# THE WORLD BANK GROUP ARCHIVES PUBLIC DISCLOSURE AUTHORIZED

Folder Title: Bravo, Jorge - Articles and Speeches (1965)

Folder ID: 1651395

Fonds: Records of Office of External Affairs (WB IBRD/IDA EXT)

Digitized: October 31, 2013

To cite materials from this archival folder, please follow the following format: [Descriptive name of item], [Folder Title], Folder ID [Folder ID], World Bank Group Archives, Washington, D.C., United States.

The records in this folder were created or received by The World Bank in the course of its business.

The records that were created by the staff of The World Bank are subject to the Bank's copyright.

Please refer to http://www.worldbank.org/terms-of-use-earchives for full copyright terms of use and disclaimers.



© 2012 International Bank for Reconstruction and Development / International Development Association or The World Bank 1818 H Street NW Washington DC 20433

Telephone: 202-473-1000 Internet: www.worldbank.org

BRAVO, JORGE- ARTICLES and Speeches (1965)

DECLASSIFIED
WBG Archives



BRD 110A BOX WBG ARCHINES Paper presented by Mr. Avramovic at the 2nd Annual Meeting of the National Association of Business Economists in New York City on Oct. 19-20, 1960

# The Work of International Agencies on International Statistics and Economic Analyses

BRD /104
WBG
PACHINES

The scope and amount of statistical reporting and economic analytical work done by international agencies have increased at a rapid pace during the last ten years. There is now a continuous and voluminous stream of material on a very wide range of subjects. This makes it impossible to present an exhaustive survey of all the activities performed by all the agencies. The purpose of this note is much more limited: it sets out the main lines of statistical inquiry and applied research that are being undertaken by the most important of the international organizations.

#### Organizations

Most of the statistical and research work is done by the United Nations, their regional Economic Commissions and the specialized agencies, viz. the Food and Agriculture Organization, International Bank for Reconstruction and Development (World Bank), International Labor Organization and International Monetary Fund. In addition, there are three more international bodies whose research activities occupy a prominent place in the current literature in international economics: the Secretariat of the General Agreement on Tariffs and Trade (GATT), the Bank for International Settlement (BIS), and the Organization for European Economic Cooperation (OEEC).

### Statistical Reporting

Three monthly publications contain most of the current flow of economic information on developments in the world economy: the U.N. Monthly Bulletin of Statistics, the FAO Monthly Bulletin of Agricultural Economics and Statistics, and the IMF International Financial Statistics. While these publications in part cover the same area (e.g. both UN Monthly Bulletin and IMF International Financial Statistics contain data on international trade, gold and foreign exchange holdings, wage and price indices), there is still a distinct difference among the three. The emphasis in the UN Bulletin is on population and industrial production statistics, both for the world as a whole and for individual countries; and the production part is particularly detailed, covering not only economic aggregates - national accounts, industrial indices and their meaningful subdivisions - but also physical quantities of the most important industrial commodities in the producing countries. The FAO bulletin follows agricultural production, trade in agricultural products, and agricultural prices, both domestic in the producing countries and international on the world markets. In contrast with these two "production" publications, the International Financial Statistics concentrates on monetary, financial and balance of payments developments. Detailed data are provided on all major variables, and an attempt is also made to consolidate, for each individual country, the important financial flows into larger analytically significant

<sup>1/</sup> For Europe, Asia and the Far East, Latin America, and Africa. The Commission for Africa, which was established only recently, has not yet started its publications; this is expected shortly.

aggregates. Information by country is also given on interest rates for major classes of paper, share prices and the key items of commercial bank's balance sheets (consolidated).

While these three publications are the "bread and butter" of international statistics, there are also others, regional in scope and appearing at regular bi-monthly or quarterly intervals, which contain additional series frequently designed to serve particular analytical purposes. The OEEC puts out two statistical bulletins, one on general statistics (Part I, monthly and Part II, bi-monthly) and the other on foreign trade statistics (Parts A and B, bi-monthly and Part C, quarterly), covering the OEEC countries, the United States, Canada, and Yugoslavia. These series are very comprehensive and lend themselves easily to comparative study of economic growth and of the current state of economic conditions. The UN regional Economic Commissions for Latin America and Asia, in their economic bulletins published semi-annually and tri-annually respectively, produce regular statistical series covering, in particular, national accounts and major production and foreign trade data by region and by country.

Finally, several of the international agencies publish annually statistical reports which contain both current data and long-run series. The United Nations publish each year the Statistical Yearbook, the Demographic Yearbook, the Yearbook of National Accounts Statistics, and the Yearbook of International Trade Statistics. The Food and Agriculture Organization puts out the Production and Trade Yearbooks, which cover agricultural commodities only. The International Labor Office publishes the Yearbook of Labor Statistics. The International Monetary Fund issues its Balance of Payments Yearbook. The International Bank, the International Monetary Fund and the United Nations jointly prepare the statistical series "Direction of International Trade", which contains detailed data on origin and destination of trade for each country.

#### World, Regional and Country Analyses

The analytical endeavors of international agencies are as multifarious as their statistical undertakings. The postwar work had its predecessor in the brilliant pioneering efforts of the Secretariat of the former League of Nations. In addition to their famous annual reviews (their current work on the course and phases of the Great Depression still remains, after thirty years, the must for a research into the international aspects of the depression), they have produced such classics as "Industrialization and Foreign Trade", written mostly by Folke Hilgerdt, and "International Currency Experience", authored primarily by Ragnar Nurkse. These works are outstanding examples of successful integretion of theoretical analysis and quantitative findings; and, in my view, they have set a very high scholarly standard not only for international agencies but also for national institutes of economic research.

The analytical work at present is much more dispersed geographically, it is issued more frequently and is far more numerous than in the inter-war period. The United Nations Headquarters publish annually their World Economic Survey; each of the UN regional commissions issues annually their regional economic reviews, which also contain many country analyses; the World Bank makes available its annual report which reviews Bank activities and frequently summarizes some of

the major developments bearing on Bank operations; the International Monetary Fund publishes each year its review of trade and monetary developments in the world as a whole and in particular countries, as well as a report on foreign exchange restrictions in each of its member countries; the GATT puts out its annual analyses of international trade movements; the FAO publishes each year the State of Food and Agriculture, which reviews world production, consumption, trade and price movements of agricultural products; the BIS issues each June its review of the world economic developments, with special emphasis on the behavior of capital and money markets and national monetary and financial policies; the OEEC publishes yearly analyses of economic growth in Western Europe, its cyclical movements and its trade and balance of payments developments.

This impressive list of annual publications does not exhaust all the work that is being done in the field of regional and country research. The UN regional commissions' bulletins contain analyses of special topics bearing either on a particular region, a particular industry or a particular country. In addition, the Commission for Latin America has published several special country studies with an exhaustive appraisal of their economic growth in the past and prospects for the future (e.g. on Brazil, Colombia, Mexico). The IIO monthly International Labor Review, contains country studies on labor conditions, wage levels, labor legislation, etc. The International Bank has published during the last three years two books on international capital flows, international indebtedness and debt servicing capacity of its member countries, with special emphasis on low-income borrowers. These publications cover the periods 1945-1955 (published in 1958) and 1956-1958 (published in 1900), respectively. Also, the International Bank, publishes reports of its country survey missions. Seventeen such reports have been issued so far. Each of these reports analyzes the economic conditions and prospects for future growth, as ascertained by the Bank mission to a particular country. The latest two reports cover Thailand (1959) and Lybia (1960).

Given the number of publications and the range of problems they cover, it is impossible to present in this summary any meaningful appraisal either of the analytical techniques that are applied or of the findings and conclusions that are reached. One point should be stressed, however. Almost any of the annual publications, and each of the special studies, goes far beyond the routine review of short-term developments. As a rule, an attempt is made to appraise these developments in the perspective of long-term trends; and also the experience of other countries is almost invariably invoked. In addition, most of the annual publications usually contain exhaustive analyses of particular subjects which are not only topical but which have also more than a transitory significance. For example, the World Economic Survey 1957 contains an analysis of the causes and consequences of the inflation of the 1950's, the Survey for 1958 gives a review of commodity trade and policies in the postwar period and the Survey for 1959 concentrates on the capital formation trends during the last ten years. Another example is the analysis of the planning and finance of investment in the Soviet Union and Eastern Europe, published in the Economic Survey of Europe in 1955; the same issue contains an appraisal of the investment problems of Western Europe and of the financial obstacles to industrial investment in this area. Further instances are the studies of the UN Commission for Asia and the Far East in their Survey 1957, of the postwar growth and structural change in Japan, the development programming in India and the industrialization in the centrally planned

economy of Mainland China. The GATT Secretariat published in 1958 the now famous study on long-term trends in international trade, which was prepared by a panel of experts consisting of Professors Haberler, Tinbergen, Campos and Meade. The International Bank studies on international capital flows and international indebtedness contain also analyses of postwar growth trends in low-income countries, their capital accumulation and the structure of their balances of payments.

#### Commodity Studies and Economic Projections

In addition to country analyses, extensive work is done on long-term trends, short-term developments and future prospects of major commodities entering international trade. Considerable use is made in these studies of econometric analytical techniques. Much of the work remains unpublished and serves the internal uses of the agency in which it is done. But current developments in world commodity markets are followed carefully by several agencies and their analyses are published regularly. For instance, the FAO and GATT annual surveys, already mentioned, devote major place to reviews of commodity markets. The UN Headquarters publishes each year its Commodity Survey. In addition, several agencies issue special long-term commodity studies, and there is reason to believe that this line of applied research will expand further. In recent years, FAO has published analyses of past trends and future prospects of several agricultural commodities (e.g. sugar, tea, citrus fruit); the same agency has just published a study on world demand for paper covering the period 1960-1975. The Economic Commission for Europe issued in 1959 a study on long-term trends and problems of the European steel industry. The study covers world developments in production and consumptions of steel since the turn of this century and contains projections of consumption and trade through 1975. The Economic Commission for Latin America published in its bulletin for October 1959, an analysis of prospective production and demand for rolled iron and steel products in the region.

The increasing interest in commodity studies is closely connected with the unfavorable price developments in a number of agricultural products since the mid-1950's. But this interest also reflects the fact that world and regional demand for industrial raw materials and for manufactures, particularly of basic industries, has shown a persistent upward trend throughout the postwar period. This called for systematic analytical work if the future demand was to be appraised with some certainty.

In addition to commodity projections, international agencies are also engaged, to a modest extent so far, in forecasting the major economic variables, e.g. over-all output, investment, trade. The short-term forecasts are usually contained in their annual reports. With respect to medium-term and long-term projections, most international agencies rely on the work done on the national level; and they consolidate country forecasts to arrive at world aggregates which then serve as bases for commodity projections. But there have also been attempts by some of the agencies to construct their independent income growth estimates. In addition to those done by some of the agencies for their internal use, and in addition to World Bank country survey studies and ECIA's work on Latin American countries mentioned earlier, the OEEC has produced several aggregate projections for Western Europe. The

latest one covers the period through 1965 and 1975; it was prepared in conjunction with the estimate of the European energy requirements and their pattern in the future. (The Robinson report, 1960). The GATT secretariat published in its annual report for 1956 an illustrative model of income and import growth of industrialized countries through 1975. Judging by recent developments, it is likely that the medium— and long-term forecasting will occupy in the future an increasing proportion of staff work in international agencies.

#### In Lieu of Conclusion

A note of warning may well take the place of conclusions of this review. Never in economic history has such a comprehensive stream of economic information on national and international developments been available. And yet, the imperfections of data, particularly when they cover economic aggregates rather than a single product or activity, are still great. This is especially so in those low income countries where more refined statistical work and systematic economic analysis have been started only recently. But in addition to weaknesses of statistical organization and reporting, there are also serious methodological problems in measuring economic change for those countries which move rapidly—and these countries are of most analytical interest. Rapid change from a low initial base implies substantial shifts in the composition of output and in relative prices; and the greater these shifts the more difficult is the problem of weighting in the construction of index numbers and consequently the more indeterminate is the precise magnitude of the change in the national output as a whole.

There is one additional point to be made. With the exception of Morth America, some countries in Western Europe and Japan, the evaluation of near-term business prospects and cyclical developments still has to be based on very few indicators of general nature. Such information as capital expenditure programs, consumer purchase plans, volume of orders data, up-to-date reports on stocks and on sales - are simply non-existent in the overwhelming majority of countries. Much time will be needed before this kind of business information becomes available.

But these lacunae should not obscure the fact that an impressive progress has been made during the last ten years. The flow of statistical data and analytical writings regularly issued by international agencies have grown without interruption and there are no signs that this process will stop. What is perhaps mostly needed at the present juncture is an improvement in the quality of existing information; and judging by past performance, there are grounds to believe that this will progressively occur.

Dragoslav Avramovic Economic Staff October 18, 1960.



BRAVO

1300 WBG 77

to be del. by Jorge Bravo (aprilo Barro)

Paper on World Bank Group's Role in the Development of Human Resources

for the Santiago Session of UNICEF Conference

#### General

One clearly discernible trend in discussions of the development process is the increasing recognition among economists of the important role of human resources in economic growth. This attitude toward investment in human resources is a healthy revival of the concept expressed by some of the great classical economists -- by Adam Smith, for instance, -- that the acquired knowledge and skills of a society constitute a part of its capital.

A scarcity of such acquired abilities unquestionably is a grave obstacle to economic progress in underdeveloped countries.

Mr. George D. Woods, President of the World Bank and of its two affiliates, the International Development Association (IDA), and the International Finance Corporation (IFC), has pointed out that "the lack of trained manpower is today one of the critical bottlenecks in the development process. The most serious shortages in most countries are of administrators, entrepreneurs, teachers and technicians -- the upper and middle level manpower without which no development program can be successfully carried out." 1/

It is commonly assumed that the Bank's operations have little to do with the development and utilization of human resources. This is a misconception.

George D. Woods, Address to the Economic and Social Council of the United Nations, New York, March 26, 1965.

In its financing operations, to be sure, the Bank has placed main emphasis on basic facilities essential to economic growth. Roughly one-third of the Bank's and IDA's lending has been devoted to the improvement of means of transportation -- roads, railways, inland waterways, and ports. Another third has helped finance the production and transmission of electric power -- thermal, hydro and nuclear. The balance has been lent for the development of industry, agriculture, communications, water supply and sewerage, and education.

Investments in a national power system or an integrated rail network are primarily intended to make directly productive activities possible. But this is not the sole purpose or result. An electric grid system not only supplies power to productive industries; it also helps to alleviate living conditions in rural areas by the introduction of power, light and radio. The establishment of schools is facilitated and isolated villagers are enabled to participate more effectively in the national development effort. Railways, highways, roads and ports serve not only to ease the transport of raw materials to factories and finished goods to consumers at home and abroad, but also help to break the isolation of villages and small towns, give easier access to educational and cultural institutions and governmental administrations.

One major contribution that infrastructure improvement can make is to help break down the social and economic stagnation which prevails in many parts of the world. In its assessment of a project's feasibility and priority, the World Bank Group usually employs the hard figures of expected economic or financial returns, but it recognizes that the ultimate test is

the impact which its investments will have on the lives of human beings.

In the various stages of its project investigations and loan administration, the Bank may also make a considerable contribution to the development of human resources in the countries concerned. Economists, engineers and other experts from the Bank staff are constantly called upon to advise and assist its clients in dealing with technical, managerial or financial problems connected with development projects, in defining terms of references for consultants or in the review of their findings, in arranging for the training of national personnel, etc. One of the most important areas of such assistance is the help given by the Bank and IFC in organizing and training staff for national development finance companies, which are increasingly significant catalytic agents for industrialization in a number of developing countries.

Preinvestment studies of major economic sectors, undertaken by the Bank either on its own account or as executing agency for the UN Special Fund, often lay major stress on institutional development and training of key personnel. Some examples are the planning and management assistance provided to the East Pakistan Inland Water Transport Authority, the current review of the Gezira Scheme in the Sudan, assistance in the planning of schools in Tunisia and in the organization of the electric power administration in Ecuador and of road construction and maintenance work in Somalia. Advisers have also been provided to work with the national planning agencies of a number of countries. In all these cases, national counterpart personnel

are closely and continuously associated with the foreign consultants and advisers, to encourage full interchange of local experience and foreign expertise and assure continuing benefit from the latter after the advisory services are ended.

In addition to these activities incidental to its financial and technical assistance operations, the Bank conducts general training programs in fields broadly relevant to economic development. The most important of these is the Economic Development Institute, established in 1955 as a staff college for senior officials responsible for development, planning and administration. In its first several years the EDI offered only a single six-months course, given once a year in English. More recently, several new courses, including some in French and Spanish have been added. In 1965 the EDI is accommodating some 11,5 participants.

It has also compiled and donated to member countries extensive reference libraries on economic development problems in English, French and Spanish; and has provided other teaching to regional and national training institutes in the underdeveloped world.

The significance of these services of the World Bank Group cannot be measured in monetary terms. Undoubtedly they have contributed to the expansion and better utilization of human resources in many developing countries, and should continue to yield increasing dividends in future years.

Our host country today, Chile, might serve as an example of the World Bank Group's activities in one country. In fact, it was here that the Bank began its development lending in 1948. Since then the Bank has lent over \$143 million in Chile. Four loans totaling \$65.4 million are

assisting the expansion of electric power facilities; four loans totaling \$27.4 million were made to assist the development of agriculture; a loan of \$20 million helped to finance the manufacture of paper, pulp and newsprint; two loans totaling \$21.6 million were made to help increase coal production; a loan of \$6 million is financing improvements in highway facilities; and a loan of \$2.75 million is assisting in building and equipping vocational training centers that provide accelerated training for industrial workers in a variety of needed skills. The Bank's affiliate, the International Development Association (IDA), has extended a credit of \$19 million for the construction and betterment of a road network in southern Chile -- the main agricultural area of the country. Bank and IDA efforts have been supplemented by the International Finance Corporation which has undertaken 9 investment commitments totaling \$10 million. Besides lending for development, the Bank has provided technical assistance services of wide variety. In 1951 the Bank joined the FAO in organizing a mission to study Chile's agricultural problems and draw up recommendations for an agricultural program. The mission's report presented to the Government at the end of 1952, recommended steps to increase agricultural output. In 1961 the Bank reviewed Chile's 10-year development program and made extensive comments both on the program as a whole and on plans for specific sectors. In 1962 the Bank helped to organize and finance a study of measures to make the Chilean capital market a more efficient instrument in mobilizing domestic savings for development. The report of the mission was submitted to the Government in January 1965. In addition. the Bank is meeting the foreign exchange costs of a study designed to

prepare for execution a small road project and to elaborate a five-year highway improvement program for the country. A technical representative of the Bank has acted as liaison with the Chilean authorities and assisted them in the execution of a highway construction and maintenance project for which an IDA credit and a Bank loan were made in 1961. The Bank has also provided staff members to act as economic or planning advisers to the Government.

#### The Bank/IDA and Education

This summary of the Bank Group's activities makes only passing mention of direct financial support of the educational sector which is what springs naturally to mind when one talks of the development of human resources. In truth, only a relatively small fraction of the Group's financing so far has gone into this sector, and only in the past three years. The Bank's first educational loan, to the Agricultural College of the University of the Philippines, was made in 1964, and its second in 1965 for vocational training in Ghile; IDA extended its first credit for education and training two years earlier, and has financed educational projects in Afghanistan, Morocco, Nigeria, Pakistan, Tunisia, and Tanzania. The present trend is sharply upward, although Bank and IDA's educational investments are not likely very soon to rival those in transportation or power development.

The Bank recognizes the existence of two schools of thought in regard to the nature and objectives of education. One, the humanistic or ethical approach, lays great stress on the basic human right of people to receive the benefits of education, and on the consequent cultural and

social improvement of the individual and society. The other, the more mundame approach of the economists, lays emphasis on investment in education as one means of accelerating the process of economic growth. In actual practice, there need be no conflict between the two approaches to the objectives of education. Sustained economic growth and higher productivity can generate and release enough physical resources to be applied to social and cultural advancement as well. Since economic growth and social progress are interrelated and since the level of education has a positive bearing on productivity, it would be wrong to emphasize one approach to the total exclusion of the other.

There is abundant evidence, however, that the drive for universal literacy and education has led to a tragic misuse of scarce resources in many countries, which has contributed to the Bank's somewhat cautious entry into this field. The Bank always demands that a project in which it invests should rate high on the list of priorities in a country and be so recognized not only by the Bank itself but also by the government concerned. A prerequisite therefore for Bank or IDA financing is that a project or a sector is given priority consideration in a country's development plan as demonstrated by the investment allocated by the country itself.

The President of the World Bank and IDA has made it perfectly clear that increasing attention will be given to the educational sector.

As a step toward such an intensification of its educational efforts the Bank has established a cooperative program with the United Nations Scientific, Educational and Cultural Organization (Unesco). Unesco is making available

technical and appraisal services to countries desiring help in identifying their priority educational needs and in the designing of projects for which they might wish to request Bank or IDA financing. The costs of these services are shared by Unesco and the Bank. The Bank has also joined Unesco in establishing an International Institute of Educational Planning in Paris where educational planning techniques and methods are being developed. All this shows the Bank's belief in the importance of education to a balanced development program and also in the necessity of applying scientific planning methods in this field just as much as in the development of physical assets.

emphasis on assistance to secondary education. It is felt that the most noticeable and serious gaps to be filled are found at this level, both in educational systems and in resultant trained manpower. Similarly there is a need for developing high level enterpreneurial and technical leadership in selected areas of higher training. On the other hand, although the human rights target of universal primary education has not yet been achieved, primary enrollments have expanded over the past decade out of proportion with other levels of education and often beyond the country's ability to train teachers, and properly meet recurrent costs.

Examples of Bank Lending

A few illustrations of educational and agricultural projects which have received Bank support are given below:

#### Chile - Vocational Training

Despite a long history of public education and a high level of literacy, Chile's school system does not provide vocational skills in the number or of the kind needed to sustain and expand industrial growth. In order to foster the development of productivity and manpower services, the Servicio de Cooperation Tecnica (Servicio) was established by the Government as an affiliate of the Corporacion de Fomento de la Produccion. The International Labor Organization assisted Servicio in determining Chile's skilled and technical manpower needs, and in studying the job content of key occupations among them; it designed training methods for the practical requirements of the jobs and concentrated in short courses the information necessary to raise quickly the quality of Chile's labor force.

The Servicio's vocational training program now produces about 16,000 workers a year. It has launched an expansion program to increase the number to 30,000 and thus meet about three quarters of Chile's present need for training of this sort. Three levels of accelerated training are offered: full time courses, totaling 600 hours in four months, to train unskilled workers to the semi-skilled level; part-time courses of 150-200 hours for two to four months to upgrade semi-skilled workers to the skilled level; and part-time course of 40-80 hours for one to two months to train already skilled workers in new techniques, or to prepare them for foremanship. Training is given in vocational training centers, in existing industrial schools during evening hours and summer vacation periods, and in mobile workshops. When the current expansion is completed such training

will be undertaken in 46 institutions in 27 cities throughout the country.

In October 1965, the Bank made a loan of \$2.75 million to assist this program. The main elements of the project being assisted by the Bank loan are the construction and equipment of vocational training centers, the provision of equipment for starting up and expanding courses in industrial schools, the provision of mobile workshops for the instruction of miners in modern techniques, printing, audio-visual and transport equipment for the Servicio's training program.

#### Uruguay - Livestock Improvement

Uruguay's chief natural resource is its extensive area of native grassland which is used for the production of cattle and sheep. Wool, meat, milk and byproducts represent about three-quarters of the total value of agricultural output and provide most of the country's export earnings. In 1950 a mission sponsored jointly by the Bank and FAO undertook a survey of agricultural methods and potentialities. The mission recommended measures for increasing yields, lowering costs, and improving storage and marketing. It concluded that the country's livestock output could be improved by better pasture management. In 1959 the Government drew up a livestock production improvement program based largely on the recommendations of the mission. In the same year the Bank made a loan of \$7 million for a pilot project to increase production by demonstrating the advantages of modern techniques of pasture improvement and management. The results of this project have been even more impressive than had been expected. Farmers who have participated number about 1,400 compared with the original target of 600, the area of improved pastures on the farms

totals about 360,000 acres. In addition, it is estimated that farmers who cooperated with the program, but arranged their own financing, improved an additional 170,000 acres of grassland. The three to four-fold increase in livestock production from the improved grasslands over that of native pastures has attracted the attention of farmers everywhere in the country.

Impressed by the success, the Bank made another loan of \$12.7 million in March 1965 to enable the Government to continue on a wider basis its livestock development program. Under the second stage individually supervised livestock development loans will provide 650,000 acres of improved pastures on 2,600 medium-sized farms. In addition, about 1,000 operators of larger farms are expected to participate on a cash basis to improve about 310,000 acres. This, together with the achievements during the first stage, will result in a total of 1½ million acres of improved grassland. Most of the increased output of beef and wool which will result from the program is intended for export and is expected to yield a net annual increase of \$10 million in Uruguay's foreign exchange earnings. As there are 37 million acres of native grassland capable of similar improvement, the program points the way to substantial economic and social progress for the nation as a whole.

## Peru - Agriculture and Livestock Production

Peru has a high potential for agricultural development. Much of the land at present under cultivation can be made to produce more through modern farming practices; areas on the arid Pacific Coast can be brought into production with irrigation; and the fertile land on the eastern slopes of the Andes can be settled and put to cultivation with improvements in transportation. The Peruvian Government has made progress in all these aspects of agricultural development with financial support from the World Bank.

Most of the Bank's loans for agriculture have assisted the work of two government agencies whose chief purpose is to promote agricultural production. Two loans, for a total of \$3 million, enabled the Servicio de Investigacion y Promocion Agraria (formerly known as Servicio Cooperativo Inter-Americano para la Produccion de Alimento) to import equipment for its extension services and machinery pools. The agency's operations have been effective in introducing techniques which have increased the value and efficiency of agriculture.

Four loans totaling \$30 million have been made to the Banco de
Fomento Agropecuario del Peru to provide funds for the Banco's Lending
program to farmers for the development of agriculture and livestock production. The Banco is the major source of agricultural credit in Peru, and
has been an important factor in increasing output of crops for both domestic
and foreign markets in recent years. Since World Bank assistance began in
195h, the Banco has made over 1h,400 medium and long-term loans to some
6,000 farmers for defined programs of development. It is estimated that
the gross value of production on farms which had received credit amounted
to the equivalent of \$14 million in 1963. Since 1954, irrigation loans
have provided water for some 58,000 acres of new land and improved the
water supplies to a further 12,000 acres. Loans for land levelling have

improved about 2h,000 acres, while drainage loans have been applied to 9,600 acres. Livestock loans have added considerably to the supply of high-quality breeding stock and made possible the establishment of large numbers of breeding herds under private ownership. Tree crops have been planted on about 53,000 acres. Miscellaneous loans have resulted in better transportation on rivers, improvement of farm buildings and domestic water supplies, and the establishment of processing plants and storage warehouses.

A Bank loan of \$11 million, made in June 1965, will assist the third stage of the San Lorenzo project for the irrigation and settlement of once arid land on the coast of northern Peru -- an area which may eventually involve about 125,000 acres. The project brings together irrigation, farm credit and a wide range of technical services for the purpose of increasing the output of food and cash crops, both for domestic consumption and export. Besides raising farm income and improving standards of living in its own area, the San Lorenzo project is serving as a model for similar developments in other parts of Peru.

In the first stage the Government built tunnels and canals to divert water from the dependable flow of the Quiros River to the Piura River. The diversion system made it possible to increase the cultivated area in the Piura valley. The second stage, which was assisted by a World Bank loan of \$18 million, in 1955, consisted of enlarging these works for the irrigation, development and settlement of the San Lorenzo area. Since then about 35,600 acres have been developed and settled. The third stage consists of the development and settlement during 1965.67 of some 44,000 acres and the further improvement of lands already settled.

#### Conclusion

Bank or IDA financed projects for the development of human resources must meet the same strict criteria of planning, preparation and appraisal, and give the same assurances of competent execution that are required for investments in other sectors. Educational systems throughout the developing world tend to be marked by waste and inefficiency, high rates of "drop-out", declining quality, and misdirected investment.

The contribution of the Bank and IDA in relation to the country's own expenditures and as a sector within the Bank will remain relatively modest, "But," as Mr. Geoffrey Wilson, a Vice President of the Bank and IDA has stated, "we hope and believe that we can help to point the way by financing and providing technical assistance for carefully selected pilot projects that will fill strategic gaps in the educational systems of member countries. We also hope that we can encourage and assist our members in the formulation of sound policies. In addition, we can exercise some influence in the realm of administrative discipline by applying in our educational financing the same high standards of project preparation, appraisal and inspection that we insist upon in other fields. "

<sup>1/</sup> Geoffrey M. Wilson: Education and the World Bank; Talk to the Canadian National Commission for Unesco, Montreal, March 11, 1965.

