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Washington, D.C.

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Shoaib, MOHAMMED - ARTICLES and SPEECHES (1967 - 1971)



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SHOATB

yo con la Argentina.
La firma de los documentos citados por parte de todos los integrantes de cada una de las delegaciones demandó cerca de una hora. Concluida esta labor la presidencia solicitó un voto de aplauso para la República Dominicana con motivo de celebrar este país ayer su fecha patria. El jefe de la delegación dominicana agradeció el homenaje.

Pidió la palabra entonces el
(Cont. en la 5ª pág., 1ª col.)

nos: Aires.
"Permitásemme entonces apartarme de la costumbre de hacer una recapitulación final que, para esta ocasión, versaría sobre algo por demás sabido, conocido y sin duda ya recapitulada en esta última conferencia, suma y compendio de aquellas que la precedieron.

"Permitásemme poner aparte el juicio crítico acerca de la tarea jurídica y política realizada, el juicio sobre lo concebido y lo logrado, el juicio en torno

unidad de alma y tradición, muchos y diversos pueblos que podrían regirse por las mismas reglas en la paz y en la guerra, pero que sabían, a la vez, guardar y celar sus particularidades y costumbres propias, tanto para la esencia de sus existencias individuales como para vivero de la universalidad creada por esas individualidades.

"Recuerdo éste que aquí formulo de una forma de civilización unitaria, mas no unifica-

"Hay en nuestro sistema normas expresas, codificadas, nítidas; mas las hay también inexpresas, latentes en la entraña del sistema. Las primeras valen por nuestro respeto y acatamiento a los principios jurídicos; más las segundas informan a las primeras, constituyen la condición de supervivencia del sistema mismo, sirven de pauta para evaluar el acierto del precepto fijado en tratados y a veces también los
(Cont. en la 5ª pág., 1ª col.)

ción de Inmigración.
Su texto como
cretaría de Pre
sidencia de la)

"Preservar interno

El Poder Ejecutivo queda facultado una convocatoria para satisfacer la seguridad de los intereses vitales del Estado nazados, interferidos y resulte bigracia, "preservar interno o el bien comunidad".

La convocatoria dos los habitantes mayores de 14 cepciones: quien bandera, los extrañan de inmunidad y "las personas exceptuadas en convocatoria". "I convocados —señ deseen someterse ciones de la co drán renunciar, residir en el pa del territorio ar

La convocatoria efecto cuando, a der Ejecutivo ha cesado las caus tivarón".

"Carga pública nuncia

El personal cor rá sometido a la del Código de J y de la reglamenta ción militar, com cumple con el s Para ese person presente en tiempos jados, hay pena entre dos meses prisión.

La preparación tareas que posi cionamiento oport de del Servicio (sa —subráyase— una responsabilidad compartir todos y, además, "carg nunciable".

Traslados

Se prevén, as de 1000 a 500.0 sión de 1 a 3 i infractores, así el traslado de) "a otras activid en cumplimiento seguridad nacional

Atiéndese, adem neraciones corr

Los fun

Al someterse del primer ma proyecto de ley d de Defensa, ca está dispuesta de la ley Nº 160 los criterios funm tados para la d ley Nº 17.192 en las siguientes r

"Que la segud una necesidad en afianzamiento es vativa de las ers sino que compd lidad de los htar ya que los ado para el logro re sus fines requie ción activa tod

La Nación, March 6, 1967, front page

Bases para la integración en la Cuenca del Plata

LAS ESTIPULARON CANCELLERES DE CINCO NACIONES

Con tal fin creóse un Comité Intergubernamental Coordinador

(Martes 28)

Poco menos de una hora y media de duración tuvo la Primera Reunión de los Cancilleres de los Países de la Cuenca del Plata, efectuada ayer por la tarde en el Teatro Municipal General San Martín, con asistencia de los ministros de Relaciones Exteriores de la Argentina, Bolivia, Brasil, Paraguay y el Uruguay. Como resultado de las deliberaciones, emitióse una declaración en la que señala la decisión de los gobiernos de efectuar un estudio conjunto e integral del área con miras a la realización de obras multinacionales, bilaterales y nacionales en pos del progreso de la región.

También se integró un Comité Intergubernamental Coordinador que tendrá por fin centralizar las informaciones y girarlas a los gobiernos interesados. El estudio antes citado versará acerca de las posibilidades para la construcción de obras de infraestructura, y la estructuración de programas de educación, de conservación de la vida animal y forestal, de radicación de industrias y de lucha contra las epidemias.

Los cancilleres resolvieron efectuar una nueva reunión para proseguir con el análisis de los problemas que se han

carado en la ciudad de San.
(Cont. en la 4ª pág., 6ª col.)

La declaración conjunta

La declaración conjunta de los cancilleres de los países de la Cuenca del Plata —dada después de la conferencia que celebraron ayer—, dice:

"Los ministros de Relaciones Exteriores de la Argentina, señor Nicanor Costa Méndez; de Bolivia, señor Alberto Crespo Gutiérrez; del Brasil, señor Juracy Magalhaes; del Paraguay, señor Raúl Sapena Pastor, y del Uruguay, señor Luis Vidal Zaglio, reunidos en la ciudad de Buenos Aires, a los veintisiete días del mes de febrero del año mil novecientos sesenta y siete, animados de un firme espíritu de cooperación y convencidos de la necesidad de aunar esfuerzos para el desarrollo armónico y equilibrado de la región de la Cuenca del Plata en beneficio de los intereses comunes de sus países y sus pueblos, como un paso de gran alcance en el proceso de integración latinoamericana y procurando concretar mejor los objetivos nacionales de cada uno de los Estados participantes, declaran:

"I. Que es decisión de sus gobiernos llevar a cabo el estudio conjunto e integral de la Cuenca del Plata con miras a la realización de un programa de obras multinacionales, bilaterales y nacionales útiles al progreso de la región.

"II. Los embajadores extraordinarios y plenipotenciarios acreditados ante el gobierno argentino y el funcionario de igual rango que designe la Cancillería argentina se constituirán en Comité Intergubernamental Coordinador. Cada país podrá acreditar los asesores técnicos que crea conveniente. Este Comité adoptará decisiones por el voto unánime de sus integrantes y tendrá la misión de centralizar las informaciones y encaminarlas a los gobiernos interesados, así como la coordinación de la acción conjunta que se considere necesaria.

"Es de su competencia elaborar un proyecto de estatuto para su definitiva constitución, que será presentado en la próxima reunión de cancilleres de los países de la Cuenca.

"III. Que se proponen adoptar las medidas necesarias para que en cada uno de los países organismos nacionales especializados centralicen los estudios y la apreciación de los problemas nacionales de cada uno de ellos, relativos a la Cuenca.

"Por intermedio del Comité Intergubernamental Coordinador estos organismos intercambiarán las informaciones vinculadas con el estudio previsto en el numeral I de esta declaración.

"IV. Que para alcanzar el objetivo del desarrollo integral de la Cuenca el estudio deberá tomar en consideración, principalmente, los siguientes temas:

"A. Las facilidades y asistencia a la navegación; el establecimiento de nuevos puertos fluviales y el mejoramiento de los ya exis-

tentes, con el propósito de que puedan ser utilizados en forma más eficiente por los países de la Cuenca, y en especial por aquellos que tienen una situación mediterránea; los estudios hidroeléctricos, con miras a la integración energética de la Cuenca; la instalación de servicios de agua para usos domésticos, sanitarios e industriales y para regadíos; el control de crecidas e inundaciones y de la erosión, y la conservación de la vida animal y vegetal.

"B. La interconexión vial, fluvial, ferroviaria y aérea, la construcción de poliductos y el establecimiento de un eficiente sistema de telecomunicaciones.

"C. La complementación regional mediante la promoción y radicación de industrias de interés para el desarrollo de la Cuenca.

"D. La complementación económica de áreas limítrofes.

"E. La cooperación mutua en programas de educación, sanidad y lucha contra las epidemias.

"V. La cooperación técnica y financiera de los organismos internacionales será indispensable para que estos estudios puedan alcanzar los fines que persiguen resultando necesario mantener un estrecho contacto con dichas organizaciones de asistencia y crédito.

"Que han tomado nota de la declaración de los ministros de Relaciones Exteriores de la Argentina, Bolivia y Paraguay, en el sentido de que cada uno de sus gobiernos ya han solicitado la colaboración del Banco Interamericano de Desarrollo que se prestará a través del Instituto para la Integración de América latina y con la participación del Programa de Naciones Unidas para el Desarrollo, la secretaría de la Organización de los Estados Americanos y el Comité Interamericano de la Alianza para el Progreso y otros organismos internacionales, para la realización del estudio mencionado en el numeral I.

"VI. Los cancilleres de la Argentina, Bolivia, Brasil, Paraguay y Uruguay, realizarán una nueva reunión para seguir considerando este programa en la ciudad de Santa Cruz de la Sierra (Bolivia) en la fecha que recomienda el Comité Intergubernamental Coordinador y, en lo posible, en el curso del año 1967.

"Esta declaración es la prueba del firme propósito de cooperación que anima a los pueblos de América latina y de la decidida resolución de los gobiernos de los cinco países de colaborar activamente en la realización de los estudios y de las obras indispensables para acelerar el progreso de la Cuenca del Plata".

Footnote 3, Water for Economic Development (p.9): "Only three months ago the Ministers of Foreign Affairs of Argentina, Bolivia, Brasil, Paraguay and Uruguay adopted a joint declaration which lays the groundwork for development of the Rio de la Plata Basin."



ALEXANDER F. VICTOR who bequeathed his estate to promote birth control in overpopulated countries.

THE VICTOR FUND AND THE VICTOR-BOSTROM FUND

The Victor Fund was established in 1965 to contribute at least \$3 million to the worldwide budgets of the International Planned Parenthood Federation during 1966, 1967 and 1968. With nearly 30 contributions of \$150,000 each the Victor Fund was oversubscribed and enabled IPPF to support projects and programs in more than 40 countries.

To rebuild the Victor Fund and provide continuing support to IPPF in 1969, 1970, and 1971, Mr. Harold Bostrom, Vice President of Universal Oil Products Company in Milwaukee, Wisconsin, contributed \$300,000 on the condition that a minimum of \$3 million be raised, in units of \$150,000, comparable to the original Victor Fund solicitation.

The total contributions now amount to more than \$5 million. If a total of \$6 million can be gathered, then the annual Victor-Bostrom Fund contributions to IPPF can continue to increase annually over the three year period to meet the increasing worldwide demand for IPPF assistance. That is the present objective.



HAROLD W. BOSTROM whose contribution started the Victor-Bostrom Fund for the IPPF.



WILLIAM H. DRAPER, JR. Chairman, Victor-Bostrom Fund Committee

The Victor-Bostrom Fund Report

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Editor: PHYLLIS T. PIOTROW

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The Challenge to Water Resources

by

MOHAMMED SHOAIB

Vice President

International Bank for Reconstruction and Development



Throughout recorded history, human civilization — and in the most basic sense, even human life — has depended upon the availability of water.

The need for water and the maintenance of an adequate fluid balance in the individual human body has been recognized since the beginning of medicine. At the community level, for the growth and development of cities, water has been simultaneously an essential channel of communication and trade, a requirement for growth of sufficient foods, and a necessity for drinking and sanitation.

The public health crusade for potable drinking water has increased life expectancy around the globe. In the last few decades water has assumed ever greater importance in the economic development process — water for industry, water for hybrid, fertilized crops, and water to meet the rising living standards that people the world over are seeking.

Most recently water has assumed a new dimension in international thinking. It is a vital part of the total environment and ecology of the earth. Not only sufficient water but also clean water, usable water, delivered to the areas of greatest human and natural need is becoming a source of worldwide concern. Even the most advanced industrial nations are asking ***“How do our industries, our cities, our high per capita incomes benefit us if our water and environment are polluted, if they breed contamination and lead to ecological disaster instead of life?”***

When the structure of industrial societies in Europe and North America was first built, over a period of more than seven generations, waste was a camp-follower of progress. For the better part of 200 years, the principal guide in using natural resources to improve the conditions of human life was a trial and error process.

This involved much dissipation of human life and of irreplaceable resources. In the wake of phenomenal gains, industry threw up unhappy consequences which are all too familiar. Among these are water shortages and water pollution of all kinds in some of the more generously endowed areas of the world. Now the side effects and long-term results of water resource development are the focus of increasing attention to those in the World Bank and elsewhere who seek to improve the overall standards of human life. If we despoil the environment, we will never accomplish our long-range development goals.

Water and the Bank

The crucial role of water and water management has been a major concern at the World Bank for nearly a quarter of a century. About \$3.2 billion to 54 countries out of the total \$15.2 billion we have lent to 102 countries has been for projects for the efficient use of water resources (irrigation and flood control, navigation, hydroelectric power generation, and urban water supply systems).

So our financial stake alone is large. Our interest, however — and sometimes, I am encouraged to believe our influence — is much larger. We are the instrument of 112 member governments, our “stockholders.” Our whole purpose is to help increase the output and improve the living standards of our less developed members — over 90 countries with half the population of the world. *We are therefore deeply concerned about the effective utilization of all resources for development, domestic and foreign, public and private, man-made and natural.* Currently the World Bank is seeking to expand its knowledge of environmental problems. Ecology, urbanization, pollution, are new areas in which we are just beginning to develop the competence necessary for constructive international assistance.

The World Bank has been a leader in stressing the need for a broad international approach to water



The Volta Dam in Ghana was constructed with World Bank aid.

resources development.

Water, like air, is both ubiquitous and highly mobile. The forces which determine its location and movements are heedless of national boundaries. Man's political arrangements must accommodate such forces if water is to make its full contribution to his welfare.

The manifold advantages of developing watersheds or river basins as single units are well known. When more than one state is involved, however, political sovereignty and the efficient use of water resources are not always compatible, though the need to bring them into harmony may be perfectly clear.

The construction of projects upstream for navigation, flood control, power, irrigation or urban water supply often have important economic and social implications for a neighbor down the river; and such improvements downstream usually have consequences in the upper reaches. In some circumstances it may be most efficient to inundate land in your neighboring country in order to irrigate farms or meet rising power needs in your own, though your neighbor may naturally be reluctant to agree to such a concept of efficiency. A flood control system in one part of a watershed is likely to affect the whole, for better or worse and without regard to nationality. The use of rivers for the disposal of industrial and urban waste can have serious international repercussions. Especially in areas such as Africa, where a single river may be shared by half a dozen countries, these problems are likely to be the most relevant ones for the future growth of the riparian countries.

Lack of Knowledge

Unfortunately, in the water development field the lack of readily available basic information has always been a great handicap. Adequate and reliable data on rainfall, runoff, flood levels, and the composition and movements of groundwater simply do not exist in many areas, even for some of the most important rivers and watersheds in the world. In this area, as in a number of others, our theory and technology have far outstripped the supply of information required to translate knowledge into well-prepared development projects.

This “hydrological data gap,” if one may call it that, is a worldwide phenomenon which afflicts the highly industrialized as well as the developing countries. Fif-

teen years ago, the "Hoover Commission" on Government Reorganization concluded that the U.S. had suffered in the past from many costly errors due to inadequate data.

Population Spurs Demand

Today the need for better information and a better understanding of water resources is more acute than ever before. *World population is increasing by 2% annually. Some of the greatest increases are taking place in those very areas — like the Nile and Indus River valleys and the Gangetic plain — where efficient water management is most critical and most difficult to achieve.* The problem is compounded by the fact that the per capita consumption of water in the developing world is so low by any standards, — as the table on page 14 indicates, — that a substantial rise in consumption is inevitable. Water needs for power and development are also increasing even faster than the needs of individual users.

Today we also realize that water resource development may be a threat to economic development unless it is undertaken with a knowledge of total environmental and ecological results. There is evidence, for instance, that dams and water storage projects can adversely affect agriculture, if silting takes place, if the salinity of the soil is increased, or if irrigation canals become breeding places for crop pests and human disease.

In various parts of Africa, the Bank is looking again at the difficulties of water storage, and at the health hazards of water development. The prevalence in West Africa of "river blindness," for instance, which may be associated with certain bodies of water, is now under study by the Bank and other international bodies.

More Urgent Challenge

In short, the full and effective use of water resources to improve the conditions of human life today is a challenge that becomes more urgent with each passing day. So far we often do not know how to preserve the necessary elements of the environment while improving upon others. *But we do know, with increasing certainty, that balance between population, environment, and water is becoming precarious. Even where incomes are high and food is available, the*

demand for clean water often exceeds its supply. In developing countries, adequate water supplies spell the difference between debility and health, between poverty and prosperity. Unless population growth is checked, unless environmental interrelations are better understood, and unless water resources can be better managed, the goal of economic development may be jeopardized in many areas.

During the Second Development Decade, the World Bank will be giving increased attention to this challenge. In combination with a greatly increased emphasis on population problems, we shall also focus far more thought and resources on the ever more crucial problem of how the world's populations can best use, without abusing, the environment that all — rich and poor nations alike — must share.



The Guri Dam in Venezuela also received World Bank assistance.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

WATER for economic development

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Two Papers
presented by the World Bank to the
International Conference on Water for Peace

Washington, D.C.

May 23-31, 1967

WATER for Economic Development

Two Papers Presented by the World Bank to the
International Conference on Water for Peace
Washington, D.C., May 23-31, 1967

1. Water for Industrial and Economic Development
by MOHAMED SHOAIIB, Vice President
2. Water Use and Economic Growth
by HUGH RIPMAN, Deputy Director,
Projects Department

1. WATER FOR INDUSTRIAL AND ECONOMIC DEVELOPMENT

By MOHAMED SHOAIB, Vice President

I am very grateful for the opportunity to address this conference on Water for Peace. This is a subject of continuing and deep interest to all humanity and, as such, to us in the World Bank.

The crucial role of water management has been a major theme of ours at the World Bank for 20 years. About one half of the \$12 billion we have lent to 96 countries has been for projects for the efficient use of water resources. So our financial stake alone is large. Our interest, however, and sometimes, I am encouraged to believe, our influence, is much larger. We are the instrument of 106 member governments, our stockholders. Our whole purpose is to help increase the output and living standards of our less developed members, 88 countries with half the population of the world. We are therefore deeply concerned about the efficiency of all forms of investment for development, domestic and foreign, public and private. For in the perspective of this task, any misdirection of resources is more than regrettable, whatever the cause.

In any large enterprise, of course, a certain misallocation of resources is unavoidable. But the excuse of ignorance and lack of understanding is no longer quite as valid as it might have been in earlier times, when waste was a camp follower of progress. The structure of industrial society in Europe and North America has taken seven generations to build. For the better part of 200 years, the principal guide was trial and error. The process involved much dissipation of human life and of irreplaceable resources. In the wake of phenomenal gains, it threw up unhappy consequences which

are all too familiar. A few of these, such as water shortages and pollution in some of the more generously endowed areas of the world, are germane to the subject of this conference. Such problems might have been avoided if what we know today had been known 50 or 100 years ago.

Instead, much of our current knowledge has accumulated in the last few decades. This is true, I believe, in the fields of economics, government and business administration, industrial production and technology, marketing, the natural and behavioral sciences, medicine, and perhaps even agriculture. Today, we have a vast and strikingly new store of knowledge and experience which gives us the capability of greatly reducing the time and easing the task of development. This places an unprecedentedly heavy burden on our generation, and most especially on the leaders of the developing countries and those of us who have been given the privilege of helping them.

When we consider the question of water as a resource for development, for industrialization, and hopefully for building a more congenial environment for peace, what is most notable is the lack of readily available basic information. This is a problem which has preoccupied World Bank engineers and consultants in scores of countries for many years, as they have searched for the hydrographic and hydrological data required in connection with projects for irrigation, hydroelectric power, flood control, inland navigation and urban water supply. Adequate and reliable data on rainfall, runoff, flood levels, and the composition and movements of groundwater simply do not exist in many areas, even for some of the most important rivers and watersheds in the world. In this field, as in a number of others, our theory and technology have far outstripped the supply of information required to translate knowledge into well prepared development projects.

I have noted with satisfaction that the need for more and better data has been given full recognition in planning for

this conference. And of course it is the chief motivation behind the International Hydrological Decade (IHD), in which many national programs will be coordinated through the United Nations Educational, Scientific and Cultural Organization (Unesco). While there is a universal paucity of information on water, it is undoubtedly most acute in many developing countries. It is to be hoped that means will be found for most of them, if not all, to participate in the IHD program. It will be a major advance if the foundation can be laid for the systematic accumulation of reliable data which are both adequate and comparable from country to country and region to region. It is especially important that this be achieved with respect to watersheds involving the interests of more than one country.

This brings me to another important aspect of my subject. Just as we lag in such seemingly humdrum matters as the collection of facts and figures required for responsible decisions at the national level, we have been slow to devise a satisfactory politico-legal approach to the beneficial development of international water systems.

The manifold advantages of developing watersheds or river basins as single units are well known. When more than one state is involved, however, political sovereignty and the efficient use of water resources are not always compatible, though the need to bring them into harmony may be perfectly clear. The construction of projects upstream for navigation, flood control, power, irrigation or urban water supply often have important economic and social implications for a neighbor down the river; and such improvements downstream usually have consequences in the upper reaches. In some circumstances it may be most efficient to inundate land in a neighboring country in order to irrigate farms or meet rising power needs in one's own, though the neighbor may naturally be reluctant to agree to such a concept of efficiency. A flood control system in one part of a watershed is likely to affect the whole, for better or worse and without

regard to nationality. The use of rivers for the disposal of industrial and urban waste can have serious international repercussions. Especially in areas such as Africa, where a single river may be shared by half a dozen countries, these problems are likely to be particularly relevant for their future growth.

Such interactions raise exceedingly difficult issues in administration, law and international relations. At the same time, the benefits of integrated river basin development are so great in contrast to competitive or piecemeal exploitation, and they are becoming so widely known, that they tend to reinforce all other reasons for practical international cooperation. Conferences such as this contribute to the process.

Movement towards the truly rational use of international water systems seems painfully slow in the light of immediate needs and potential benefits. Nevertheless, if one takes a fairly detached view, it is surprising how much has been accomplished in a relatively short time. Until a few decades ago, international law had virtually nothing to say about the flow and control of water except for questions of navigation and boundaries. A profound change has come about since the introduction of hydroelectric power. Growing needs and technological advance, especially in the fields of irrigation and conservation, and lately the stifling new problems of pollution, have given added force and dimension to the change. There are now well over 50 international treaties concerning the use of water for purposes other than navigation, and there are several multilateral conventions. In addition, there is a large body of legislative enactments and judicial opinions dealing with analagous questions among states in federal systems.

Growing out of all this, it is possible to see the outlines of what perhaps may be regarded as an accepted set of principles. Thus, there has developed a widely accepted principle to the effect that no state has a right to use the waters of an international river within its own borders without

taking account of the effects on its neighbors.¹ A corollary principle has evolved in the settlement of water disputes, with the result that increasing weight seems to be given internationally to the "equitable apportionment" of benefits, a doctrine applied by federal courts in the United States, Germany and Switzerland.² While these are negative principles, they are nevertheless important.

International law can acquire positive strength only as principle and practice go hand in hand. The principles already enunciated will gather weight and force to the degree that the successful execution of international agreements on the use of water resources results in mutual benefits of real and recognizable value. This is a long and difficult process, and we will be wise not to expect too much too soon. So far there have been many failures and partial failures, but there have also been a few extremely important demonstrations of at least limited success. If one makes ample allowance for inevitable disappointments, it is possible to say that the general trend is promising.

Undoubtedly the most dramatic example of success in the less developed areas has been the carrying out of the Indus Waters Treaty of 1960. The Treaty took over eight years to negotiate, with the active aid of the World Bank. It helped resolve the dangerous disputes which arose as the line of Partition separating India and West Pakistan slashed right across the Indus water system, one of the most extensive in the world. The Treaty provided for division of the waters of the Indus and its five major tributaries. A separate agreement provided for a fund, administered by the Bank, to finance a very large complex of projects in West Pakistan. Foreign exchange contributions to the fund, totaling about \$1,200 million, were committed by the two riparian states

¹ Eagleton, Clyde. *The Use of the Waters of International Rivers*. The Canadian Bar Review. Vol. XXXIII, November 1955. p. 1021.

² *Legal Aspects of Hydro-Electric Development on Rivers and Lakes of Common Interest*. U.N. Document General E/ECE/136 E/ECE/EP/98 Rev. 1. Geneva. January 1952. pp. 69-79.

and six of the Bank's industrialized members—Australia, Canada, Germany, New Zealand, the United Kingdom and the United States. In addition, the United States and the Bank lent Pakistan funds to meet a part of its contribution, and agreed to provide foreign exchange to India for hydroelectric and irrigation projects which are now under construction.

The Indus Basin projects include five barrages to back-stop the rivers and divert their discharges through eight link canals, which pass over and under other waterways and are crossed by hundreds of road and railway bridges. The show-piece of the entire complex is the Mangla Dam on the Jhelum River. Water is already running over the spillway, and in just a few days—a full year ahead of schedule—the dam will be topped out with the last of 120 million cubic yards of earth and rock, which I believe makes it the second largest structure of its kind. Although irrigation is the major purpose of the entire Indus Basin program, the Mangla Dam will also produce a fair amount of power. The first generators have just begun to turn, I am told, and by the time the project is officially inaugurated next October, it may be producing 400,000 kilowatts. With additional units, capacity can be more than doubled.

In addition to such projects already completed and under construction, the Indus Basin Development Fund has financed a comprehensive study of the water and power resources of West Pakistan. The study includes an inventory of both surface and groundwater resources. It will provide a plan for meeting water needs beyond 1975 and achieving relief from problems of water-logging and salinity. In its initial stage, the study also established the technical and economic feasibility of a proposed dam at Tarbela on the Indus River, which will be even larger than Mangla. A substantial balance remaining in the Development Fund will be available to meet a large part of the foreign exchange cost of the Tarbela project.

I might also mention two other efforts in which the Bank is involved in quite different ways, and from which we hope to gain more insight into the best techniques for regional development of water resources. One is the Nam Ngum hydroelectric project in Laos; the second is a joint approach by Mali, Mauritania, Guinea and Senegal to the comprehensive development of the Senegal River and its tributary, the Bafing.

The Nam Ngum project has many interesting features, not the least of which is the fact that the World Bank is serving solely as the administrator; we have no financial participation. General explorations leading to the project were carried out by the Committee for Coordination of Investigations of the Lower Mekong Basin (the Mekong Committee), representing Cambodia, Laos, Thailand and the Republic of Vietnam and operating under the aegis of the United Nations Economic Commission for Asia and the Far East. The feasibility study was financed by the United Nations Development Programme (UNDP) and the Government of Japan, which is also financing the detailed design under its own program of aid to Laos. Thailand has agreed to provide cement worth \$1 million in exchange for power to be generated by the project. The basic financing is to be in the form of grants of various amounts by Australia, Canada, Denmark, France, Japan, the Netherlands, New Zealand and the United States, totaling about \$24 million. The organizing work is just getting started.

In the case of the Senegal River program, the role of the Bank at this stage is a purely advisory one. In that capacity, however, we have a part in a new and interesting arrangement, under the leadership of the UNDP. The original initiative came from the Interstate Committee on the Senegal River Basin, an intergovernmental organization established by the riparian countries and made responsible for joint planning. At the Committee's request, the United Nations organized a mission which made a general survey of prob-

lems and possibilities. On the basis of its report, the four countries adopted a general development policy for the basin and, through the Committee, requested financing from the UNDP for a series of pre-investment studies. As a means of coordinating such studies and other external advice and technical assistance, the UNDP established a Senegal River Basin Advisory Group, of which the Bank is a member along with the United Nations, the Food and Agriculture Organization of the United Nations (FAO) and Unesco.

The three examples I have chosen, the Indus and Senegal Basin programs and the Nam Ngum project, should help to illustrate the point that there is a great diversity of situations in which regional development of water resources might come about. We are still exploring and experimenting to find whatever combinations of political, administrative and legal techniques for multilateral operations might be most useful and productive in different sets of circumstances. As far as we know now, there is no single solution, no ready formula.

We can say that a few key factors were of great importance to the success of the Indus program, as long as we are careful to reserve judgment about their relevance for other situations. First, despite the magnitude of the works involved, they were perfectly feasible within the limits of administrative and financial resources available. Second, the underlying agreements were both clear and limited. Third, the agreements did not provide for joint administration. This responsibility was delegated to an impartial and professional organization on whose Board of Directors and Board of Governors both signatories are most ably represented, but which neither one nor both together can control.

I do not mean to suggest that joint administration by riparian states is undesirable *per se*, or always impracticable. On the contrary, I think the effort should be made whenever it seems clearly feasible. There is now consider-

able experience, especially in Europe and North America, to illustrate what might be accomplished.

So far, experience in the developing areas is relatively scant and inconclusive. Interest, however, is very much alive. Only three months ago, the Ministers of Foreign Affairs of Argentina, Bolivia, Brazil, Paraguay and Uruguay adopted a joint declaration which lays the groundwork for development of the Rio de la Plata Basin.³ Presumably, the decision taken last month at Punta del Este to proceed with the formation of a Latin American Common Market will give added impetus to the search for closer international collaboration in resource development as well as trade.

Appropriately enough, the sense of urgency may be strongest in Africa, a continent divided into 48 separate countries and territories, of which 39 are independent nations. Paradoxically, the same historical forces which cut Africa into small segments and left it beset by political tensions also generated stronger tendencies toward collaboration than one generally finds in other areas. Partly as a consequence of this, our own experience in joint lending to organizations representing more than one state is virtually confined to the African continent. Examples are loans to the East African Common Services Authority, providing transport and communications services for Kenya, Tanzania and Uganda, and to the East African Power Corporation, which operates the Kariba Dam on the Zambezi River and feeds power to both Rhodesia and Zambia. In close collaboration with the African Development Bank and other interested agencies, we intend to encourage and support such common projects wherever we find them if we are convinced that they are well conceived.

We suffer no illusions, however, about quick success. The opportunities for fruitful collaboration are virtually unlimited. But our enthusiasm should be tempered with caution.

³ Text in *La Nación*, Edición Aerea Internacional. March 6, 1967.

In all undertakings for the international use of water or any other economic resource, much effort can be saved and many mistakes avoided by applying the relevant lessons we have already learned in the more familiar realm of development within national boundaries.

If careful attention to priorities, the maintenance of high technical standards in the preparation, appraisal and supervision of projects, and regard for sound economic policies are important to national development, as I have no doubt they are, they could hardly be ignored in the even more intricate sphere of multinational operations. For the remainder of my time I should like first to comment on these questions, and then to conclude with a few remarks on a related subject, the international coordination of development assistance.

When the Bank entered the field of development finance, we set up a few policy guidelines in accordance with the terms of our charter. We decided that any project we helped to finance would have to measure up to certain essential criteria. It would have to be proved feasible by qualified experts. It would have to be well engineered. It would have to be executed and administered by a competent organization. Finally, we would have to be convinced that it warranted high priority in terms of the country's development needs.

Looking back after two decades, it is easy to see that any country in a position to meet such apparently routine requirements without help could hardly be classified as underdeveloped.

Some of those who came with requests for loans made little effort to provide facts, figures, plans or blueprints; furthermore, many did not know how to go about it, and saw no reason why they should. We could have turned down such requests or merely signed checks, taking guarantees from the borrowing governments, and I suspect that either course would have done wonders for our popularity rating.

But our charter said that we were to help increase production and living standards in the less developed countries. So one of the earliest lessons we learned was the necessity for technical assistance related to financing for specific projects.

This meant the creation of a new kind of banking, based on a premise that was rather unorthodox at the time: the idea that our responsibility was not merely to insist on proper technical standards for projects we agreed to finance, but to do everything in our power to help the client see to it that our standards would be met. Sometimes, we merely had to convince the borrower to employ competent consultants, but often the situation called for much more direct involvement on our part. In this way education in development began, for us and for many others. I suspect that most of us are grateful that a kind providence let us learn only gradually how monumental and involved the process would turn out to be.

Over the years, the most difficult aspect of the job has been associated with the question of priorities. This is the point where the great dilemmas of development converge. First, there are the awkward choices confronting the leaders of developing countries, which are especially difficult for those who have only recently gained their independence. One of these is the choice between the aid they need for faster economic growth, with some limitation on their freedom of action, and unrestricted freedom without aid. In this light, even simple and prudent conditions such as we laid down in the beginning, and to which we firmly adhere, are sometimes seen as "strings" attached to aid. It is all the more difficult to understand the necessity for such conditions if there is any cause to suspect that they might merely be a cover to gain some political, military or commercial advantage. The choice between what is popular and what is sound is another extremely serious dilemma in many developing countries, especially for leaders who are trying

earnestly to build democratic systems from scratch and who badly need public support.

Those who provide aid also have choices to make, and they are no easier. The money for public assistance to less developed countries has to be produced willingly by taxpayers. They may favor foreign aid but be curious, perhaps even skeptical, about what it achieves. Therefore, those who administer aid must attempt to ensure that the money will actually result in development. To do this, they have to insist that first things come first. If they go this far, they must be able to determine to their own satisfaction what is first, second, and third. In other words, they have to get involved in the question of priorities, which leads right to the central dilemma confronting both the giver and the receiver of aid: how can the most genuine problems and interests of both sides be accommodated without in some way diminishing the sovereignty of those who receive or jeopardizing the goodwill of those who give?

No one has the final answer to these questions, or for that matter to any of a number of others which, though less basic, are troublesome enough. These fundamental difficulties have led us to take a highly pragmatic approach. Gradually, the standards we established in the first place, and especially our insistence on priorities, led us far beyond the consideration of specific projects which we were asked to finance. They involved us increasingly in questions of country economic policy, investment programming, and the administration of development. These in turn have impelled us into the conduct of a wide variety of studies, ranging from comprehensive surveys of entire economies to the detailed examination of sectors and parts of sectors. Little by little, as our member countries at both ends of the economic scale have let themselves be persuaded that our only motive is the one we say we have, our relations with both have evolved in ways that open more and more paths to effective collaboration. The fact that ours are multilateral institutions in

which everyone involved has a voice has helped, of course, to overcome any doubt about our motivations; and I am immodest enough to say that our performance has contributed, too.

With this foundation to build on, we began a few years ago to tackle what seems to us to be the other most important aspect of the same problem. This is the question of international coordination of financial and technical assistance. Our approach to this is through the organization of what we call consultative groups, based on experience we have gained in the consortia on aid to India and Pakistan. They are groups of interested aid-providing governments and international institutions, brought together specifically to discuss the needs of individual developing countries. The Bank serves as organizer and chairman and provides the secretariat. We also provide the basic information required for productive discussions, including an objective analysis of the developing country's economic position, policies and prospects. When circumstances warrant it, we make specific comments on the country's investment program and offer recommendations on project priorities and the most suitable terms of financing. We are hopeful, I would even say confident, that this mechanism will gradually improve the climate of international development assistance. Already, 14 such groups have been organized, including three under the leadership of other international institutions. The 14 aid-receiving countries account for something over 40% of all development finance from official sources.

It is with all of this background in mind that I urge caution and careful attention to the lessons of experience when we look forward to the possibilities inherent in the integrated use of watersheds and river basins. It is possible, I think, that some entirely new and more effective kind of mechanism for the development of common water resources may evolve out of the opportunities and difficulties of the present situation. It should be possible to avoid the exces-

sive cost, complexity and inefficiency which often attend the administration of international enterprise. It is important to search for more acceptable and workable means of shielding the administrative structure from the abrasive and often stultifying effects of political control, once basic agreements have been reached on the content and financing of programs, on the "equitable apportionment" of benefits, and on means of settling disputes.

These objectives, however, are as difficult to attain as they are desirable. The only guides we have are experience and ingenuity, and in this sphere we need a great deal more of both.

2. WATER USE AND ECONOMIC GROWTH

by HUGH RIPMAN, Deputy Director, Projects Department

The efficient use of fresh water is a major concern of the International Bank for Reconstruction and Development (World Bank) and its affiliates, the International Development Association (IDA) and the International Finance Corporation (IFC), for it is crucial to the orderly economic growth of the developing countries. Fresh water is the most basic and abundant natural resource. It is essential to life, to the production of food and fibers, and to the growth of industry. In its flow to the sea, it is also a primary source of power and, in many countries, an important medium of transport.

Although water occurs everywhere, even in the rocks and desert sands, it is seldom found where it is most needed in sufficient quantity, of suitable quality, or under adequate control. The need for these added values—control, transportation, treatment—which represent most of the cost of water, accounts for much of the demand for development finance. Yet the easy availability of water is still taken largely for granted, and neither the cost nor the complexities involved in its best employment are fully appreciated. We welcome the initiative of the United States Government in convening this International Conference on Water for Peace, which highlights the central role that water must play in the growth of nations.

The orderly exploitation of fresh water in developing countries presents problems of extraordinary difficulty. This paper will deal with only a few of the more critical questions involved in financing development projects. It will focus especially on those in the fields of irrigation and urban water supply, but much of the discussion will apply to other types of projects as well.

It should be borne in mind throughout that economic problems in development are linked inseparably with others of a scientific and technological nature, which play an unusually important role in the financing of water-related projects. Unfortunately, there are serious gaps in our knowledge of water. Hydrological data for most areas are seriously inadequate. Systematic studies of water resources and their development potential have been made in only a few countries such as West Pakistan, where a comprehensive survey was completed recently under the supervision of the Bank as administrator of the Indus Basin Development Fund. The lack of information for most countries imposes limitations on our ability to make clear economic choices between alternative uses of available supplies, to assure ourselves that some types of upstream projects will not have adverse effects downstream, to estimate the reliability of future supply, and sometimes to anticipate and forestall destruction of the land's productivity by salinity, waterlogging, drought or floods.

As the pressure on readily usable water supply builds up with expanding population and industrialization, the need to fill this information gap becomes increasingly urgent. The need is universal, but it is especially acute for countries now in the early stages of economic development, for they can hardly afford the profligate use of resources which characterized earlier eras. It is to be hoped that the most acute shortcomings will be rectified eventually as a result of the cooperative program of the International Hydrological Decade, organized under the auspices of the United Nations Educational, Scientific and Cultural Organization (Unesco). Meanwhile, we must do the best we can with the knowledge and resources available, for economic growth and a higher standard of living for two-thirds of mankind are imperative demands.

To help meet these demands by providing finance for high priority purposes is the function of the World Bank Group,

the largest multilateral source of funds for development. As used in this paper, the term World Bank Group will refer only to the Bank and IDA, since they provide the vast bulk of the Group's development finance and their operations are more directly relevant to the subject of this conference. The more specialized role of IFC, which is to promote the expansion of private industrial and commercial activity in the less developed countries, will have an increasingly important bearing upon problems of water use as the process of industrialization accelerates.

The Bank and IDA have the same general purposes. They are administered by the same officers and staff, and they apply the same standards in appraising and supervising projects. Their funds are separate, however, and the terms of their lending are radically different. The Bank itself raises the largest part of its funds through the sale of bonds in the private capital markets, and therefore makes loans on conventional terms to reflect the cost of the money it borrows. The Bank is the oldest of the development finance institutions, having been in operation since 1946. Its shareholders are 106 member governments. IDA was organized by the Bank's members in 1960 to provide a channel for multilateral lending on easy terms to countries that are capable of faster development than they can safely finance through additional borrowing on conventional terms. Its funds are in the form of contributions, chiefly from the 18 wealthier nations among its membership of 97, and its loans have been for 50 years without interest except for a service charge of $\frac{3}{4}$ of 1%. Since its resources have been limited, they have been reserved for lending to countries with relatively good economic policies but very low per capita income. Although the governments of these countries receive the benefit of IDA terms, when the project being financed is a revenue-earning enterprise it is required to repay the government on conventional terms.

Together, the Bank and IDA provide about a quarter of all official external finance for capital development projects in the less developed countries, as distinguished from such aid as food shipments and program loans. Through 1966, the Bank had lent about \$10.2 billion net for 485 projects in 79 countries, while IDA had granted about \$1.6 billion in 100 credits to 36 countries. The pace of their lending has increased rapidly in recent years and is now at an annual rate of well over \$1 billion. The vast bulk of this financing has been for infrastructure projects which provide the base for self-sustaining economic growth. A very high proportion—perhaps as much as half—of the total of about \$12 billion has been for projects which depend on adequate supplies and efficient management of fresh water. Chiefly, they include irrigation and flood control works, urban water supply systems, inland waterways, hydroelectric installations and multi-purpose projects.

Successful lending for development, as distinguished from normal banking practice in countries with an ample supply of necessary skills, often requires the provision of technical aid to the borrower, as well as external finance. With hindsight, it is easy to see that the need for such help is a fundamental factor in the problem of development. It varies in scope from country to country, and ranges from aid in the formulation and administration of economic policy to the identification and preparation of specific projects. Neither the nature nor the extent of this need was fully perceived 20 years ago when the World Bank received its first request for a loan from a non-industrialized member country. Today technical assistance is a household phrase in almost every language, but everything we know about it had to be learned the hard way, step by step. We now consider the provision of such services, including the conduct of basic research and broad studies in the field of development economics, to be at least as important as the money we lend. It offers the borrowing country in need of such aid the best

assurance that both its own resources and those of the Bank will obtain the desired results; and it puts the Bank in a position to judge realistically whether a project is sound and the money it lends will be repaid.

PRIORITIES FOR DEVELOPMENT

Technical assistance is often required in the determination of priorities for development financing, a problem so basic that it calls for discussion on general grounds, without special reference to water-related projects. It is especially relevant to those involving the use of fresh water, however, since they command such a high proportion of available finance and require particular care in the allocation of both financial and natural resources.

To the maximum feasible extent, every project to be financed should justify itself in terms of its relative urgency and importance to the particular sector and the entire economy, in competition with all other projects which contest for scarce financial resources. In addition, any project involving the use of limited natural resources, including fresh water, should justify its priority in relation to alternative uses.

In practice, of course, it is exceeding difficult for less developed countries to adhere to such a rule. There is often a strong temptation to postpone the provision of safe drinking water, for example, and to channel investment into more dramatic or popular projects. Practical considerations occasionally make it necessary to proceed with projects which happen to be ready for financing, without waiting to know whether others might be more productive. Sometimes the inadequacy of data makes it impossible to assess relative priorities with assurance. The guideline is no less important, however, because it cannot always be rigidly applied. Increasingly strict adherence must be the constant goal, for

the avoidance of waste and the ability to achieve self-sustaining growth within a reasonable time depend upon it.

Even the approximate adherence to such a standard implies relatively sophisticated planning, whether in the formal presentation of a four or five-year plan or through a more pragmatic and flexible mechanism for investment programming. This presents immediate problems, however, and confronts both the provider and the recipient of external aid with an uncomfortable dilemma. Virtually by definition, most less developed countries suffer from an extreme shortage of some or all of the skills required to draw up or administer realistic investment programs. Their need for external technical advice and assistance is often acute. At the same time, they tend not to welcome foreign intervention in their investment decisions, especially when they suspect the presence of political, military or commercial motives. While this is understandable, the lending agency must either appraise the country's entire economic program and performance in arriving at a judgment on financing an individual project, or abandon its insistence that first things must come first. If the agency accepts its full responsibility and adopts the first alternative, it should also be prepared to offer assistance in overcoming the borrower's difficulties. But the offer is likely to be suspect, especially if only one project is under consideration and the lender's objectivity is open to doubt. The problem often is resolved by financing the project without regard to priorities, sometimes with unfortunate results.

The pressures to follow such a course are very strong. It side-steps the political dilemma for both sides, while permitting construction of projects which may be useful in any case. Intense competition among suppliers and contractors in the aid-giving countries to provide goods and services for a particular project also tends to subordinate questions of economic priority. This is particularly true when the project is politically attractive to leaders in the host country. Large

dams, steel mills, overly ambitious irrigation works, television networks, automated water supply systems—all these and other symbols of progress have played their role. All, of course, have their place in development; the point is that when they are financed before their turn in a rational scheme of priorities, the investment pattern is distorted, both domestic and external resources are misused, the recipient country's prospects for growth and a higher standard of living are diminished, and a disservice is done to the whole cause of development.

This would not be an easy problem to overcome even if ideally cooperative relations existed between givers and recipients of aid, with no motivation on either side but the most efficient use of resources. Severe limitations on the rationality of development would still be imposed by the world-wide shortage of skills in economic analysis, administration, science and technology, by historical, political and social realities which inhibit orderly growth, by the inadequacy of the statistical base in less developed countries, and by the shortcomings of economics, engineering, hydrology and other relevant sciences. It can be hoped, however, that ways will be found to permit objective analysis, whatever its technical limitations, to gain increasing ascendancy in the process of allocating development resources.

The World Bank attempts to advance this process, and it has done so with increasing success in view of the enormous difficulties inherent in the problem. Its methods are pragmatic. In its own operations, the key factor has been the evolution of relationships with its less developed members which are characterized by mutual trust and rooted in rigid standards of professional competence and objectivity on the part of the Bank itself. By now it is well known and generally accepted, if not always eagerly, that finance will be available from the World Bank Group only if the Bank is satisfied that the proposed project is technically feasible and economically justifiable, that it merits high priority in rela-

tion to competing needs and alternative uses of scarce financial and natural resources, and that the borrowing country is prepared to adhere to reasonably sound development policies. It is equally well known that, while the Bank can be very tough in this regard, its judgments will be impartial and motivated by the purpose laid down in its charter: to help increase production and improve living standards in the country concerned.

In applying such policies, it is obviously necessary to require that the borrowing country lay bare its development plans and permit the examination of its finances, administrative structure, policies and practices in considerable detail. While response has not been universally favorable, it has been encouraging. At one extreme, a few countries have found the Bank's requirements inadmissible, and assistance has been withheld. In many cases, however, confidence in the Bank's motivation has led to relationships which can best be described as open, frank and productive partnerships in development. Between these extremes, the degree of cooperation varies widely, but its general level has been rising as experience demonstrates that this is the most promising road to genuine economic growth.

The establishment and maintenance of such relationships, while difficult at best, is easier for a multilateral institution than for a national agency. Since about 85% of all official aid to the less developed countries is bilateral, however, a major problem is how to achieve the maximum benefits of close collaboration between providers and recipients of aid without diminishing the independence and importance of bilateral action. The Bank hopes to move a long way in this direction through its sponsorship and servicing of what we call consultative groups.⁴ These are formally organized groups of aid-giving members of the Bank that are interested in providing assistance to particular less developed

⁴ Hoffman, Michael L. *Aid Coordination*. World Bank, Washington, 1966.

members. Their discussions are based chiefly on Bank studies of the economic position, policies and prospects of the countries concerned, and its recommendations on sector and project priorities and terms of financing.

The evolution of consultative groups stems from experience in the consortia on aid to India and Pakistan, organized by the Bank in 1958 and 1960 respectively, and four groups to coordinate assistance to Colombia, Nigeria, Sudan and Tunisia. Renewed emphasis on this approach has resulted in the formation by the Bank of five additional groups, and within the next few years it is hoped that a large part of all external development assistance can be coordinated through such mechanisms. To the extent that this can be achieved and the groups succeed in their purpose, it may be expected that an increasing proportion of both technical and financial aid will be allocated in accordance with objectively determined priorities.

FINANCING PUBLIC UTILITIES

Beyond the question of priorities, responsible lending for development requires careful attention to all financial and technical aspects of the specific project, in order to assure maximum benefit to the borrowing country and the soundness of the loan. On the side of finance, the lending agency must be sure that adequate funds will be available from other sources as required, and that sound financial policies will guide both the execution and management of the project.

About half of all Bank Group financing has been for hydroelectric power, railways, ports and waterways, telecommunications and urban water supply—for projects which can clearly be classified as revenue-producing public utilities. The financial policies of such enterprises have an important impact on the whole process of development. The most crucial question concerns their rate structures: do

their revenues cover costs and provide enough surplus to finance improvements and future extensions to meet growing demand?

In fact, rates charged by long-established utilities in some less developed countries bear no close relation to real costs, but are held low for socio-political reasons. The utilities are subsidized. While the subsidies may be too small and uncertain to assure satisfactory service, they place a heavy burden on the government's scarce revenues and often lead to inflationary borrowing. In some cases, utility revenues themselves are diverted to other purposes to relieve pressure on the budget. Service inevitably deteriorates, falling progressively farther behind demand. Public indignation over poor service and resistance to higher rates grow simultaneously, feeding upon each other, while development is inhibited by the shortage of services that are basic to the health, mobility and productivity of people. It would be unrealistic to expect any other result from such policies, given the shortage of financial resources available to the government of a less developed country, the many pressing demands that are made upon them, and the relative political impotence of a financially dependent utility system.

The Bank Group's experience in less developed countries has indicated clearly that revenue-producing public utility projects almost invariably will fail to meet the needs of economic development unless they are made to pay their own way. Consequently, the Bank and IDA make the adoption of sound financial policies a precondition of their lending for such projects. They require especially that rates be established which will cover all operating and maintenance costs, including debt requirements, and produce a surplus which will help finance future extensions. These conditions apply whether the utility is publicly or privately owned.

An excellent example of the efficacy of such policies is a small project in Managua, Nicaragua, where the water supply system has been reorganized, modernized and

extended with the aid of a \$3 million IDA credit. When the credit was approved in late 1962, only about 40% of the city's built-up area and 53% of its population of 221,000 were served by the Empresa Aquadora de Managua, the water utility. Door-to-door vendors supplied most of the remaining population, chiefly in the low-income groups, while some had access to private wells and a few were served by small, independent systems. Water from these sources was often contaminated, and the limited statistics available indicated a high incidence of typical water-borne diseases.

In some important respects, the situation was far better than in many developing areas. The Empresa had some competent staff on which to build its organization. It was not subsidized, nor were its revenues diverted to other government purposes, so that it was able to cover operating costs and pay for modest replacements and extensions. During the preceding four years it had been able to borrow enough local funds to expand its system by more than a third. Nevertheless, more than 100,000 residents still had no direct public water service and population was growing faster than the number served. There had been no change in the Empresa's rates since 1945, while water purchased from private vendors cost from two and a half to nearly 14 times as much and other items in the cost of living had nearly doubled.

In borrowing from IDA, the Nicaraguan Government agreed to adopt policies permitting the Empresa to establish and maintain a schedule of rates covering operation and maintenance, depreciation, interest and amortization payments, normal year-to-year extensions of service, and a reasonable proportion of major expansion programs as they became necessary. Arrangements were made for a management study, assisted by the Pan American Health Organization. The Empresa moved immediately to adopt recommendations growing out of this study, including the modernization of its accounting system.

Free service was eliminated, average rates were increased by more than 50%, and a program was initiated to meter all water connections. As in all such cases, these decisions required political courage, but they have been amply vindicated by results. Even before the IDA-assisted project was completed last year, extending service to 65% of a population which had grown by a third, the Empresa was earning 8% on net fixed assets, including new facilities constructed with the IDA credit but not yet in service. Although the credit to the Nicaraguan Government was for a 50-year term without interest except for a service charge of $\frac{3}{4}$ of 1%, the Empresa is required to repay the loan to the government by 1986, with interest at 6%; this is in line with IDA's policy of giving the benefit of its easy terms to governments, but requiring that revenue-producing sub-borrowers repay on conventional terms.

The Empresa is now in a position to continue its growth on a sound basis, providing safe water at reasonable rates to an ever-increasing proportion of Managua's rapidly-growing population. It has also proved that its customers will pay a fair price for good water if they can get it; at least, its most recent report indicated that it had accomplished the remarkable feat of collecting 99% of its bills within two months of billing date!

Unfortunately, the Managua case is not typical. Resistance to realistic utility rates is prevalent. It is often difficult to gain acceptance of the concept even for railway and electric power service, and it is even more difficult when the product is safe drinking water, the most basic commodity of all. The idea that water for drinking and hygiene should be free, or heavily subsidized, tends to inhibit financing for water supply and is a major cause of the shortage in less developed countries which already is critical and is growing worse.

For technical advice and information on water supply problems, the World Bank relies heavily upon the World

Health Organization (WHO). Four years ago, WHO published a study⁵ which indicated that at least 70% of the urban population in 75 less developed countries, or more than 200 million people, had inadequate piped water service, were supplied with unsafe water, or both. The greatest urban water need, according to this study, is in Asia and Africa south of the Sahara. The worst conditions are in South and South Central Asia, where about two-thirds of the urban and at least 70% of the total population has no piped water. The situation is particularly acute in such urban centers as Calcutta, which is said to be the endemic center of cholera for all of Southeast Asia.⁶

The cost of such inadequacies in illness, death and wasted manpower is staggering. The loss of industrial and farm production is beyond estimating. And the situation becomes more serious year by year with increasing urbanization. The authors of the WHO study calculated that, in the 15 years from 1962 to 1977, some 450 million urban dwellers in the 75 countries studied would need new, extended or improved piped water supplies, requiring an annual investment of between \$400 million and \$500 million. Against this need, they found that only five or six of the 75 countries had construction programs which promised even to keep pace with the rise in population, but with no improvement in current low standards of service.

It is doubtful that financing required to overcome the existing backlog, even on the most modest scale, and to keep abreast of population growth will be forthcoming where sound financial policies are not adopted. On the other hand, there is ample reason to believe that realistic rate structures will go far toward attracting the necessary funds from domestic and foreign sources and that urban consumers will

⁵ Dieterich, Bernd H. and John M. Henderson. *Urban Water Supply Conditions and Needs in Seventy-Five Developing Countries*. WHO, Geneva, 1963.

⁶ Bose, Nirmal Kumar. "Calcutta: A Premature Metropolis." *Scientific American*. Vol. 213. 1965. pp. 90-102.

pay reasonable rates for a reliable supply of good water if service is available.

Unfortunately, there is little evidence to support the same conclusion about rural users of water, whether for irrigation or for drinking and hygiene. We can only speculate about the financing of rural drinking water projects, since the Bank has had no experience in this field. The question is becoming important, however, especially in areas newly irrigated with slightly brackish or otherwise contaminated water and where the irrigation canals are the only source of village supply. In some parts of India, for example, the problem is rather acute, and sooner or later fresh water may have to be piped and pumped over long distances at considerable expense if farmers are to be held on the irrigated land.

FINANCING IRRIGATION

As a development institution, the World Bank Group must look far beyond the engineering and financial aspects of an irrigation project it considers for financing. Its interest is not only in the immediate expansion of output, but in giving impetus to the modernization of agriculture. The potential benefits to the nation of a well-conceived irrigation project are often very great. Their full realization, however, would usually entail a virtual revolution in farming practice and fundamental improvements in government services, all of which take time. Meanwhile, the Bank seeks to assure that the maximum feasible benefits will be achieved immediately, and that conditions will favor their continuing growth.

In pursuit of these objectives, the Bank examines every relevant aspect of the borrowing government's agricultural policy and administration, as well as all economic and technical factors affecting the success of a proposed irrigation project. Some of the most pertinent questions are the accessibility of profitable markets, the availability of sufficient

fertilizer, pesticides, improved seeds and essential equipment at prices the farmer can afford, the adequacy and cost of credit, the quality of research and extension services, and the equitability of the tax and land tenure systems. All of these affect the farmer's attitude toward participation in an irrigation project, and they largely determine his ability to take advantage of it.

Double-cropping and increased yields per acre are often possible, but only with the farmer's full cooperation. His attitudes are often formed in a more or less rigid mold of local values and customs, which is sometimes slow to accommodate the extra work required by a double-cropping system of farming. Agriculture, including irrigation farming, is one of the oldest modes of civilization. It is rich with a deep accretion of accustomed ways—and of skepticism, usually grounded in hard experience. In many areas, farmers are virtual strangers to money. Traditionally, they are offered few incentives to additional effort, and new assurances are suspect. Patterns of economic attitudes, relationships and behaviour, which are rooted in history and reinforced by custom, are relatively difficult to modify. Usually change is possible and often deeply desired, but the farmer must be convinced by his own experience that the promised benefits are real.

Potential direct benefits to the farmer can be calculated on the basis of the most likely realizable cropping patterns, farming methods, prices and other variables. When they are projected over a substantial number of years, they are often quite modest in relation to the total cost of the project, and their realization may take as long as 10 years or more. Even then, many real economic uncertainties are likely to remain.⁷

Indirect benefits of an irrigation project to the immediate

⁷ van der Tak, Herman G. *The Evaluation of Agricultural Projects: A Study of Some Economic and Financial Aspects*. World Bank. Washington, 1964.

community, the region and the country as a whole may be much greater than those derived by the farmers who use its water.⁸ The surrounding farming community benefits in many ways. The project provides jobs during the construction stage and creates need for seasonal labor in the fields after it is completed. It establishes a new basis for the growth of processing industries, which further add to the community's expansion and to the demand for equipment, construction materials and consumer goods. Often such industries provide the only alternatives to idleness or unproductive effort for a traditionally immobile rural population.

The benefit is often greatest, however, from the point of view of the country as a whole, when a successful project adds to the food supply, improves the balance of payments by increasing exports or reducing the need for imports, relieves upward pressure on prices, and contributes to expansion of the tax base. A good example is found in Mexico, whose farms today produce 95% of the country's food requirements and more than half its total exports, despite the fact that only 16% of its land area is suitable for farming and much of that lacks an adequate natural water supply. The key has been an intensive investment program which doubled the irrigated area between 1950 and 1962 and embraced a total of 10 million acres by 1966. The more productive early projects, which were executed without the World Bank's assistance, were producing as much as \$400 million per year by 1960, against capital expenditures of about \$500 million. More recent projects, chiefly for the rehabilitation, expansion and improvement of existing irrigation schemes, will bring somewhat smaller, but still impressive, returns in relation to cost. The Bank is involved in three of these, with loans totaling \$46.5 million out of a total cost of \$170 million; on completion, they are expected

⁸ Zimmerman, Josef D. *Irrigation*. John Wiley & Sons, Inc., New York, 1966. p. 17.

to increase the value of Mexican farm production by about \$41 million per year.

Since the social, political, economic and technical factors which determine the success or failure of irrigation projects are never confronted twice in the same combination, no ready formula for the allocation of costs is likely to be satisfactory in all circumstances. The Bank requires, as a condition of its lending for irrigation projects, that water charges be at least sufficient to meet the expense of operation and maintenance. Beyond that, it seeks to assure that the project will be as self-sustaining as circumstances will permit, but when necessary it agrees that capital costs should be borne by the government.

This rough division is a pragmatic and flexible one, based on experience. Partial subsidization may be unavoidable. In a developing country, however, there are stringent limits to the ability of government to provide subsidies from budgetary resources. As a practical matter, therefore, an individual enterprise should generate at least enough funds of its own to cover current expenses. The capacity of an irrigation project to do so, however, is limited by the credibility to the farmer of the promised benefits. In an area where irrigation is already fairly common, the charges it is possible to impose may be further limited by local usage. Often in such areas, the capital costs of existing irrigation projects have long since been amortized by the government, operating and maintenance costs are largely subsidized, and purely nominal water charges are a part of the web of life. Over time, it might be possible to readjust water rates upward through a program which eliminates inequalities and is aimed at embracing agriculture in the money economy. Eventually, it should be possible to levy ordinary taxes on the farmer's increased income. But in many cases, these developments must be postponed to later stages in a long process. The immediate problem is to obtain the farmer's commitment to the most productive use of land and water.

A charge for water tends to assure more efficient use, but too high a charge will be self-defeating.

Sometimes, a large portion of the costs of irrigation projects can be recovered in the form of indirect taxes on processing, consumer sales or exports. In practice, for example, one of the Bank's borrowers employs specific levies on exports to recover all costs beyond those met by minimal water charges; in this case, much of the added production resulting from Bank-financed projects is clearly for sale abroad. When local circumstances make other solutions impracticable, the Bank will agree to the adoption of such policies.

Most of the available possibilities for the construction of low-cost gravity irrigation systems in developing countries have already been exploited. Further expansion of the output of low-value staple crops, therefore, will have to be achieved primarily by increasing yields from land already irrigated. There is ample latitude for such expansion, which is now being emphasized in India, Mexico and elsewhere.

The largest remaining sources of fresh water for irrigation are below the ground and in rivers, where it can be pumped directly to the land. There are some areas, as in the Indus plain of West Pakistan and perhaps in India, where vast aquifers exist in circumstances which make their use for low-cost irrigation feasible. In many areas, however, the possibilities for large-scale irrigation of low-value crops with groundwater are limited, since the cost may be greater than the yield;⁹ while the capital costs of such systems are likely to be relatively low, their operating costs are high. The same considerations often apply to the use of water taken from rivers through various types of pumping arrangements. Consequently, such resources can be used economically in many cases only for crops which usually require a higher

⁹ Barnea, Joseph. *Water Costs in Developing Countries*. Paper presented at the First International Symposium on Water Desalination. Department of the Interior, Washington, 1965.

investment than staples and a more sophisticated system of culture and marketing, but which promise commensurate returns. This type of agriculture, including vegetable growing, horticulture and plantation farming, is practiced on a significant scale in only a few of the less developed countries. In West Pakistan, where such crops are becoming more common, a study in 1964 showed that the highest yields in money value were obtained from such fruits as mangoes, dates, citrus and bananas. Sugar cane yielded about half the value of those crops per acre, while rice and wheat gave only a little more than a tenth as much.¹⁰

TECHNICAL SERVICES AND FINANCING

Engineering, management and other technical services are infinitely more important as a complement to finance in less developed countries than in areas where the borrower normally has ready access to such skills and ample experience in using them.

Like any prudent banker, the World Bank Group insists upon high technical standards in the preparation, execution and management of the projects it finances. Such a policy could be applied, and the Bank's reputation for sound lending could be safeguarded, simply by denying loans for poorly prepared projects. A far more positive approach is necessary when the object is to advance the economic growth of less developed countries. Banking must become dynamic, on an unprecedented scale.

The World Bank learned this through experience, beginning with the first development loans requested by its less developed members. Gradually, it became clear that the Bank itself would have to add an entirely new dimension to the business of financing—not merely insisting upon high

¹⁰ White House—Department of the Interior Panel on Waterlogging and Salinity in Pakistan. *Report on Land and Water Development in the Indus Plain*. Superintendent of Documents, U.S. Government Printing Office, Washington, 1964, p. 40.

technical standards, but doing everything in its power to see that borrowers would be able to meet them. This required the development of new methods to assure that competent technical personnel would be available to members and effectively used by them, to strengthen the Bank's ability to give active advice and assistance, and to maintain the objectivity and technical excellence of its own appraisal and supervisory services.

The result is a system which has evolved from a pragmatic search for solutions to problems for which there had been no precedent. It is still evolving, as the scope of the Bank's operations expands, as knowledge about development increases, and as the developing countries themselves gain experience and their needs shift and change. No one in the Bank would claim perfection for it, but the record suggests that it has been reasonably successful. Certainly there has been no major engineering failure in connection with Bank-financed projects. The Bank has been able to avoid most of the waste which results from over-sophisticated design of projects in less developed countries. There have been a few, but only a few, instances in which a project's anticipated economic return has been seriously diluted because engineering failed to be guided by competent advice in related fields, a failing which accounts for many of the "horror stories" one hears about waste in development.

Zimmerman,¹¹ reporting on "scores of irrigation analyses made in the last decade," says that "costly and supposedly efficient installations were often operating at an alarmingly low water efficiency, sometimes below 20%." He found that the difficulty in many cases was that "planning had been done with the mistaken belief that soil, agriculture, and irrigation science need not be considered as basic engineering design data." Many installations "were utterly unsuitable for local conditions" and had to be abandoned.

¹¹ *op. cit.* p. 103.

The Bank itself has encountered irrigation projects in which the major works were built without thought to the distribution of water in the fields or its use on crops; design responsibility was presumed to end with delivery of water to the village or local area, leaving it to each farmer to carry on from there. In other cases, the engineers had provided for flushing the irrigation canals during the growing season, when they should be carrying water to the fields. In urban water supply, not a few cities in less developed countries have been saddled with heavy investments in fully automated equipment which is not required, and in excess capacity which will not be used for years.

The World Bank Group attempts to avoid such inefficiencies in the use of funds, which neither the recipients nor the providers of aid can afford. It insists that unnecessary immobilization of capital be prevented by planning for construction in stages, whenever feasible. It will not approve complicated engineering and expensive equipment which is difficult to service. It insists upon international competitive bidding to ensure procurement at the lowest possible cost. It also requires that every project it finances be based upon a feasibility study which takes full account of all factors affecting its success, and that it be engineered and supervised throughout by qualified personnel approved by the Bank and familiar with its standards and objectives.

Feasibility studies may be carried out by the borrower if it has a sufficiently experienced staff, or by acceptable consultants employed by the borrower. They may be organized by the Bank itself, either on its own account or acting as the executing agency for studies financed by the United Nations Development Programme. In these cases, independent consultants are always retained. A satisfactory feasibility study includes the most realistic possible estimates of both costs and benefits, as the basis for a financing plan, as well as thorough consideration of all technical aspects of

the project. Consultants are expected to anticipate possible difficulties and propose feasible solutions.

If assistance is required in preparing a project for the Bank's consideration, the borrower will often be urged to employ consultants. In eastern and western Africa, the Bank itself has established special missions to help governments in both the identification and preparation of projects. Borrowers are also required to employ outside consultants to supervise the construction, and often the initial operation, of projects if the Bank considers their own technical services to be inadequate for the purpose. The consultants are chosen by the borrower, subject to the Bank's approval.

INSTITUTIONAL VEHICLES FOR FINANCING

Although World Bank loans and IDA credits are either made to governments or guaranteed by them, the Bank insists on assurance that each project will be efficiently executed and operated. The strength and ability of the administering agency is one of the first and most important questions examined by the Bank when it appraises a project.

While it is obvious that no project is either self-executing or self-operating, the Bank has often been asked to finance a waterworks, power plant or irrigation system when no responsible authority existed, public or private, to construct or manage it. On other occasions, existing institutions which were intended to administer proposed projects have been found to lack sufficient authority, responsibility or both, or to be improperly organized, inadequately staffed or insecurely financed.

In such cases, the Bank suggests appropriate reorganization of the existing institution or the establishment of a new one. It often provides the technical assistance required to carry out such recommendations, and sometimes helps the borrowing government in finding new management or other

key personnel. In no case does it lend without assuring itself that the organization charged with administering the project is capable of doing so efficiently.

Thus, the Bank has found that aid in institution-building is often a fundamental prerequisite to successful development financing. Today, the Bank's clients in Latin America alone include 33 autonomous or semi-autonomous institutions which have received more than \$1 billion in Bank loans and IDA credits, and 28 of them have been organized or brought into operation with the help of the Bank. Many of these are agencies responsible for the administration of ports or power systems.

Ordinarily, the principal needs for institutional improvements in connection with urban water supply systems involve assistance in problems of organization and in business, technical and financial management. Such enterprises are often subordinate units of political entities, with excessively limited authority to hire and fire, fix rates, borrow funds or manage their own affairs. When extensive changes appear to be necessary, the Bank recommends—and sometimes insists as a condition of its financing—that outside consultants be employed.

The needs are usually more complex where irrigation projects are concerned. Several government departments and agencies are normally involved in both the determination of policy and its implementation. Construction of the major works may be the responsibility of one department, while the water distribution system is the concern of another. Farm-to-market roads may be solely in the province of a Ministry of Transport. Questions of adequate market outlets, organization and pricing may well be considered beyond the interest of government. The Ministry of Agriculture is most likely to be responsible for research and extension services and the provision of improved seeds, while a Ministry of Industry and Commerce may be concerned with the supply of fertilizer, pesticides and farm equipment. The

Finance Ministry, and perhaps a Ministry of National Economy, will be influential in determining investment, export and fiscal policies which affect the project.

A major problem, therefore, is to assure adequate coordination of all branches of government whose decisions and programs have a bearing on the success of the project. This is sometimes extremely difficult to accomplish. In some cases, the problem has been approached through the establishment of an Irrigation Department, as in Thailand and Turkey. In others, different types of formal or semi-formal coordinating mechanisms have been set up, with varying degrees of success. To assist in this effort, the Bank often urges the employment of qualified consultants and insists upon specific action to improve coordination, as a condition of its lending.

International Conference on Water for Peace
Washington, D.C.
May 23-31, 1967

WATER FOR INDUSTRIAL AND ECONOMIC DEVELOPMENT

By Mohamed Shoaib

Vice President, International Bank for
Reconstruction and Development

I am very grateful for the opportunity to address this conference on Water for Peace. This is a subject of continuing and deep interest to all humanity and, as such, to us in the World Bank.

The crucial role of water management has been a major theme of ours at the World Bank for 20 years. About one half of the \$12 billion we have lent to 96 countries has been for projects for the efficient use of water resources. So our financial stake alone is large. Our interest, however, -- and sometimes, I am encouraged to believe, our influence -- is much larger. We are the instrument of 106 member governments, our stockholders. Our whole purpose is to help increase the output and living standards of our less developed members -- 88 countries with half the population of the world. We are therefore deeply concerned about the efficiency of all forms of investment for development, domestic and foreign, public and private. For in the perspective of this task, any misdirection of resources is more than regrettable, whatever the cause.

In any large enterprise, of course, a certain misallocation of resources is unavoidable. But the excuse of ignorance and lack of understanding is no longer quite as valid as it might have been in earlier times, when waste was a camp follower of progress. The structure of industrial society in Europe

and North America has taken seven generations to build. For the better part of 200 years, the principal guide was trial and error. The process involved much dissipation of human life and of irreplaceable resources. In the wake of phenomenal gains, it threw up unhappy consequences which are all too familiar. A few of these, such as water shortages and pollution in some of the more generously endowed areas of the world, are germane to the subject of this conference. Such problems might have been avoided if what we know today had been known 50 or 100 years ago.

Instead, much of our current knowledge has accumulated in the last few decades. This is true, I believe, in the fields of economics, government and business administration, industrial production and technology, marketing, the natural and behavioral sciences, medicine, and perhaps even agriculture. Today, we have a vast and strikingly new store of knowledge and experience which gives us the capability of greatly reducing the time and easing the task of development. This places an unprecedentedly heavy burden on our generation, and most especially on the leaders of the developing countries and those of us who have been given the privilege of helping them.

Before going any further, may I add a word of explanation about the institutions that I represent. What we call simply the "World Bank Group" is a triumvirate of three organizations -- the International Bank for Reconstruction and Development (World Bank), the International Development Association (IDA) and the International Finance Corporation (IFC). The Bank itself is the parent organization; it will be 21 years old next month. It is the oldest and by far the largest of the postwar international development lending agencies. IDA and IFC are offspring, each established for a particular purpose by the Bank's member governments.

IDA, which now has 97 members, was established in 1960. Its function is to provide a channel for multilateral development lending to countries which have a capacity for more rapid growth than they can reasonably finance on conventional terms. Otherwise, it has the same purpose as the Bank, is administered by the same officers and staff, and applies the same standards in appraising and supervising the projects it finances. All of IDA's funds, while much more limited than those of the Bank, are contributed by governments and its lending has been virtually interest-free and for a period of 50 years. The Bank, on the other hand, raises most of its lending resources in the private capital markets of North America and Europe, so that the terms of its loans must reflect the cost of borrowing.

IFC, which was founded in 1956 and now has 83 members, has the special function of fostering the growth of private enterprise in the developing countries. Unlike the Bank and IDA, it has authority to lend to private companies without government guarantees, and to invest in equity. It may borrow from the Bank for relending. It is in a position to serve as a catalyst between domestic enterprise and private foreign sources of capital and technology, and to assist in the development of capital markets by supporting share offerings through standby and underwriting agreements. In addition, IFC takes responsibility on behalf of the entire World Bank Group for the appraisal and supervision of industrial, mining and development finance company projects, regardless of the source of finance.

Of the three organizations, IFC is the only one which concentrates on a single sector, while the Bank and IDA are concerned with all. The vast bulk of their financing has been for projects in the fields of transportation, power, irrigation, basic industry and agriculture -- primarily the infrastructure which is essential to the rapid growth of the entire economy.

In addition to finance, the Bank provides technical advice and assistance on virtually every type of development problem. It also takes a leading role in efforts to improve the international coordination of development aid. Thus, the three institutions combined as the World Bank Group have a reasonably flexible set of tools. They are equipped to provide help to countries at many different levels of economic growth, on all continents, and for all development purposes.

I should like now to focus a little more sharply on my subject. When we consider the question of water as a resource for development, for industrialization, and hopefully for building a more congenial environment for peace, what is most notable is the lack of readily available basic information. This is a problem which has preoccupied World Bank engineers and consultants in scores of countries for many years, as they have searched for the hydrographic and hydrological data required in connection with projects for irrigation, hydroelectric power, flood control, inland navigation and urban water supply. Adequate and reliable data on rainfall, runoff, flood levels, and the composition and movements of groundwater simply do not exist in many areas, even for some of the most important rivers and watersheds in the world. In this field, as in a number of others, our theory and technology have far outstripped the supply of information required to translate knowledge into well prepared development projects.

This "hydrological data gap," if one may call it that, is a world-wide phenomenon which afflicts the highly industrialized as well as the developing countries. Twelve years ago, the "Hoover Commission" concluded that the United States had suffered in the past from "many costly errors .. due to

inadequate data."^{1/} Seven years ago, a special committee of the United States Senate found that "there are still many gaps in our knowledge of water behavior that need to be filled."^{2/} And only last summer a distinguished panel of the American National Academy of Sciences -- National Research Council called for an expansion of research "to provide better information and understanding not only on how the natural water system works but on how society can reconcile the system with its demands."^{3/} I have noted with satisfaction that the need for more and better data has been given full recognition in planning for this conference. And of course it is the chief motivation behind the International Hydrological Decade (IHD), in which many national programs will be coordinated through the United Nations Educational, Scientific and Cultural Organization (Unesco).

While there is a universal paucity of information on water, it is undoubtedly most acute in many developing countries. It is to be hoped that means will be found for most of them, if not all, to participate in the IHD program. It will be a major advance if the foundation can be laid for the systematic accumulation of reliable data which are both adequate and comparable from country to country and region to region. It is especially important that this be achieved with respect to watersheds involving the interests of more than one country.

This brings me to another important aspect of my subject. Just as we lag in such seemingly humdrum matters as the collection of facts and figures required for responsible decisions at the national level, we have been slow

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- ^{1/} Water Resources and Power. Commission on Organization of the Executive Branch of the Government. Citizens Committee for the Hoover Report. Washington. 1965. p. 27.
- ^{2/} Report of the Select Committee on National Water Resources, United States Senate. Washington, 1961, U.S. Government Printing Office. p. 62.
- ^{3/} Alternatives in Water Management. National Academy of Sciences -- National Research Council. Washington, 1966. p. 41.

to devise a satisfactory politico-legal approach to the beneficial development of international water systems.

Water, like air, is both ubiquitous and highly mobile. The forces which determine its location and movement are heedless of national boundaries. Man's political arrangements must accommodate such forces if water is to make its full contribution to his welfare. The manifold advantages of developing watersheds or river basins as single units are well known. When more than one state is involved, however, political sovereignty and the efficient use of water resources are not always compatible, though the need to bring them into harmony may be perfectly clear. The construction of projects upstream for navigation, flood control, power, irrigation or urban water supply often have important economic and social implications for a neighbor down the river; and such improvements downstream usually have consequences in the upper reaches. In some circumstances it may be most efficient to inundate land in your neighboring country in order to irrigate farms or meet rising power needs in your own, though your neighbor may naturally be reluctant to agree to such a concept of efficiency. A flood control system in one part of a watershed is likely to affect the whole, for better or worse and without regard to nationality. The use of rivers for the disposal of industrial and urban waste can have serious international repercussions. Especially in areas such as Africa, where a single river may be shared by half a dozen countries, these problems are likely to be the most relevant ones for their future growth.

Such interactions raise exceedingly difficult issues in administration, law and international relations. At the same time, the benefits of integrated river basin development are so great in contrast to competitive or piecemeal exploitation, and they are becoming so widely known, that they tend to reinforce all other reasons for practical international cooperation. Conferences such as this contribute to the process.

Movement towards the truly rational use of international water systems seems painfully slow in the light of immediate needs and potential benefits. Nevertheless, if one takes a fairly detached view, it is surprising how much has been accomplished in a relatively short time. Until a few decades ago, international law had virtually nothing to say about the flow and control of water except for questions of navigation and boundaries. A profound change has come about since the introduction of hydroelectric power. Growing needs and technological advance, especially in the fields of irrigation and conservation, and lately the stifling new problems of pollution, have given added force and dimension to the change. There are now well over 50 international treaties concerning the use of water for purposes other than navigation, and there are several multilateral conventions. In addition, there is a large body of legislative enactments and judicial opinions dealing with analagous questions among states in federal systems.

Growing out of all this, it is possible to see the outlines of what perhaps may be regarded as an accepted set of principles. Thus, there has developed a widely accepted principle to the effect that no state has a right to use the waters of an international river within its own borders without taking account of the effects on its neighbors.^{4/} A corollary principle has evolved in the settlement of water disputes, with the result that increasing weight seems to be given internationally to the "equitable apportionment" of benefits, a doctrine applied by federal courts in the United States, Germany and Switzerland.^{5/} While these are negative principles, they are nevertheless important.

4/ Eagleton, Clyde. The Use of the Waters of International Rivers. The Canadian Bar Review. Vol. XXXIII, November 1955. p. 1021.

5/ Legal Aspects of Hydro-Electric Development on Rivers and Lakes of Common Interest. U.N. Document General E/ECE/136 E/ECE/EP/98 Rev. 1. Geneva. January 1952. pp. 69-79.

International law can acquire positive strength only as principle and practice go hand in hand. The principles already enunciated will gather weight and force to the degree that the successful execution of international agreements on the use of water resources results in mutual benefits of real and recognizable value. This is a long and difficult process, and we will be wise not to expect too much too soon. So far there have been many failures and partial failures, but there have also been a few extremely important demonstrations of at least limited success. If one makes ample allowance for inevitable disappointments, it is possible to say that the general trend is promising.

One of the most ambitious and instructive efforts in this field is enshrined in the first general multilateral convention dealing specifically with non-navigational uses of rivers, signed in Geneva in December 1923 by 17 countries.^{6/} Except for the limiting fact that it concentrates on one aspect of river development, for hydroelectric power, it is in many respects a very good treaty. It contains quite detailed provisions for carrying out development projects which require either joint investigation or construction by two or more countries. Article V provides that the technical methods employed should disregard international frontiers whenever possible. The Convention has been ratified or otherwise adhered to by 11 of the signatories. Unfortunately, there is a flaw in the picture; no two of the ratifying states have a common border.

Undoubtedly the most dramatic example of success in the less developed areas has been the carrying out of the Indus Waters Treaty of 1960. The Treaty took over eight years to negotiate, with the active aid of the World Bank. It helped resolve the dangerous disputes which arose as the line of Partition separating India and West Pakistan slashed right across the Indus

6/ United Nations Legislative Series. Legislative Texts and Treaty Provisions Concerning the Utilization of International Rivers for Other Purposes than Navigation. U.N. Document ST/LEG/SER.B/12. pp. 91-95.

water system, one of the most extensive in the world. The Treaty provided for division of the waters of the Indus and the five major tributaries. A separate agreement provided for a fund, administered by the Bank, to finance a very large complex of projects in West Pakistan. Foreign exchange contributions to the fund, totaling about \$1,200 million, were committed by the two riparian states and six of the Bank's industrialized members -- Australia, Canada, Germany, New Zealand, the United Kingdom and the United States. In addition, the United States and the Bank lent Pakistan funds to meet a part of its contribution, and agreed to provide foreign exchange to India for hydroelectric and irrigation projects which are now under construction.

The Indus Basin projects include five barrages to backstop the rivers and divert their discharges through eight link canals, which pass over and under other waterways and are crossed by hundreds of road and railway bridges. The showpiece of the entire complex is the Mangla Dam on the Jhelum River. Water is already running over the spillway, and in just a few days -- a full year ahead of schedule -- the dam will be topped out with the last of 120 million cubic yards of earth and rock, which I believe makes it the second largest structure of its kind. Although irrigation is the major purpose of the entire Indus Basin program, the Mangla Dam will also produce a fair amount of power. The first generators have just begun to turn, I am told, and by the time the project is officially inaugurated next October, it may be producing 400,000 kilowatts. With additional units, capacity can be more than doubled.

In addition to such projects already completed and under construction, the Indus Basin Development Fund has financed a comprehensive study of the water and power resources of West Pakistan. The study includes an inventory

of both surface and groundwater resources. It will provide a plan for meeting water needs beyond 1975 and achieving relief from problems of water-logging and salinity. In its initial stage, the study also established the technical and economic feasibility of a proposed dam at Tarbela on the Indus River, which will be even larger than Mangla. A substantial balance remaining in the Development Fund will be available to meet a major part of the foreign exchange cost of the Tarbela project.

I might also mention two other efforts in which the Bank is involved in quite different ways, and from which we hope to gain more insight into the best techniques for regional development of water resources. One is the Nam Ngum hydroelectric project in Laos; the second is a joint approach by Mali, Mauritania, Guinea and Senegal to the comprehensive development of the Senegal River and its tributary, the Bafing.

The Nam Ngum project has many interesting features, not the least of which is the fact that the World Bank is serving solely as the administrator; we have no financial participation. General explorations leading to the project were carried out by the Committee for Coordination of Investigations of the Lower Mekong Basin (the Mekong Committee), representing Cambodia, Laos, Thailand and the Republic of Vietnam and operating under the aegis of the United Nations Economic Commission for Asia and the Far East. The feasibility study was financed by the United Nations Development Programme (UNDP) and the Government of Japan, which is also financing the detailed design under its own program of aid to Laos. Thailand has agreed to provide cement worth \$1 million in exchange for power to be generated by the project. The basic financing is to be in the form of grants of various amounts by Australia, Canada, Denmark,

France, Japan, the Netherlands, New Zealand and the United States, totaling about \$24 million. The organizing work is just getting started.

In the case of the Senegal River program, the role of the Bank at this stage is a purely advisory one. In that capacity, however, we have a part in a new and interesting arrangement, under the leadership of the UNDP. The original initiative came from the Interstate Committee on the Senegal River Basin, an intergovernmental organization established by the riparian countries and made responsible for joint planning. At the Committee's request, the United Nations organized a mission which made a general survey of problems and possibilities. On the basis of its report, the four countries adopted a general development policy for the basin and, through the Committee, requested financing from the UNDP for a series of pre-investment studies. As a means of coordinating such studies and other external advice and technical assistance, the UNDP established a Senegal River Basin Advisory Group, of which the Bank is a member along with the United Nations, the Food and Agriculture Organization of the United Nations (FAO) and Unesco.

The three examples I have chosen, the Indus and Senegal Basin programs and the Nam Ngum project, should help to illustrate the point that there is a great diversity of situations in which regional development of water resources might come about. We are still groping, exploring, experimenting to find whatever combinations of political, administrative and legal techniques for multilateral operations might be most useful and productive in different sets of circumstances. As far as we know now, there is no single solution, no ready formula.

We can say that a few key factors were of great importance to the success of the Indus program, as long as we are careful to reserve judgment about their

relevance for other situations. First, despite the magnitude of the works involved, they were perfectly feasible within the limits of administrative and financial resources available. Second, the underlying agreements were both clear and limited. Third, the agreements did not provide for joint administration. This responsibility was delegated to an impartial and professional organization on whose Board of Directors and Board of Governors both signatories are most ably represented, but which neither one nor both together can control.

I do not mean to suggest that joint administration by riparian states is undesirable per se, or always impracticable. On the contrary, I think the effort should be made whenever it seems clearly feasible. There is now considerable experience, especially in Europe and North America, to illustrate what might be accomplished. Much can be learned, for example, from the organization and practice of the International Moselle Company, established in 1956 by France, the Federal Republic of Germany and Luxembourg;^{7/} the Iron Gates hydroelectric power and navigation system on the Danube, under agreement between Yugoslavia and Rumania;^{8/} and the Danube Power Plant-Jochenstein Corporation, a joint instrument of Austria, the Federal Republic of Germany and the State of Bavaria, established under an agreement concluded in 1952.^{9/} For various reasons, two of the most successful ventures of this kind are in North America -- the International Joint Commission which regulates water resources development for the United States and Canada, and the International Boundary and Water Commission serving the United States and Mexico.

^{7/} U.N. Document ST/LEG/SER.B/12 pp. 424-426.

^{8/} 512 United Nations Treaty Series (whole volume), 512 UNTS (whole volume), 1964. U.N. Reg. No. 7348.

^{9/} U.N. Document ST/LEG/SER.B/12 pp. 476-484.

So far, experience in the developing areas is relatively scant and inconclusive. Interest, however, is very much alive. Only three months ago, the Ministers of Foreign Affairs of Argentina, Bolivia, Brazil, Paraguay and Uruguay adopted a joint declaration which lays the groundwork for development of the Rio de la Plata Basin.^{10/} Presumably, the decision taken last month at Punta del Este to proceed with the formation of a Latin American Common Market will give added impetus to the search for closer international collaboration in development as well as trade.

Appropriately enough, the sense of urgency may be strongest in Africa, a continent divided into 48 separate countries and territories, of which 39 are independent nations. Paradoxically, the same historical forces which cut Africa into small segments and left it beset by political tensions also generated stronger tendencies toward collaboration than one generally finds in other areas. Partly as a consequence of this, our own experience in joint lending to organizations representing more than one state is virtually confined to the African continent. Examples are loans to the East African Common Services Authority, providing transport and communications services for Kenya, Tanzania and Uganda, and to the East African Power Corporation, which operates the Kariba Dam on the Zambezi River and feeds power to both Rhodesia and Zambia. In close collaboration with the African Development Bank and other interested agencies, we intend to encourage and support such common projects wherever we find them if we are convinced that they are well conceived.

^{10/} Text in La Nación, Edición Aerea Internacional. March 6, 1967.

We suffer no illusions, however, about quick success. The opportunities for fruitful collaboration are virtually unlimited. But our enthusiasm should be tempered with caution. In all undertakings for the international use of water or any other economic resource, much effort can be saved and many mistakes avoided by applying the relevant lessons we have already learned in the more familiar realm of development within national boundaries.

If careful attention to priorities, the maintenance of high technical standards in the preparation, appraisal and supervision of projects, and regard for sound economic policies are important to national development, as I have no doubt they are, they could hardly be ignored in the even more intricate sphere of multinational operations. For the remainder of my time I should like first to comment on these questions, and then to conclude with a few remarks on a related subject, the international coordination of development assistance.

When the Bank entered the field of development finance, we set up a few policy guidelines in accordance with the terms of our charter. We decided that any project we helped to finance would have to measure up to certain essential criteria. It would have to be proved feasible by qualified experts. It would have to be well engineered. It would have to be executed and administered by a competent organization. Finally, we would have to be convinced that it warranted high priority in terms of the country's development needs.

Looking back after two decades, it is easy to see that any country in a position to meet such apparently routine requirements without help could hardly be classified as underdeveloped.

Some of those who came with requests for loans made little effort to provide facts, figures, plans or blueprints; furthermore, many did not know how to go about it, and saw no reason why they should. We could have turned down such requests or merely signed checks, taking guarantees from the borrowing governments, and I suspect that either course would have done wonders for our popularity rating. But our charter said that we were to help increase production and living standards in the less developed countries. So one of the earliest lessons we learned was the necessity for technical assistance related to financing for specific projects.

This meant the creation of a new kind of banking, based on a premise that was rather unorthodox at the time: the idea that our responsibility was not merely to insist on proper technical standards for projects we agreed to finance, but to do everything in our power to help the client see to it that our standards would be met. Sometimes, we merely had to convince the borrower to employ competent consultants, but often the situation called for much more direct involvement on our part. In this way education in development began -- for us and for many others. I suspect that most of us are grateful that a kind providence let us learn only gradually how monumental and involved the process would turn out to be.

Over the years, the most difficult aspect of the job has been associated with the question of priorities. This is the point where the great dilemmas of development converge. First, there are the awkward choices confronting the leaders of developing countries, which are especially difficult for those who have only recently gained their independence. One of these is the choice between the aid they need for faster economic growth, with some limitation on

their freedom of action, and unrestricted freedom without aid. In this light, even simple and prudent conditions such as we laid down in the beginning, and to which we firmly adhere, are sometimes seen as "strings" attached to aid. It is all the more difficult to understand the necessity for such conditions if there is any cause to suspect that they might merely be a cover to gain some political, military or commercial advantage. The choice between what is popular and what is sound is another extremely serious dilemma in many developing countries, especially for leaders who are trying earnestly to build democratic systems from scratch and who badly need public support.

Those who provide aid also have choices to make, and they are no easier. The industrialized countries may be suffering from the ills of affluence, but the money for public assistance to the less developed still has to be produced willingly by their taxpayers. They may favor foreign aid but be curious -- perhaps even skeptical -- about what it achieves. Therefore, those who administer aid must attempt to ensure that the money will actually result in development. To do this, they have to insist that first things come first. If they go this far, they must be able to determine to their own satisfaction what is first, second, and third. In other words, they have to get involved in the question of priorities, which leads right to the central dilemma confronting both the giver and the receiver of aid: how can the most genuine problems and interests of both sides be accommodated without in some way diminishing the sovereignty of those who receive or jeopardizing the goodwill of those who give?

No one has the final answer to these questions, or for that matter to any of a number of others which, though less basic, are troublesome enough.

These fundamental difficulties have led us to take a highly pragmatic approach. Gradually, the standards we established in the first place, and especially our insistence on priorities, led us far beyond the consideration of specific projects which we were asked to finance. It involved us increasingly in questions of country economic policy, investment programming, and the administration of development. These in turn have impelled us into the conduct of a wide variety of studies, ranging from comprehensive surveys of entire economies to the detailed examination of sectors and parts of sectors. Little by little, as our member countries at both ends of the economic scale have let themselves be persuaded that our only motive is the one we say we have, our relations with both have evolved in ways that open more and more paths to effective collaboration. The fact that ours are multilateral institutions in which everyone involved has a voice has helped, of course, to overcome any doubt about our motivations; and I am immodest enough to say that our performance has contributed, too.

In our view, the first essential was the establishment of close and confident relationships with our members, based on impartiality and mutual respect. This has taken time, but in most cases I think it has been accomplished. With this foundation to build on, we began a few years ago to tackle what seems to us to be the other most important aspect of the same problem. This is the question of international coordination of financial and technical assistance.

Our approach to this is through the organization of what we call consultative groups, based on experience we have gained in the consortia on aid to India and Pakistan. They are groups of interested aid-providing

governments and international institutions, brought together specifically to discuss the needs of individual developing countries. The Bank serves as organizer and chairman and provides the secretariat. We also provide the basic information required for productive discussions, including an objective analysis of the developing country's economic position, policies and prospects. When circumstances warrant it, we make specific comments on the country's investment program and offer recommendations on project priorities and the most suitable terms of financing. We are hopeful -- I would even say confident -- that this mechanism will gradually improve the climate of international development assistance. Already, 14 such groups have been organized, including four under the leadership of other international institutions. The 14 aid-receiving countries account for something over 40% of all development finance from official sources.

It is with all of this background in mind that I urge caution and careful attention to the lessons of experience when we look forward to the possibilities inherent in the integrated use of watersheds and river basins. It is possible, I think, that some entirely new and more effective kind of mechanism for the development of common water resources may evolve out of the opportunities and difficulties of the present situation. It should be possible to avoid the excessive cost, complexity and inefficiency which often attend the administration of international enterprise. It is important to search for more acceptable and workable means of shielding the administrative structure from the abrasive and often stultifying effects of political control, once basic agreements have been reached on the content and financing of programs, on the "equitable apportionment" of benefits, and on means of settling disputes.

These objectives, however, are as difficult to attain as they are desirable. The only guides we have are experience and ingenuity, and in this sphere we need a great deal more of both.

SOME CRITICAL NEEDS OF DEVELOPMENT

Address by MOHAMED SHOAIB,
Vice President, World Bank,
to the IX World Conference of the
SOCIETY FOR INTERNATIONAL DEVELOPMENT (SID)
Milan, June 10, 1967

I am delighted to have the opportunity to be with so many of my colleagues in the development profession. To address this particular Conference is an exceptional honor. This meeting is historic. It is not only the 9th Annual Conference of the Society for International Development; it is also the first to be held outside the United States, where both the S.I.D. and the World Bank were born. It is a sign, perhaps, that our profession is reaching the age of maturity.

Certainly, the S.I.D. has come a long way since 1956, when the original organizers had their first meeting in Washington. At that time, the Society consisted of nothing more substantial than a lot of good will, together with an idea. Today, the idea has become a fellowship of more than 5,600 members of many nationalities and many disciplines, in some 116 countries around the world. It has become, in fact, exactly what its founders intended it to be -- an increasingly important web of communications for the exchange of information and experience among all of us whose full-time job is to help build a decent and prosperous home for the human race. I consider it a privilege to be a part of this fraternity. No job can be more important, more challenging, or more rewarding. And the function our Society was designed to perform is, in my opinion, absolutely essential to our success.

My own commitment to the idea which animates the Society for International Development goes back to my years of service in my own country, where both the promise and the problems of development are pressing realities. Two years ago, I was happy to be instrumental in assisting and encouraging the establishment of S.I.D. Chapters in Karachi and Islamabad. Between them they now have 100 members.

I was asked to speak today about the most pressing needs of the developing countries. I shall do so, though I have some hesitation in addressing an audience of experts on their own subject; it is like lecturing a convocation of holy men on the needs of the church. But perhaps my particular accumulation of experience gives me something to offer. It includes quite a few years of intense involvement in the problems I am about to discuss, and in the unrestrained advocacy of the poor countries' point of view. It also includes a good deal of exposure to the difficulties of those in the richer countries who have taken the lead in efforts to increase the flow of assistance for economic development. And finally, it includes some 12 years of close association with the World Bank. In addition to many other things, the Bank is a continuing forum where almost all of the poor nations and the rich can meet, discuss, argue and work together on the problems of development on a full-time basis.

I want to emphasize this point about the World Bank. It is often overlooked, even by experts who may be thoroughly familiar with our unique institutional structure and with the history and operations of the World Bank Group. It is true that voting rights of member governments are weighted to reflect their contributions in the form of subscriptions. Theoretically, the six largest shareholders of the Bank or the five largest contributors to IDA could cast a controlling vote at any time. In practice, divisions within the Board of Directors are rare, and they seldom if ever are drawn on such lines. The reason is that all Executive Directors work under the same mandate -- the mandate of the Bank Group itself, as spelled out in the Articles of Agreement. Their common purpose, to which they are bound by that mandate, is clear and specific: to employ the machinery of the World Bank Group in the most effective way to help the developing countries increase their production and raise their living standards. There are divergent views, but they concern methods, not objectives, and the lines are almost never drawn between the rich on one side and the poor on the other. I submit that if this were not true, the President of the Bank could hardly be what he clearly is -- the world's most persistent and effective advocate of all measures required to shake off apathy and get development moving.

No one in the World Bank would suggest, of course, that all needs of the developing countries can be or should be met by outsiders. But for the moment, I want to concentrate on those things which they cannot do solely on their own initiative but which are vital to more rapid economic growth. For convenience, they may be divided into two familiar categories: trade and aid.

I know of no leader of any developing country who prefers aid to trade. I know of none who does not yearn for the time when his country can earn its own way. But there is no choice. Economic growth in the poor countries has become a political and social imperative. Such growth is not initially self-generating. It requires heavy investments in infrastructure, plant and equipment. These invariably include a large component of imported goods and services which cannot yet be produced domestically.

Many essential imports must be purchased from the more advanced countries and paid for in their currencies. Except for various invisibles, today's developing countries can earn the foreign exchange they need only by trade -- by selling whatever they can to the industrialized countries from which they buy. This, of course, is what they try to do. All things considered, they have done a rather impressive job of it; on the average, they have paid for somewhat more than 80 per cent of their total import requirements out of the proceeds of exports.

Unfortunately, their efforts to accelerate the rate of increase in their export earnings encounter serious obstacles. Typically, each is dependent upon uncertain demand in the industrial countries for one or a few primary commodities. At the request of the United Nations Conference on Trade and Development (UNCTAD), the staff of the World Bank has proposed a scheme for mitigating the disruptive effects of this uncertainty on development programs. If adopted, it would call for a high level of cooperation between the individual developing country and the international administering agency, on the one hand, and among the national and international providers of aid, on the other.

It would require the establishment of a special fund, which would be used to cushion development programs against disruption resulting from unforeseeable shortfalls in export earnings below internationally agreed forecasts. The proposal is now being discussed, and further elaborated, by an intergovernmental working group set up by UNCTAD, with the technical help of World Bank staff members. Presumably it will be a major subject of discussion at the next full conference of UNCTAD.

Various other suggestions have been made to meet this recurring problem. I myself made a proposal at the Annual Meetings of the World Bank Group two years ago which in some respects went even further. Under this scheme, a self-adjusting mechanism would be adopted, "whereby those who benefit from fluctuations in the terms of trade would make some payments to those who suffer..." Whatever scheme is finally adopted, I have no doubt that the benefits to be derived from eliminating this barrier to development will far out-weigh the cost. It will do so by speeding up the process of development. Let me emphasize, however, that it will not reduce the need for a larger volume of external capital for long-run development. I fully realize the difficulties involved in overcoming problems such as this. Perhaps more study, determination and imagination could be applied to the question of assuring profitable and reasonably predictable prices for primary commodities. While experience with commodity agreements has not been very encouraging, I doubt that our ingenuity has been seriously strained in this field. Nor, I think, have we over-extended our resources of talent and goodwill in searching for ways to help the developing countries broaden their markets for processed and semi-processed goods.

There are two aspects to this problem which I want to keep separate. One is the question of giving special privileges to the developing countries, in the form of preferential access for their manufactured and partially processed goods to the markets of industrial countries. That is a form of development assistance for which a good case can be made on many grounds. Some progress may be expected in that direction as a result of the Kennedy Round of tariff negotiations. It is too early to know what the effects will be. In any case, I prefer now to concentrate on a question of justice rather than privilege.

Analysis will show that the tariff structure of the industrial countries has a strong built-in bias against imports of processed goods from the developing countries. This was first brought to light effectively in a report prepared for the original UNCTAD conference and printed in the U.N. World Economic Survey for 1962. During the last two years, it has been examined in more detail by economists in the World Bank and elsewhere. It is a particularly timely and important question because of the widespread emphasis that has been given recently to the need for diversifying the exports of developing countries.

In varying degrees, the tariffs of industrial countries increase on exports of interest to developing countries as the level of processing rises. They range from little or no duty on primary products to virtually prohibitive levies on finished manufactures. This tends to be true, however, only up to the point where the developing countries are barred from competition in any

case by the need for highly sophisticated technologies which only the industrial countries possess. Furthermore, the bias against processed goods from developing countries and in favor of primary products has the effect of raising effective tariffs still higher.

A recent unpublished study of 22 commodities relates the increases in effective tariffs on the commodities, at various stages of transformation, to the actual imports of these commodities from the developing countries. Ninety-five per cent of all imports were of goods in the first two stages of processing. In the same study, both empirical evidence and analysis of the effects of tariff elimination point to a direct connection between the present tariff structure and the inability of many developing countries to diversify and increase their exports. Estimates based on three different methods of classifying the commodities by groups and degree of processing gave rather startling results: they suggested that developing countries could increase their earnings from exports not subject to preferential treatment by from 32 to 55 per cent if tariff discrimination against their processing industries were eliminated. This would add from \$400 million to \$700 million in foreign exchange available for development. Its effect would be much more important than the same amount in loans, with their attendant increase in the debt service burden.

Further studies will have to be made of this question. It seems clear, however, that serious inequities exist which call for remedial action. This would require adjustments which would give more equitable play to the comparative advantages of developing and industrial countries. To avoid excessive injury and disruption, such adjustments could be carried out over a transitional period. Once accomplished, the change could hardly fail to be in the long-run interest of all concerned. It would permit the industrial countries to concentrate their resources more effectively on highly sophisticated manufactures, for which they have all of the advantages. It would permit the developing countries to expand and diversify their exports, especially through simple manufacturing and processing industries based on their own primary commodities -- labor intensive industries which do not require a high level of technology or skills.

If action were taken along these lines, it would provide a powerful stimulus to both foreign and domestic investment in the private sector of the developing countries. This is a long-standing preoccupation of the World Bank -- not for any ideological reason, but because the private sector is a particularly dynamic force in development.

While export earnings provide 80 per cent of the total foreign exchange requirements of developing countries, the remaining 20 per cent is indispensable. In fact, the absolute amount of foreign exchange available in all forms is much too little. To get development moving faster will require a substantial increase, in both export earnings and external assistance -- in both trade and aid.

I am sure that this audience is all too familiar with the essential facts concerning the flow of official and private resources to the developing

countries. Preliminary figures seem to indicate that official aid may have increased in 1966 by about 270 million dollars, but that private flows declined by more than twice that much. In other words, the total of official and private development capital from the industrial countries is just about eight per cent higher than it was at the start of the "Development Decade." In the same period, the Gross National Product of industrial countries has probably grown by a third.

The World Bank has long since expressed its view that the developing countries could use effectively, and the industrial countries could easily afford out of their rapidly growing incomes, from \$3 billion to \$4 billion more annually over the next few years. And of course, the volume of aid is only one aspect of this large and complex problem. Equally important are the terms on which aid is made available. The trend of recent years toward harder average terms should be reversed. This will not only require the generous replenishment of IDA, but a general improvement in the terms of official aid. It should include steps to avoid the excessive use of suppliers' credits as a means of financing exports from the industrial to the developing countries. Hopefully, means may be found to eliminate the tying of aid to purchases in the donor countries, or to mitigate its effect. Tying results in much higher prices than the developing countries pay under terms of international competitive bidding -- probably at least 15 per cent higher on the average. At the present level of official assistance, this means that the value of aid to the developing countries is reduced by about \$1 billion per year. To put it another way, the same impact could be achieved by \$1 billion less of aid per year if it were channeled through IDA, whose credits are always allocated on the basis of competitive international bidding.

There is no need to belabor the inadequacies of aid before this audience. Instead, let us examine dispassionately what needs to be done, and why. I shall focus upon three principal problems which, in my opinion, demand our most urgent attention. First, better criteria must be devised for judging the economic performance of the developing countries, and more effort must be devoted to helping them generate maximum growth out of their own and external resources. Second, constant improvement is needed in the international coordination of development assistance, both technical and financial. And finally, means must be found which will enable the industrial countries to fix the level and terms of aid without constraints imposed by their own bilateral relations. I believe that all of these problems are soluble, and that solutions will be found.

There appear to be two principal reasons for the leveling-off and relative stagnation of aid since the beginning of the 1960s. One is widespread disillusionment about the effectiveness of development, on the part of the public generally in the industrial countries and on the part of their legislative representatives. The other is the whole complex of problems arising out of payments imbalances and competitive pressures among the industrial countries. The two have fed on each other. One could take issue with the contention, so widely heard, that development has been excessively inefficient and wasteful. But this would probably be a fruitless exercise.

The wiser course is to search out the genuine shortcomings and make every effort to overcome them. This involves better international coordination, closer and more cooperative relations between financing institutions and their clients, and a more determined commitment to economic growth on the part of the developing countries.

Improvements along all of these lines are possible, and in some cases are already taking place. In recent years, as many of you know, the Bank has made considerable progress toward better coordination of aid. We have built on experience in the consortia on aid to India and Pakistan, which were organized by the Bank in 1958 and 1960 respectively. We are also trying to work with consultative groups of aid-providing countries interested in the development of particular countries. Altogether these coordinating groups are now concerned with about 40 per cent of all official aid that flows to developing countries.

To the extent that these objectives can be achieved, I believe we shall not only improve the efficiency of development but the atmosphere in which external assistance is considered in the industrial countries. After all, a large part of foreign aid must come out of the pockets of taxpayers -- and to many individual taxpayers, the amount involved is not insignificant, despite the great aggregate wealth of those countries. Most people may be in general agreement that foreign aid is necessary; but many are curious, and even skeptical, about what it achieves. Truly effective efforts along the lines I have mentioned might help to overcome their skepticism and reinforce their commitment, which the world badly needs.

With that commitment reinforced, it might then be possible to hope for a more determined effort to solve the even more difficult and crucial problem of separating the commitment to development aid from the technical balance of payments and competitive export problems of the donors. I wish I could offer a simple formula for doing this; I cannot, nor have I heard of one. It is clear, however, that development requires a much higher priority among the concerns of the industrial countries. With the present problems of imbalance among them, it is probably fanciful to suppose that this will be achieved by individual countries acting alone. Whatever the solution may be, it will almost certainly require joint consideration and action.

In fact, Mr. Woods, President of the World Bank, has strongly urged the industrial countries to join in a comprehensive examination of their development policies. He believes that world development deserves and requires the same concerted definition of objectives and agreement on plans that characterized the reconstruction effort in Europe 20 years ago. He believes that this should engage the attention of statesmen in the top echelons of government.

Mr. Woods has made this point in many forums. To dramatize its importance, he has pointed out that the population of the developing countries has increased by more than 200 million in the last five years. This is equivalent to the appearance on earth of a new nation comparable in population to the United States, the Soviet Union, Africa South of the Sahara, or all of Latin America. If such a nation did appear from outer space, he suggested, it would hardly fail to engage the urgent attention of the highest officers of state.

The needs I have outlined are by no means the only ones which concern the developing countries and those of us whose task it is to help them on the road to self-sustaining growth. But they are critical needs. I am confident that they will be met.

THE GROWING GAP BETWEEN DEVELOPED AND DEVELOPING COUNTRIES

A Paper Presented by

Mr. Mohamed Shoaib, Vice President

International Bank for Reconstruction and Development

to

The Center for Area and Country Studies

Foreign Service Institute

Washington, D.C.

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One of the outstanding developments of the past 20 years has been the great transformation taking place in the less developed countries. The first phase of the transformation was primarily political, with independence or self-government as the main objective and nationalism as the main theme. The achievement of independence since the war has ushered in the second phase with rapid economic progress as the main theme and self-sustained economic growth as the goal.

Equally significant is the fact that nations recognize that independence and inter-dependence are not altogether incompatible. In the political sphere, recognition of the complementary character of nationalism and internationalism led to the founding of the United Nations; in the economic sphere it gave practical shape to an equally creative idea of establishing the International Bank for Reconstruction and Development, or the World Bank as it is better known.

The World Bank and its two affiliates, the International Development Association (IDA), and the International Finance Corporation (IFC), represent the spirit of purposeful international cooperation engendered by the challenging enterprise of the less developed countries to attain rapid economic progress and the wish on the part of the richer nations to assist them in the transition from frustration to fulfillment.

* * * * *

Let me summarize the progress achieved so far. The average annual rate of economic growth of less developed countries since the early 1950s has, in fact, surpassed 4.5 per cent -- a rate that can stand comparison with the pace achieved in the 19th century by the countries that were then

pioneering the industrial revolution in Western Europe and North America. For the past six years the overall growth rate has been only slightly below the UN Development Decade target of an annual 5 per cent increase of gross national product.

Population growth was at around 2.5 per cent per annum. Average per capita income increased by 2.3 per cent during 1960-66.

These statistical data often fail to portray the true nature of the achievement. The economies of many developing countries have been maturing. Progress in the industrial sector has been encouraging. An impressive infrastructure of physical facilities, especially in the form of power installations and transportation services, representing billions of dollars, has been put in place.

Notwithstanding the overriding emphasis given to economic development in recent years, the pace of progress has not been as these countries wanted it to be and the gap between the rich nations of the North and the poor nations of the South is not closing. In fact it is widening. This, more than anything else provides a major threat to peace in the world.

The Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) says "there can be little doubt but that an appreciable part of the domestic political instability and international friction arises from economic causes, and therefore that economic progress properly directed may tend to reduce political tensions."^{1/} Mr. Robert McNamara established an "irrefutable relationship between violence

^{1/} Development Assistance Efforts and Policies -- 1967 Review -- Organization for Economic Cooperation and Development, Page 10.

and economic backwardness."^{2/} Mr. George D. Woods, a former President of the World Bank, warned us the other day that the economic gulf between the North and the South represented the basic threat to the World.^{3/}

Many distinguished professional economists have diagnosed that "multiple gapolis" is a major ailment of the world today. They have come forward with many remedies based on economic and ethical grounds. Rand Corporation's John Pincus states that "multiple gapolis" is a condition of world community and goes on to hope that the "world, if great wars can be avoided and population growth moderated, is clearly destined to remember poverty as only a remote souvenir."^{4/} It is to these gaps that divide the richer countries of the North and the poor countries of the South that I proposed to confine my remarks.

Income Gap

A study of data for 35 developing countries^{5/} shows that average per capita income increased from \$162 in 1960 to \$182 in 1966 at constant prices.

^{2/} Mr. Robert S. McNamara, Address to American Society of Newspaper Editors, May 18, 1966.

^{3/} Mr. George D. Woods, Address to the Swedish Bankers Association, October 27, 1967.

^{4/} John Pincus -- Trade, Aid and Development -- The Rich and Poor Nations, Council on Foreign Relations/Atlantic Policy Studies Series, Page 374.

^{5/} Less Developed Countries: Central and Latin America: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, Mexico, Panama, Paraguay, Peru, Uruguay and Venezuela. Middle East and Asia: Iraq, Israel, Jordan, Turkey, Burma, Ceylon, China (Taiwan), India, Republic of Korea, Malaysia, Pakistan, Philippines and Thailand. Africa: Ghana, Morocco, Nigeria and Tunisia.

Developed countries: USA, Canada, Japan, Australia, New Zealand, South Africa, Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland, U.K.

This compares with the increase in per capita income of developed countries from \$1,762 in 1960 to \$2,193 in 1966.^{6/}

From this data it is clear that the average per capita income of less developed countries increased by 12.4 per cent while that of the developed countries increased by 24.4 per cent. The absolute gap between per capita incomes in developed and developing countries increased from \$1,600 in 1960 to \$2,011 in 1966. The average per capita income in the less developed countries was 9.2 per cent of the average per capita income in developed countries in 1960. It declined to 8.3 per cent in 1966.

In the DAC countries combined gross national product grows by some \$60 billion a year, a sum corresponding to approximately two-thirds of the entire income of Latin America. The United States alone, growing by between 5 and 6 per cent a year, adds over \$40 billion to an annual GNP of over \$730 billion, thereby acquiring each year, as an extra, almost as much as the entire GNP of India or Africa.

If the present trends continue, the gross national products of the high income countries, which today total around \$1,500 billion, may quadruple by the end of the century, to a figure of about \$6,000 billion, leaving the poorer countries far behind.

This income gap coupled with the growing awareness of the difficulties in the way of reducing it has led to growing frustration in the less developed countries about the aid policies of the North. There is growing resentment among the poor countries due to the fact that in a situation of increasing incomes in the North aid flows to the South has tended to stagnate.

^{6/} Estimated from AID data. Country estimates of per capita incomes are weighted by population to get average per capita income.

Let me illustrate this point. The combined national income of 15 DAC countries increased by about \$360 billion between 1961 and 1966, while the total official aid flows increased by some \$420 million. Thus the marginal propensity to devote resources to aid with increase in national income averaged about 0.0011. In other words, for every \$1,000 increment in national income, on the average a little over a dollar was devoted to aid.

The gap in per capita income between the rich and the poor countries in absolute terms is likely to continue for many decades to come. There is considerable force in the argument that it is not right or relevant to set the closing of the gap as an objective or goal. It is something like asking for the moon. The developing countries are aware of this. No developing country has plans to reach the income levels of the United States. But the concept of the "gap" is useful in bringing to clear focus the contrast between the present day affluence of the North and the abject poverty of the South. It also underlines the need for steps to reduce the gap. We have, on the one hand, some 20 countries with less than a fifth of the world's population, producing and enjoying more than half the world's wealth. On the other, there are the developing countries which account for half the world's population and for only one-sixth of world product.

The contrast, Mr. Chairman, is both striking and ominous. The inescapable conclusion is that if we are to prevent an intolerable fission of humanity, the richer countries must participate more effectively and more constructively in the development of the poorer.

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Aid Gap

This naturally brings me to the other gap -- the gap between the capacity richer countries to give aid and the amount of aid actually being given.

It is now customary to measure assistance efforts against a one per cent target -- total net public and private financial flows as a percentage of the donor's national income. The percentage itself may be arbitrary. It is, however, a matter on which both the North and South have agreed.

In 1962, the 15 DAC countries that together supply what we call development assistance furnished a net sum of \$5.4 billion to the developing countries. At that time the combined national incomes of the developed countries was about \$830 billion. In 1966, the same 15 countries had a combined national income equivalent to about \$1,100 billion -- an increase of 30 per cent. The net flow of official capital in that year amounted to \$5.9 billion -- an increase of \$131 million only. Total official net flows of financial resources from all DAC countries declined from 0.72 per cent of national income in 1962 to 0.57 per cent in 1966. Had the rich countries allocated the same percentage of national income to development assistance in 1966 as they did in 1962 the aid figure would have been around \$2 billion higher. Had the rich countries adhered to the mutually agreed target of one per cent of national income, total official flows would have amounted to \$11 billion net.

Developing countries need external assistance for a number of reasons. Their low levels of per capita income and deficiencies in the organization for mobilizing domestic resources make it difficult to raise enough domestic resources to meet the investment needs of rapid growth. In addition, because

of the relatively large import needs of investment and the problems in expanding foreign exchange earnings rapidly, they may for structural reasons be unable to transform enough domestic resources into foreign exchange earnings to finance growth. Both the "saving gap" and the "foreign exchange gap" may be met by assistance from the richer countries.

The external assistance requirements of developing countries have been variously estimated. However, almost all such estimates made in the 1960s indicate that the requirements of developing countries for external resources would call for substantial increases in the flow of funds.

The following table^{7/} summarizes some recent estimates of the foreign capital requirements of developing countries:

<u>Source</u>	<u>Period</u>	<u>Growth Rate Target</u>	<u>Foreign Capital Requirements per year at end of period in billions of U. S. dollars</u>
GATT	1956/60-1975	5.0%	11.0
UN	1959-1970	5.0%	20.0
FAO	1959-70	5.0%	18.0
Balassa I	1960-1970	4.5%	11.0
Balassa II	1960-75	4.7%	14.0
Chenery/ Strout	1962-1975	5.2%	19.0
UNCTAD	1963-75	5.2% - 6.1%	17.0 - 26.0

The relative volume of aid has been dwindling at a time when the capacity of developing countries to effectively utilize increased amounts

^{7/} Abridged from Table on Estimates of the Trade and Savings Gap -- Trade, Aid and Development, The Rich and Poor Nations -- John Pincus (Page 298).

of capital has been increasing. The record of developing countries is by no means uniformly good. Some countries have failed to take the measures necessary to put their development on a sound basis. Many countries, however, have come to appreciate the need for better economic performance if development is to proceed successfully. Many have made improvements in various aspects of economic policy affecting domestic resource mobilization, private investment and production activity, the programming of government, exchange rates and trade. They have also taken steps to improve economic administration and the identification, planning and execution of investment projects. The need for emphasis on expansion of agricultural output has gained wider recognition, and more countries have taken measures to allocate greater resources to this purpose and to frame and implement policies designed to stimulate and facilitate expanded production.

One of the apparent obstacles to increasing the aid flow is budgetary difficulties faced by some of the major donor countries. In this context, it is important to bear in mind that the percentage of official assistance in total official expenditure is relatively small. As such, it is not likely to cause major problems. Net official aid as a percentage of government expenditure in DAC countries averaged 1.8 per cent in 1961-65. It declined to 1.6 per cent in 1965.

During this period, expenditures on such items as defense, public investment, subsidies and transfers, and general administration grew rapidly in the DAC countries. Commenting on this situation, a report from DAC says "This picture should make it clear, that even though government expenditures are increasing, foreign aid all too often is relatively unsuccessful in

competing even for a proportionate share of the increase. It is the familiar story of domestic demands being given priority. The problem is really not a budgetary one, but one of policy choice among competing claims."^{8/}

The other difficulty pertains to the balance-of-payments problem. Even here there is a tendency on the part of donors to overestimate the balance-of-payments burden arising from an aid program and to exaggerate savings from cuts in such programs. The Economic Policy Committee of the Organization for Economic Cooperation Development (OECD) is very clear on the subject when it says "there is general agreement that the volume of official aid to the less-developed countries should be determined primarily in the light of a country's aid-giving capacity in the widest sense, rather than by a reference to the immediate balance-of-payments situation it faces."^{9/}

Aid Tying

Widespread tying of aid softens the impact of such aid on balance-of-payments. A recent estimate suggested that at current levels of aid tying less than 20 per cent of the expenditures of the U.S. Agency for International Development results in a net drain on the balance of payments.

One of the reasons for tying of bilateral aid to procurement in the country providing funds has been concern about balance-of-payments difficulties. Such tying of aid tends to reduce the value of assistance.

^{8/} Development Assistance Efforts and Policies -- 1967 Review -- Organization for Economic Cooperation and Development. Page 115.

^{9/} 'The Balance of Payments Adjustment Process', a report by Working Party No. 3 of the Economic Policy Committee (August 1966), paragraph 60.

Our records show wide variations in tender prices from different countries. In one case, an Asian country actually canceled a tied loan for a highway program when it discovered that the lowest eligible bid under the loan, some \$27 million, was \$5 million more than the international competitive price for the kind and amount of work in question. Recent studies by professional economists indicate that tied aid results in at least a 15 per cent increase in prices of goods and services financed.

I would, however, like to add that borrowers from the World Bank and its affiliate, the International Development Association, are not merely free, but in virtually all cases required, to spend the proceeds of their loans where they can get the best value, anywhere in the member countries of the Bank or in Switzerland.

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It seems clear that the available amount of international development finance is falling farther and farther behind the economic capacity of high-income nations to provide it, and farther and farther behind the capacity of developing countries to use it productively.

Apart from the question of volume, which currently presents political and budgetary problems in certain industrialized countries, much can be done to enhance the value of such development finance as is available.

In his study on Economic Policies toward Less Developed Countries, Harry Johnson says "quite apart from any question of the adequacy and prospective rate of growth of foreign aid, the provision of aid in its present predominantly bilateral and project-tied form involves certain inefficiencies that reduce its effectiveness and usefulness to the

recipients by reducing the real value of the resources it transfers and restricting the uses to which it may be put."^{10/}

Equally important is the question pertaining to terms of aid. If the volume of development finance does not grow, and if there is no improvement in their terms, development aid will simply eat itself. Annually, amortization, interest and dividends take around \$7 billion in reverse flows from developing to developed countries. This is about half the gross flow of all financial resources from rich to poor lands. Gross disbursements from the rich to the poor countries would have to increase by 30 per cent by 1975 just to maintain the present level of assistance. The OECD comes to the "inevitable conclusion" that the maintenance of the present net transfer will require either a dramatic increase in gross disbursements or a substantial alternation in terms.

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While on this subject, let me briefly mention the role of the World Bank's affiliate, the International Development Association (IDA), in promoting development in the poorer countries. IDA's purpose is to promote economic development in the less-developed countries by providing finance to meet important development requirements on terms that are more flexible and bear less heavily on the balance of payments of the borrowing countries than conventional loans. IDA credits to date have been free of interest, except for a service charge of 3/4 of 1 per cent. They are repayable in 50 years, with a grace period of 10 years before repayment begins.

^{10/} Harry G. Johnson, Economic Policies Toward Less Developed Countries -- Brookings Institution -- Page 80.

Only IDA's financing terms, however, are concessionary. Credits have been provided solely for high priority projects which have first been appraised with the same thoroughness as projects assisted by conventional loans from the World Bank. They have been confined to countries with per capita incomes of \$250 a year or less.

By December 1967, IDA had extended credits totaling \$1,713 million to help finance projects in 38 member countries. These credits are helping to finance projects for bringing under cultivation or improving more than 13,000,000 acres for agricultural purposes; construction and improvement of more than 10,000 miles of roads; improvement and expansion of railroads; and the installation of 800,000 kilowatts of electric generating capacity.

Because of the easy terms on which it provides finance, the Association is primarily reliant on governments of the richer member countries for its resources. Since IDA has virtually exhausted all its usable resources, the Executive Directors of IDA recommended last month a proposal for the replenishment of IDA's resources in the amount of \$1,200 million. Eighteen member countries, plus Switzerland, propose making available to IDA \$400 million annually. The proposal is now before member governments.

* * * * *

A word about private capital flows. Private capital flows to developing countries amounted to \$3.4 billion in 1966, as against \$4 billion in the previous year. This decline, according to DAC, took place despite increased efforts by governments in various developed countries to encourage foreign investment. The decline last year has been attributed to the high level of interest rates in developed countries and the deterioration in the investment climate in some less developed countries.

Without doubt there is scope for an increase in the flow of private capital to developing countries. To translate this potential into reality the developing countries must improve the climate for foreign investment and thus increase the willingness of private entrepreneurs and investors to venture abroad. The flow of private capital is largely determined by decisions of private individuals or corporations in capital exporting countries. Governments of capital exporting countries, however, can play and are playing a role in influencing these decisions with tax incentives, guarantee schemes, and other measures.

Within the World Bank Group, the International Finance Corporation (IFC), is directly engaged in encouraging the flow of both foreign and domestic private capital into industrial ventures in developing countries.

A serious deterrent to an increase in foreign investment in the developing countries is the fear that the investment will be exposed to a number of non-commercial risks, such as outright expropriation or nationalization without adequate compensation, the imposition of restrictions on the transfer of profits, and inability to repatriate capital. The World Bank has been concerned for some time to devise ways of removing these fears and has felt well placed to act in this field because of its position of impartiality. Two initiatives have been taken, one of which had by the end of 1966 reached the stage where it could begin to achieve practical results.

The Bank sponsored the Convention on the Settlement of Investment Disputes between States and Nationals of Other States, which entered into force in October 1966. The Convention established an International Centre for settlement, by voluntary recourse to conciliation or arbitration, of

investment disputes between States and Nationals of Other States. The Bank believes that the creation of an institution especially designed to facilitate the settlement of investment disputes between States and foreign investors could be a major step toward promoting an atmosphere of mutual confidence. It also hopes that adherence to the Convention will stimulate a larger flow of private international capital into those countries which wish to attract it.

In addition, at the request of the United Nations Conference on Trade and Development (UNCTAD), the staff of the World Bank has drawn up a draft multilateral investment insurance scheme designed to insure new private investment made in a developing country against risks of a non-commercial nature. The draft, based on earlier work done by OECD, is being considered by the Executive Directors of the Bank.

Trade Gap

The growing feeling that foreign aid may not be sufficient enough to facilitate economic growth in less developed countries has led demands for increasing the export earnings of these countries. The belief is that an acceleration in the export earnings of less developed countries would offset the relatively slow growth in capital flows from developed countries.

The main fuel of development in less developed countries is their own internal savings and export earnings. At present over 80 per cent of investment for development in these countries is financed from these two sources.

Recent estimates of the trade gap varies from \$5-\$12 billion a year.

The estimates are summarized in the following table:

Estimates of the Trade Gap (Annual Basis)

<u>Source</u>	<u>Period Covered</u>	<u>Growth Target</u>	<u>Import Requirements</u> -----billions of U. S. dollars-----	<u>Export Earnings</u> of U. S. dollars	<u>Trade Gap</u> -----
GATT	1956/60-1975	5%	28-32	17	11
UN	1959-1970	5%	41	29	12
FAO	1959-1970	5%	42	31	10
Balassa I	1960-1970	4.5%	38	33	5
Balassa II	1960-1975	4.7%	49	42	7

In recent years, there has been a marked acceleration in developing countries total export earnings. Whereas between 1953-54 and 1959-60 they rose by 23 per cent of \$5 billion, the increase between 1959-60 and 1965-66 was 41 per cent or \$11 billion

Despite this acceleration, exports of developing countries continued to lag behind the expansion in world trade. Their share in world exports which had declined from 27 per cent in 1953-54 to 22 per cent in 1959-60, fell further to 19 per cent in 1966 according to GATT. If exports of less developed countries, instead of declining as a proportion of world trade, had been able in 1966 to maintain the same position that they had occupied in 1953, the value of their exports would have amounted to \$54 billion instead of the actual of about \$39 billion.

For some less developed countries, the lag in export growth has been caused, in part, by mistaken policies, among them overvalued exchange rates and too much priority to import substitution, no matter how economic. In part, it is due to neglect of quality and continuity of supply. But some part of the difficulty has been the lack of cooperation given by the industrialized countries through removal of impediments to the exports of developing countries.

The other reason for the lag is the composition of exports from less developed countries. Developing countries' exports are concentrated on primary products and their participation in world exports of manufactures is very limited. The share of primary products in world trade has been declining from 54 per cent in 1953-54 to 42 per cent in 1965-66. At the same time there has been a rapid growth in demand for manufactures. The rapid expansion in manufactures benefited mainly the more industrialized countries.

Since the war, developing countries' export proceeds from primary products have lagged behind those of other suppliers. According to GATT between 1953-54 and 1965-66 exports of primary products by developed countries doubled in value, while those of developing countries rose by two-thirds.

The slower growth in the value of developing countries' agricultural exports is also attributable to less favorable development in prices. According to GATT the unit values of exports from developing countries declined by 5 per cent from their 1953 level, while that of the developed countries increased by 7 per cent, indicating a deterioration in the terms

of trade of 12 per cent. Applying this to the exports of developing countries in 1966, of \$38.75 billion, one can arrive at a loss of about \$5 billion in terms of 1953 prices.

In regard to manufactures, developing countries' exports amounted to \$1.5 billion in 1953. By 1965, these exports exceeded \$4.2 billion.

The trade policies of developed countries tend to discriminate against exports from developing areas. Studies by GATT and UNCTAD reveal that the recent tariff cuts under the Kennedy Round are not going to be of much help to developing countries. This is the background to the idea of preference for exports of manufactures from developing countries. It should be noted that most recent estimates indicate that the preferential tariffs would lead to an increase in developing countries' exports of manufactured goods by \$400 to \$700 million a year.

It is now recognized by all concerned that in the future world demand for manufactures will grow faster than primary products. A substantial increase in developing countries' export receipts, so necessary for sustained economic growth, can be facilitated if these countries were given a chance to participate more fully in the expansion of world trade in manufactures.

Developing countries should also concentrate on increasing trade in primary commodities and manufactures among themselves. There has been an increase in this kind of exchange. But this represents only a minor share of their total imports.

Stabilization of primary commodity markets will continue to be a major objective of international policy since even a slight setback in the primary commodity sector can more than nullify the effects of a considerable acceleration in the export of manufactures.

At their Annual Meetings in September 1967, the Board of Governors of the Bank and the International Monetary Fund adopted resolutions requesting their respective institutions to carry out a study of the problem of stabilizing prices of primary products, and the possible role each institution might play in finding solutions to that problem. The study is in progress.

In 1966, the staff of the Bank completed a study on "Supplementary Financial Measures". Under the scheme, supplementary finance would be provided to support development programs that would otherwise be disrupted by the failure of export earnings to come up to reasonable expectations.

UNCTAD II

It is in this context that we should judge the performance of the second session of the UN Conference on Trade and Development that ended a week ago in New Delhi. Some limited progress was achieved in isolated areas. I am sorry to say, however, that two months of intensive debate and discussions between the rich and the poor have failed to produce any positive results.

It is perhaps too early to assess the impact of the second UNCTAD. But there is enough evidence to suggest that the developing countries have been deeply disappointed. Ambassador Azerdo Da Silveira of Brazil obviously reflected the sentiments of the poor countries when he said "the aftermath of defeat is likely to be far-reaching in its consequences. Never was a conference so vitally important to so many men and women around the world. And never have so many hopes been so brutally wrecked.

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Food and Fertilizer

In order to achieve a meaningful acceleration in the overall expansion of domestic product, the developing countries must increase agricultural production.

About 40 developing countries are net importers of food. The underdeveloped world imports \$4.5 billion worth of food a year. So long as the poorer nations must continue to spend large amounts of precious foreign exchange on food imports, they are going to have to skimp on imports of capital goods needed for development.

Of particular concern to all engaged in the development field is the failure of food production in many countries to keep pace with the growing population and rising standards of nutrition. A high proportion of employment in many developing countries is generated in the agricultural sector and as noted earlier the export earnings in a number of countries are almost entirely dependent on it. There is a growing feeling that a satisfactory rate of development can be achieved only through more rapid improvements in agricultural techniques and organization. The World Bank and IFC have initiated discussions looking toward an effective contribution by industry to bring about a decisive improvement in food production through projects for the manufacture and distribution of chemical fertilizers in developing countries. In the past two years, three fertilizer projects in Brazil, India and Senegal reached the financing stage.

It is estimated that fertilizer consumption in the less developed countries would reach between 9.7 and 10.2 million tons in 1970 and would need to increase to between 26.4 and 30.2 million tons in 1980 to meet the

requirements for food production. Present fertilizer consumption in the less developed countries is around 5 million tons.

In view of the expected growth in fertilizer demand it is clear that developing countries will remain substantial net importers of fertilizers even if their own production capacity should develop very favorably. Considerable amounts of foreign exchange would be required to expand fertilizer capacity in developing countries. It is estimated the investment requirements for new fertilizer capacity in foreign exchange will run at an annual level of \$650 million in the 1970s. In addition about \$4.2 billion will be required each year for direct fertilizer imports as well as for raw materials. If the needs of developing countries are to be met, the necessary mobilization of resources can only be accomplished through a joint effort and by close cooperation between private investors, governments and the international agencies that are able to help in financing of the projects.

Gap in Skills

Shortage of skills of various kinds presents an acute problem in less developed countries. It is perhaps difficult to express this in precise quantitative terms. According to a report from the UN, it would appear that the gap in skills between the developing and the developed countries is greater than the gap in per capita income or in the level of living.^{11/} It is in this context that technical assistance activities of the rich countries acquire considerable significance. There is a Chinese proverb:

^{11/} UN Economic and Social Council, Report of the Secretary-General on Development and Utilization of Human Resources in Developing Countries, May 1967.

"If you give fish to a hungry man, he will be satisfied for a while. But he will become hungry again. But if you teach him to catch fish, he will never come to you asking for fish again."

Increased technical assistance activities in recent years have helped developing countries to use effectively increased quantities of domestic and foreign resources for development. This process must continue for years.

One of the most encouraging recent developments has been the recognition among economists of the important role of human resources in economic growth. In a sense, this change in attitude among modern economists toward investment in human resources could be described as a healthy revival of the doctrine explicitly recognized by some of the great classical economists. Adam Smith, for instance, underlined the importance of education and went on to include the acquired and useful abilities of all the inhabitants of society as part of capital. The importance of education as a national investment was emphasized by Alfred Marshall.

Professor Theodore Schultz of the University of Chicago, who was one of the first to put the problems of education under an economist's microscope, presents enough evidence in his paper on the "Economic Value of Education" to support the theory that "schooling and advance in knowledge are both major sources of economic growth. It is obvious that they are not natural resources; they are essentially man-made, which means that

they entail savings and investment. Investment in schooling is presently, in the United States, a major source of human capital."^{12/}

It is now recognized that even in industrialized countries improved skills and management have a positive impact on economic development. Edward Denison in his paper on "The Sources of Economic Growth in the United States and the Alternatives Before Us" devotes a chapter to assess the contribution that increased education of the labor force has made to past growth and is likely to make to future growth.^{13/}

In the developing countries there are too few skilled persons and too many unskilled. The number of people without skills or with few skills is large. In brief, the lack of trained manpower is today one of the critical bottlenecks in the development process.

At this critical moment, there has also been another disturbing trend -- the migration of trained men and women from the poor South to the rich North. This has been attributed to the enormous gaps between the salaries and prerequisites which developed and developing countries can offer to highly trained people, the satisfaction which complex learned communities can offer in terms of career prospects, stimulation and free exchange of opinion, better education for children and so on.

While discussing this problem, the UN Secretary General's Report said "to the extent that migration of highly trained personnel enables developed countries to benefit by the investment of developing countries in the

^{12/} Theodore W. Schultz, "The Economic Value of Education", Columbia University Press 1963, Page 46.

^{13/} Edward F. Denison, "The Sources of Economic Growth in the United States and the Alternatives Before Us", Chapter 7. Supplementary Paper No. 13 published by the Committee for Economic Development, January 1962.

training of persons who subsequently emigrate or fail to return, the 'brain drain' is a serious example of the progressive shift of resources from developing to developed countries, and thus runs counter to purposes of the United Nations Development Decade."^{14/}

According to one estimate about 85,000 foreign engineers, physicians and scientists settled permanently in the United States from 1949 to 1964. By 1967 the figure was expected to reach about 100,000, representing a net saving in training of at least \$2 billion, and possibly as much as \$4 billion. The share of these immigrants originating from developing countries has been on the increase in recent years and is now estimated to be nearly one-third of the total.^{15/}

Between 30 and 50 per cent of the annual output of medical schools emigrate to the United States from Greece, the Philippines, Iran, Turkey, the Republic of Korea and a number of Central American countries, all areas where the number of inhabitants per physician is many times higher than in the United States.^{16/}

There are more Iranian medical doctors in New York than in all of Iran.^{17/}

^{14/} United Nations Economic and Social Council, Report of the Secretary-General on the Development and Utilization of Human Resources in Developing Countries, May, 1967.

^{15/} T. J. Mills, "Scientific Personnel and the Professions", Annals of the American Academy of Political and Social Sciences -- September 1966.

^{16/} G. Henderson, "Foreign Students: Exchange or Immigration?", International Development Review, December 1964; and the U.S. Department of State, "The International Migration of Talent and Skills", October 1966.

^{17/} L. J. Zimmermann, "The Demand for Intellectual Manpower in Developing Countries for the Next Twenty Years" -- 1966.

There are probably more highly trained Korean, Chinese (Taiwan) and Iranian engineers working in the United States alone than there are in the countries of origin; only 15 per cent of these students who went to the United States to study have presumably returned.^{18/}

As in other spheres of development, the primary responsibility for slowing down or halting this trend rests with the developing countries. They must adopt positive policies, such as providing incentives in terms of better salaries, allowances, career prospects and better research facilities. They must also try to inculcate in students going abroad a spirit of dedication and sense of participation.

Developed countries can adopt policies to encourage experts from developing countries to return home after their period of training abroad.

* * * * *

One great advantage in recent years has been that technologies have already been invented and can be borrowed by developing countries. But it should be borne in mind that modern technology just cannot be superimposed on the delicate fabric of traditional way of life. Professor J. Berque is clear on this point when he says "if it be accepted that a civilization -- industrial civilization is the case in point -- cannot be adopted by the abandonment and destruction by the receivers of their inherited culture and their own personality, what the receivers have to do is to take over that civilization, and so to fit, selectively, into an appropriate structural framework."^{19/}

^{18/} A. Maddison, "The Contribution of Foreign Skills, Training and Technical Assistance to Economic Development", OECD Development Centre Studies, 1965.

^{19/} UNESCO -- The Role of the Human Factor in the Development of the Newly Independent Countries -- Chapter I, Development and Man, by Professor J. Berque, April 1967.

This calls for preparation on the part of developing countries, psychologically as well as structurally, to bear the weight and pressures of modernization. It is well known that the prevailing structure of the economy in developing countries, the extended family and the traditional social and economic stratification often kill initiative. These factors also act as major disincentives to development. Overcoming these barriers can very well be a very delicate and time-consuming exercise.

Let me illustrate some of the difficulties. In traditional societies, the scale of values is such as to assign near-bottom position to manual labor. Africa is 90 per cent agricultural. It still has to import food because of the backwardness of the agricultural sector. T. Balogh feels that the backwardness of African agriculture cannot be reversed as long as the African is "mis-educated" to a contempt for physical labor and rural life.^{20/}

It is also likely that economic development and the introduction of modern technology may break established patterns of life and thus induce temporary instability.

* * * * *

Let me mention a few opportunities that can be exploited fully with the application of modern technology.

One -- The production of ammonia has brought the vision of enormously increased supplies of low-cost fertilizer in developing countries to realization. With increased application of fertilizer and other agricultural inputs greatly increased yields in agriculture could be obtained.

^{20/} T. Balogh "Misconceived Education Programmes in Africa", University Quarterly, June 1962.

Two -- Technology can be applied in the field of birth control. The total population of developing countries is expected to increase to 4,700 million by the end of the century. In other words, it will double in about 32 years. Modern family planning measures provide real possibility of reducing the world's population growth to manageable proportion. If, however, the assumed dissemination of family planning does not occur and the present level of fertility continues, the population in the developing world will be nearly 6,000 million. This would mean that developing countries may have to run as fast as they could just to remain where they are now.

Three -- Radio and television could be used effectively and widely to raise educational standards and to supplement the efforts of scarce teacher personnel.

Four -- Nuclear power generation with water desalination can be used on a scale to affect the economics of power production and the supply of water for human and industrial use.

Conclusion

Economic development cannot be imported. It depends primarily upon the less developed countries themselves. Their resources must provide most of the capital. Bulk of the skilled and unskilled labor will have to come from their manpower resources. The basic framework for national objectives must be provided by their institutions. In addition, the primary political decisions are theirs. They should not merely conserve the assets they have, but they should take measures to attract new investment.

But assistance -- knowledge, skill, training and capital -- can be imported. To achieve meaningful results, development assistance must turn away from expediency and toward effectiveness. Specific conditions and needs vary between and within developing countries. Hence it is difficult to have a standard formula for development applicable to all developing countries alike. The problem of ensuring a satisfactory rate of growth in less developed countries will keep mankind busy for many years. There is nothing like instant or painless development.

An exercise in gap estimation is not merely economic arithmetic. It involves a number of other considerations as well. Foreign aid is the result of an interplay of various factors -- humanitarian, commercial, political, strategic and economic. It has become a residual item in most donor countries' budgets probably due to the lack of effective public opinion in favor of it.

It should be remembered that world peace and prosperity cannot be ensured as long as a big bulk of the world's population remains in extreme poverty and in a state of political and social instability. It is vital to both the rich and poor countries that the less developed countries achieve rapid economic progress so as to facilitate the growth of an expanding world economy.

The rich and the poor countries should adopt a flexible approach to the complex problem of economic development. The rich should commit themselves on a sufficiently long-term basis to a policy providing the necessary assistance to developing countries pursuing sound economic and fiscal policies.

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Address by Mr. Mohamed Shoaib, Vice President,
International Bank for Reconstruction and Development
and the International Development Association to the
Center for Area and Country Studies, Foreign Service
Institute, U.S. Department of State, Washington, D.C.

April 8, 1968

"The Growing Gap Between Developed and Developing Countries"

Mr. Chairman and Friends:

I very much appreciate your invitation to me to address the general session of the Center for Area and Country Studies of the Foreign Service Institute on a subject of very great common interest -- the problem of economic development.

As requested by Mr. Mueller, I shall concentrate on the widening gap between the rich countries of the North and the poor countries of the South and its implications. I am also taking the liberty of submitting to you a more detailed paper on the subject.

Many distinguished professional economists have diagnosed that "multiple gapolis" is a major ailment of the world today. They have come forward with many remedies based on economic, political and ethical grounds. It is to these gaps in income, trade, aid and skills, which divide the richer countries of the North and the poor countries of the South, that I propose to confine my remarks.

* * *

I shall first refer to the gap between incomes of developed and developing countries. A study of data for 35 developing countries shows that average per capita income increased by about \$20 between 1960 and 1966 at constant prices. At the same time, the per capita income of developed countries increased from \$1,762 in 1960 to \$2,193 in 1966. This brings to light the fact that the absolute

gap between per capita incomes in the richer and the poorer countries increased from \$1,600 in 1960 to \$2,011 in 1966.

The combined gross national product of members of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) rose by some \$60 billion a year, a sum corresponding to approximately two-thirds of the entire income of Latin America. The United States alone, growing by between five and six per cent a year, adds over \$40 billion to an annual GNP of over \$730 billion, thereby acquiring each year, as an extra, almost as much as the entire GNP of India or Africa.

If the present trend continues, the gross national products of the high income countries, which today total around \$1,500 billion, may quadruple by the end of the century, to a figure of about \$6,000 billion, leaving the poorer countries far behind.

There is growing resentment among the poor countries due to the fact that in a situation of increasing incomes in the North, aid flows to the South have tended to stagnate.

Let me illustrate this point. The combined national income of 15 DAC countries increased by about \$360 billion between 1961 and 1966, while the total official aid flows increased by \$420 million. Thus the marginal propensity to devote resources to aid with increase in national income averaged to about 0.0011. In other words, for every \$1,000 increment in national income, on the average a little over a dollar was devoted to aid.

I realize that the gap in per capita incomes between the rich and the poor countries in absolute terms is likely to continue for many decades to come. I am also aware that many distinguished economists have taken the position that

it is not right or relevant to set the closing of the gap as an objective or goal. I must also add that no developing country has plans at the moment to reach the income levels of the United States. But I strongly feel that we should initiate steps toward reducing the gap, which is both striking and ominous.

We have, on the one hand, some 20 countries with less than a fifth of the world's population, producing and enjoying more than half the world's wealth. On the other, there are the developing countries which account for half the world's population and for only one-sixth of world product. The inescapable conclusion is that if we are to prevent an intolerable fission of humanity, the richer countries must participate more effectively and more constructively in the development of the poorer countries.

* * *

This naturally brings me to the other gap -- the gap between the capacity of richer countries to give aid and the amount of aid actually being given.

It is customary to measure assistance efforts against a one per cent target -- the total net public and private financial flows as a percentage of the donor's national income. The percentage itself may be arbitrary. But the important fact to remember is that both the rich North and the poor South have agreed on this target. Let me measure aid performance in the light of this target.

In 1962, the 15 DAC countries that together supply what we call development assistance furnished a net sum of about \$6 billion to the developing countries. At that time the combined national incomes of the developed countries

were about \$830 billion. In 1966, the same 15 countries had a combined national income of about \$1,100 billion -- an increase of 30 per cent. In that year, the net flow of official resources amounted to \$6.4 billion -- an increase of about \$420 million only.

Total official net flows of financial resources from all DAC countries declined from 0.72 per cent of national income in 1962 to 0.57 per cent in 1966. Had the rich countries allocated the same percentage of national income to development assistance in 1966 as they did in 1962, the aid figure would have been higher by about \$2 billion. Had these countries adhered to the mutually agreed target of 1 per cent of national income, total official flows would have amounted to \$11 billion net, an increase of about \$5 billion over the level reached in 1966.

The relative volume of aid has been dwindling at a time when the capacity of developing countries to effectively utilize increased amounts of capital has been increasing. The record of developing countries is by no means uniformly good. Some countries have failed to take the measures necessary to put their development on a sound basis. Many countries, however, have come to appreciate the need for better economic performance if development is to proceed successfully. Many have made improvements in various aspects of economic policy affecting domestic resource mobilization, private investment and production activity, the programming of government, exchange rates and trade. They have also taken steps to improve economic administration and the identification, planning and execution of investment projects. The need for emphasis on expansion of agricultural output has gained wider recognition, and more countries

have taken measures to allocate greater resources to this purpose and to frame and implement policies designed to stimulate and facilitate expanded production.

Estimates of external assistance requirements of developing countries range from \$11 to \$20 billion a year. A preliminary inquiry, carried out by the Bank two years ago, indicated that developing countries could effectively use, on the average, some \$3 to \$4 billion more of development finance than they are receiving.

The apparent obstacles to increasing the aid flow are budgetary difficulties and balance of payments problems faced by some of the donor countries.

It is important to bear in mind that the percentage of official assistance in total official expenditure is relatively small. Net official aid as a percentage of government expenditure in DAC countries averaged 1.8 per cent during 1964-65. It was lower at 1.6 per cent in 1965. During this period, government expenditures have been rapidly increasing. It is understandable that donor countries want to allocate more for domestic education, roads, defense and so on, rather than assisting other countries. I do not think that a slight increase in the allocations for foreign aid would cause serious budgetary problems. Nor would it be correct to attribute the present lag in the flow of funds from the rich to the poor to budgetary problems. The real problem is one of policy choice among competing claims.

As regards balance of payments problems, I notice a tendency on the part of donors to overestimate the burden arising from an aid program and to exaggerate savings from cuts in such programs. Widespread tying of aid softens the impact of such aid on balance of payments. A recent estimate suggested that at current levels of aid-tying less than 20 per cent of the expenditures of the U.S. Agency for International Development results in a net drain on the balance of payments.

I personally feel that the volume of official aid to less developed countries should be determined primarily by the rich countries' aid-giving capacity in the widest sense and not by short-term balance of payments considerations.

One of the reasons for tying of bilateral aid to procurement in the country providing funds has been concern about balance of payments difficulties. Such tying of aid tends to reduce the value of assistance. Our records show wide variations in tender prices from different countries. In one case, an Asian country actually canceled a tied loan for a highway program when it discovered that the lowest eligible bid under the loan, some \$27 million, was \$5 million more than the international, competitive price for the kind and amount of work in question. Recent studies by professional economists indicate that tying results in at least ^a 15 per cent increase in prices of goods and services financed.

I would, however, like to add that borrowers from the World Bank and its affiliate, the International Development Association, are not merely free, but in virtually all cases are required to spend the proceeds of their loans where they can get the best value, anywhere in the member countries of the Bank or in Switzerland.

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Another important question pertains to terms of aid. If the volume of development finance does not grow, and if there is no improvement in their terms, development aid will simply eat itself. Annually, amortization, interest and dividends take around \$7 billion in reverse flows from developing to developed countries. This is about half the gross flow of all financial resources from rich to poor lands.

Gross disbursements from the rich to the poor countries would have to increase by 30 per cent in the ten years to 1975 just to maintain the present net level of assistance. Some donor countries using very hard terms would have to increase their gross disbursements by 200 per cent to maintain their present net level. After a study of the problem, the OECD comes to the 'inevitable' conclusion that the maintenance of the present net transfer will require either a dramatic increase in gross disbursements or a substantial alteration in terms.

While on this subject, let me briefly mention the role of the World Bank's affiliate, the International Development Association (IDA), in promoting development in the poorer countries. IDA's purpose is to promote economic development in the less developed countries by providing finance to meet important development requirements on terms that are more flexible and bear less heavily on the balance of payments of the borrowing countries than conventional loans. IDA credits to date have been free of interest, except for a service charge of $\frac{3}{4}$ of 1 per cent. They are repayable in 50 years, with a grace period of 10 years before repayment begins.

Only IDA's financing terms, however, are concessionary. Credits have been provided solely for high priority projects which have first been appraised with the same thoroughness as projects assisted by conventional loans from the World Bank. They have been confined to countries with per capita incomes of \$250 a year or less.

By December 1967, IDA had extended credits totaling \$1,713 million to help finance projects in 38 member countries. These credits are helping to finance projects for bringing under cultivation or improving more than 13,000,000 acres for agricultural purposes; construction and improvement of more than 10,000 miles of roads; improvement and expansion of railroads; and

the installation of 800,000 kilowatts of electric generating capacity.

Because of the easy terms on which it provides finance, the Association is primarily reliant on governments of the richer member countries for its resources. Since IDA has virtually exhausted all its usable resources, the Executive Directors of IDA recommended last month a proposal for the replenishment of IDA's resources in the amount of \$1,200 million. Eighteen member countries, plus Switzerland, propose making available to IDA \$400 million annually. The proposal is now before member governments.

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A word about private capital flows. Private capital flows to developing countries amounted to \$3.4 billion in 1966, as against \$4 billion in the previous year.

Without doubt there is scope for an increase in the flow of private capital to developing countries. To translate this potential into reality the developing countries must improve the climate for foreign investment and thus increase the willingness of private entrepreneurs and investors to venture abroad.

The flow of private capital is largely determined by decisions of private individuals in capital-exporting countries. Governments of capital-exporting countries, however, can play and are playing a role in influencing these decisions with tax incentives, guarantee schemes, and other measures.

Within the World Bank Group, the International Finance Corporation (IFC), is directly engaged in encouraging the flow of both foreign and domestic capital.

A serious deterrent to an increase in foreign investment in the developing countries is the fear that the investment will be exposed to a number of non-commercial risks, such as outright expropriation or nationalization without compensation, the imposition of restrictions on the transfer of profits, and inability to repatriate capital.

The World Bank has been concerned for some time to devise ways of removing these fears and has felt well placed to act in this field because of its position of impartiality. Two initiatives have been taken, one of which had, by the end of 1966, reached the stage where it could begin to achieve practical results.

The Bank sponsored the Convention on the Settlement of Investment Disputes between States and Nationals of Other States, which entered into force in 1966. The Convention established an International Centre for the settlement, by voluntary recourse to conciliation or arbitration, of investment disputes between States and Nationals of other States. The Bank believes that the creation of an institution especially designed to facilitate the settlement of investment disputes between States and foreign investors could be a major step toward promoting an atmosphere of mutual confidence.

In addition, at the request of the United Nations Conference on Trade and Development (UNCTAD), the staff of the World Bank has drawn up a draft multilateral investment insurance scheme designed to insure new private investments made in a developing country. The draft, based on earlier work done by OECD, is being considered by the Executive Directors of the Bank.

Trade Gap

The growing feeling that foreign aid may not be sufficient enough to facilitate economic growth in less developed countries has led to demands for increasing the export earnings of these countries. The fact is that an acceleration in export earnings in less developed countries will more than offset the relatively slow growth in capital flows from developed countries.

The main fuel of development in the less developed countries is their own internal savings and export earnings. At present over 80 per cent of investment for development in these countries is financed from these two sources. Estimates of the trade gap varies from \$5 to \$12 billion a year.

In recent years, there has been a marked acceleration in developing countries' total export earnings. Despite this acceleration, exports of developing countries continued to lag behind the expansion in world trade. According to GATT, the share of developing countries in world exports declined from 27 per cent in 1953 to 19.3 per cent in 1966. If exports of less developed countries, instead of declining as a proportion of world trade, has been able in 1966 to maintain the same position that they had occupied in 1953, the value of their exports would have amounted to \$54 billion instead of the actual of about \$39 billion.

The other reason for the lag is the composition of exports from less developed countries. Developing countries' exports are concentrated on primary products and their participation in world exports of manufactures is very limited. The share of primary products in world trade has been declining in recent years.

Less favorable development in prices has been a factor in the slower growth in the value of developing countries' agricultural exports.

According to GATT the unit values of exports from developing countries declined by 5 per cent from their 1953 level, while that of the developed countries increased by 7 per cent, indicating a deterioration in the terms of trade of 12 per cent. Applying this to the exports of developing countries in 1966, of some \$39 billion, one can arrive at a loss of about \$5 billion in terms of 1953 prices.

Stabilization of primary commodity markets will continue to be a major objective of international policy since even a slight setback in the primary commodity sector can more than nullify the effects of a considerable acceleration in the export of manufactures.

At their Annual Meetings in September 1967, the Board of Governors of the Bank and the International Monetary Fund adopted resolutions requesting their respective institutions to carry out a study of the problem of stabilizing prices of primary productions, and the possible role each institution might play in finding solutions to that problem.

For some less developed countries, the lag in export growth has been caused, in part, by mistaken policies, among them overvalued exchange rates and too much priority to import substitution, no matter how economic. In part, it is due to neglect of quality and continuity of supply. But some part of the difficulty has been the lack of cooperation given by the industrialized countries through removal of impediments to the exports of developing countries.

The trade policies of developed countries tend to discriminate against exports from developing areas. Studies by GATT and UNCTAD reveal that the recent tariff cuts under the Kennedy Round are not going to be of much help to developing

countries. This is the background to the idea of preference for exports of manufactures from developing countries. It should be noted that most recent estimates indicate that the preferential tariffs would lead to an increase in developing countries' exports of manufactured goods by \$700 million a year.

It is in this context that we should judge the performance of the second session of the UN Conference on Trade and Development that ended a week ago in New Delhi. Some limited progress was achieved in isolated areas. I am sorry to say, however, that two months of intensive debate and discussions between the rich and the poor have failed to produce any positive results.

It is perhaps too early to assess the impact of the second UNCTAD. But there is enough evidence to suggest that the developing countries have been deeply disappointed. Ambassador Azerdo Da Silveira of Brazil obviously reflected the sentiments of the poor countries when he said, "the aftermath of defeat is likely to be far-reaching in its consequences. Never was a conference so vitally important to so many men and women around the world. And never have so many hopes been so brutally wrecked."

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Food and Fertilizer

Of particular concern to all engaged in the development field is the failure of food production in many developing countries to keep pace with population growth. Besides, in order to achieve a meaningful acceleration in the over-all expansion of domestic product, the developing countries must increase agricultural production.

About 40 developing countries are net importers of food. The under-developed world imports about \$4.5 billion worth of food a year. So long as the poorer countries must continue to spend large amounts of precious foreign exchange on food imports, they are going to have to skim on imports of capital goods needed for development.

There is a growing feeling that a satisfactory rate of development can be achieved only through more rapid improvements in agricultural techniques and organization. The World Bank and IFC have initiated discussions looking toward an effective contribution by industry to bring about a decisive improvement in food production through projects for the manufacture and distribution of chemical fertilizers in developing countries.

Gap in Skills

Shortage of skills of various kinds presents an acute problem in less developed countries. It seems that the gap in skills between the developing and the developed countries is greater than the gap in per capita income or in the level of living. However, it is difficult to quantify this gap.

It is in this context that technical assistance activities of the rich countries acquire considerable significance. There is a Chinese proverb: "If you give a fish to hungry man, he will be satisfied for a while. But he will become hungry again. If you teach him to catch fish, he will never come to you asking for fish again."

Increased technical assistance activities in recent years have helped developing countries to use effectively increased quantities of domestic and foreign resources for development. This process must continue for years.

At a critical time, when there is an acute shortage of skills in developing countries, they are losing to the rich some of their skilled personnel. This migration of highly trained personnel to the rich countries and the consequent benefit that the rich countries derive from such migration constitute a shift of resources from the poor to the rich.

As in other spheres of development, the primary responsibility for slowing down or halting this trend rests with the developing countries. They must adopt positive policies, such as providing incentives in terms of better salaries, allowances, career prospects and better research facilities. They must also try to inculcate in the students going abroad a spirit of dedication and a sense of participation. Developed countries can adopt policies to encourage experts from developing countries to return home after their period of training abroad.

Technology

One great advantage in recent years has been that technologies have already been invented and can be borrowed by developing countries. But it should be borne in mind that modern technology just cannot be superimposed on the delicate fabric of the traditional way of life.

This calls for preparation on the part of developing countries, psychologically as well as structurally, to bear the weight and pressure of modernization. It is well known that the prevailing structure of the economy in developing countries, the extended family and the traditional social and economic stratification often kill initiative. These factors also act as major disincentives to development. Overcoming these barriers can very well be a very delicate and time-consuming exercise.

It is also likely that economic development and the introduction of modern technology may break established patterns of life and thus induce temporary instability.

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Economic development cannot be imported. It depends primarily upon the less developed countries themselves. Their resources must provide most of the capital. Bulk of the skilled and unskilled labor will have to come from their manpower resources. The basic framework for national objectives must be provided by their institutions. In addition, the primary political decisions are theirs. They should not merely conserve the assets they have, but they should take measures to attract new investment.

But assistance -- knowledge, skill, training and capital -- can be imported. To achieve meaningful results, development assistance must turn away from expediency and toward effectiveness. Specific conditions and needs vary between and within developing countries. Hence it is difficult to have a standard formula for development applicable to all developing countries alike. The problem of ensuring a satisfactory rate of growth in less developed countries will keep mankind busy for many years. There is nothing like instant or painless development.

An exercise in gap estimation is not merely economic arithmetic. It involves a number of other considerations as well. Foreign aid is the result of an interplay of various factors -- humanitarian, commercial, political, strategic, and economic. Unfortunately, it has become a residual item in most donor countries' budgets probably due to the lack of effective public opinion in favor of it.

It should be remembered that world peace and prosperity cannot be ensured as long as a big bulk of the world's population remained in extreme poverty and in a state of political and social instability. It is vital to both the rich and poor countries that the less developed countries achieve rapid economic progress.

The rich and the poor countries should adopt a flexible approach to the complex problem of economic development. The rich should commit itself on a sufficiently long-term basis to a policy providing the necessary assistance to developing countries pursuing sound economic and fiscal policies.

Thank you.

WORLD ECONOMIC TRENDS

Address delivered in New York
on March 7, 1969

by

Mr. Mohamed Shoaib, Vice President

of the

International Bank for Reconstruction and Development

and the

International Development Association

to

UN Diplomats Under the Auspices of the United Nations

Institute for Training and Research, United Nations

Mr. Chairman and Friends:

I very much appreciate Chief Adebo's invitation to address you today. It required rashness on my part to talk of "World Economic Trends" but I concluded that you would understand if I restricted myself to a facet of the subject which is of great common interest and with which I am more familiar, namely, the problem of economic development in the less developed countries of the world. I have been watching this great process, creating and obliterating one form of economic and social life after another, for nearly two decades, from a vantage point, as a member of the Board of Directors of a world development agency, the World Bank, then as Finance Minister of a developing country, Pakistan, and now as a Vice President of the World Bank.

The field is wide but I shall nevertheless try and share with you my views, convictions and doubts about the past 20 years of performance in the development field.

Mr. Chairman, I am deliberately avoiding references to certain important subjects like monetary reform. For one thing, the time at my disposal is too limited to make any meaningful assessment of current efforts toward monetary reform. Besides, I think that this is a subject on which you should be hearing a more perceptive analysis from experts with our sister institution, the International Monetary Fund.

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One of the outstanding developments of the past 22 years has been the great transformation taking place in the less developed countries. The first phase of the transformation was primarily political, with independence as the main objective and nationalism as the main theme.

The achievement of independence since World War II has ushered in the second phase with self-sustained economic growth as the goal.

Most developing countries recognize that political independence is not an end in itself. It is an opportunity to exercise political power to ensure a better life for the people in the newly independent nations. Freedom does not have too much meaning for a man who is starving or for a country that is too poor to provide an acceptable standard of living to its people. We are all painfully aware, Mr. Chairman, that in the absence of economic strength the poor countries' claims to equality in status with the rich sound very hollow. Besides, economic backwardness is the basic threat to political stability in most developing countries.

I am happy to say that more and more of the governments of developing countries have committed themselves to economic progress as an instrument to banish hunger and want, ignorance and disease. Practically every poor country has a development plan today. Increasingly, more and more resources are mobilized for development purposes. The fact that about 80 per cent of all investment in the poor countries is being financed by their own resources brings to focus the importance that these countries attach to the principle of self help.

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Of particular significance is the fact that the rich countries have so far recognized the need to support economic development. Foreign capital, financing about 20 per cent of the development investment in the poor countries, has played a crucial role.

The motives of the rich countries in assisting the poor countries are many. Some of these, like the political and economic motives, winning

friends or getting hold of markets, have been, I am very sorry to say, oversold in the rich countries by well-meaning friends. The result is that today we are faced with a critical situation when there is a disillusionment about development among the rich nations. This situation, not warranted by the facts, is due to the failure of these expectations to materialize.

Many experts have argued that providing capital and technical assistance to help developing countries is sound political investment. To them, foreign aid is a sort of "fire prevention" measure to avoid the grim prospects of putting out a "fire" later at tremendously increased costs.

Some political scientists have established a clear link between violence and backwardness. This is not to suggest that poor countries alone are capable of violence. After all, the two World Wars were fought by the economically advanced countries. But the fact remains that in recent years there has been an increasing number of "hot" incidents involving countries that are economically backward. I believe that much of the international friction involving the poor countries is attributable to economic causes. Hence, it is my hope that economic growth, properly directed and financed, can contribute to a reduction in such tensions.

The important motive, in my view, is humanitarian and moral. Every major religion and every formal system of ethics recognizes the obligation of the rich to help the poor. Within national frontiers, it is the rich who provide the bulk of the money to carry out projects benefiting the poor. Let me hasten to add that no rich nation has yet recognized its obligation to the poor nations in the same manner. In other words, I am

not suggesting that a system of progressive income tax in the international sphere is around the corner. The important thing to remember is that the efforts of the rich countries in assisting the poor nations amount to an extension of the principle of egalitarianism into the international sphere, so well understood and accepted in most modern societies within their national boundaries.

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Thus nations, rich and poor, have come to recognize that independence and inter-dependence are not altogether incompatible. In the political sphere, recognition of the complementary character of nationalism and internationalism led to the founding of the United Nations; in the economic sphere it gave practical shape to an equally creative idea of establishing the International Bank for Reconstruction and Development, or the World Bank as it is better known. The World Bank and its two affiliates, the International Development Association, and the International Finance Corporation, represent the spirit of purposeful international cooperation engendered by the challenging enterprise of the less developed countries to attain rapid economic progress and the wish on the part of the richer nations to assist them in the transition from frustration to fulfillment.

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Let me summarize the results achieved so far. The average annual rate of economic growth of less developed countries since the early 1950s has, in fact, surpassed 4.5 per cent -- a rate that can stand comparison with the pace achieved in the 19th century by the countries that were then pioneering the industrial revolution in Western Europe and North America.

Provisional estimates are that the total output in real terms of the developing countries as a group increased by 5.5 per cent in 1967, as against 4.7 per cent in 1966. The UN Development Decade target of a minimum growth rate of 5 per cent per annum has been very nearly achieved, on average, for the first eight years of the 1960s.

These statistical data often fail to portray the true nature of the achievement. The economies of many developing countries have been maturing. An impressive infrastructure of physical facilities, especially in the form of power installations and transportation services, representing billions of dollars, has been put in place. Progress in the industrial sector has been encouraging.

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Agriculture, the massive sector which contributes a major share to the GNP of most developing countries, is finally receiving increased attention. Most developing countries have recognized the fact that in order to achieve a meaningful acceleration in the overall expansion of domestic product, they must increase agricultural production. Simple arithmetic will show that a high rate of growth in the relatively minor non-agricultural sector is not sufficient enough to lift overall growth as long as the growth rate in the much larger agricultural sector remains low. A prosperous agricultural sector is a precondition for sound industrial expansion.

Besides, a large number of developing countries are net importers of food. So long as the poor nations must continue to spend large amounts -- about \$4 billion a year -- of precious foreign exchange on food imports,

they are going to deny themselves imports of capital goods and services so vital to development.

Better late than never. Finally, the "green revolution" is slowly coming to the poor countries. The traditional conservatism of the "illiterate" farmer in the poor countries, so frequently emphasized by policy makers, has proved to be a myth. The farmer is responding to incentives. He has been awakened to the need and scope for increased production and earnings through the introduction of high-yielding seeds and through expanding use of fertilizers and insecticides and other inputs. There is a gradual but perceptible change in the techniques of production. Favorable weather has also helped the "green revolution".

The results achieved are impressive enough to encourage some experts to challenge the earlier projections about an imminent food crisis caused by the stork outrunning the plough. There is a ray of hope that the pace of economic growth can be far greater than that of population growth.

Economic development depends on a large number of interacting factors -- economic and social. The problem in the agricultural sector becomes more acute because of its size and diversity. How the farmer acts will be conditioned not only by the technical knowledge he has, but also by the socio-economic environment he faces -- price policies, availability of inputs, services, markets, land tenure systems, taxes and subsidies.

It is my feeling that the "green revolution" cannot remain green for a long enough time if the administrators in the developing countries were to embark on a policy of backing the winners -- the better equipped surplus farmers in these countries -- as an easy way to progress. The small and subsistence farmer and the landless tiller form a sizable bulk of the

agricultural sector. There is an urgent need to give these people an opportunity to participate in the "revolution" and thus draw them into the main stream of economic development.

The willingness of the individual farmer to conserve the land, to initiate improvements, to experiment with new seeds and to apply increased quantities of fertilizer will be influenced by the reward or return that he gets from the application of these inputs. Let us bear in mind that the incidence of the risk inherent in the innovations is as high on the farmer as on the landlord. The farmer's aspiration to have a legitimate share of the bigger "cake" can act as the sustaining force behind the "green revolution". A tenant-farmer, who gives away a disproportionately large share of the fruits of his efforts to an absentee landlord, the rural money-lender or the urban trader, has very little stake in the development process. Such a situation can seriously affect the long-term prospects for agricultural development. Hence, there is an urgent need for agrarian reform measures to ensure a more equitable distribution of the income arising from the new innovations and to provide the basic incentive for agricultural development itself.

The absence of such a policy, Mr. Chairman, will in the long run lead to tremendous economic and social costs to the developing countries.

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Policy makers in developing countries should pay particular attention to the kind of techniques to be adopted to promote agricultural development. It will be a serious error if they indiscriminately import techniques found to be successful elsewhere, but having no relevance to a developing country's factors of production. Mechanization of farming, for instance,

has worked wonders in countries with acute labor shortage. In the present stage of transition, indiscriminate and large-scale mechanization of agriculture in a labor-abundant country might create more problems than it solves. In the short run, the scarce financial resources of a developing country should be devoted to more urgent needs than as a substitute for labor. I am not against developing countries imitating techniques of the economically advanced countries. My submission is that developing countries should import technology that is suited to their endowments of the various factors of production and should develop, through research, indigenous methods of increasing production.

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In per capita terms, growth of developing countries has been very slow. Their rate of population growth accelerated to 2.5 per cent per year from 1960 to 1967 as compared with 2.2 per cent in the 1950s. The result was that per capita growth averaged 2.4 per cent during 1960-67. The per capita income growth was too small to permit a morally and politically acceptable standard of living in the poor countries.

The arithmetic of the relationship between population and economic growth is very clear. If production in a society increases by one per cent, and so does the population, the gain per head in terms of income or production is nil. For instance, in countries with per capita income of \$100 and an annual population growth of 2.5 per cent, the UN Development Decade growth target of 5 per cent represents an increase of about \$2.50 in income per person per year.

It is difficult to make generalizations about the economics of population control. There are experts who mention the historical periods

of population increases -- the ancient Greeks and the Dutch in the 17th century, the English in the 18th century and the Japanese in the 19th century -- and argue that such increases have generally been accompanied by great advances in the political, cultural and economic fields. More recently, countries like Korea and Thailand, which have experienced high rates of growth have also had rapid increases in their population. On the other hand, there are many countries, like India and Pakistan, in practically all of which a reduction in the rate of population growth should clearly help to improve living standards.

Where there are plentiful natural resources to be brought into use or where productive capacity and efficiency are increasing rapidly and where the population is so sparse that economies of scale remain to be realized, a larger population may be no drawback. In most developing countries, it is not the absolute numbers that are most disturbing. The major cause for concern is the high rate of population growth in these countries.

I do not propose to discuss here whether the world can adjust to the present high rates of population growth. I will focus attention on the scope for improving prospects for economic development through a reduction in the existing high rates of population growth.

The unprecedentedly high rates of population growth are the result of a rapid postwar decline in the death rate, combined with a constant birth rate. As an indication of the economic benefits of a slowdown in population growth, it has been calculated that, if a developing country with an average per capita income of \$150 to \$200 a year successfully reduced fertility by 50 per cent over a period of 25 years, the increase -- I repeat, increase --

in per capita income would be at least 40 per cent higher than otherwise after 30 years, and over 100 per cent higher after 60 years.

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The World Bank Group, which has so far committed some \$14 billion for development, intends to pay particular attention to agricultural development and population control programs. The Bank's agricultural lending will increase dramatically over the next five years. In the past, by far the greater part of the Bank's direct assistance to agriculture has been in the form of loans for large irrigation works and multipurpose projects including power, irrigation and flood control. Now the emphasis has broadened and we have become increasingly and more directly concerned with the farmer himself, his land and its productivity.

The Bank proposes to keep the developing nations informed about the extent to which rapid population growth slows down their potential for development. It will seek opportunities to finance facilities required by developing countries to carry out family planning programs. It will join others in carrying out research to determine the most effective methods of family planning and of national administration of population control programs.

It is a welcome development that steps to curb excessive population growth have been initiated by a number of developing countries.

A tremendous task of reaching and persuading millions of parents to accept family planning measures faces these governments. There is an urgent need for a method that is simple, cheap, sure and with no side effects. No one can expect any quick results from the measures now being adopted. For we

should remember that a reduction in birth rates now will help to curtail the increase in the number of potential mothers only 15 or 20 years later.

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Developing countries need external assistance for a number of reasons. Their low levels of per capita income and deficiencies in the organization for mobilizing domestic resources make it difficult to raise enough domestic capital to meet the investment needs of growth. In addition, because of the relatively large import needs of investment and the problems in expanding foreign exchange earnings rapidly, they may have to rely to a small but crucial extent on foreign capital inflow to finance growth.

It is indeed impressive that the inflow of long-term capital and grants from official sources in the DAC countries* into developing countries increased in net terms from \$4.9 billion in 1960 to almost \$7 billion in 1967. This, however, contrasts with the near doubling in official aid flows during the period 1956-61.

Estimates of external assistance requirements of developing countries range from \$11 - \$20 billion a year. A preliminary inquiry, carried out by the World Bank three years ago, indicated that developing countries could effectively use, on the average some \$3 - \$4 billion more of development finance than they are now receiving.

An assessment of aid performance by donor countries should be carried out in the context of a one per cent target -- total net public and private financial flows as a percentage of the donor's national income.

* DAC countries: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Italy, Japan, the Netherlands, Norway, Portugal, Sweden, Switzerland, United Kingdom and the United States.

The percentage itself may be arbitrary. It is, however, a target to which both the rich and the poor countries seem to have agreed.

In 1967, when net flow of assistance -- both public and private -- from DAC countries reached a record level of \$11.3 billion, aid as a percentage of national income amounted to 0.93 per cent for that group of countries. It was 0.85 per cent of the national income for the United States, 1.64 per cent for France, 1.01 per cent for the United Kingdom and 1.26 per cent for West Germany.

If the one per cent target had been adhered to by the group, the net flow of official and private capital would have been higher at \$12.1 billion in 1967.

The second United Nations Conference on Trade and Development (UNCTAD) at New Delhi had proposed that developed countries should be prepared to allocate one per cent of their gross national product for development assistance. On this basis, net flow in 1967 should have been still higher at \$15.1 billion.

Describing the one per cent national income target as modest, the latest report of the Chairman of the Development Assistance Committee says "Public and private flows together represent, for citizens of DAC countries, the equivalent of between less than 10 U.S. cents and 50 cents per week. In 1967, with the target more than nine-tenths attained for donors as a group, the average for DAC countries as a group was 35 cents (of which 22 cents in official aid)."

In the case of the United States, the country with the highest per capita income, the per capita flow of funds -- official and private -- amounted to \$28 during 1967 or about eight cents a day. The per capita

contribution of some of the other donor countries during that year was the United Kingdom \$15.8; Germany \$19; France \$27; Canada \$12.4 and Japan \$8.6.

Rough estimates show that the performance of industrialized countries outside DAC is far below the one per cent national income target. Their assistance levels have just about reached 0.1 per cent of national income. Reaching the target would mean a manifold increase in aid flow from these countries.

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Apart from the question of volume, much can be done to enhance the value of such development finance as is available.

In his study on Economic Policies toward Less Developed Countries, Harry Johnson says: "Quite apart from any question of the adequacy and prospective rate of growth of foreign aid, the provision of aid in its present predominantly bilateral and project-tied form involves certain inefficiencies that reduce its effectiveness and usefulness to the recipients by reducing the real value of the resources it transfers and restricting the uses to which it may be put."

The burden of the less developed countries is made more onerous by the fact that the bulk of gross bilateral aid is tied to purchases for specific projects or of specified commodities from the donor country, while external debt service payments to the donors are not tied to purchases from the countries making those repayments. This leads to an additional disability in that capitalization is at a non-competitive high rate and results in higher cost of production.

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The growing debt burden of developing countries underlines the need for assistance on terms more appropriate to the economic circumstances of the borrowing countries. The medium and long-term external public debt of some 92 developing countries increased from \$9.6 billion in 1956 to some \$44 billion at the beginning of 1968. The debt service payments by the 92 countries increased from under \$800 million in 1956 to some \$4 billion in 1967. Although many less developed countries are still able to assume more external debts, the rapid expansion of debt service obligations has become a matter of grave concern.

Hence it is particularly regrettable that the terms of assistance are increasingly hardening. Since 1961, there has been a steady decline in the share of grants in bilateral aid programs. The situation today is a far cry from the Marshall Plan days when the bulk of aid given by the United States to help recovery in Europe was on soft terms. Calling these terms "overgenerous", Gunnar Myrdal says: "The main dish served to the West Europeans in this postwar period was, of course, the tremendous financial aid, amounting to almost \$30 billion of which two-thirds were straight grants -- not reckoning the military aid. This was many times the original dollar input in the International Monetary Fund and the International Bank for Reconstruction and Development."

It was in those days that Lord Keynes negotiated two loans totaling \$5 billion for the United Kingdom. Both these loans were repayable in 50 equal annual instalments after a grace period of five years. Both carried an interest rate of 2 per cent. These loans also carried the "Bisque" clause waiving automatically the obligation to pay interest in any year the borrower experienced balance of payments difficulties.

The truth of the matter is that if the volume of development finance does not grow, and if there is no improvement in their terms, development aid will simply eat itself.

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It is in this context that the replenishment of the resources of the World Bank's affiliate, the International Development Association, becomes particularly urgent. The IDA provides 50-year, interest-free credits for high priority development projects. It is administered by the Bank and, like the Bank, applies high standards of project appraisal.

The Second Replenishment of IDA, as agreed in March 1968, provides for resources amounting to \$1,200 million from its 18 Part I countries and Switzerland payable in three yearly instalments. To become effective, formal notification by at least 12 countries contributing not less than \$950 million is necessary. To date such notifications have been received from 11 countries contributing \$472 million.

One welcome development in this field is that 11 countries -- Austria, Belgium, Canada, the Federal Republic of Germany, Denmark, Sweden, the Netherlands, Norway, Finland, Italy and the United Kingdom -- have made arrangements to make funds available in advance of the coming into force of the agreement on the Second Replenishment of the Association's resources.

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Without doubt there is scope for an increase in the flow of private capital to developing countries. To translate this potential into reality, the developing countries must improve the climate for foreign investment and thus increase the willingness of private entrepreneurs and investors to venture abroad. The flow of private capital is largely determined by

decisions of private individuals or corporations in capital exporting countries. Governments of capital exporting countries, however, can play and are playing a role in influencing these decisions.

Within the World Bank Group, the International Finance Corporation is directly engaged in encouraging the flow of both foreign and domestic private capital into industrial ventures in developing countries.

A serious deterrent to an increase in foreign investment in the developing countries is the fear that the investment will be exposed to a number of non-commercial risks, such as outright expropriation or nationalization without adequate compensation, the imposition of restrictions on the transfer of profits, and inability to repatriate capital. The World Bank has been trying for some time to devise ways and means of removing these fears and has felt well placed to act in this field because of its position of impartiality.

The Bank sponsored the Convention on the Settlement of Investment Disputes between States and Nationals of Other States, which entered into force in October 1966. The Convention established an International Centre for settlement, by voluntary recourse to conciliation or arbitration, of investment disputes between States and Nationals of Other States. The Bank believes that the creation of an institution especially designed to facilitate the settlement of investment disputes between States and foreign investors could be a major step toward promoting an atmosphere of mutual confidence. It also hopes that adherence to the Convention will stimulate a larger flow of private international capital into those countries which wish to attract it.

In addition, at the request of the UNCTAD, the staff of the World Bank has drawn up a draft multilateral investment insurance scheme designed to insure new private investment made in a developing country against risks of a non-commercial nature. Most capital exporting countries have national insurance schemes for this purpose.

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The work of the Commission to examine the past and future of world economic development acquires crucial importance to the developing and developed world. The Commission consists of a group of outstanding and dedicated men headed by a former President of the UN General Assembly, Mr. Lester B. Pearson of Canada. The Commission, established by the Bank, functions independently of the Bank and its member countries.

The Commission is now busy reviewing the impact of external assistance on the development of the poorer countries over the past two decades. It is its job to note where it has been most successful and where least. It will try to identify the reasons for success and failure.

I hope that the Commission's report, which should be ready by September of this year, will provide us guidelines for more fruitful action by the rich and poor countries alike.

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The main fuel of development in less developed countries is their own internal savings and export earnings. At present over 80 per cent of investment for development in these countries is financed from these two sources.

Therefore, it is no wonder that the poor countries are asking for increased opportunities to expand their trade. I am sure that an

acceleration in the export earnings of less developed countries will help to offset the relatively slow growth in capital flows from the developed countries.

In recent years, there has been an acceleration in developing countries' total export earnings. Despite this acceleration, exports of developing countries continued to lag behind the expansion in world trade. Recent estimates of the trade gap vary from \$5 - \$12 billion a year.

For some less developed countries, the lag in export growth has been caused, in part, by mistaken policies, among them overvalued exchange rates and too much priority to import substitution, no matter how uneconomic. In part, it is due to neglect of quality and continuity of supply. But some part of the difficulty has been the lack of cooperation by the industrialized countries in the removal of impediments, such as tariff barriers, quotas and the like, to the exports of developing countries.

The other reason for the lag is the composition of exports from less developed countries. Primary commodities account for 88 per cent of the exports of less developed countries. Developing countries' exports are concentrated on primary products and their participation in world exports of manufactures is very limited. The share of primary products in world trade has been declining. At the same time there has been a rapid growth in demand for manufactures. The rapid expansion in manufactures benefited mainly the more industrialized countries.

The slower growth in the value of developing countries' exports is also attributable to less favorable development in prices. According to GATT the unit values of exports from developing countries declined by 5 per cent from their 1953 level, while that of the developed countries increased by 7 per cent.

Applying this to the exports of developing countries in 1966, one can arrive at a loss of about \$5 billion in terms of 1953 prices.

The trade policies of developed countries tend to discriminate against exports from developing areas. Studies by GATT and UNCTAD reveal that the tariff cuts under the Kennedy Round are not going to be of much help to developing countries. This is the background to the idea of preference for exports of manufactures from developing countries.

It is now recognized by all concerned that, in the future, world demand for manufactures will grow faster than primary products. A substantial increase in developing countries' export receipts, so necessary for sustained economic growth, can be facilitated if these countries were given a chance to participate more fully in the expansion of world trade in manufactures.

Developing countries should also concentrate on increasing trade in primary commodities and manufactures among themselves. There has been an increase in this kind of exchange. But this represents only a minor share of their total trade.

Stabilization of primary commodity markets will continue to be a major objective of international policy since even a slight setback in the primary commodity sector can more than nullify the effects of a considerable acceleration in the export of manufactures.

At their Annual Meetings in September 1967, the Boards of Governors of the Bank and the International Monetary Fund adopted resolutions requesting their respective institutions to carry out a study of the problem of stabilizing prices of primary products, and the possible role each institution might play in finding solutions to that problem. The study should be completed by June 30 this year.

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Mr. Chairman, economic development cannot be imported. It depends primarily upon the less developed countries themselves. Their resources must provide most of the capital. The bulk of skilled and unskilled labor will have to come from their manpower resources. The basic framework for national objectives must be provided by their institutions. In addition, the primary political decisions are theirs. They should not merely conserve the assets they have, but should take steps to attract new investment.

But assistance -- knowledge, skill, training and capital -- can be imported. To achieve meaningful results, the rich countries must realize that economic development in the poor countries is not a short-run problem. They should turn more toward long-term aspects of development and toward increased effectiveness of development assistance. Twenty years is too short a time to pass judgment on the performance of countries that are trying to do away with centuries of backwardness.

It is vital to both the rich and poor countries that the less developed countries achieve rapid economic progress. Modernization of the less developed societies of the world has rightly been called the most challenging problem of our times. It is my hope that both the rich and poor countries will respond to this challenge in a really positive way so that poverty will be remembered as only a remote souvenir.

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DEVELOPMENTAL ASSISTANCE IN ASIA: PROGRAMS AND PHILOSOPHY

Address by

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to the

Asian Regional Conference

of the

World Confederation of Organizations of the Teaching Profession

on

International Assistance and National Educational Development

Djakarta, Indonesia

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DEVELOPMENTAL ASSISTANCE IN ASIA: PROGRAMMES AND PHILOSOPHY

Mr. Chairman and Friends:

I am very happy indeed to have been able to accept the invitation of the World Confederation of Organizations of the Teaching Profession to address this first Plenary Session of its Asian Regional Conference. In addition to the pleasure of joining with you in your discussions, you have afforded me also the pleasure of revisiting Djakarta. In fact it is my third visit here in the past twelve months. Later in my talk, I will tell you more about the business of the World Bank here in Indonesia which occasioned my previous visits.

The purpose of my talk is to offer some thoughts on the problems and potential of Asian development and thus provide some points of reference for the seminar that is to follow. I must tell you at the start that developmental assistance in Asia is a vast and complex subject, and I can at best, in the time at my disposal, give no more than a rather sweeping overview of what Asia faces in its efforts to develop and what the industrialized world and the multilateral organizations are doing to help.

For the purpose of my survey, I am taking the broadest possible definition of Asia, that is to say an area stretching from the western shores of Turkey to the eastern extremities of Japan, an area which, even without including Mainland China, accounts for some one billion, one hundred and sixty million people -- just about 30 percent of the world's population. More than half of these people live in countries where the per capita income has yet to reach \$100.

It is the custom these days to speak about the gap between the rich nations and the poor nations. Because it is easily measurable in terms of the respective per capita incomes of the richest of the rich nations and the poorest of the poor, it provides us with instant evidence of an appalling disparity in living standards. For example, of the forty-two states in the area under review, only four have per capita incomes that are more than one-tenth that of the United States, which at \$3,500 also happens to be nearly sixty times greater than the per capita income of, for example, Burma.

But if we assume that the poor nations of Asia quantify their misfortune primarily in these terms and are committed to the Herculean task of multiplying their per capita incomes over the shortest possible period by as much as sixty times, we are way off beam. In the reasoned calculations of the developing countries, closing the gap is, for the majority if not for all of them, scarcely a realistic consideration. Even to narrow it a little is proving impossible for most. No, the more realistic and meaningful aim of developing Asia is to achieve, year by year, absolute improvements in standards of living. Let America move from the two-car family to the three-car family. Let her per capita income shoot from three and a half thousand dollars to four thousand and beyond. If this means that the gap is continuing to widen, its only true relevance is that it serves as a constant reminder of how much more generous the rich world as a whole could afford to be in its transfer of financial resources to the developing nations. The absolute improvements that the poor nations strive to achieve may be modest in monetary terms. In some

cases they may have little to do directly with industrialization and the creation of a consumer society. In some places the priorities may be as fundamental as the establishment of a stable government and the securing of law and order; the launching of basic land reforms and the opening of schools in rural areas. The pursuit of such priorities may have no immediate impact on that gap. That doesn't matter, for basic priorities such as these have to be met before there can be any sustained growth. Therefore, beware of becoming obsessed with the notion of an unclosable gap lest one reinforce the faint-heart's view of development assistance. How many times have we all heard it said that if only the rich get richer and the poor do not, despite the billions being spent on assistance, then it's just money down the drain? And how many times have we heard the charge levelled that waste, corruption and inefficiency in the poor countries counteract what benefits the rich world bestows on them? Well, the overall gap may be widening. And nobody denies that waste, corruption and inefficiency have not frequently hampered progress in economic development. But a little less fault-finding and a little more fact-finding ought to convince most fair-minded people that absolute improvements are being achieved in Asia, as elsewhere in the developing world, even though obstacles to more rapid growth may sometimes seem almost insurmountable. So let us do a little fact-finding ourselves.

It is, I must warn you, extremely difficult to generalize about Asian economic development. Even the most superficial glance at the forty or more nations of Asia is sufficient to demonstrate the extraordinary diversity that exists among them, and which radically affects our approach

to their development problems. Some Asian countries have two thousand years and more of culture and civilization behind them, while others are only now beginning to write the early pages of their history. In some countries, organized government is an inheritance from many previous generations; in others, government and the notion of law and order are only now sinking fragile roots into uncertain soil. In some, untapped natural resources give promise of the means, at least, to carve a future for the nation. In others, almost destitute of anything exploitable, economic viability seems closer to fantasy than reality. In some countries, man is battling to hold back the prolific growth of natural vegetation; in others he is struggling to bring vegetation to scorched and arid wasteland. In a few countries a relatively small population hints at manpower problems for the future. In many more, the density of population threatens to choke the life out of nations incapable of supporting such numbers.

The existence of so much diversity presents a formidable challenge to those engaged in developmental assistance. Since the Second World War we have learned a lot about development economics and development financing. The governments of assistance-giving countries, institutions both financial and academic, public and private, and the developing countries themselves, all have contributed to the creation over the years of a technology of development.

The application of this technology of development to as diverse a region of the world as Asia is something akin to the application of fertilizer to agricultural land. If we have made no analysis of the soil to which we intend to apply the fertilizer, we should not be surprised if such a

hit-or-miss operation bears no fruitful results. And to carry the analogy a step further, we may discover when we do analyze the soil that over a given area there may be many different soil types each requiring a different chemical mix of fertilizer. In other words, if you want agricultural results, know your soil. And if you want development results, know your country, its history, and its people.

I stress this because aid-givers have not always taken this into good account. Imposing western concepts of development on eastern peoples is no automatic panacea for Asia's problems. It has all too often been assumed that because much of Asia was once under western colonial rule, western ways and means are the only paths to progress. In some ways the colonial experience gave Asia a head-start in development. But in other ways it gravely hampered these nations. When the colonial powers eventually withdrew, they left behind them government structures and civil services, judicial and education systems, but all of them the product of the western mind and experience. The imposition of western systems of education on many Asian countries is now being seen for what it really is: a mistake that is costly to undo. For the roots run deep in time. Lord Macaulay, the 19th century British historian and politician, was by no means opposed to the idea of Indians eventually competing for posts in the Indian government services on equal terms with the British and then ultimately displacing them. But this class of Indian, he insisted, would have to be educated the British way, and the main object of British educational policy in India was, in his opinion, and to quote his own words: "to form a class of interpreters between us and the nations we govern, a class of

persons Indian in blood and color but English in tastes, in opinions, in morals and in intellect."

Today it is clear that the wholesale transfer of western concepts of economic development to the Asian nations is not acceptable. Asians want to develop as Asians, not as Europeans or North Americans. The true technology of development for Asia therefore, is the technology that is adaptable to the best and most valid characteristics of the Asian way of life. That is the cardinal rule to be observed by those engaged in assisting Asian economic development.

Less than twenty-five years ago, Mr. Chairman, the mood in underdeveloped Asia was one of sullen resignation. The people saw themselves as the third-class citizens of a second-rate world. Poverty seemed to have its permanent place in the order of things. But in a little over two decades, the situation has greatly changed. The first phase of the transformation was primarily political, with independence as the main objective and nationalism as the main theme. The achievement of independence since World War II has ushered in the second phase with self-sustained economic growth as the goal. Not everything has been smoothness and light, and huge problems remain to be solved. But, by and large, the region has done vastly better than many people two decades back would have been willing to predict.

It was suggested that for the current UN Development Decade, the average annual rate of growth of the developing countries as a group should be at least 5 percent. While the South Asia region as a whole failed to meet this goal in the years 1960 through 1967, all other regions of Asia, during the same period, just about reached or even exceeded a rate of

6 percent. In fact, eight Asian countries, Hongkong, Iran, Israel, Jordan, Syria, Taiwan, South Korea and Thailand averaged growth rates of 7 percent or more over the period. And according to the OECD's latest Development Assistance Committee Report, the most impressive development of any continent in 1967 was that of Asia, due in particular to the rapid increase of total output in India and Pakistan; 9.2 percent in the case of the former, 7 percent for the latter, bringing its annual average growth rate over the 8 years to 5.7 percent.

A regional analysis of growth in output does, of course, hide wide differences among the individual developing nations, but the year to year increase in total output is not the only, or necessarily even the best, measure of economic progress in the developing world. A country can make considerable advances in a particular sector or sectors, or greatly improve its export performance, and still have a less than striking overall growth rate. And some countries with not so impressive growth rates are nonetheless laying the bases for future growth progress through greater political maturity, reductions in the rate of inflation, improvements in development planning, in the provision of the basic infrastructure or in the no less important socio-economic fields of health, education and family planning.

Political maturity is something that a nation has to produce from within itself, by itself, while the other bases that I mentioned require, for their creation, external assistance in one degree or another. In a moment we shall discuss how. But we should also be aware of the gloomier side of the picture. Some countries still seem to be unable to achieve an

efficient mobilization of their own domestic resources; some have been hit by unfavorable world market conditions for their principal exports; some have had crises of political leadership; some have diverted their resources to foreign or civil wars. Many have increasingly serious debt problems, and the requirements of most for foreign capital and technical assistance continue to be only partially and inadequately met by official and private inflows.

Let us now look a little more closely at these bases that must be laid for future growth in Asia, and these obstacles that must be overcome to ensure steady progress for all. One of the first bases I mentioned was development planning. At the end of World War II, Asian countries which either had, or were about to, become independent, embraced planning to a much greater extent than countries in any other region. In the Philippines, the Joint Philippine-American Finance Commission, established to recommend measures which would allow the Philippines to recover from the effects of war and to attain a rapid rate of growth, included in its 1947 report a 5-year plan for capital investments for the 1948-52 period. This was the first of a long series of development plans in the Philippines. Some Asian countries, like Burma, felt so strongly about the need for planning their development that they adopted a practice followed in the socialized countries of incorporating a requirement for planning in their constitution.

In India, a rigorous resurgence of planning activity followed the cessation of World War II. Late in 1946 an Advisory Planning Board was appointed to propose measures for coordinating planning activities, setting objectives and priorities, and creating the machinery. In 1950, the Indian

Planning Commission was created. Two years earlier, following partition, and prompted by a desire to make more secure its economic independence from India, Pakistan had created a Development Board with authority to coordinate development plans, recommend priorities and watch the progress of development projects.

Development planning in Asia received new impetus when, in May 1950, member countries of the then newly formed Colombo Plan for Cooperative Economic Development in South and South East Asia drew up 6-year development plans to constitute a blue-print of the Plan. Some of these plans were replaced before their term ended, and others were incompletely carried out. Nonetheless they captured the imagination of Asian political leaders and gave the region a lead in development planning which it has never lost. The conquest of Mainland China by a communist regime brought the Soviet variety of planning to the largest country in Asia. Today, every single Asian nation has prepared a development plan of some kind.

The spread of development planning in Asia, as elsewhere, has been stimulated by Western countries providing loans and grants. Although some of these countries have usually been opposed to planning for their own economies, they have accepted planning in recipient countries and have often insisted on the formulation of plans before they extended aid to less developed countries. Thus, countries like South Korea, Taiwan and Afghanistan started to plan mainly to meet requirements of donor countries which supply foreign aid.

The World Bank has been an important agency since about 1950 in starting or accelerating organized national development planning in many countries.

As a result of recommendations by our missions, many countries and dependent territories have either established or reorganized central planning agencies, or prepared national development plans based on these recommendations. For example, in Iran, where planning activity began in 1946 with a Planning Committee of Iran's central bank and two government planning committees established to prepare plans for utilizing Iran's petroleum earnings for economic expansion, World Bank advice resulted in Iran's engaging consultants who helped prepare projects for implementing the country's first Seven-Year Plan of 1948. Today even greater World Bank activity in this important field is foreseen for the future. Addressing the Bank's Board of Governors in Washington last September, Mr. McNamara said: "We shall try, in conjunction with other sources of funds, to help countries where now there is no well established Development Plan or Planning Organization to develop plans and to adopt wise and appropriate policies for development -- in some cases by establishing resident missions as we have done in Indonesia -- but always remembering that it is their country, their economy, their culture and their aspirations which we seek to assist." The resident World Bank staff here in Indonesia that Mr. McNamara was referring to was established in Djakarta, at the Government's invitation, in the summer of 1968. This staff works in direct relationship with the Minister of State for Economic and Financial Affairs and with BAPPENAS, the National Development Planning Agency, and through these two offices with the various economic ministries of Indonesia.

The world-wide acceptance of planning as a means of achieving national development objectives has made academic the doctrinal debate about whether

a country should plan. For most countries, the question now is how to plan. Helping Asian nations to answer that question has thus become an important part of developmental assistance in this region.

A second basis for growth to which development assistance is particularly relevant is the provision of basic infrastructure -- that is to say the transportation facilities, electric power supplies, communications networks-- without which economies cannot be developed. If one looks back to the immediate post-war years, one sees an Asia hopelessly lacking in basic infrastructure. Sources of hydroelectric power were few. Asia's largest railway systems, on the Indian subcontinent and elsewhere, were on the verge of breakdown. The only adequate systems of motor highways were on the northwest frontier of Pakistan and in the Philippines. What basic infrastructure there was in Asia was to a great extent created to serve the imperial needs of colonial powers. Decisions on the provision of basic infrastructure tended to be strategic decisions taken with the maintenance of law and order rather than with the development of the economy in view. And to the considerable commercial advantage of the colonial powers, many nations after independence found themselves still dependent on the original suppliers for the maintenance and further development of infrastructure facilities. How, after all, can you shop thriftily around in the international market for rolling stock if you are saddled with a railway gauge that only the former colonial power that put it there can accommodate?

Despite difficulties such as these, the growth of basic infrastructure in Asia over the last two decades has been impressive. A major source of financial assistance in this development has been the World Bank, so perhaps

this might be the moment to say a few words about the Bank's work in general and its contribution to the building of Asia's infrastructure in particular.

The World Bank, whose member-shareholders are 110 governments, is, in the truest sense of the expression, an international cooperative. It derives its resources from its members and uses these resources for their benefit. Its member governments are not only its principal debtors, but also its shareholders and large creditors.

When the Bank first got down to business in the summer of 1946, it was concerned mainly with the reconstruction of the economies of European countries which had been seriously damaged by the second world war. But as the Marshall Plan got underway, the Bank began to turn its attention to what is now its central aim--the furtherance of economic development in the poorer countries of the world. The Bank makes long-term loans at conventional interest rates to governments, government agencies and, with a government guarantee, to private borrowers. It finances infrastructure projects in the fields of power, transportation, telecommunications and water supply, and projects in agriculture, industry, tourism and education.

Although all of the Bank's shareholders are governments, the Bank raises most of the money it lends from the private capital markets of the world. The members have subscribed some \$23 billion to the Bank. Of this one-tenth is actually paid in. The remaining nine-tenths, which is subject to call if ever needed to meet the obligation the Bank creates by its own borrowings, provides healthy backing for the Bank's bond and note issues, enabling it to raise substantial funds in the capital markets.

The Bank has two affiliates. The younger is the International

Development Association founded in 1960 and commonly known as IDA. IDA lends for much the same kind of projects as the Bank, but to countries which are not able to bear the burden of loans made on conventional terms. Its credits are made at very long term and free of interest, although there is a very small service charge. Because it lends on highly concessionary terms, IDA must obtain its funds chiefly from contributions from the industrialized countries. Up to late 1967 it had received over \$1.5 billion from this source. Another \$300 million came from the Bank and from other sources. The industrialized countries are now in the final stages of ratifying an agreement which should provide \$1.2 billion for IDA's operations, and in anticipation of this ratification by the few governments that have yet to complete the legislative procedures, a number of contributors have already advanced their shares of the replenishment.

The other of the Bank's two affiliates is the International Finance Corporation, which began operations in 1956. IFC works exclusively in the private sector, without government guarantee. It concentrates its efforts on the development of industry by making long-term loans or providing equity capital, in conjunction with private investors, both foreign and domestic, frequently playing the role of a promoter and middleman. The Corporation has so far committed some \$295 million in operational investments and underwriting commitments, about three-quarters of it in manufacturing enterprises.

Over the past twenty-three years the Bank and IDA have loaned more than \$13 billion for development projects in 97 countries, and together they stand today as by far the biggest single source of long-term development finance. To date, basic infrastructure has been the object of much the greater part

of the Bank's financing, although the emphasis on agriculture and education has increased in recent years. About these two sectors I shall have more to say later. In Asia, Bank and IDA financing of basic infrastructure projects has been widespread, and continues to be so. The greater part of Bank and IDA lending in the region has been devoted to development of transport. Loans or credits have been made for railways in eight Asian countries, for ports in eight countries, and for roads in ten Asian countries. We have also assisted the purchase of jet passenger planes for India, and lent for pipelines to carry natural gas in Pakistan, and for inland waterways in the same country.

The Bank Group has also assisted projects to expand electric power generating capacity and integrated transmission systems in eleven Asian countries from Turkey to Japan. It has also helped finance water supply projects in five Asian countries and telecommunications in three.

One particularly interesting infrastructure project is the Asian Highway project which is being developed under the umbrella of the Economic Commission for Asia and the Far East. The total length of the planned highway system would be 57,000 kilometers consisting of 13 international priority routes and 28 other national routes. Of the two principal priority routes, one begins on the Iran/Turkey border and will cross eight countries with Saigon its final destination; the other, beginning on the Iran/Iraq border will link nine countries and finish on the island of Bali. As an exercise in regional cooperation, the implementation of this huge project is almost without parallel. Eleven countries have so far signed the plan of operation and the remaining Asian Highway countries are expected to join the project shortly. Appeals have been made to the United Nations Development

Programme to help with pre-investment surveys in various areas. The UNDP has already agreed to provide institutional support for the Asian Highway Coordinating Committee and for the expansion and establishment of training and research facilities. ECAFE is meanwhile appealing to the cooperating countries and aid-giving agencies, especially the Asian Development Bank, to consider favorably countries' applications for financial assistance in the construction of their sections of the highway. Completion by 1970 of at least one through-route in Asia is ECAFE's goal.

Pre-investment studies play a very important part in the process of developing basic infrastructure, and the role of the UNDP in this area should be noted. The UNDP, the result of a merger in 1965 of the Expanded Program of Technical Assistance and the Special Fund, is devoted exclusively to technical assistance and pre-investment. It now finances 80 percent of all the technical assistance which the UN and the specialized agencies undertake, and it continues to grow both in scope and in size. The World Bank encourages governments seeking finance for sector and feasibility studies to look to the UNDP for grants. The Bank is then prepared to play the role of Executing Agency. As a typical example, one can cite an agreement signed just six weeks ago between the Government of Turkey, the UNDP and the Bank which provides for a transport coordination study and the preparation of a long-term program for improvements in the administration and operation of the Turkish State Railways and of a 10-year railway investment program. The UNDP has allocated funds covering rather more than three-quarters of the cost of the project. The Turkish Government is contributing the rest, and the World Bank, as Executing Agency, has retained an Italian consulting firm

to carry out the studies. I might add that the Bank also recently agreed to act as Executing Agency for a far-ranging study of Indonesia's transport systems, financed by the UNDP and carried out by Danish and American consultants.

In reviewing some major priorities for laying the foundations for sustained economic growth, I have spoken so far of the importance of development planning and the indispensability of basic infrastructure. Let me now mention two further areas of investment that are of critical importance: agriculture and education. It is generally accepted in these countries that, in order to achieve a meaningful acceleration in the overall expansion of domestic product, there must be an increase in agricultural production. A high rate of growth in the relatively minor non-agricultural sector is never sufficient to lift overall growth as long as the growth rate in the much larger agricultural sector remains low. That's simple arithmetic. And it follows that a prosperous agricultural sector is a precondition for sound industrial expansion.

It must also be remembered that while about two-thirds of the people of the developing world live on the soil, these countries have to import annually some \$4 billion worth of food from the industrialized nations -- an expenditure of precious foreign exchange that they can ill afford when imports of capital goods and services are so vital to development.

But it seems that the "green revolution" is slowly coming to Asia. As you know, research in the past twenty years has resulted in a breakthrough in the production of new strains of wheat and rice and other plants which can improve yields by three to five times. Now the traditional conservatism of

the "illiterate" farmer, so frequently emphasized by policy makers has proved a myth. The farmer is responding to incentives. He has been awakened to the need and scope for increased production and earnings through the introduction of high-yielding seeds and the expanded use of fertilizers, insecticides and other inputs.

There has, as a result, been a recovery in food production over the past two years. The improvements were achieved mainly in the most heavily populated Asian countries, India and Pakistan. Favorable growing conditions, particularly abundant and timely monsoon rains in the Subcontinent, played an important part. But the improvement was significantly influenced also by the more systematic and increasingly widespread application of agricultural inputs. This is particularly true of fertilizer consumption, and to take but one example: India used 294,000 tons in 1960-61 and 1.75 million tons in 1967-68.

At the same time there is a growing realization that the new technology made available through research can only be successful if it is backed by a serious effort to build up competent extension services and other means of mass communication in order to make farmers more knowledgeable and receptive to new ideas. But neither new seeds nor skilled extension work can be persuasive with farmers if prices for their crops are not remunerative enough to justify the risk of purchasing, often on a credit basis, the necessary inputs. In most less-developed countries, the cash return is inadequate. While there is some evidence that there were substantial increases in prices received by farmers in some countries in 1967, it seems also fairly clear that this was heavily influenced by the scarcity situation and is not

necessarily a permanent feature. But even an increase in prices received will be insufficient incentive to the farmer if he is giving away a large share of the fruits of his efforts to an absentee landlord. Therefore there is an urgent need for more widespread agrarian reforms to ensure a more equitable distribution of the income arising from the new innovations and to provide the basic incentive for agricultural development itself.

External assistance for agricultural development is, of course, vital. A number of donor countries, such as the United States and Germany, and multilateral agencies, such as the Bank, have appreciably increased their aid allocations to agriculture. Up to June 1962, the Bank and IDA had lent a total of \$583 million specifically for agricultural development. By June 30, 1968, that figure had more than doubled. It is now the Bank Group's intention to quadruple the agricultural loan volume over the next five years. Helpful in achieving this target will be the Bank's cooperative agreement with the FAO whose major purpose is to use the expertise of the latter agency to help governments identify and prepare projects for possible Bank or IDA financing. Negotiations are under way for similar joint activities between FAO and the Asian Development Bank. Meanwhile the ADB has announced plans to concentrate a significant share of its resources on agricultural development, and steps are being taken to find contributors among the richer nations to the establishment of an Agricultural Development Fund which is provided for in the Asian Bank's Articles of Agreement. A number of donor governments have already indicated willingness to contribute.

Let me move now from the agricultural to the education sector. In the course of this Conference, you will be hearing from distinguished experts far

better qualified than I to discuss the development of education systems in Asia. What I would like to do is to tell you how it is that the World Bank, traditionally identified as an institution wedded to impeccable banking principles and orthodox investment considerations, now finds itself in the thick of the struggle to expand education in the Third World.

For some time before we made our first investment in the education sector, we had been familiar with and concerned about the desperately short supply of skills needed for economic development in the underdeveloped world. As we went about our business of investing in roads and railways, ports and power plants, irrigation systems and industrial enterprises, we became more and more aware of one simple fact: the continuing and successful exploitation by the developing countries of the facilities that we were helping to create rested on the emergence of more efficient administration, more effective workers, more creative managers, better farmers. If nations were going to reap economic growth they had to sow education seed. And maybe the Bank could provide some of the seed. The question was: where would our seed be most effective?

Professor Theodore Schultz of the University of Chicago, who was one of the first to put the problems of education under an economist's microscope, observed that "when viewed as economic attributes, the returns (from education) consist of satisfactions, a consumer component, and of acquired skills, a producer component". It was simple enough for the Bank to conclude that the relatively small inputs of capital that it might reasonably set aside for investments in education should be concentrated on the "producer component". In other words, we should concentrate on training in the

technical and vocational skills so desperately needed for economic growth.

But at what level ? Primary ? Secondary ? University ? Adult ? In his book "Development for Free Asia", Maurice Zinkin points out that "to make a farmer out of a peasant, (he) must be taught reading and arithmetic, elementary biology and some animal husbandry, perhaps a little botany and some physiology". Educators say that most of these things, certainly reading and arithmetic, can be taught in primary schools. Perhaps this was where the Bank should concentrate.

On the other hand, education itself is a prodigious user of skilled manpower. In the developed countries, over one-third of the output of higher education goes to provide teachers for the educational system itself. Leaving aside the other skills taught in higher education, the demand for teachers in the primary and secondary schools already exceeds the total capacity of institutions of higher education in most developing countries. Should the Bank then make its first priority higher education, simply to increase the supply of teachers ?

Finally, it was noted that the pyramid of enrollment in the educational systems of most developing countries tended to fall off sharply between the primary schools and the universities -- in the secondary schools from which the supply for higher education must come. Was there not, then, a strong case for directing the Bank's attention to the secondary schools ? Faced with these alternatives, the Bank, if it was not to ponder on these weighty arguments for ever, had to lay down for itself some pretty arbitrary guidelines. It chose to concentrate on technical education and vocational training for industry, commerce, and agriculture at whatever level seemed appropriate, including adult education. It chose to concentrate, too, on

secondary education in general. Finally, it was decided to include teacher training in the investments, since it was clear that the supply of teachers must keep pace with school expansion. But these were no more than guidelines, and to those who felt that we were biting off more than our financial and technical teeth could chew we pointed out one of the truths of the development finance business, that what one really does depends on what one actually finds when a search is made in the field for suitable projects. Even this was not enough to still some ominous rumblings from the regular banking and investment community who were inclined to the view that in investing for a mental rather than a material output, we had somehow taken leave of our banker's senses.

Nevertheless, we got down to business. We quickly decided that the Bank should not try to become self-sufficient in the financing of education; instead we sought to economize on time and talent by working in cooperation with Unesco, with whom we now have an arrangement under which they help us to identify, and our borrowers to prepare, specific projects. We further decided that the form of finance should follow the usual Bank practice and depend, not on the particular project, but on the creditworthiness of the country concerned. Thus when we came to consider finance for an agricultural school in the Philippines, we informed that government that a regular Bank loan was all that was available, since the Philippines was not then considered eligible for the easier terms offered by IDA. But, in fact, of the \$192 million so far invested by the Bank Group in education projects, \$132 million has come from IDA.

The Bank Group's first ever investment in an education project came in

September 1962 when we invested \$5 million of IDA funds in secondary and technical school construction in Tunisia. Eighteen months later we made our first education investments in Asia when IDA extended two credits totaling \$13 million for projects in West and East Pakistan. The credits were to cover half the cost of expanding and improving a number of agricultural and technical education facilities including the Lyallpur and Mymensingh Agricultural Universities in West and East Pakistan respectively and fourteen technical institutes, six in the West and eight in the East.

I would like to say a word about the assistance to the Agricultural Universities. At the time the credits were extended, only 2 percent of the students enrolled in higher education in Pakistan were specializing in agriculture -- and that in a country where agriculture accounts for three-quarters of total employment and contributes nearly half the national income. There was clearly an acute need for professionally trained personnel for research, training and extension services. This need could only be met through an expansion of the country's agricultural training program, of which these two Agricultural Universities formed the major part. In keeping with the Bank Group's more usual practice of financing the "bricks and mortar" component of an education project, the IDA credit has been used for the construction of academic and other buildings, site development, and for the procurement and installation of teaching equipment at both universities. And the overall objective? To increase the annual output of the country's agricultural training program from the figure of 200 in 1960 to 840 by 1970. By 1966 Mymensingh Agricultural University in East Pakistan was ready for a further expansion, and IDA came up with more money. This time not all the

funds were devoted to bricks and mortar. For the first time, IDA funds were used to finance fellowships for graduate studies abroad of university teachers, who, in this case, would return to teach at Mymensingh. I should add that, as in the case of the earlier education credit to Pakistan, the 1966 credit included funds for helping in the financing of new buildings and equipment at five technical institutes.

In addition to our Asian educational investments already mentioned, we have also financed education projects in Afghanistan and Thailand, and we have an increasing number coming into the pipeline. The sum of \$41.5 million may seem modest as a total Bank Group investment to date in Asia's education systems. But it is bound to increase. Last September Mr. McNamara told the Bank's Governors that he expected the Bank Group to increase its total lending for educational development at least threefold over the next five years. Asian countries will certainly share in this increase. At the same time we shall be continuing a constant search to find out further ways of bringing the Bank Group's resources to bear on educational development needs. We are, for example, very conscious of the fact that education is one of the few major industries that has not undergone a technological revolution. With the growing shortage of qualified teachers all over the developing world we must find ways to make good teachers more productive. This will involve investment in text-books, in audio-visual materials and, very importantly, in the use of modern communications techniques. We are also conscious of the indispensability of sound educational planning as the starting point for the whole process of educational improvement. Therefore we shall be increasingly active in the provision of planning assistance.

With the growing sense of urgency in the Bank over the developing world's educational needs, I believe we are close to finding the optimum role for the Bank in this vital field.

Mr. Chairman, I have so far discussed four of the priority bases upon which sustained economic growth must be built: development planning, the provision of infrastructure, the raising of agricultural productivity, and the expansion of education. I want now to examine very briefly four of the most serious constraints on economic growth in different parts of the developing world. These are: monetary instability, inadequate external capital flows, excessive debt burdens, and unchecked population growth rates.

It seems well established that internal and external monetary stability, that is to say the maintenance of a reasonably stable domestic price level and a fixed realistic exchange rate, is a most important prerequisite for attaining a maximum rate of sound and sustained growth. Continuous or recurrent inflation and an unstable exchange rate subject to continuous depreciation or frequent devaluations seriously retard the rate of growth by discouraging improvements in the accumulation of domestic savings, hampering the net inflow of capital, and damaging the ability of the economy to make an effective allocation of scarce available resources. On the other side of the coin, artificially suppressed inflation and the maintenance of an unrealistic rate of exchange are even worse in these respects. The short-term sacrifices that often have to be made, then, to maintain or restore internal or external monetary equilibrium call for generous assistance by the richer parts of the world to the efforts of developing countries to achieve sustained economic growth under stable monetary conditions.

The dangerous effect of inflation upon economic development is well enough known. A developing economy needs a healthy supply of capital for financing the directly and indirectly productive investments required to raise the per capita national output. Much of this capital must be generated internally through public and private savings. In the public sector, surpluses on the current account budget are much harder to attain under inflationary conditions. In the private sector, inflation discourages savings and the making of savings available for the sort of long-term investment that generates economic growth. In addition to internal savings, economic growth is highly dependent on an inflow of external capital. Inflation and an unstable exchange rate, however, discourage foreign private investments and stimulate capital flight.

At the same time, the artificial suppression of inflation through price controls, direct or indirect subsidization of specific goods and services, preferential exchange rates for specific imports or exports etc., do not remove the sources of inflation and usually succeed in placing an awful burden on the country's current government budget. An overvalued exchange rate distorts the pattern of foreign trade in that it stimulates imports by making them unduly cheap and hampers exports by making them unduly expensive abroad. The net result of that is an adverse effect on the country's balance of payments. Most developing countries of Asia have suffered at one time and in some degree, or are now so suffering, from these problems. Short-term sacrifices constitute their only way of maintaining or restoring internal and external monetary equilibrium. When these sacrifices have to be made, the generous assistance of the richer nations is vital if economic

development is to continue. Domestic savings and the inflow of foreign private capital must be supplemented by official foreign capital, through either bilateral or multilateral channels. This is where the donor countries and institutions such as the World Bank can and do help. Donor countries, and the International Monetary Fund especially, have to stand ready to foster conditions of internal and external stability by teaching and guiding appropriate monetary policies, and facilitating their implementation. In particular they can provide the short-term credits which themselves provide the time needed for remedial action to take hold and restore domestic equilibrium, or adjust an unrealistic exchange rate. External assistance, therefore, is a key factor in the maintenance of sound monetary policies and thus of the promotion of sound economic development.

This leads me straight on to the next obstacle which is the inadequacy of external capital flows into the developing world. Foreign capital, it is true, finances only about 20 percent of the development investment in the poor countries, but this plays a crucial role. In absolute amounts the flow is not enough to meet the justifiable demands of less developed countries whose capacity to absorb development capital constructively is increasing rapidly. It appeared quite encouraging that financing flows received by less developed countries from all sources rose by 50 percent since 1960, reaching \$11.6 billion in 1967, even though there has been a clear slowing down. Despite the growing population of the developing world this amounted to receipts of almost \$7 per capita in 1967 compared with \$5.5 in 1960. So the trend has been in the right direction. But I am convinced that the

richer nations are financially capable of assisting economic growth in the Third World on a far greater scale. After all, during the Development Decade so far, these richer nations have added about \$400 billion to their annual real income, a sum greater than the total annual incomes of the developing countries of Africa, Asia and Latin America. The second UNCTAD conference at New Delhi proposed that developed countries should be prepared to allocate 1 percent of their gross national product to assistance purposes, both official and private. But the assistance volume for the sixteen Development Assistance Committee countries as a group has averaged only 0.75 percent of GNP during the past five years. In recent years, moreover, there have been shifts in the structure of official aid programs which have not really favored the recipients. When there have been substantial increases in the volume of official aid, it has been from those donors (Italy, Japan and Germany) whose aid carries relatively harder terms. The volume of aid from the large traditional "soft" donors (United States, France and the United Kingdom) has remained steady or declined. At the same time, although in absolute value, grants have risen over the past three years, the proportion of grants in the overall official flow has been in constant decline.

It is clear that the advantage to recipient countries of any continuing increase in the volume of aid is going to be largely vitiated if there is no softening of terms. Many countries already bear an almost intolerable annual debt servicing burden, and many will have to allocate an increasing share of their export earnings to service debt. At the same time the donor countries will have to increase gross disbursements merely to maintain a constant net flow of financial resources to the Third World after deduction of amortization

and interest payments. A steep increase in gross aid requirements may sharply increase the existing difficulties in raising aid levels from budgetary sources, and it is indeed doubtful that a steep increase in the volume of gross aid would seem a realistic prospect. Both from the point of view of creditors and debtors, the prospects emphasize the importance of softening the terms of assistance, as well as of taking measures to improve the overall economic performance and particularly the export performance of developing countries.

Some Asian nations, such as Thailand and Malaysia, have debt service payments that are relatively low in relation to export earnings. Rapid export growth in Iran has prevented a sharp increase in the debt service ratio, despite a rapid increase in debt service payments. Certain other Asian countries, including Taiwan, Korea and Israel, have pursued policies conducive to rapid export growth and are thus achieving a more comfortable ratio. But it must be remembered that in 1966 and 1967, the three regions where debt service payments increased most rapidly were East Asia, South Asia and Africa.

The vital importance, therefore, to Asia of raising export earnings levels is all too plain. During 1967 the export earnings of developing countries as a group increased by about 3.5 percent. But if the exports of major petroleum producing countries and the developing countries of Southern Europe are excluded, the increase amounted to only about \$200 million, a fraction of 1 percent. In other words: stagnation.

There are varying reasons for this lag in export growth. Some developing countries have overvalued exchange rates, some lay excessive emphasis on

uneconomic import substitution, and some are guilty of neglect of quality and continuity of supply. But a great deal of difficulty has been the lack of cooperation by the industrialized countries in the removal of impediments such as tariff barriers, quotas and the like, to the exports of developing countries.

The other reason for the lag is the composition of exports from less developed countries. Primary commodities account for 88 percent of the exports of less developed countries. Developing countries' exports are concentrated on primary products and their participation in world exports of manufactures is very limited. The share of primary products in world trade has been declining. At the same time there has been a rapid growth in demand for manufactures. The rapid expansion in manufactures benefited mainly the more industrialized countries.

The slower growth in the value of developing countries' exports is also attributable to less favorable development in prices. According to GATT the unit values of exports from developing countries declined by 5 percent from their 1953 level, while that of the developed countries increased by 7 percent.

The trade policies of developed countries tend to discriminate against exports from developing areas. Studies by GATT and UNCTAD reveal that the tariff cuts under the Kennedy Round are not going to be of much help to developing countries. This is the background to the idea of preference for exports of manufactures from developing countries.

It is now recognized by all concerned that, in the future, World demand for manufactures will grow faster than primary products. A substantial

increase in developing countries' export receipts, so necessary for sustained economic growth, can be facilitated if these countries were given a chance to participate more fully in the expansion of World trade in manufactures.

In the meantime, stabilization of primary commodity markets must continue to be a major objective of international policy since even a slight setback in the primary commodity sector can more than nullify the effects of a considerable acceleration in the export of manufactures.

Mr. Chairman, there remains one other obstacle to the achievement of sustained economic growth in the developing world, and most particularly in Asia, that I am bound to refer to. This is the population explosion. We know that world population is growing at the unprecedented rate of 2 percent which, if maintained, will double the number of inhabitants of our globe within 35 years. And we also know that the fastest rates of population growth are taking place in the main in the poorest and least developed parts of the world. There is the obvious and ever present danger of widespread hunger and malnutrition, but it is not only food supplies that are threatened but the whole rate of economic and social advance. You, as educators, know, for example, that in Asia there are not only too many school children per potential teacher but too many potential school-children per adult.

As an indication of the economic benefits of a slowdown in population growth, it has been calculated that, if a developing country with an average per capita income of \$150 to \$200 a year successfully reduced fertility by 50 percent over a period of 25 years, the increase -- I repeat, increase --

in per capita income would be at least 40 percent higher than otherwise after 30 years, and over 100 percent higher after 60 years.

It is a welcome development that steps to curb excessive population growth have been initiated by a number of developing countries. A tremendous task of reaching and persuading millions of parents to accept family planning measures faces these governments. There is an urgent need for a method that is simple, cheap, sure and with no side effects. No one can expect any quick results from the measures now being adopted. For we should remember that a reduction in birth rates now will help to curtail the increase in the number of potential mothers 15 or 20 years later.

The Bank proposes to keep the developing nations informed about the extent to which rapid population growth slows down their potential for development. It will seek opportunities to finance facilities required by developing countries to carry out family planning programs. It will join others in carrying out research to determine the most effective methods of family planning and of national administration of population control programs.

Mr. Chairman, I hope that this wide-ranging review of some of the major opportunities and obstacles that Asian nations face in their efforts to develop, and the external assistance that is being provided, will give you some food for thought and discussion. I will repeat what I said earlier. A little fact-finding reveals that despite the many difficulties these nations face, there have been some real achievements. Provided the rich really will do all they can to help the less developed nations, and provided the less developed nations do all they can to help themselves, I believe our modest optimism will be well justified in the decades ahead.

NEWS SERVICE

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Special Report

World Bank Lends Billions To Aid Nations

By MOHAMMED RAUF JR.
News American Staff Writer

WASHINGTON — The World Bank, a unique financial institution in the history of mankind, expects to lend from \$25 billion to \$30 billion in the 1970s to under-developed nations for economic betterment.

This was stated by Mohamed Shoaib, vice president, during an exclusive interview with The News American.

He said that the money will be borrowed in the open market (Wall Street and elsewhere), and raised through contributions by member nations with a surplus to invest. Other sources will be money earned directly by the bank, and repayment to it of its past loans.

SHOAIB indicated that such nations could be the United States, West Germany, Japan, Saudi Arabia and Kuwait. The last two are wealthy oil-producing nations, with sizable dollar reserves available for investment.

"Hitherto, the bank had interested itself only in infra-structure projects," Mr. Shoaib said, "which included help in the construction of roads, railways and power stations.

"But during the current decade, for the first time in its history, the bank will be going into social projects, such as education, birth control and agriculture."

HE SAID that the bank will lend \$2 billion this year, and that the very substantial increase in the bank's activities is indicative of the success it has had so far, and of the growing confidence in its effectiveness among the nations of the world.

"One indication of this sort is that the nations of the Communist bloc have revived their interest in the bank, and recently have been inquiring as to its modes of operation."

At present no member of the Communist bloc belongs to the bank. Soviet Union never joined. Poland pulled out after joining, and Czechoslovakia's membership lapsed when it did not pay its share.

Shoaib challenged the validity of the concept popular with hand-wringers in world economics that the rich nations are getting richer and the poor nations are getting poorer.

"THIS IS a wrong way of looking at world economy," he said. "The right thing to say is that the rate of growth in the two categories of nations is not similar.

"Realistically speaking, it can't be similar. Suppose the interest rate on investment is 5 per cent a year. Then a party that invests \$100 sees its capital rise to \$105. But a party that has only \$10 to invest can expect a rise to only \$10.50.

"Which is more important? To close the gap between the richer and the poorer nations, or to strive toward providing a decent standard of living for the latter. We think that the latter course is more important, and once this has been achieved, the normal laws of supply and demand will take over and the gap will be lessened automatically."

BUT, SHOAIB pointed out, the problem of re-

investment institutions throughout the country, and have been rated Triple-A, the highest investment rating possible.

The bank's bonds are now legal investment for: Commercial banks in 50 states and the District of Columbia; Savings banks in 29 states and D. C.; Life insurance companies in 48 states and D. C.; other insurance companies in 45 states and D. C.; Trust funds in 47 states and D. C., and Public pensions funds in 38 states.

Changes made in the National Bank Act in 1947 made such investments possible and removed all legal barriers.

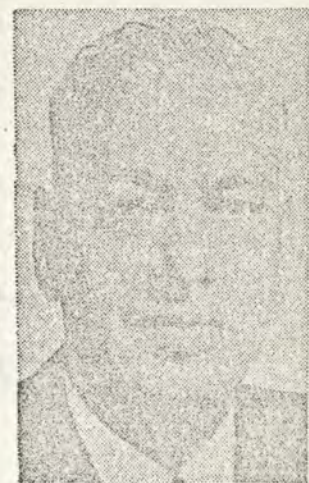
The World Bank, owned by 110 member countries, makes loans on conventional terms. But it is assisted by two other subsidiary agencies:

• The International Development Association, owned by 102 members, makes loans on concessionally terms to countries loans is cutting deeply into the economy of under-developed nations.

He said that the bank is trying to help through floating "soft-money" loans. Such a loan may be repaid in 50 years, it will not bring in any interest, there may be no repayment during the first 10 years and the borrower nations will be charged only three-fourths of one per cent as service charge.

The bank had a difficult time making itself acceptable to the American public, due in part to investor attitude toward foreign investments, and in part to legal regulations affecting security sales and purchases.

THIS ATTITUDE was reversed only after the bank had launched a wide-ranging program to make itself understood. Now the bank's bonds are accorded acceptance by



MOHAMED SHOAIB

where per capita income is exceptionally low.

• The International Development Association, owned by 102 members, makes loans on concessionary terms to countries where per capita income is exceptionally low.

• The International Finance Corp, with 91 members, lends money to private enterprises, and does not require a government guarantee. A private enterprise can borrow from the bank or the IDA only after its government guarantees the loan.

UNTIL A year ago, the three agencies had lent \$14.3 billion. Of this total, the bank lent \$11.9 billion; IDA 2.008 billion, and IFC 320.5 billion.

"But during the 1970's we plan to double all of our past investments. Ever since Mr. Robert McNamara (former American Secretary of Defense) took over as president, we have considerably enlarged our activities, and the trend is likely to continue," Shoaib concluded.

The bank's headquarters are located in a multi-storied building at 18th and H Streets N. W.

THE DEVELOPMENT OF THE MEKONG BASIN:

PROBLEMS AND PROSPECTS

An Address to the Center for International Relations and

Area Studies of the University of Minnesota

by Mohamed Shoaib

April 29, 1971

I. INTRODUCTION

I am deeply honored by the invitation extended to me by the Center for International Relations and Area Studies to address this audience. As all of us know, the University of Minnesota has a worldwide reputation for its high academic achievements. As a Land-Grant University it is also rightly proud of its close connections with the people and problems of this region, and its long and distinguished record in the field of international technical assistance. It is therefore with some feeling of trepidation that I address you here today.

Before I begin, I would like to say that on this subject I speak only as a partially informed outsider. At every level of action and planning in this matter, the responsibility lies, not with the World Bank or any other international body, but with the

four riparian Governments of Thailand, Laos, the Khmer Republic and the Republic of Vietnam, working through the Mekong Committee which they established in 1957 to coordinate plans for the development of the Mekong Basin. The World Bank became actively involved in this work only in April 1969, when, at the Committee's suggestion, the Secretary-General of the United Nations formally requested the World Bank to give its support to the Committee's work. All I hope to do today is to give you some brief idea of its plans, its problems and its aspirations.

My topic is: "The Problems and Prospects for the Development of the Mekong Basin." It is so large and so complex a subject, however, that I would like to touch on only three of its most important aspects: the challenge which the Lower Mekong River and Basin represent as a developmental problem; some of the issues of

planning, organization, and research which confront the Committee; and some of the benefits which we hope will accrue to the people of this region, not only in terms of their per capita incomes, but in more important terms of the quality of their lives.

II. THE MEKONG RIVER AND BASIN

Few countries in the world are blessed with such vast water resources and natural dam sites to harness them as those of the Lower Mekong Basin. Rising in the Himalayan mountains of Central Tibet, it sweeps 4,000 kilometers through Southeast Asia and empties into the South China Sea. It is one of the world's longest rivers. Its drainage basin covers more than 795,000 square kilometers, an area larger than France or Texas. An average of nearly 500 billion cubic meters of water flow into the sea each year. Among Asian rivers, its minimum flow is third only to those of the

Yangtse and the Ganges. At Kratie in the Khmer Republic, slightly more than 500 kilometers from the Mekong's mouth, its minimum flow is about 1,250 cubic meters per second, nearly twice the minimum flow at the mouth of the Columbia river, one of North America's largest rivers.

From its source the Mekong flows southwards through the mountain ranges of Yunnan province in China, and further on forms the border between Burma and Laos. Beyond the tri-point at which the borders of Thailand, Laos and Burma meet, the river, now referred to as the Lower Mekong, forms the long frontier between Laos and Thailand, traverses central Cambodia, and then divides into the Mekong and the Bassac at Phnom Penh. In southern Vietnam it forms a broad delta, before emptying through many mouths into the south China Sea below Saigon.

The total area of the four Riparian countries is some 1,165,000 square kilometers. Thailand is the largest, accounting for over 574,000 square kilometers; Laos covers more than 236,800 square kilometers, followed by the Khmer Republic with 181,000 and the Republic of Vietnam with about 173,200. The lower Mekong Basin, however, comprising northeast Thailand, the Khmer Republic, Laos and the delta area of Vietnam, covers an area of 620,000 square kilometers or about 78 percent of the entire Basin.

The topography of the four Lower Mekong countries ranges from rugged mountains to low flat delta land. In the north, mountainous terrain characterizes northern Laos and the border regions between Laos and Vietnam. In the center of the Basin are the Korat Plateau of Thailand and the Plains of Cambodia. In the south is the seasonally flooded

delta, through which the several mouths of the river flow to the sea. This combination of mountains, upland plateaus, plains, and deltaic areas, coupled with a monsoonal climate and a vegetation pattern which ranges from tropical jungle to open savanna, constitutes a wide variety of environmental conditions.

The Economy of the Mekong Basin

Most of the 30 million people in the Lower Mekong Basin are engaged in agriculture, which, over centuries, has adapted itself to the conditions in the Basin - the monsoon climate and the vagaries of its rainfall pattern, the varied topography, the limited fertility of much of the soil, and the pattern of runoff of the various river systems. Over the years, all of these adjustments have evolved in interaction with the growth of population and the development of new marketing patterns.

Agriculture, which in this region is largely wet-rice cultivation, promises to remain a major activity within the Basin, and while it will continue to be constrained by geographical features, there exists ample proof that it can be substantially modified to the benefit of the local population. Roads, weirs, dams and canals can overcome some of the limitations of location and climate, new seeds and other inputs better adapted to the Basin's environment can increase yields, and appropriate institutional and organizational changes can extend and stabilize markets for agricultural commodities.

Contrasted with the agricultural sector, industrial and mining activities are of limited significance in the Lower Mekong Basin. Mineral resources and 'natural' sites for industrial development are sparse throughout the Basin. The main cities of the

region as a whole -- Bangkok and Saigon -- lie outside the Basin, leaving Phnom Penh as the only town with more than 150,000 inhabitants in the Basin. Thus, it appears that any industrial development of necessity will have to depend upon the momentum gained by agricultural development. As the agricultural sector adopts modern technology, its demand for modern inputs and additional processing capacity is likely to provide a strong stimulus to the development of small-scale industry. Likewise, the increased farm income which would result from a broad-based acceleration of agricultural development can be relied upon to generate a sizeable demand for simple, cheap consumer goods which, for the first time, may provide a domestic market which is sufficiently large and reliable to warrant domestic production of goods hitherto imported.

Agricultural Development Potential

Thus, the mainsprings of future economic growth of the Basin will have to be sought in the agricultural sector which, to quite an exceptional degree, depends upon the cultivation of rice. Only a few crops other than rice have considerable local importance and contribute significantly to national exports -- enclaves of largely foreign owned rubber estates on the preriphery of the Basin and the maize area concentrated around Korat are examples. But in terms of direct and indirect production and employment and the very existence of a majority of the population, the Basin is typified by the monoculture of rice. Over 80 percent of the cultivated land is devoted to rice.

This immense Basin comprises a single hydro-logical system of inter-related flows of water from the head of the main-stream and every tributary right down

to the Delta. It is the systematic nature of these water flows, in interaction with each other and with the land forms along the river banks, that presents so unique a setting for development. If upon this natural hydrological system were superimposed a physical system of river basin management, each component dam, as an element in the system, would have incremental effects in concert with other dams. As elements of a system, a set of dams would combine to produce a cumulatively greater effect on the possible levels of flood control, low water flow, salt intrusion control, irrigation and drainage, hydro-electricity, and river transportation. The effects of the whole system of dams would be markedly greater than the sum of isolated, individual parts. This possibility of cumulatively greater results from a system -- which would apply to a set of tributary dams, mainstem dams, or both together -- is the major impelling reason

for the four riparian countries to consider the otherwise diverse region of the Mekong Basin as a single unit, or single system, for development.

III. THE NEED FOR DEVELOPMENT

Some of the urgency which is felt by the Mekong Committee and, indeed, by many outsiders, rests not only on the fact that this mighty system is now untapped, but on the fact that it frequently inflicts great hardship on those living in its Basin. The control of salinity intrusion is rapidly becoming a very important problem in the Delta. But the control of its flooding is even more important. In an extreme year the River is readily capable of flooding some 50,000 square kilometers of land, mostly in the Delta but frequently (as earlier this year) elsewhere, and of causing damage estimated as more than \$25 million per year.

When we look to the future we see these issues in their full dimensions. Even by the relatively conservative estimates of the World Bank's technical staff, we expect the population of Northeast Thailand to grow from 12.0 million today to approximately 25.4 million in the year 2000, the population of the Khmer Republic to grow from 7.3 to 15.2 million, the population of Laos to grow from 2.9 to 6.4 million, and the population of the Mekong Basin of Vietnam to grow from 7.1 to 14.9 million. All these estimates are based on declining rates of population increase: from approximately 2.8% today for the entire region to approximately 2.3% in the year 2000. At that time we estimate the total population of the region will be 61.9 million, representing an increase over its present of some 32.6 million people.

Our projections for the region's food requirements are of similar orders of magnitude. We expect, over time, that in Vietnam the comparative advantages of the Delta

in rice production will prompt that area to provide the rice required for an even wider area than now. So the total number of people fed by the Mekong Region will rise from approximately 35 million today to approximately 85 million at the end of the century.

Power requirements are likely to increase by even wider margins. The power demand of the region is at present approximately 1.2 thousand megawatts. By the year 2000, the planners working with the Committee expect this requirement to increase to 24.0 thousand megawatts, or in other words by a factor of no less than 20. In developing such plans as these the Committee is profoundly conscious of the importance of balance in economic, social and geographical dimensions. It plans to use the development of the electric power facilities as a tool to encourage industrial decentralization within national development patterns. Both Bangkok and Saigon

are - by any standards - large cities, each with more than 2-1/2 million people. Relative to the rural economies which support them, they are quite enormous. The Committee is reviewing closely many of the ways by which the development of towns and cities outside the economic orbit of these primate cities may be successfully encouraged.

Perhaps the greatest challenge, however, lies in the region's agricultural sectors. Rice is not only the region's principal crop; it is the mainstay of its economy, and its principal source of foreign exchange. There is urgent need not only to improve rice yields, but to diversify the region's agriculture so as to provide its farming population not only with higher incomes but with a greater measure of security.

These are just a sampling of such facts as the Committee has assembled to bring home to us the urgency of this region's problems.

IV. THE CHALLENGE

The challenge which confronts the Mekong Committee is clearly of immense dimensions. On a purely technical level, it is confronted by a critical shortfall of important data. This is, of course, part of the much wider problem which faces the planners of all large scale water development systems, wherever they may be situated. Adequate and reliable data on such matters as rainfall, runoff, flood levels and the composition and movement of ground water do not exist in many areas of the world, and the Mekong Basin is clearly no exception. Fortunately, the Mekong Committee, with much bilateral and multilateral assistance, has already financed a large number of detailed studies of the region, and this work is already providing important dividends.

However, if the technical problems are formidable, so too are the social and political problems. The Basin is highly diversified in terms of its political alignments, economic interdependence, basic social organization, language groups, cultural values and ecology. Although most of the people of the Basin have a basically similar rice culture, and adhere to either of the two major forms of Buddhism, they do not see themselves as occupants of a single area.

Plans for the successful development of any river are meaningful only if the countries which the river serves accept them fully and collaborate effectively in their implementation. Furthermore, development of an international river such as the Mekong involves considerably more technical, legal, political and administrative problems than one which flows within the frontiers of a single

country. It requires full commitment and active participation of all the Basin countries which are affected, directly or indirectly by such development. It is their decisions which ultimately count; and they are the ones who have to make the choices. Their hopes, fears and prejudices which influence their choices between alternatives are as important as the merits of the alternatives themselves. Outside agencies can assist them in making their decisions but surely cannot and should not attempt to make those decisions on their behalf. Consequently, a Basin Plan designed to promote development of a common natural resource for the benefit of the people of the Basin must be guided by considerations of the diverse political, social and economic objectives of the Basin countries, not all of which are mutually compatible.

Development of the Basin countries is further complicated by the fact that large parts of two of the four Basin countries -- Thailand and South Vietnam -- lie outside the Basin. In the case of Thailand the areas outside the Basin constitute the larger, more heavily populated and more developed part of the country. The choice of the Basin as a common unit of development, therefore, is based on the fact that it is a single hydrological unit which if developed as a unit, could make a very significant contribution to the Region's economy. The four riparian countries can indeed achieve more development by collaborating in a basin system than with other forms of development which each country might attempt to carry out individually. However, in the case of Thailand and South Vietnam, the development of a part of the country within the Basin cannot be planned in

isolation from that of its remaining part. It would indeed be unrealistic to expect any of the Riparian countries to commit themselves to a long-term basin development plan without first considering how such a plan relates to their own national plan for the same period. Unless such an analysis is carried out, at least on a broad basis, it would be difficult for either Thailand or Vietnam to decide on meaningful investment priorities, and make long-term commitments to programs which cover only part of their territory. This does not necessarily mean that no long-term projects can be examined unless they form part of national development programs. But it does mean that they must be considered in the context of other alternatives available to Riparians to achieve the same national objectives.

The Committee is also confronted by the fact that most of the mainstem projects because of their size, are Basin-wide in their impact. Taking power as an example, no country in the world would probably like to depend on a major power source located outside its country unless there are some compelling reasons to do so. Although economies in the cost of power are obviously important, they lose much of their force when the control of that power is passed in part to another Government. The sensitive political situation within the Basin and the absence of historical precedents in the Mekong for regional cooperation are ample indications that forces of suspicion and uncertainty must be overcome before the full rewards of regional cooperation can be realized. Countries must acquire confidence, including political confidence, in each other to take each collaborative

step. Outside countries and international agencies can promote such confidence through their good offices and financial assistance but they cannot purchase it. Such confidence can grow only through successive experience of the benefits to be gained from continuing cooperation.

Maybe the Nam Ngum Dam in the Vientiane plain in Laos may be used to illustrate this point. General explorations leading to the Project were carried out by the Mekong Committee under the aegis of the United Nations' Economic Commission for Asia and the Far East. The feasibility study was financed by the United Nations Development Program (UNDP) and the detailed design by Japan under its own program of bi-lateral aid to Laos. Most interestingly, Thailand has agreed to provide cement worth one million dollars in exchange for power to be generated by the Project. The necessary financing has been provided

from international sources, and the project is now nearing completion.

Much larger projects than Nam Ngum, however, are now being considered by the Mekong planners. The four most important are Pa Mong, Sambor, Tonle Sap and Stung Treng. The proposed Pa Mong Project is located some 20 kilometers upstream of Vientiane and will abut in Thailand on the right bank of the river and in Laos on the left bank. It would provide irrigation for approximately one million hectares of land in Laos and the northeast of Thailand, and would have a hydro-electric power potential of about 4.8 million kilowatts. Both Thailand and Laos would benefit from navigation improvement in the reservoir upstream of the dam and from the regulated flow downstream.

The Stung Treng Project, situated on the Mekong River in the Khmer Republic upstream of Kratie, represents the major alternative to the Pa Mong dam as the first large multi-purpose development on the Mekong main stem. Both projects have many features in common -- most notably, perhaps, in requiring the relocation of substantial numbers of people. This matter clearly demands -- and is receiving -- the very closest attention of the Mekong planners.

But Stung Treng differs from Pa Mong in a number of important ways. It would be more than 50% larger than Pa Mong both in costs and benefits. It would also be more multi-national, for unlike Pa Mong, the benefits from which would be derived principally within Thailand, it would have a major impact on the economies of South Vietnam, Thailand and the Khmer Republic. It is also more multipurpose in nature, with a large proportion

of its benefits arising out of increased agricultural production.

Stung Treng would attenuate the Mekong flood flows by about 30% and would bring relief in varying degree to about 1.75 million hectares of cultivatable land in Vietnam and the Khmer Republic. It would also irrigate approximately 300,000 hectares of land from its reservoir, and some 500,000 hectares could benefit from pumped irrigation in the delta as a result of enhanced dry season flows.

The mainstream dam at Sambor in the Eastern part of the Khmer Republic would be of the run-of-the-river type, with only a small reservoir. It would have an installed capacity of some 650,000 kilowatts, which could be the basis for a great upsurge in economic and industrial development in the Khmer Republic. In the

dry two or three months of the year, the volume of water coming down the river would permit generation of some 400,000 kilowatts. But the construction of the very large Pa Mong reservoir, from which water would be released during the dry months, would augment Sambor power by more than 50 per cent, from 400,000 kilowatts to 650,000 kilowatts.

The Tonle Sap Project is located on the Tonle Sap tributary, some 80 miles upstream of Phnom Penh. It envisages a gated barrage across the Tonle Sap river to prevent water from entering the Great Lake of Cambodia from the mainstream of the Mekong during the first part of the rainy season. Then, by opening the gates at the height of the rainy season, it would capture the flood peak, thereby reducing, and in most years eliminating, the problem of flooding at Phnom Penh and down through

the delta. As in the case of Pa Mong and Stung Treng, the release of the water in the driest months would raise the water level in the Mekong, so facilitating navigation and abating the intrusion of salt water from the sea in the lowest parts of the delta.

V. THE DEVELOPMENT OF MEKONG PLANNING

These bold plans have behind them a long and interesting history. The first international effort to cooperate in the use of the Mekong River occurred as long ago as 1926, when France and Thailand signed an agreement that neither power would impede navigation of the River. In 1949 Cambodia, Laos and the Republic of Vietnam signed a Convention of Maritime and Inland Navigation on the Mekong and on Inland Water Routes to Saigon, which provided for the establishment of a Consultative Commission. This Commission was set up in 1950, but has been

largely inactive. A similar convention was signed by Cambodia, Laos and Vietnam in 1954, whereby the parties agreed to coordinate action on navigation and police rules, river improvement, and industrial and agricultural projects that might affect navigation, as well as to share cost, duties, taxes and payments relating to river commerce and navigation. The three countries also agreed to observe the 1926 agreement between France and Thailand.

However, the real stimulus for international cooperation in the Lower Mekong came from the activities of the U.N.'s Economic Commission for Asia and the Far East, which was established in 1947. Water problems were given particular emphasis in ECAFE's early work, and a number of conferences were held in the region to discuss these problems and those of water resources planning. The reports that resulted from the conferences and ECAFE

studies have provided important guidelines for the planning and development that have since taken place.

In 1949 ECAFE established a Bureau of Flood Control to advise and assist governments in Asia and the Far East on matters relating to flood and other water management problems. The Bureau was requested in 1951 to include international rivers in its investigations. It selected the Mekong for particular attention, and enlisted the cooperation of the four riparians in undertaking the studies.

Its report on these studies was completed in May 1952. Although it noted that only a cursory survey had been possible, it made it clear that the Mekong River offered highly attractive opportunities for the development of hydroelectric power and irrigation. It mentioned a number of specific possibilities for development, such

as a power project at Luang Prabang in Laos, and the diversion of water from the River for irrigation purposes in Northeastern Thailand. It also stressed that more intensive studies would be required before the technical or economic feasibility of any of these possibilities could be demonstrated.

The signing of the Geneva Agreement in 1954 brought about a temporary cessation of hostilities, and a renewed interest in the possibility of developing the Mekong River. This interest was shared not only by the countries of the region, particularly through ECAFE, but also by other countries, especially France, Japan, and the United States. This resulted in a number of proposals for further studies to determine more precisely the problems to be solved and the opportunities for development.

Another milestone was the report of the United States Bureau of Reclamation, published under the sponsorship of the United States International Corporation Administration in 1956. This report, after being presented to the four riparians for their consideration, became a basic document for those concerned with the planning of the river's development.

Because of the almost complete lack of basic data on the River and on the Basin's economy, the Bureau's Report made a number of recommendations relating to data collections programs, particularly in connection with hydrology, meteorology, hydrography, topography, sedimentation and geology. It also suggested the launching of studies on agriculture, fisheries, navigation and education.

Another important forward step occurred with the publication of an ECAFE Report in October 1957, which concluded that it would be possible to develop the river for a wide variety of purposes, and that such development could be of immense benefit to the region. The Report identified five possible dam sites on the main stream, which if built would make possible the irrigation of large areas of land, the production of some 32,000 million kilowatt hours of hydro-electric power per year at very low cost, and the reduction of floods in the Lower Delta regions. The report also emphasized that much more information and analysis would be required before the economic and technical feasibility of these schemes could be demonstrated. It noted the lack of basic data on hydrology, meteorology, geology etc. and called for the initiation of programs to remedy these deficiencies.

The 1957 ECAFE report was an important milestone because it provided the conceptual framework for the planning which has since taken place. It emphasized that if optimum use was to be made of the Basin's water and related resources, a broad River Basin approach would be required, and as a corollary, close cooperation in planning and development between the nations sharing the Basin. Several of the major projects mentioned in the report would be located at points where the Mekong forms the boundaries between the countries sharing the Basin. Moreover, some of the projects, even though located in one country would benefit several others by providing hydroelectric power, or irrigation water, or by regulating flows which might permit increased power production downstream, reduce flood losses and improve navigation. The report noted that international cooperation would be

required not only in planning and development, but also in basic data collection.

Shortly after the ECAFE report of 1957 was presented to the 13th session of ECAFE, representatives of the four riparian states of Cambodia, Laos, Republic of Vietnam and Thailand, met in Bangkok to consider further action. The group recommended the creation of a Preparatory Committee composed of representatives of the four riparian Governments, to decide whether or not to establish a permanent Co-ordination Committee to oversee further studies of the Lower Mekong. In September 1957 the Statute of the Committee for Co-ordination of Investigations of the Lower Mekong was adopted by a unanimous vote, and the "Mekong Committee" came into being.

The next step forward came with the dispatch of a United States Government Mission in late 1957. This Mission was headed by Lt. Gen. Raymond Wheeler, formally chief of the United States Corps of Engineers. Its report was presented in early 1958 and stated that the Mekong had "impressive potentiality for multipurpose development" and recommended the establishment of a five year program of investigations, estimated to cost US\$9.2 million, and the appointment of a high level international technical advisory board of engineers to assist the Mekong Committee.

The Mission's recommendation created a great deal of interest abroad. France offered 60 million francs to aid the Committee's work. The United States offered 2 million dollars for the establishment of hydrologic and meteorologic networks, the leveling of the main river and major tributaries, and a hydrographic survey of the

main channel. Canada agreed to undertake a program of aerial photography and mapping, and Japan to make a reconnaissance survey of the major tributaries.

In 1961 the Ford Foundation sponsored a mission headed by Gilbert F. White to make a survey of the needed economic and social studies. The report of this mission recommended that the staff of the Committee be strengthened; that the Committee expand its services by launching a program of short-term training; and that the World Bank should work with the Committee on the estimation of the economic feasibility of certain projects. With this enlarged mandate, the Mekong Committee continued its investigations. As a result of Secretary-General U Thant's invitation to the President of the World Bank which I referred to earlier, the Committee now works with the support of the World Bank as well as other U.N. Agencies.

VI. FEATURES OF MEKONG PLANNING

This is the tremendous challenge to which the members of the Mekong Committee and its staff have addressed themselves. In consonance with their terms of reference, which focus their planning efforts on the development of water and related resources of the Mekong Basin, their planning effort during the past decade has been concentrated largely on the investigation of the potential of the Mekong River and its tributaries. Development of the river has been, and still is, the main theme of the Basin Plan and the Report on the Indicative Basin Plan prepared by the Secretariat in 1970. Three major assumptions are implicit in the rationale of the Secretariat's approach to development of the Basin.

- (a) Transformation of the Basin from traditional agriculture into modern agriculture would be virtually impossible without irrigation, and no significant irrigation development could be achieved without construction of storage reservoirs.
- (b) Storage potential on the tributary rivers is inadequate to meet the growing needs of agriculture production and hydropower generation beyond 1980. Development of storage potential on the mainstream, which is very substantial, is essential to meet the requirements beyond 1980.
- (c) The power needs of the Basin countries could be more economically satisfied through hydropower generation on the Mekong than through any other alternative means.

However, as the focus of basin planning shifted away from concern with the technical feasibility of the giant multi-purpose projects to an assessment of their economic feasibility, the Mekong planners have begun to review their plans in the broader context of the development of the Basin and of the riparian economies. Three features of their approach to Basin planning deserve special emphasis.

Firstly, the policy now evolving is one of deliberate incrementalism. Developmental investments are proposed so as to take only one step at a time: first small steps, then longer ones. The largest works are perhaps a decade away, and some of them much further. Some of the issues which these larger works may raise are already being addressed -- we hope successfully -- on smaller scales elsewhere in the Mekong Basin.

Secondly, their approach is becoming increasingly pragmatic. For some of the most difficult questions, concerning, for instance, the introduction of irrigated farming to farmers who have had little or no experience of it, or the introduction of diversified cropping patterns into a traditional rice-monoculture, they realize that the uncertainties cannot be meaningfully resolved by theoretical speculation or analysis. They can be solved only in practice, by "learning while doing". This approach lies at the heart of the concept of "Pioneer Projects" - a program which the Mekong Committee and the World Bank are promoting.

This brings me to the third aspect of basin planning - one which I am sure lies close to the hearts of all of you. It is the matter of ecology.

Some of us in the World Bank have been following with fascination the unfolding debate on the ecological

aspects of the developmental process, and particularly, of course, the more specific parts of that debate which concern the development of large river systems.

Along with others in the world of development, the Committee is giving increasing attention to the problems created by intervening in depth in the subtle equilibria of established eco-systems. The Committee is consulting, every step of the way, with the most qualified experts from a wide variety of different disciplines. The major problems, as I understand them -- I should emphasize, however, that I am speaking very much as a layman -- include increased dangers of water-borne diseases, uncontrolled use of potentially dangerous chemicals in fertilizers and pesticides, the danger of a spreading of aquatic weeds, and the general impact of a changed river regime on flood dependent agriculture and fresh and salt water fisheries.

Fortunately, the Committee and the Riparian Governments have time enough to prepare their plans and projects with all the care that they require. We expect work on the larger mainstem projects to begin at the earliest towards the end of this decade. Hopefully, the state of our knowledge will continue to advance at the same or perhaps even greater pace than it has done in the recent past. If so, we will surely know a great deal more, not only about what we should not do, but what we should be doing - and how to go about it.

We recognize, however, that the ranks of ecologists include some severe critics of all aspects of the developmental process. They place us in the quandary which Professor Milton has described as a "developmental Sisyphus," -- damned if they develop because their development damages their environment, and damned if they don't because stagnation

damages their people. We do not share this attitude. We see no reason to believe that two-thirds of the human race should be condemned to live forever at their current levels of poverty. We believe, instead, that a meaningful balance between the urgency of development and the demands for conservation is attainable through a timely interdisciplinary approach to development planning.

Our concern, to conclude, is as much with the quality of life in the Mekong region as it is with the increases in kilowatt hours and agricultural yields. We are approaching these issues at an important moment in history, when we have left behind the more simplistic viewpoints of the past, and confront these problems with a deeper understanding of their true dimensions.