Salvadoran agricultural technicians at the Cooperative Experiment Station in El Salvador has made such a gain through the development of a corn-substitute cattle feed (for milk production) from the waste pulp of the coffee bean. This discovery is important to the economy of the coffee-producing countries of the Americas and internationally noteworthy in view of the shortage of corn and other feed grain in many countries. If full advantage were taken of this development by converting all available coffee pulp of the coffee-producing territories of the Western Hemisphere into feed, it would have the approximate equivalent of the total feed value of 34,000,000 bushels of corn.

Control of Plant Diseases and Pests

Agricultural production in underdeveloped countries is often plagued by plant diseases and insect hordes. Many projects have demonstrated that a few men, often only one, with modern knowledge and small quantities of modern equipment and materials can save thousands or even millions of dollars in value of agricultural production in a brief period.

Tomato growing is an important enterprise in the Bekaa Valley, about half way between Beirut and Damascus in Lebanon. A serious disease has in recent years ravaged this crop, resulting in the loss of thousands of dollars to the peasants and small farmers. No one was able to find the cause. About a year ago, however, workers at the very small experiment station operated by the Near East Foundation identified the pest responsible for the destruction. It was then possible to work out effective control measures. This information was disseminated through the extension program, also run by the Foundation, and has resulted in the saving of this important crop and in great economic benefit to a large number of farmers.

When the citrus industry in Brazil was threatened by the tristeza disease, the Bureau of Plant Industry, Soils, and Agricultural Engineering of the U. S. Department of Agriculture sent a man to Brazil to join in a cooperative effort with the Brazilian Government to study the disease and determine its cause. It was found that the disease was caused by a virus, and its vector was discovered. This project, which cost only about $30,000 over a two-and-one-half-year period, helped to salvage the entire citrus industry of Brazil by proving that all sweet oranges propagated on sour orange stocks were dying due to this virus disease. The second step of the program, finding stocks resistant to the disease, still remains to be completed.

In a similar case in Ecuador, production of the cocoa bean had been declining because of a disease which in 20 years had reduced production approximately 75 percent. In Ecuador, cocoa production affects employment, Government revenue, and many other economic and social conditions. In addition to the hardship caused Ecuadorans by the decline of this crop, chocolate manufacturers began to experience increased difficulty in obtaining adequate supplies of Ecuadoran cocoa beans. By agreement between the U. S. Department of Agriculture and the Ecuadoran Minister of Agriculture, a joint experiment station was set up, the United States supplying the technical experts and Ecuador the land, buildings, and local staff. Within only two years, this experiment station had developed two specific insecticides and fungicides for treating the disease.

A member of the University of California staff was recently sent on a seven-month tour of seven Latin American countries under a

State Department grant and sponsored by the Office of Foreign Agricultural Relations, to lecture and consult on U. S. developments in chemical methods of weed control. In Chile, using parts and chemicals from the United States, he helped build the first spray equipment for weed control in South America. The local chemical and machinery manufacturers and importers became interested in producing and importing herbicides and essential spray equipment and components. In addition to the improvements in weed control which have already started, one result of the visit has been a movement to reduce import duties on certain herbicides to reduce costs to users and encourage widespread use.

Livestock Improvement

The Brethren Service Committee, the Near East Foundation, and other private agencies have technical livestock-improvement programs in Greece, Italy, Japan, Austria, and other countries. In these projects they have supplied six or eight pure-bred bulls, which, through artificial insemination, have been able to bring about widespread improvement in the dairy stock of the countries. In the project in Greece, the initial contribution of six pure-bred brown Swiss bulls made it possible to breed approximately 3,000 new cattle in 1945–46, the first year. At present there have been over 25,000 breedings and 15,000 superior offspring.

FISHERIES

In many countries fish form an important part of the diet and in some instances an important export product. The Fish and Wildlife Service of the Department of Interior has had a fishery mission of one expert and one secretary-interpreter in Mexico since 1941, working closely with the Mexican Directorate General of Fisheries and Allied Industries. During this period the production of fishery products in Mexico has risen from 110 million pounds in 1941 to 260 million pounds in 1947 and the value of the products has increased from $5,000,000 to $33,000,000. It cannot be claimed that all of this increase can be attributed to activities of the mission since many factors have combined to bring it about. There is, however, good reason to believe that this very small mission had an important contribution to make to the substantial rise in volume and value of fish production.

MEDICINE

The most dramatic results from the employment of a very small number of skilled men and very small quantities of scientifically designed materials have been achieved in the field of medicine. In

many areas of the world one trained public-health doctor or a group of two or three working with local people able to follow their guidance have been able to rout some of man's oldest and deadliest enemies.

Malaria and Cholera

Recent years have furnished noteworthy examples of threatening catastrophes of epidemic diseases being averted by collaboration between foreign technical experts and local administrations. Most significant among these and typical of the work which has been done in many areas are the postwar anti-malaria campaigns in Greece, Sicily, and Sardinia; control of the cholera epidemic in Egypt in 1947; and eradication of the severe malaria epidemics in the Upper Nile Valley in 1944 and in Northern Brazil in 1938–39.

Brazil. The latter outbreaks of malaria of a malignant form were due to the extension of *Anopheles gambiae* from its home in the African tropical belt. This mosquito was introduced from Africa to Natal in Brazil in 1930, probably by airplane, and started a campaign of destruction that ultimately covered an area of 12,000 square miles and brought death and crippling illness to this entire area. With the technical assistance of the Rockefeller Foundation this mosquito has again been entirely eradicated from Brazil. The annual budget for this purpose rose to $900,000 from the Brazilian Government and $220,000 from the Rockefeller Foundation in 1940. The epidemic came to a peak in 1937–39 and 114,000 persons were treated for the disease during the latter year. Control of the mosquito brought the country back to normal in a period of 2 years, and no more *gambiae* have been found in Brazil.

Egypt. In 1942 the *gambiae* started another invasion, this time northward through the Nile Valley, through Egypt, pushing its attack within 200 miles of Cairo. The worst epidemic in the history of Egypt followed. In some areas as many as 90 percent of the people were critically ill at one time. The blood tests for malaria taken in a number of villages showed an average of 71.5 percent infected. The health authorities estimated that approximately 135,000 people died from malaria in this area in 1942 and 1943.

Reports from only one plantation consisting of approximately 30,000 acres stated that the monetary loss in those 2 years was approximately $600,000 which, among other things, represented a loss of one-half of the wheat crop and one-third of the sugar.

The Egyptian Government asked for help from the Rockefeller Foundation and four American malaria experts were sent at once. These men organized and directed with local labor a control program in 1944. By February 1945, the *gambiae* had completely disappeared from the infested area. Careful search since that time has failed to

discover any of this species. Egypt is again free from malaria. The disease never reached Lower Egypt, which was thus protected from perhaps even greater calamity than that which had befallen Upper Egypt.

Greece. The most striking example of betterment of the health of a whole country at a single stroke is furnished by the medical history of postwar Greece. As far as records go back Greece has been one of the most heavily infested malaria areas of the world. It may be said that malaria was a primary cause of the very low economic standard. In 1946 UNRRA introduced the new method of malaria control with DDT spraying from planes and residual spraying of all houses and stables. Draining and filling of swamps, screening of houses and larvaciding with Paris green and various oils were also employed. That year alone 300,000 acres of mosquito breeding water surface were treated and 300,000 houses and stables were sprayed. While in 1942 there were at least 2 million malaria cases in Greece, there were only about 50,000 last year. Incidentally, the widespread sand-fly fever, transmitted by the *Phlebotomus papatasii*, was greatly reduced by the same operation and reduction of many other diseases followed. This work was subsequently carried on by the Economic Cooperation Administration Mission with U. S. Public Health Service personnel, in collaboration with the World Health Organization and the National Greek Health Administration. It is estimated that from 30 million to 60 million man work days a year have been saved by this operation. This would be equivalent to the adding of 100,000 to 200,000 workers a year without the addition of more mouths to be fed.

The outcome of such joint international operations as those in Greece and Egypt, and later on in Sardinia, indicates the possibility of eradicating certain epidemic diseases in whole countries and thereby not merely giving valuable aid to the economic rehabilitation of these countries, but also greatly adding to the protection against such diseases of all other countries. It is on this reasoning that the epidemic program of the World Health Organization is based.

Haiti. The health and sanitation program of the Institute of Inter-American Affairs in Haiti undertook a large scale project for the control of malaria and mosquitoes on the Leogane Peninsula. This project involved the extensive rehabilitation of the system of drainage ditches developed by the French engineers during the colonial days of the Republic. The deterioration of these ditches had resulted in the population being forced to move away from the unhealthy peninsula. With the completion of the new drainage project, there were reclaimed some 10,000 acres of fertile land, badly needed to support the population of Haiti. The completion of the project resulted in the resettlement of the peninsula and in an increase in the value of its lands from a total of about $40,000 to a total of about $700,000.

Venezuela. The Institute of Inter-American Affairs has carried out a comparable malaria control program in Venezuela with equally outstanding effect. Before 1942 the people of the city of Maracay, the fifth largest city of Venezuela with a population of about 35,000 persons, and the people of the surrounding countryside were plagued by malaria. In 1943 the incidence of malaria was 22 percent. After the elimination of anopheline breeding places it dropped in 1947 to less than 1 percent. An agricultural college is now being built and pasture lands have been cleared in an area previously too unhealthy for economic use.

Peru. A comparable program in Chimbote, Peru, reduced the incidence of malaria in four years from 25 percent to only 2 percent. This town has the finest harbor on the Peruvian coast, with coal mines and iron ores not far away. The economic possibilities inherent in this situation could not be realized before 1943 because the conditions of health were such as to weaken the native population and deter immigration. From 1942 to 1947, however, the population of Chimbote increased from 5,000 to 10,000 and an opportunity for economic development under healthful conditions which had not previously existed became possible.

Cholera

During the last 40 years, the sanitary organization of the Suez Canal has been the bulwark of Europe against introduction of cholera from Asia. Egypt itself had been free from cholera since 1902. In September 1947, cholera appeared in the Delta Province of Sharqia in Lower Egypt, probably introduced by refugees from India. The disease spread rapidly and the World Health Organization was called on for help. Vaccines were flown in from New York and cholera experts were provided from various countries. In spite of its violence the epidemic was brought under control within little over a month. The last cases were reported in December. There has been no cholera since then in Egypt. So long as the epidemic lasted it disorganized transportation and the economic life of Lower Egypt. It was thus of vital importance that it should be liquidated as soon as possible. There were 10,277 deaths from cholera in this epidemic. During the previous epidemic, that of 1902, there were 34,595 deaths from cholera in Egypt. Not only had thousands of lives been saved in Egypt by international collaboration but all of Europe had been protected against this dreaded disease.

Typhus

An example of the prompt control of typhus epidemics is furnished by the demonstration at Naples in 1943. Previous to the war there

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was no louse-borne typhus in Italy, but it was introduced from North Africa shortly after the occupation. From October 1943, it began to spread to Naples and by January there were over 50 cases a day. The new technique developed in Algeria by the Rockefeller Foundation for applying DDT was put to use. In the course of a few weeks, 1,300,000 persons were dusted and by the end of March the epidemic was stamped out. During World War I, typhus presented one of the most serious epidemic problems.

Smallpox

More gradual control through vaccination was the solution to the smallpox problem. In Western, Central, and Southern Europe there were about 50,000 smallpox cases in 1919. At the height of World War II, 1943, there were only 9 smallpox cases in that whole area. The elimination of typhus and smallpox has certainly been one of the factors in contributing to a more rapid economic recovery in Europe.

Beriberi

Success also attended a joint enterprise between the Department of Health of the Philippine Republic and the U. S. Public Health Service for the reduction of beriberi in the Philippines. Beriberi, which is a disease of a nutritional origin, is one of the most important causes of death in the Islands. Artificially enriched rice was fed to 68,000 people in Bataan Province and the deaths from beriberi were reduced to one half in the course of a year.

Yaws

Yaws is a spirochete disease causing great lesions on the skin which are painful and incapacitating. Haiti is one of the several areas in the world in which there is widespread suffering from this disease. In Haiti it is estimated that it affects about 80 percent of the rural population, most of whom are then unable to work effectually. In Haiti ten clinics have been set up in cooperation between the Institute of Inter-American Affairs and the local government. These clinics have been treating an average of from 35,000 to 55,000 persons per month, depending upon the season. To date it has been estimated that at least 100,000 persons have been cured by rather simple treatment and thus enabled to return to work. It is estimated that this single program has been able to increase the national production of Haiti by five million dollars annually.

Hookworm

Hookworm has had a serious debilitating effect on the communities of many areas. The great work done in the southern states of the

United States in the elimination or sharp reduction of hookworm has considerably increased the economic potential of the people. A similar effort to free people from the weakening effect of intestinal parasites has been carried out by the Institute of Inter-American Affairs in the agricultural colony of Tingo Maria, Peru, on the Amazonian watershed. There the tropical temperature and heavy rainfall are ideal for the cultivation of manioc, cocoa, tea, rice, yucca, papaya, pineapple and citrus fruits, and of rubber, cinchona and barbasco. In 1943 a Cooperative Health Service Survey of all school children in the colony showed that 99 percent were infected with hookworm and/or with parasites other than hookworm. The Cooperative Health Service conducted a sanitation campaign and recent examinations have shown that the percentage of school children infected with intestinal parasites has declined in only four years from 99 percent to 58 percent. Infections of the ascaris and trichocephalus have dropped from 67 percent to 5 percent. The incidence of malaria in the same area has dropped from 17 percent to less than 1 percent.

Kala-azar

A singularly remarkable achievement was made by one doctor working under a project of the American Friends Service Committee in curing people affected by Kala-azar, a disease common in large areas of North China. At any given time the number of sufferers has been an estimated 500,000 to one million, ninety-five percent of whom die unless treated. Approximately 75 percent of the victims are children under 12. The disease is spread by a small sand fly. Kala-azar sometimes takes several years to run its course and is extremely painful. Treatment of the disease is remarkably easy, consisting of a series of injections of antimony compounds over a period of ten days or two weeks. Ninety-five percent of the people so treated recover and are henceforth immune. Since 1946 the Friends Service unit has been attacking this disease with mobile teams. One doctor has been able to supervise the project which has used the simplest equipment and relatively inexpensive drugs, although disturbed conditions in the region have made a thorough clean-up of the area impossible. Approximately 15,000 lives have been saved to date and great suffering has been prevented. From the purely economic point of view it is important that these people have been assisted to support themselves.

Maternal and Child Health

The Children's Bureau of the Social Security Administration in the United States Federal Security Agency has carried on a series of projects in maternal and child health services in a number of Latin American countries. These projects attack basic problems and their

full results cannot be fully measured for some time to come. However, one project carried out in the northern states of Mexico by a single nurse-midwife from the Children's Bureau has had results typical of the accomplishments of programs of this kind. This single nurse-midwife gave three-month institutes for untrained midwives in areas where maternal and infant mortality rates were high. The Maternal and Child Health Director of Nuevo Laredo, State of Tamaulipas, has reported that infant mortality rates in Nuevo Laredo dropped from 223 per thousand in 1946 to 112 per thousand in 1948 and attributed this result to the better training, supervision, and cooperation of the midwives who had taken these short courses.

WATER SUPPLY AND SEWERS

Health and general productivity are closely affected by good water supply and sanitary sewage disposal. Two or three examples will show the great benefits which can be derived from a comparatively small investment of technical skill.

Cistern Filters

In some of the rural areas of Iran, where there is little rainfall, villages store water in cisterns called "umbars." This water comes from irrigation ditches and is highly contaminated and quickly becomes even more dangerous in storage. The director of the Near East Foundations project in rural Iran concluded that a simple, inexpensive filter constructed with local materials and located adjacent to the umbar intake might correct or greatly improve this situation. An experimental filter was constructed and proved to be highly effective. There were immediate calls for similar filters from all the surrounding villages and this simple and inexpensive device has been constructed cooperatively to be used in preventing the spread of waterborne diseases among many people.

Public Water Systems

Brazil. A basically similar though much more ambitious program has been conducted by the Institute of Inter-American Affairs in the Amazon Valley of Brazil. When the cooperative health and sanitation program was initiated there, only two cities in an area two-thirds the size of the United States had an adequate and safe public water supply system. The incidence of typhoid fever and other water-borne diseases was extremely high, as was the infant mortality rate and intestinal parasite infection rate. One of the most important parts of the engineering and sanitation phase of the work has been construction of safe public water supplies in the smaller communities, ranging in

size from 500 to 10,000 inhabitants. The results in Amores, a town of 5,000, are typical of what has been accomplished. There, from 20 to 30 cases of typhoid fever occurred every year, many of which resulted in death. But not a single case occurred in the year following the establishment of a small and economical public water system under the Institute's program.

Mexico. In Mexico, President Miguel Aleman on October 13, 1948, participated in the simultaneous inauguration of new water supply and storage systems in nine towns in Mexico. These systems were constructed under the auspices of the health and sanitation program of the Institute of Inter-American Affairs. During the ceremony the Minister of Hydroelectric Resources in a nationwide radio broadcast stated, "Water supplies and storage services in our cities are very important when we consider that 22 percent of the general mortality rate is caused by waterborne diseases. In 1940 less than 1 percent of the cities and towns in Mexico had water supply systems and only 5 of these cities and towns had really potable water. The systems erected at this time will supply safe water to 110,000 people." Under the health and sanitation program of the IIAA a total of 30 water supply and storage projects have been completed to date in Mexico and 32 others are now under construction. The effects of these projects on increasing the economic potential of the people of this large area are enormous.

Chile. The deep appreciation of the people who have been helped by such projects is illustrated by the demonstration which occurred in the northern sector of Santiago, Chile, upon the near completion of a sewerage system that has been installed there. This work, which has been commended by the American Ambassador as rendering service to the mass of the people as nothing else has, was undertaken as a cooperative effort by the Institute of Inter-American Affairs with the Departmento Cooperativo Inter-Americano Obras Salubridad. The completed cost of this work is 60 million pesos, more than half of which was furnished by the Chilean Government. It is of tremendous importance to 200,000 people who have hitherto been without adequate sanitation. Not only will the system redeem a great region for industrial purposes, for which it is well adapted, but it will also redeem 40,000 hectares of ground for the creation of gardens and the raising of vegetables that have hitherto been worthless because of the contamination of the irrigation water. The people of the section without so much as consulting the Embassy or their own Government agency arranged for a popular demonstration on the completion of the work. They raised a stone monument with a marble inset, setting forth their debt to the United States and bearing the names of the Presidents of the United States and of Chile and of the American Ambassador in Chile. A large and demonstrative crowd held an im-

pressive ceremony at which military bands furnished music, a large choir of Chileans sang the Star Spangled Banner in perfect English, speeches were made by the head of the civil organization of the community, by the spokesman of the President of the Republic, by the Minister of Health, by an officer of the Chilean Army, and by the Ambassador. The sole theme of all the Chilean speakers was the benefit conferred by the United States, to which the warmest homage was paid.

This section of the city of Santiago is largely populated by workers who have suffered in the past from neglect and have been looked upon by the Communists as offering them the opportunity for effective propaganda against the democratic institutions of Chile and the United States. In this program, however, these people have seen and have shown that they understand and appreciate a clear demonstration of the strength and practical value to them of the benefits obtainable by democratic nations working in cooperation.

IRRIGATION AND RECLAMATION

Wells, Iran

The same Near East Foundation project in Iran which developed the filters for the umbars shortly discovered that the economic level to which the life and even the standards of education in rural Iran could rise depended upon the amount of available water. Careful study of the topography and the soil structure convinced the Foundation's director that an ample supply of water was to be found beneath the surface of this area. When experts confirmed this opinion an experimental well was drilled. A flow of 20,000 gallons of water per hour was struck. This water now flows over the land through an irrigation system. So valuable was this commodity that the villagers repaid the foundation for the cost of the well, and with this money and certain additional funds another and larger well is now being drilled at a larger, nearby village.

Irrigation Dams, Ceylon

The Bureau of Reclamation of the U. S. Department of the Interior aided the Government of Ceylon by arranging for technical advice to its construction engineer on a large dam which was necessary for the success of a $20 million project to irrigate 120,000 acres. Without the technical assistance necessary to make this project a reality, the whole scheme of development of Ceylon would be jeopardized. With this advice it was possible to go ahead with the successful completion of the project. In two to four years hence, when there is brought into bearing the great acreage which this dam will now make it possible to

irrigate, Ceylon will be able to provide food for one-half million additional persons and will be 10 percent further along the road to agricultural self-sufficiency!

Reclamation Work

The Bureau of Reclamation has trained many foreign engineers in this country and has aided in other foreign missions in addition to that in Ceylon. Some measure of the significance of this work may be shown by letters received by the Bureau. The government of Thailand has written "through the thirty engineers it had helped to train, the Bureau has contributed in a great measure toward progress in the essential reconstruction of Thailand." A letter from India shows that an Indian engineer trained by the Bureau was upon his return home immediately put in charge of two projects totaling $40,000,000. The letter says, "After coming from America, I have been instrumental in opening a Technical Club here on the lines of the Technical Club of the Bureau of Reclamation, Denver, to exchange information on matters of science and engineering. Thus, slowly American ideas will be introduced in our department."

Reconstruction, Italy

The work of the American Friends Committee in Italy, assisting the local people to rebuild their homes in the devastated areas of the Gustav and Gothic battle lines, is representative of work done by a number of organizations in helping local people provide themselves with homes. The villages and towns in this area in Italy were 60 to 95 percent destroyed. The problem of rebuilding seemed insurmountable to the townspeople. They were living among the debris and in camps amid appalling conditions. As in many other areas where housing conditions were poor, they were apathetic and had no heart for work. Many of these towns, however, had communal forests, while the larger centers of trade and manufacture had lime and brick kilns lying idle for lack of fuel. The Quaker group organized the rural villagers to cut the wood in their forests for fuel. This wood they could barter for bricks and lime from the towns. The Quaker representatives presented the plan and supplied the necessary transport, beginning with only three trucks. Fuel was hauled from the village forest to the kiln and the return trip brought back the products of the kiln. The villagers organized themselves for the purpose of cleaning up and sorting out the useful debris and seeing that sufficient fuel was trucked to keep the kilns in operation. Another function of the village organization was to stabilize the bartering system. In the first year of the program 300 houses were built or repaired, accommodating 1,000 people. The next year, with an expanded organization consisting of

8 units made up of only 51 men and women, aside from local personnel, plus 390 vehicles, 21,000 room units were completed, sufficient to house 35,000 people.

This process of rebuilding is still going on under the auspices of a semi-official Italian Government agency whose motto is "to help people help themselves."

SPECIALIZED INDUSTRIAL TECHNIQUES

There have, of course, been numberless instances of technical assistance furnished by industrial organizations of the more advanced countries in which they are interested in the underdeveloped country. Projects of this kind make the most direct contribution to economic advance in specific industries. Contributions to the general advance of industry in the underdeveloped countries have been made by a number of private and public agencies. The program of the Bureau of Standards of the U. S. Department of Commerce and the results which it has achieved are typical of this kind of activity. Last year some 665 individuals from other countries came to the United States to observe and learn the specialized techniques of the Bureau. These observers were scientific experts, industrial engineers, chiefs of research bureaus, government officials, and private persons. Their fields of interests covered such matters as hydroelectric heat and power, rubber, electronics, textiles, aeronautical instruments, building materials, metallurgy, industrial research, physics, and radio.

MINING AND METALLURGY

Manganese, Brazil

The exploration and development of manganese deposits of Brazil by a geologist from the U. S. Geological Survey is typical of a great many such productive projects undertaken on a cooperative basis with the governments of underdeveloped countries. This geologist, working in cooperation with government geologists in Brazil, mapped the Urucum manganese deposit near Corumbá on the Paraguay River and estimated an ore reserve of 17 million tons of 46 percent manganese. In another case two geologists from the U. S. Geological Survey, working with Brazilian geologists, made a reconnaissance study of the newly discovered manganese deposit in Amapa near the mouth of the Amazon and estimated an ore reserve of 7½ million tons of 48 percent manganese. These two deposits have ore reserves of very great importance. Their potential value is tremendous, yet their existence has been established and their development made pos-

sible by the investment of a comparatively trivial sum in the technical ability of only three skilled geologists from the United States.

Ore Extraction, Mexico

Recent work in the field of metallurgy research under the technical cooperation program in Mexico during the current fiscal year has already demonstrated impressive potentialities in the recovery of antimony, lead, and manganese from ore concentrates. Although investigations are in an early stage, it seems possible that a considerable increase may be made in the recovery of these materials hitherto lost on the dumps. The assistance of this technical cooperation program, directed as it is toward the relief of small mine operators, will enable their economic survival, now dependent upon the solution of certain technical difficulties involved in the commercial recovery of metals.

LABOR

Industrial Training

The programs carried on by private organizations and by the Office of International Labor Affairs of the United States Department of Labor in training skilled industrial workers of underdeveloped countries have had substantial direct benefits in improving the industrial production of such countries. The report of a single industrial trainee under the Department of Labor program is typical of the great many who have been trained by private and public organizations. This man wrote that immediately upon his return to São Paulo he started work with Brazilian industries. During his two-year training period in the United States he said he got a thorough knowledge of milling, grinding, cutter-sharpening and die-sinking machines and is capable of demonstrating and servicing such machines sold in Brazil. By using his experience and knowledge acquired during his training in the United States he is able to help solve some of the problems of industries in Brazil. His aim, and that of his associates, he reports, is to instruct industry in Brazil as much as possible in the production methods employed by the American industries.

Industrial Safety

In the field of industrial safety, important to rapid progress in the increase of industrial production, a single American industrial safety specialist sent for three months from the Department of Labor to serve as safety consultant and adviser at the Banco de Seguros del Estado, Montevideo, Uruguay, made such an important contribution that he was asked by the Banco to return for an additional three months entirely under its auspices. He conducted a series of

lectures at the Banco and served as consultant to various other national agencies, including the National Electric Plant, the National Port Authority, and National Administration of Combustibles, Alcohol and Portland Cement. He was instrumental in arranging for the introduction into Santiago of literature on industrial safety and cooperated in setting up methods for the diffusion of information on industrial safety practices. These activities received wide press publicity during his stay, and his lectures at the Banco were printed in the newspapers of the Uruguayan capital. Various Uruguayan industrial plants that adopted safety measures suggested by him have informed him that their industrial output quickly showed the effect of the more efficient practices introduced. The manager of the Banco has stated that the visit of this specialist was the most important event in decades in the history of the economic development of Uruguay.

Increasing Productivity

One important aspect of economic development is the achievement of increased productivity. Experts from the Department of Labor have recently gone to France with the ECA Mission and worked with representatives of the French Government, management and labor, and have brought about what they feel is a valuable new approach on the part of the French to the problems of increasing productivity. Their discussions led to the recommendation that a National Center for Productivity be established to make available the most modern methods and techniques of increasing productivity. The importance of this contribution to the recovery of France in the heart of the European Recovery Program is obvious. It can be expanded in a similar way to many other countries.

Knowing America

An incidental, but extremely valuable return on the small investment in industrial training programs has been the conviction which has been instilled or developed in the minds of foreign trainees as to the strength and lasting power of the American way of life. One German trade-union leader recently in the United States said that he did not speak a word of English and everything he knew about the United States he saw with his own eyes. He said that he and his friends had seen pictures of American factories with large fields of automobiles along side. They had been told by the Russians that these were fabricated pictures—that they were not true, but while they were in the United States they had seen such factories themselves.

The importance of this type of impression on industrial laborers cannot be exaggerated, since Communist propaganda is concentrated

primarily on this group, which holds one key to production and economic development.

TRANSPORTATION

Roads

Colombia. Several years ago the Government of Colombia, appreciating the fundamental importance of adequate roads to its economic development, undertook an ambitious construction program. In order that its program might be carried out with the greatest economy and effectiveness Colombia wished to have a thorough survey made and a long range blueprint prepared. It requested the cooperation of the United States, and an expert from the Public Roads Administration went to Colombia and spent some six months making a comprehensive study of population trends, potential economic growth, and other factors relevant to highway planning. He then laid out a plan for a network of main and feeder roads to meet the developing needs of the country. Colombia has since largely followed this plan in its highway construction.

Bolivia. The altiplano—high plateau—is important in the economic life of Bolivia. It is unable, however, to produce the food needed by its population or the fuel oil required for their mining and other industrial activities. It has been necessary in the past for Bolivia to import food and fuel oil, at considerable expense in foreign exchange. Yet it would be possible for Bolivia to meet these needs from its own agricultural and petroleum resources in the upper Amazon valley if the valley and the plateau were connected by adequate transportation facilities. Recognizing this, Bolivia asked for U. S. technical assistance, and in 1942 an engineer of the Public Roads Administration went to Bolivia to supervise the surveying of a 500 kilometer road from Santa Cruz to Cochabamba. With only three or four U. S. assistants and a large group of local engineers and other technicians—including a few European displaced persons—this engineer directed the work of laying out the road in the most economical manner over difficult terrain. A fourth of this road, which will make a fundamental contribution to the economy of Bolivia, has already been built and negotiations are now under way to finance its completion.

Civil Aviation, Peru

In the field of transportation the work done by the Civil Aeronautics Administration of the Department of Commerce in cooperation with Peru in fiscal year 1949 is illustrative of a number of projects in this field. Air transportation over the mountainous and jungle areas of the interior of Peru is of great importance in the economic

development of this country, as it is in many underdeveloped countries where road and railroad transportation facilities are not well advanced. The Civil Aviation Mission to Peru assisted in the acquisition and operation of an aeronautical communication system, the installation of new stations and new equipment, the installation of equipment essential for safety, the improvement of maintenance and operation techniques, the planning of additional facilities for long-distance international communications and navigation, the installation of meteorological services, and the planning for and installation of new and improved air-navigation facilities. It studied a total of 50 air fields and assisted in improving, relocating, constructing and reconstructing 19 airports, which represent the airport construction program necessary to meet Peruvian need of international and domestic aviation as recommended by the International Civil Aviation Organization.

EDUCATION

Assistance in basic education, which is an important element in economic development, and in preparing local teachers to provide basic education has been one of the major endeavors of public and private agencies attempting to improve living conditions in underdeveloped countries. The accomplishments of the Institute of Inter-American Affairs in several different but related educational projects in Latin American countries are typical of what has been and can be accomplished in this field.

Teaching Materials, Guatemala

One of the many phases of the cooperative programs of the IIAA with Latin American countries in rural education deals with the development of teaching materials, and training teachers in their use. Almost no teaching materials and teaching aids had been used by elementary school teachers in Latin America prior to the cooperative program. The system of instruction was dictation by the teacher of the lesson material for the day and copying of this dictation by the pupils in their notebooks for later memorization. The teaching of reading, even when a few readers were available, was by the unproductive syllable method.

As part of the reorientation of teaching methods the IIAA has stressed the use and importance of texts and other materials, placed in the hands of the pupils for study. In Guatemala, a group of teachers from Guatemala, El Salvador, Honduras, and Costa Rica was called together to receive training not only in the use of texts, but in their proper preparation. In collaboration with a well-known North American author of reading materials for children and an experienced

North American illustrator, a complete graduated series of attractive readers for grades one and two, and workbooks for grades three and four, was produced, together with flash cards, reading charts, and a teacher's guide. The text and illustrations deal with familiar scenes of rural life, and they also illustrate painlessly certain principles of health, agriculture, and citizenship which the pupils learn in other "courses". The vocabulary used was very carefully selected in accordance with current use, and is introduced into the readers at a rate determined as educationally sound.

Tried out in demonstration schools, these readers are in process of being introduced into the schools of Guatemala. They have also been tried out and demonstrated at a workshop in Quito, Ecuador, participated in by educators of Ecuador, Bolivia and Peru, who are now working out adaptations of the series for use in their respective countries. Experience thus far indicates that the method and content presented in these materials result in an active stimulation of interest in learning to read, and that they speed up the learning process immeasurably, as compared with the former methods used.

Collaboration Among Latin American Countries

The Cooperative Education Programs in Latin America are bilateral, designed to work out, by collaboration of American specialists and those in individual Latin American countries, the reorientation of certain phases of national education systems, with adaptation to those systems of such North American methods and practices as are clearly adaptable and useful. As the separate programs have developed, however, certain problems of common concern to several countries have emerged. Mainly as the result of consultation among the representatives of the IIAA in the several countries regarding solutions of these problems, the officials and educators of the Latin American countries themselves have become interested in exchanging information and ideas. As an example of this collaboration, Peru, Bolivia, and Ecuador have set up among themselves a kind of cooperative program in rural education, closely tied to the bilateral programs each has with the United States. Educators and officials from all four countries have come together for workshops and conferences in Santiago de Hauata, Bolivia, in Puno, Peru, and in Quito, Ecuador. This example of multilateral cooperation has now been linked with the example given above of the creation, *through* collaborative effort, of a series of readers for the children of Central America, since, as mentioned above, these readers were recently introduced into a workshop for training of demonstration teachers held in Quito, which was attended also by educators from Bolivia and Peru. The Quito workshop, in turn, has strongly recommended that other such meetings be held regularly, preferably with the inclusion of teachers from other

areas of Latin America, under sponsorship of the Cooperative Education Programs.

Community-Centered Schools

The comparatively low percentage of attendance in Latin American rural schools, and the high percentage of pupils who drop out of school at the end of the first or second grade, have been due in no small measure to the fact that the rural schools have not ministered to the special life needs of the population. In the Cooperative Education Programs which deal with rural education, the concept of the "Community-centered school" is stressed. The school is regarded both as being shaped by the community environment, and ministering to community needs. The curriculum, for instance, gives a large measure of attention to health and hygiene, agriculture, and home life and crafts. Even the content of the Three R's, which retain prime importance, contributes to the cause; the pupils learn to read and to figure in terms of the familiar landscape, the home, the farm, the market place.

Hygiene instruction is reinforced by the "cleanliness corner" in each school, where each child has his toothbrush, comb, towel, and drinking cup. Nutrition comes to life in the school lunch, planned and prepared cooperatively by teachers and pupils. Agriculture is taught partly in the school garden, in a very practical way, and many of the garden products go into the lunches. School clubs are organized on the model of the 4-H Clubs, and not only agriculture, but the raising of poultry, rabbits, swine, cattle, and sheep, form part of the club activities. Associations of Parents' Auxiliaries are coordinated with the school clubs, so that what is learned in the classroom, the garden, the school kitchen, and the club can be brought easily into the homes. In some places "teams" of pupils and parents are formed to carry out in the community the lessons learned in sanitation and home improvement.

Meanwhile, the teacher is being carefully oriented for a position of prime importance in the community. The teacher's guides, for instance, referred to above and adopted in Bolivia and Guatemala, and now being adapted for Ecuador and Peru, stress the teacher's responsibility for interesting herself in anything which affects the community welfare, and for taking the initiative in mobilizing community action to promote it: for example, in improving the village water supply, sanitation, disease prevention and control, and in promoting principles of good citizenship generally.

The community-centered school idea is already paying dividends in better and longer school attendance in many areas, and in the creation of greater community-consciousness on the part of parents and pupils alike.

The Nuclear School System

The highly centralized system of school administration which prevails in Latin America possesses certain advantages, but also has some serious disadvantages. For example, centralization of all authority and action in the Ministry of Education in the capital city has often resulted in failure to give due attention to the specialized needs of the rural schools, as to curriculum content, supervision, teacher training, and attention to school plants and sanitation. The curriculum, for instance, is usually decreed in detail from the capital city, and is the same for rural schools as for urban.

In Bolivia, however, there existed, prior to the cooperative education program, a system of local administration which descends in part from Inca times, and which had been partially modified some twenty years ago by a Belgian mission. Under the cooperative program of the IIAA, this system, known as the system of Nuclear Rural Schools, has been more closely adapted to Bolivia's rural needs. Without destroying the authority of the central offices in the Ministry, it makes possible a more effective administration of rural schools. A special Division of Rural Education has been set up in the Ministry itself, staffed with personnel thoroughly familiar with the rural scene. Out in the countryside, the largest and most centrally located school of a given area is designated as a "central school," and some twelve to twenty smaller schools surrounding it are grouped together in a "*nucleo*," receiving from the central school the services of administration and supervision. The director of the *nucleo*, who is often also the director of the central school, is responsible for guiding all the teachers in the *nucleo* in matters of curriculum, method, school sanitation and plant management, and standards of instruction. Each *nucleo* has also special supervisors of various subject fields, to assist the director.

As a result of the cooperative education programs in other countries and the apparent success of the nuclear system, the Ministries of Education in Ecuador, Guatemala, and Peru have lately adopted the system of Nuclear Rural Schools. In Guatemala, for instance, the first decree establishing the nuclear school system designated twenty nuclear areas, with a total of some 400 of approximately 2,000 rural schools in the country. Other *nucleos* are to be established as soon as personnel can be trained to administer them. In most cases, in all four of the countries mentioned, the Servicio Cooperativo has been made responsible for the first few years of the administration of most or all of the *nucleos*. Recently the Ministry of Education of El Salvador, where there is no cooperative education program, asked the Minister of Education of Guatemala and our Special Representative in Guatemala for assistance in setting up the nuclear system in El Salvador.

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TABLE VI. ADJUSTMENTS IN PROGRAM ESTIMATES TO ARRIVE AT ADDITIONAL APPROPRIATION REQUIREMENT

A. *For the Technical Cooperation Program*	
Total program including cost to recipient countries	$85,600,000
Less costs to recipient countries	28,500,000
Cost of program to U. S. or international agencies	57,100,000
Less programs for which appropriations have been separately requested or which will be met from regular budgets of international agencies	13,900,000
Additional first year program	43,200,000
Less costs of United Nations program borne by other United Nations member countries and "lapses" in U. S. programs	11,600,000
Net additional program costs to the U. S. in first year	31,600,000
Net administrative cost	2,900,000
Total appropriation requirement for technical cooperation first year	34,500,000
B. *For the Department of Commerce Service to Business for Foreign Economic Development*	500,000
Total appropriation requirement for first year	*$35,000,000

*Excludes certain other programs which will be operated as a part of the Point Four Program, specifically $7,000,000 for the ITAA and $2,600,000 for certain activities now being carried on under Public Law 402.