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REPORT GIVEN ON NEW DAM PROJECT

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[Article: "The Nahr al-Kabir Northern Dam Is Progressing on the Road to Implementation; The Project Is a Huge Economic Installation Equivalent to the Euphrates Installation"]

[Text] The Nahr al-Kabir northern dam project which is underway in Latakia has progressed on the road to implementation. The investigative work, the field and laboratory experiments and the preparation of preliminary designs for this vital project began in April 1975 and were completed in June 1978. The project is expected to be completed at the end of next year. It will irrigate the surrounding plains for an expanse of 14,000 hectares.

To find out about the horizons and features of this work TISHRIN visited the territory of the project accompanied by Engineer 'Ala'-al-Din Sulayman, director of the project. From close up he informed us about the current progress of the dam project. In the field in their natural surroundings we witnessed the various stages that have been completed in this area.

Engineer 'Ala'-al-Din Sulayman defined the completed stages as follows:

At the beginning of 1979 research work on all of the designs was concluded and the necessary modifications to the project were made. The plans for implementation were completed, as well as the specifications and technical requirements for implementing most parts of it.

During the first half of this year the land needed for the dam's installations—land which will be submerged by the lake created the dam, which covers 11 square km—was appropriated.

Engineer Sulayman emphasized that the authority's administration would make every effort to pay the owners of the land appropriated for the projects its [full] value during the next few weeks. When these appropriations are concluded various sections and stages of the project will begin.

Concerning the other stages of work that have been completed, Eng Sulayman said that the stage of preparing the contracts for implementation with

the Soviets to provide technical assistance for the project has been completed. The contract to perform concrete work in the canal to divert the course of the river has been ratified with the State Irrigation Company (SARICO) for 56,000 square meters of reinforced concrete. This is one of the most important fundamental jobs in the project and implementation of the rest of the project depends on completion of this job.

A contract has also been concluded with a specialist foreign company to construct the leak-preventing walls in the dam's foundations, the depth of which is 40 meters below the riverbed. It is the second fundamental job which must be completed before covering the body of the dam can be begun.

With regard to the jobs which will be undertaken by the project administration, Eng Sulayman said that it is the responsibility of the administration to construct both the front and rear of the diversion dam and the support earth mounds between these two sides so as to close off the course of the river and divert it into the diversion canal. This will be accomplished by the end of next year after completion of the leak-preventing wall in the foundations of the dam as well as the concrete of the diversion canal. Then the first basic stage in the dam construction project will be completed. It will be directly followed by the stage comprised of construction of earth mounds supporting the body of the dam. Construction of these mounds will take a year and several months. Then the difficult and complicated technical work in the project will have been completed. The State Organization for Major Projects has finished the excavations on the right and left banks of the river which are necessary to support the body of the dam. It has also nearly completed the excavations of the irrigation source. In the second half of this year excavations on the canal for discharging flood water will follow.

All of this work has been done by equipment imported in accordance with the Soviet contract and the fruitful technical cooperation between the Syrian engineers working in the organization and the Soviet engineers and experts.

In addition to that the organization's workshops have prepared areas required for workshops for dam construction, the temporary roads necessary for work, centers for the construction of awnings and warehouses, and the centers to supply the dam with electric power and potable water.

The State Irrigation Company, (SARICO), has also completed excavation of the canal to divert the course of the river. It has made preparations to begin work on pouring the concrete in this canal this September. The State Road Company (ROADCO) has finished construction of the land-fill for Road No One which connects the dam and the Aleppo-Latakia Highway.

The total cost of the project has been estimated to be LS 230 million, based on 1976 prices. However, the unforeseen increase during recent years in the price of raw materials, fuel, tools, machinery, equipment and labor costs will certainly cause the estimated cost of this project to rise.

In this connection it should be pointed out that the large gains which the national economy will reap through the training of human cadres and the development of technical experts will be made through agreements on scientific, technical and economic cooperation concluded with the Soviet Union. This unforeseen increase in the cost of materials is not equal to the costs and wages in the rest of the specializations and the engineering, technical and mechanical jobs which are included in the project. Concerning the obstacles and difficulties facing the course of work on the project Eng Sulayman said: "During the first half of this year it has been possible to overcome all of the technical, contractual and legal difficulties, including the appropriation, which stood in the way of implementing certain parts of the project. This past July, the beginning of the second half of this year, is considered the starting point in the implementation of this project to construct the dam in accordance with the plans' and programs' predetermined schedules.

Eng Sulayman added, "The number of workers in the project in the various areas of specialization is about 450 laborers and technicians. This figure will rise with the progress and the effect of the work in the sections of the project. A large number of them gained their experience working during the study and investigation stage. Some of them gained this technical experience from their work on the Euphrates dam project and the other irrigation projects in the country. There is no lack of technical competence.

It should be noted that the project consists of the construction of an earthen dam on the northern Nahr al-Kabir approximately 20 km northeast of Latakia. It is close to the Khan 'Atallah Bridge, and 40 a 7 km long tunnel which brings water from the dam's reservoir to the plain north of the city. It is the clay type. Its greatest height is 52 meters, its length at the summit is 856 meters, and its greatest depth for preventing leaks is 38 meters.

This dam will form a lake behind it 11 km long with an area of 11 square km. Its storage capacity will be 207 million cubic meters of water.

The goal of the project is to store water from the northern Nahr al-Kabir instead of having it flow uselessly to the river mouth at the sea. Another object is to regulate the flow of the river and to irrigate a plains area of 14,000 hectares situated among the coastal plain north of Latakia, the riverbed plain, the hill and the 'Ayn al- Arus plain in the north.

Along the extent of the irrigation network in the dam region 38 villages will spring up. They will be linked by communications routes, and electricity and telephone networks. Their land is fertile and suitable in most districts for the cultivation of citrus fruits, which makes this project economically very important.

In addition, there is the potential for utilizing the lake water formed by the dam to ensure a reserve source of water for industrial purposes and for drinking water for the city of Latakia.

The main dimensions of the installations are as follows:

Various landfill: 3 million cubic meters.

Various excavations: 2.5 million cubic meters.

Reinforced concrete: 150,000 cubic meters.

Rock coverings for the front and rear surfaces of the dam: 130,000 cubic meters.

This is in addition to the mining equipment and facilities for the irrigation and discharge gates weighing approximately 700 tons.

The Higher Planning Committee has decided to construct the dam directly through the Syrian Implementation Board with the help of experts and equipment from the Soviets and in accordance with procedures followed in the Euphrates dam.

A public sector company has been commissioned to construct the irrigation network because that is a familiar job in our country, while taking advantage of the Soviet offer to purchase some of the materials needed for implementation, and to assist by providing some experts to supervise. Implementation of this network has begun. It is expected to be completed in 1982.

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