



# World Bank Group Archives Exhibit Series

Engineering Adviser General R. A. Wheeler

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These exhibits, authored by World Bank archivists, highlight key events, personalities, and publications in the history of the World Bank. They also bring attention to some of the more fascinating archival records contained in the Archives' holdings.

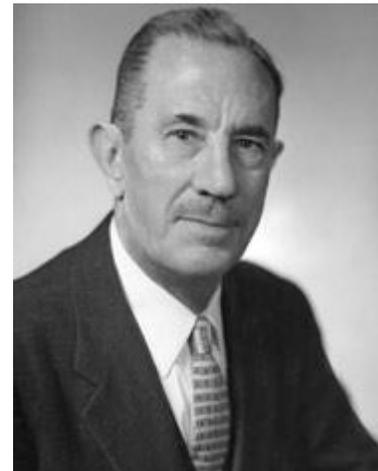
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## Engineering Adviser General R. A. Wheeler

General R.A. Wheeler, Engineering Adviser of the International Bank for Reconstruction and Development, spoke before the Pan American Division of the American Road Builders Association on March 7, 1950, at Cincinnati, Ohio. The talk was typical of many given by Bank staff to members of the public to describe the role and functions of the newly-formed Bank.

Wheeler came to the Bank as a retired former chief of engineers of the U.S. Army on March 1, 1949. His primary task was to organize the engineering staff. Prior to his arrival, project appraisal had been undertaken by loan officers who frequently had a minimum of technical expertise. Wheeler created the Technical Operations Department in 1952, and served as its director until 1953. He was responsible for the technical appraisal of several hundred projects, including large road and railway projects in Colombia, Pakistan, India, and South Africa. He also assisted in large power loans in various countries, such as Brazil, Mexico, Rhodesia and Uruguay.



*General R. A. Wheeler,  
Engineering Adviser of the  
World Bank, 1949 - 1956*



*Guests at the 1956 Farewell Banquet for  
General Wheeler*

Wheeler was largely responsible for the Bank's adoption of the international competitive bidding process in procurement. He established the policy that the Bank would not accept a project appraisal from a source that might be selling equipment or services to the project or engaging in construction work for it. In 1953 General Wheeler became the Bank's Engineering Adviser. He served as the Bank's first representative in planning

the division of the waters of the Indus Basin, and drew up the first proposal representing the Bank's mediation of the long-running dispute. He continued as the Bank's technical representative after the mediation was transferred to William A. B. Iliff, a member of the Bank's management team. In 1956, his



services were requested by the United Nations Secretary-General, to take charge of the clearance operations of the Suez Canal following the Middle East war. The Bank gave him leave of absence, and he and another Bank consultant successfully cleared the Canal of the forty-eight ships, tugs, barges, and bridges sunk or scuttled during the war.

Following are excerpts from the Cincinnati talk.

"The International Bank for Reconstruction and Development, about which you have asked me to speak, is keenly aware of the essential importance of roads, because it realized that one of the first tasks of reconstruction from the ravages of war is the restoration of a country's transport system, of which roads form an integral part. Further, the Bank recognized that before industrial or agricultural development can be effectively achieved a basic highway system to supply and serve the projects must be in existence. In addition the products of development, in most cases, are of little value if there are no adequate roads on which to transport them to market.

"There is nothing easy about international lending in the world we live in today, and usually the job requires weeks and months of hard work. It includes the services of engineers, economists, financial experts and specialists in many fields, all of whom must work in cooperation and understanding with each other if a sound recommendation concerning the proposed financing is to result.

"On receiving a loan proposal the World Bank makes a preliminary study in order to determine whether or not the proposal comes within the sphere of the Bank's activities as set forth by the Articles of Agreement. If the proposal passes satisfactorily through the preliminary stage, the Bank then makes an exhaustive and careful study of all the factors involved. One of the most important pieces of information which it requires is a detailed plan of the country's development program, showing what it intends to do in the way of development and how the particular project for which the loan is requested fits into the over-all pattern. Detailed planning is a must for sound economic development.



*General Wheeler, right, with Vice President J. Burke Knapp, left, at the 1956 Farewell Banquet*



"On the basis of the plan submitted to it and of information received from various sources, the Bank's staff proceeds to make a thorough technical and financial study of the loan.

"In surveying the project the Bank desires to determine its engineering and technical feasibility; the markets for what it will produce; local capital costs and the availability of local funds to meet them; the supply of labor and raw materials; transport availability; and the supply and quality of skilled and managerial personnel for the project. In respect of the borrower, the Bank has a number of points to determine such as: the quality of the borrower's credit; the ability of the borrower to bring the project to completion successfully and to run it properly thereafter; and the possibility of the borrower's acquiring sufficient foreign exchange to service and pay off the loan.



*Portrait of General Wheeler*

"The surveys and studies made by the Bank as a part of its lending operations may appear to you to be over meticulous. Believe me, they are not, particularly when they are applied to development. Often, when an application for a development loan is received, the country concerned lacks a clear idea of what course its future economic progress should take. Little or no conception may exist of the difficulties of carrying out a development program or of the costs involved; and in some instances statistics and other information necessary to determine the potentialities of the country either do not exist or are in such primitive form that they are nearly useless as criteria.

"While the Bank's loans by themselves are important to Latin American economic development, they do not represent the total of the organization's efforts. In that area, of equal importance are its advisory services which have helped materially in the preparation and planning of sound development projects and programs. These services, which by the way are not restricted to Latin America alone, are a direct offshoot of the loan investigations I have described for you. One of the principal forms they take is the field mission, which the Bank usually sends to a member country to make an on-the-spot study of all the aspects of a proposed loan.

"The missions are composed of experts and may include loan officers, economists, engineers, and other technicians drawn from the Bank's staff.



Where needed, outside expert consultants may also be hired to assist a mission. The great advantage of these groups in connection with a loan is that in assessing and weighing all factors affecting the loan for the project for which it has been asked they go beyond the realm of printed statistics and information. They also come into direct contact with the personalities connected with the project, the borrower and the country's development program and, thereby, have an excellent opportunity for judging their abilities.



*Farewell banquet for General Wheeler. World Bank President George Woods is at center, former World Bank President Eugene Black is at the left, next to Vice President Robert L. Garner, far left.*

"Aside from the benefits accruing to the Bank from the work of field missions, the member countries receive substantial assistance from them as well. In their reports and findings the missions are often able to point out the most practical course for planning and achieving development in a particular country. Often they make suggestions for changes or additions to development programs which result in savings of time, effort and money and in a better and more fruitful program.

"I should like to touch briefly on the work of some of the Bank's field missions in Latin America. Twelve countries in that area were visited by one or more bank field missions in 1949, and a number of other missions are planned for 1950. One group recently returned from Brazil where it made a study of the economic and financial situation of the country; of the priorities that should be set for development projects; and of the Brazilian Government's policies for promoting development. Another mission visited Ecuador to study and discuss development projects and later in the year a textile expert was sent to that country by the Bank to analyze particular projects in that field.

"The case of Chile offers one of the most interesting results of the work of Bank missions. That country was visited in 1948 by a mission which investigated a prospective loan for hydroelectric development. The mission found that the necessity to import foods acted as a substantial drain on the country's foreign



exchange resources, particularly dollars. It came to the conclusion that the domestic food supply could be increased by greater mechanization of agriculture, and a loan for \$2,500,000 to finance and import agricultural machinery was the result. This commitment was in addition to one for \$13,500,000 for the original power projects for which the mission was originally sent to Chile.

"The most significant mission sent out by the Bank in 1949 was one which spent about four months in Colombia under the leadership and direction of Dr. Lauchlin Currie, the eminent economist. Dr. Currie was assisted not only by experts from the Bank's staff but also by personnel from the Food and Agricultural Organization, the International Monetary Fund and the World Health Organization.

The mission's principal objectives were not related to any prospective loan, but were concerned with making a survey of the overall condition of the Colombian economy; the development potentialities of the country and the wealth of the nation.



*General Wheeler, center, with World Bank President George Woods, left, and former World Bank President Eugene Black, right, at the 1956 Farewell Banquet.*

"I hope that I have been able to make clear to you what the purposes and activities of the World Bank are and how it has and can help the world, and Latin America in particular, along the hard road to economic development. The Bank looks on Latin America as a vast and fertile field for future development which will contribute greatly to the expansion and strengthening of the world economy. By itself the Bank cannot do more than a small part of the job that needs to be done; and the major part will have to be achieved by the efforts of private investors and of the countries themselves. For your part, you can supply the leadership and the necessary knowledge and technical ability for the building and maintenance of sound and efficient road systems which form so important a part of any overall development program."