नेपाल राजपत्र

A THER AMERICA MEET

भाग ५

श्री ५ को सरकारद्वारा प्रकाशित

काठमाडौँ, वैशाख ६ गते २०२८ साल

श्री ५ को सरकार

कान्न तथा त्याय मन्त्रालय

श्री १ को सरकार, नेपाल तथा एशियाली विकास बेंकको बीचमा २०२७ पौष १४ (तदनुसार २६ डिसेम्बर १६७०) मा प्राविधिक सहायता सम्बन्धी सम्बोता भएको र त्यस्को प्रामाणिक रूप अंग्रेजी भाषामा भएकोले सर्वसाधारणको जानकारीका लागि प्रकाशित गरिएको छ ।

T. A. No. 41 NEP

TECHNICAL ASSISTANCE AGREEMENT
(Kankai Irrigation Project)
between

HIS MAJESTY'S GOVERNMENT OF NEPAL

and

ASIAN DEVELOPMENT BANK DATED 29 DECEMBER 1970

TECHNICAL ASSISTANCE AGREEMENT

AGREEMENT dated 29 December 1970 between HIS MAJES-TY'S GOVERNMENT OF NEPAL (hereinafter called the Government) and ASIAN DEVELOPMENT BANK (hereinafter called the Bank).

(3)

WHEREAS the Government has requested the Bank, as part of its technical assistance operations, to arrange for a Mission to be sent to Nepal for the purposes of the Project hereinafter described; and

WHEREAS the Bank has agreed to arrange for such a Mission upon the terms and conditions hereinafter set forth;

NOW THEREFORE the parties hereto hereby agree as follows:

ARTICLE I The Project and the Mission

Section 1.01. The Project is to provide technical assistance in the form of consultants' services for the preparation of a feasibility study for the Kankai Irrigation Project and the preparation of the tender documents if the Project is found feasible.

Section 1.02. The Project shall be undertaken by a consulting firm to be engaged by the Bank which shall supply a Mission composed of experts in, but not limited to, the fields of:

- (a) Power
- (b) Irrigation
- (c) Soil
 - (d) Crops
 - (e) Agricultural Credit and Marketing
 - (f) Institution
 - (g) Project Economy

Section 1.03. The consulting firm providing the Mission shall have the terms of reference set forth in Schedule 1 to this Agreement. The terms of reference may be amended by the agreement of the Government and the Bank.

Section 1.04. The Mission is expected to commence in January, 1971 and, except as the Government and the Bank shall otherwise agree, it is expected to be completed within twelve months thereafter.

ARTICLE II Rsponsibilities of the Bank

Section 2.01. The Bank shall make reasonable efforts to secure the services of the consulting firm referred to in Section 1.02.

Section 2.02. The Bank shall, subject to Section 4.04 hereof, provide the compensation, subsistence and other allowances it has

आधिकारिकता मुद्रण विभागबाट प्रमाणित गरिएपछि मात्र लागु हुनेछ।

agreed to pay members of the Mission and their costs of international travel to and from Nepal. The Bank shall also bear the rental cost of two (2) jeeps needed by the members of the Mission for purposes related to the Project Except as the Government and the Bank shall otherwise agree, the total cost to the Bank of the technical assistance to be provided under this Agreement shall not exceed the equivalent of two hundred fifteen thousand United States dollars (US \$ 215,000).

ARTICLE III Responsibilities of the Government

Section 3.01. The Government shall make available for the purposes of the Mission, free of charge, the services, facilities and equipment set forth in Schedule 2.

Section 3.02. The Government shall provide suitable local counterparts led by a full-time leader to cooperate with and assist the members of the Mission in carrying out the Project. Such counterparts shall include, at least, the following: irrigation engineer, power expert, agronomist, agricultural economist, project economist and surveyors.

Section 3.03. The Government shall provide the information and the materials needed by the members of the Mission for their work on the Project as set out in Schedule 3 to this Agreement.

Section 3.04. The Government shall cooperate with the Bank and with the Mission to ensure that the Project is carried out as promptly and as effectively as possible and shall issue to its officials, agents and representatives all such instructions as may be necessary or appropriate to achieve this object.

Section 3.05. (a) The Government confirms that the members of the Mission designated by the Bank shall have the status of experts performing missions for the Bank and that they shall be entitled to the relevant privileges, exemptions and immunities conferred upon such experts by the provisions of Chapter VIII of the Articles of Agreement of the Bank.

(b) The Government shall exempt from any taxes, duties, fees, levies and other impositions imposed under its laws and regulations or the laws and regulations in effect in its territories or of any political subdivison or agency thereof in respect of:

आधिकारिकता मुद्रण किशागबाट प्रमाणित गरिएपछि मात्र लागु हुनेछ।

- (i) any payments made to the members of the Mission (including payments made to a consulting firm and its personnel) in connection with the carrying out of the Project;
- (ii) any equipment, materials and supplies brought into the territories of the Government for the purpose of carrying out the Project and which, after having been brought into such territories, will be subsequently withdrawn therefrom; and
- (iii) any property brought by the members of the Mission for their personal use or consumption or which, after having been brought into the territories of the Government, will subsequently be withdrawn therefrom upon departure of members of the Mission.
 - (c) The Government shall:
 - (i) make arrangements for the members of the Mission and their families promptly to be provided with any necessary entry and exit visas, residence permits, exchange permits, and travel documents required for their stay in Nepal; and

(ii) facilitate clearance through customs of any equipment, materials and supplies required for the Project and of the personal effects of members of the Mission.

ARTICLE IV Reports of the Mission; Post-Project Matters

The Government and the Bank shall exchange Section 4.01. views with respect to the Mission's interim report, feasibility report and the implementation thereof.

The Bank may use any reports prepared by Section 4.02. the Mission for such purposes as the Bank shall reasonably determine, but shall not release such reports for public information except at the request or with the consent of the Government.

Section 4.03. The Bank's willingness to participate in financing the Project does not commit the Bank to assist in the implementation of recommendations contained in any reports of the Msssion or to extend financial or further technical assistance to the Government with respect thereto.

Section 4.04. Should the Project lead to a loan to the Government by the Bank, the Bank may charge to such loan part or all

of its contribution to the cost of the Project.

ARTICLE V Suspension and Termination

Section 5.01. The Government may at any time in writing request the Bank to terminate the Project, and the Bank may at any time, whether or not any such request shall have been received, suspend or, after consultation with the Government, terminate the Project if any circumstances arise which interfere with or threaten to interfere with the successful carrying out of the Project in the manner and upon the terms contemplated in this Agreement or with the accomplishment of the purpose thereof. In the event of any such termination or suspension the parties shall consult with each other concerning the appropriate steps to be taken any further action which it may be necessary or desirable to take with respect to the Project.

ARTICLE VI Miscellaneous

Section 6.01. The Project Manager of the consulting firm providing the Mission shall be responsible for liaison between the Government and the Mission.

Section 6.02. The officials responsible for the implementation of this Agreement shall be:

(a) for the Bank, the Director of Projects Department or such other officer as may be designated by the Bank in writing; and

(b) for the Government, the Chief Engineer of Irrigation and

Waterworks, Ministry of Water and Power.

Section 6.03 Any action required or permitted to be taken under this Agreement on behalf of the Government may be taken by the official designated in Section 6.02 or any person thereunto duly authorized in writing by him.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be signed in their respective names and delivered at the principal office of the Bank as of the day any year first above

HIS MAJESTY'S GOVERNMENT OF NEPAL

By Sd/ Bhekh B. Thapa

Authorized Representative ASIAN DEVELOPMENT BANK By Sd/ Douglas C. Gunesekera

Secretary

SCHEDULE I

I. Description of the Kankai Irrigation Project

- of the Terai, an area with great agricultural potential and near Biratnagar; the largest industrial city in Nepal. A very good site for a storage dam is situated only four kilometers from the new East-West Highway which is presently being constructed and due for completion in 1972. The Kankai Multi-Purpose Project calls for the construction of a 67-meter high dam, the reservoir has 670 million m³ gross capacity. The installed generating capacity of the power station would be approximately 30 MW. About 26,000 hectares of land can be irrigated and protected from floods which occur almost every year. The cost for the Multi-Purpose Project has been estimated at US \$ 50 million.
- 2. It is felt, however, that the Kankai Multi-Purpose Project is too ambitious at present, in terms of the total cost involved. There is also need for an additional study of the power demand in that area, to confirm projected demand, and the capacity to introduce intensified irrigation agriculture is also considered to be limited. It is therefore decided by the Government to divide the Multi-Purpose Project into two phases. The plan maturally will have to be drawn up in such a way that the first phase would not impair the second phase which might come in at a later stage. The first phase would be an irrigation project for about 5,000 hectares with a simple diversion dam across the river and irrigation and drainage canals.
- 3. Substantial investigation work has already been done by the Government on the storage dam, for which the study was completed in May, 1970 including the preparation of hydro-meteorological data, geological investigations, boring and soil tests, power market survey and a ground control survey for aerial photo mapping. However, investigation of the irrigation areas was restricted to a preliminary survey of the diversion site and to the underground water potential. The preliminary report on the Kankai Irrigation Project was completed in June, 1970.

II Scope of the consulting Services

- 1. The scope of the consulting services are:
- (a) to examine and assess the technical and economic soundness of the Kankai Irrigation Project in relation to the Kankai Multi-Purpose Project, considering the power demand of the Project area by 1979-1980 as presented by the Government;
- (b) to carry out to the extent necessary a feasibility study and additional investigations to formulate a project which can be considered by the ADN for financing; and
- (c) in case the project is found bankable, to prepare tender desings, specifications and tender documents for the construction of the Kankai Irrigation Project.
- 2. The technical assistance consists of two parts, namely:
 - Step I of the Consulting Services-Feasibility study of the Kankai Irrigation Project taking into consideration the overall Kankai Multi-Purpose Project (8 months);- Feasibility Report
 - Step II of the Consulting Services-Subject to the approval of the feasibility report by the Government and the Bank, tender designs, specifications and tender documents for construction of the Kankai Irrigation Project (3 months):
 Tender Documents.

III Specific Terms of Reference

- 1. As part of Step I of the Consulting Services, the Consultants will study the relationship with the Kankai Multi-Purpose Project. and in particular undertake the following.
- (a) to confirm the priority of the Kanakai Multi-Purpose Project in the overall economic development program particularly in the fields of irrigation and power in Nepal;
- (b) to review the power market survey made by the Government in and near the project area, and formulate the most economic power development program to meet the increasing demand considering dieselpower, hydropower from the Kankai Multi-Purpose Project and other possible power sources;
- (c) to carry out a preliminary soil, land capability and additional topographical survey as required of the entire project area

covering about 1,600 km² assess the priority areas for the first phase development in considering the flow availability from the Kankai River, flow from other adjacent rivers and underground sources, with and without storage dam and estimate irrigable areas in relation to the possible cropping patterns;

- (d) to select the sites for the diversion dam and the future storage dam conisdering the need of their independent functions in terms of siltation, back water, and other points, and carry out, if found necessary, appropriate alternative scheme to the existing plans including the storage dam, the diversion dam, the main canals and other related work;
- (e) to determine based on the above studies of alternatives, the irrigation areas, the canal capacities, and the capacity of other facilities to identify the total scope of the multi-purpose development of the project area; and
- (f) with the scope identified in (e) above, to recommend the phasing of the Kankai Multi-Purpose Project in considering technical, economic, social and other relevant aspects, and suggest further investigation program.
- 2. As part of Stept I of the Consulting Services, the Consultants will prepare the feasibility study of the Kankai Irrigation Project and in particular undertake the following:
- (a) to define the scope of the Kankai Irrigation Project as the first stage of the Kankai Multi-Purpose Project;
- (b) to carry out a detailed land use survey of the selected first phase irrigation area, and to study the present economic and agricultural conditions in the project area, including land and water use, farming practices, land tenure, credit system, supply of inputs, marketing cooperatives, prices, farm income, extension and training;
- (c) to determine the site and location of the major structures, including diversion dam, main and secondary canals, sufficient tertiary canals and terminal networks for efficient irrigation and drainage, feeder roads, land clearing and levelling;
- (d) to fromulate the agricultural development program in the project area, including proposed cropping patterns, farming practices, land-holding, agricultural credit, marketing and transportation, possible resettlement program, and farmers' organization;
- (e) to prepare a preliminary design of the major construction works and estimate the construction cost with a breakdown of for-

eign currency costs and local currency costs, operation and maintenance costs. The estimates must be reasonably accurate and be based on an actual survey, typical section of the structures, construction methods to be used, construction equipment to be imported, production, rates of labor and equipment, labor wage rates, material and full costs, availability of different contractors' indirect cost, unit prices for different types of works, engineering and administration expenses, and contingencies must be shown clearly. Costs shall be broken down according to major structures;

- (f) to propose the optimum construction schedule indicating Key dates for bids, advertising, receipt of bids and awards of tenders, procurement of equipment and land acquisition;
- (g) to assess the present Government organization in relation to construction, operation and maintenance of the porject, and suggest measures for improvements, if necessary;
- (h) to assess availability of local contractors and need for outside consultant staff for the preparation of the detailed design and for construction supervision including training program; and suggest the best executing arrangement in combination with procurement procedures of equipment to be financed by the Bank;
- (i) to suggest organization which should be responsible for the operation and maintenance of the project in connection with application of modern agricultural technique, effective water management, credit system, milling and storage facilities, marketing and distribution services, and collection of water charges;
- (j) to estimate the expected yield and producton cost after the project is completed and compare benefits between with-project and without project; and to compute incremental yearly costs and income, and calculate the internal rate of return on the investment, export earnings or import savings are also to be calculated; and
- (k) to investigate the necessity of a pilot scheme in the project area and to recommend what scheme is considered appropriate.
- 3. For Step II of the Consulting Services, the Consultants will undertake the following:
- (a) to prepare tender designs, drawings and specifications of the diversion dam, main canals and other important structures sufficiently detailed for the preparation of tender documents. The designs must be based on a detailed hydraulic study, geological and soil mechanics survey and must also be sufficiently accurate to pre-

आधिकारिकता मुद्रुण विभागबाट प्रमाणित गरिएपछि मात्र लागु हुनेछ।

pare appropriate lists of quantities;

- (b) to prepare designs, drawings and specifications for the procurement of equipment and structural steel installations;
- (c) to prepare tender documents based on the design to allow for international competitive bidding and prequalification documentation;
- (d) to prepare the detailed construction time schedule in PERT or other appropriate system and final cost estimates.

SCHEDULE 2 Services, Facilities and Equipment to be Provided by the Government

The services, facilities and equipment to be provided by the Government pursuant to Section 3.01. of this Agreement shall be as follows:

- (a) such office accommodation (suitably rurnished and equipped including but not limited to seven desks, chairs, lockers and a conference room for ten) and supplies, secretarial assistance, administrative staff, field work laborers, translation and interpretation services, and communication facilities as the members of the Mission shall reasonably require;
- (b) such vehicles (including the cost of maintenance and operation but not including a rental of two jeeps which would be borne by the Bank) and drivers and such other internal transportation facilities as may be needed by the members of the Mission for purposes related to the project;
 - (c) such operational devices, apparatus, instruments and equipment at the disposal of the Government which may be considered by the members of the Mission to be essential for the efficient performance of their functions and duties including a drilling machine with operators; and
 - (d) suitable living accommodation including the cost and maintenance of utilities (with seven private rooms with beds, light, water, refrigerator) in the Project area.

आधिकारिकता मुद्रणु विभागबाट प्रमाणित गरिएपछि मात्र लागु हुनेछ।

SCHEDULE 3 Aerial photographs, Topographic Maps and other Additional Information to be Provided by the Government

The Government will provide five sets of the following additional information at the time of the Consultants' arrival in Nepal:

- (a) Maps- Covering entire Kankai Multi-Purpose Project area with a scale of 1:250,000 and 500 feet contour.
 - Covering about 75% of the Kankai Multi-Purpose Project area with a scale of 1:63,360 and 100 feet contour
 - Covering entire irrigable area 1,600 Km² with a scale of 1:140,000.
 Covering area between the storage dam and the diversion dam sites (0.73 Km²) with a scale of 1:1,000.
 - Covering the Phase I Irrigation area (260 Km²) with a scale of 1:5,000 to10,000 and 0.5 meter contour.
 - Covering the storage reservoir site with a scale of 1:20,000.
- (b) Meteorological data of the Project area.
- (c) Hydrological data of the Kankai River.
- (d) Geological data of the storage dam and diversion dam site.
- (e) Test borings on the sites for the storage dam, spillway, power station, diversion tunnel and diversion dam totally 610 meters.
- (f) Soil mechanical tests for the dam core materials and survey on the borrow pits.
- (g) Power market survey in the far eastern Terai area.
- (h) Soil and land classification of the irrigable areas.
- (i) Groundwater survey of the plain areas.
- (i) Other agriculture data in the project area.

आज्ञाले-चूडामणिराज सिंह मल्ल श्री ५ को सरकारको सचिव