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WATER RESOURCES SURVEY

492-11-990-159

REPORT OF PROGRESS

NUMBER 44

FOR THE PERIOD

JULY 1967 THROUGH DECEMBER 31, 1967

PREPARED BY

UNITED STATES BUREAU OF RECLAMATION

FOR

BUREAU OF PUBLIC WORKS - GOVERNMENT OF THE PHILIPPINES

AND

THE UNITED STATES

AGENCY FOR INTERNATIONAL DEVELOPMENT

M. G. Barclay

M. G. BARCLAY
Project Engineer

SECTION I

PROJECT DESCRIPTION

The agreement of November 2, 1962 between the Agency for International Development and the United States Bureau of Reclamation sets forth the general purpose and scope of the Project. Further detailed explanation of the Project is given in Progress Report No. 43 covering the period of January 1, 1967 through June 30, 1967. Briefly stated, the Project consists of assisting the Government of the Philippines, through the Bureau of Public Works as implementing agency, to undertake surveys, investigations and studies necessary to formulate comprehensive programs for multi-purpose development of the water resources of the country. Under terms of the original agreement, work was directed to making studies in seven major river basins located in Luzon, Mindanao and Negros islands. Under the current program, work is being continued in these seven river basins, as well as the making of preliminary examinations of other areas to determine the need for and possibility of water resource development. Emphasis is now being given to continued training of Filipino technicians and others in water resource planning, so as to develop the overall capability of the GOP in water resource development.

The current status of the Project is summarized as follows:

1. All investigations of the seven river basins which was undertaken under the initial phase of Water Resources Survey Project have now been accomplished with the exception of a small amount of uncompleted work relating to mapping by aerial cartographic procedures.
2. The investigations and reports accomplished:
 - a. An investigation and "Feasibility Report on the Upper Pampanga River Project" was completed in 1966 and submitted to the Philippine Government for consideration.
 - b. Completion of a report on the Central Luzon Basin (Pampanga and Agno River Basins) which presents a comprehensive plan for multi-purpose water resource development. Distribution of this report was accomplished in the latter part of 1967.
 - c. Completion of preliminary examinations and publishing and distribution of program type reports for the Cagayan, Bicol basins in Luzon, Agusan and Cotabato basins in Mindanao and Ilog-Hilabangan basin in Negros.

SECTION II

PROJECT HISTORY

The history of the Water Resources Survey Project is given in this section of the April 1965 monthly progress report, and again, in considerable detail, in Report No. 43 for the period January 1, through June 30, 1967.

SECTION III

PROGRESS - ENGINEERING

Progress for the first half of 1967 is discussed in considerable detail in Progress Report No. 43. Work performed during the past six months consists to a large degree of continuation of past work. Work completed or in progress during the last half of 1967 is discussed below.

Basin and Program Reports

- a. Publication and distribution of the report on the Central Luzon Basin was accomplished soon after July 1967. About 1,000 copies of the report were printed by the Regional Service Center.
- b. The program reports on the Bicol and Ilog-Hilabangan basins were published and distributed in the third quarter of 1967. About 500 copies were printed for each report. ~~of the above complete work on all the seven basins and project reports.~~

Aero Service Mapping Contract

Aerial photographic mosaic maps for all watershed areas were accepted by the close of 1967 and shipment of all eight copies of each sheet of the watershed maps had been made by Nov. 29, 1967. All had been received except for one parcel of 43 sheets which was temporarily delayed in the mail.

All topographic maps for all ten reservoir sites in the Central Luzon Basin were checked and had been accepted by Nov. 22, 1967. Work remaining to be done after the close of 1967 was the furnishing by Aero Service Corporation of additional prints of reservoir topography, and adding minor editorial notes.

In summary, the aerial mapping program was almost complete by the close of 1967.

Investigations and Planning

On the basis of findings given in the Report on the Central Luzon Basin, the Balog-Balog and the Baliatngon Projects have been selected for detailed examination to determine economic and engineering feasibility.

For the Balog-Balog Project, water supply and design flood studies have been continued and an examination of water use and water rights of the Balsa (Tarlac) River, that will have a bearing on the project water supply, was initiated. Also, a series of preliminary designs have been made of the dam and reservoir to provide a basis for sizing the project.

Study of the Balintngon Project has been continued, largely in relation to estimating water supply.

Reconnaissance examinations was made of the Jalaur Project on Panay and the Sagomata-Musuan Project in Mindanao.

Other work performed consisted of examination of basic data programs and giving advice as adequacy of field data, and compilation and publication of records. This was concerned principally with streamflow, rainfall, evaporation and consumptive use data. Also, consultation has been provided on irrigation and other related problems.

SECTION IV

PROGRESS - CONSTRUCTION

There are no construction activities under the Water Resources Survey Project.

SECTION V

PROGRESS - PROCUREMENT

The Water Resources Survey Team of the Bureau of Reclamation does not exercise or have authority for procurement. Limited supplies and services which are required are provided by the

Philippine Bureau of Public Works, the U.S. Agency for International Development and the Offices of the Commissioner and/or the Chief Engineer of the Bureau of Reclamation.

SECTION VI

SUMMARY DATA

Financial records are not maintained by the Water Resources Survey Team. Accounts which apply to the operation of the Team are maintained by the GOP Bureau of Public Works, US AID and Offices of the Commissioner and Chief Engineer of the Bureau of Reclamation.

SECTION VII

PERSONNEL

Bureau of Reclamation:

On duty July 1 - December 31, 1967

Project Engineer -- M. G. Barclay
Project Hydrologist -- Earl M. Bay

Bureau of Public Works:

The Bureau of Public Works furnishes personnel to staff the project consisting of engineers, geologists and other technicians, typists, motor vehicle drivers, janitors, etc. The total number of such personnel provided during the reporting period averaged about 30 people.

SECTION VIII

ENVIRONMENTAL WORK CONDITIONS

The Bureau of Public Works furnishes good air conditioned office space. Housing in the Manila area is adequate to very good. Health conditions are fair to reasonably good. Vaccinations are readily available and medical advice and facilities are also at hand.