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ISRAEL'S WATER PROBLEM

(Background Paper 8)

A. Introduction

(1) Water is a crucial element in Israel's economic planning. It is the key to expanded and intensified agricultural development, particularly to the opening of the arid but potentially fertile Northern Negev. It is the key to expanded industrial production for the numerous industries which draw their raw materials from agriculture. Water has been vital in the absorption of the immigration that has doubled Israel's population since 1948, and it is essential for the country's continued economic growth.

B. Basic Facts About Israel

(2) Israel's climate is characterized by a long dry summer, lasting from April to November, and a short rainy winter. There is only one river of any size in the country, the Jordan, whose northern half flows through Israel territory. The Yarkon River, the second river of Israel, is fed from an accumulation of springs near Tel Aviv.

(3) Israel's water resources are made up of an underground water, perennial springs, stored winter rains and flood waters, and the waters of the Jordan and its tributaries, as well as the Yarkon River.

(4) The mountainous northern part of Israel has certain water sources, but the land available for cultivation is limited. The southern half of the country, where Israel's best agricultural land is located, has almost no local resources.

(5) Israel is the only country immediately bordering the Jordan River which has more irrigable lands than can be irrigated from the country's water resources; without additional water from adjoining basins, large areas in the Negev (the south of Israel) willhave to remain barren.

C. Water Resources of Arab Neighbours

(6) Lebanon is amply provided with rivers, springs and underground water, while its land resources are limited. Thus the major portion of Lebanon's water resources will have to run wasted into the sea, unless some water is diverted to the Jordan basin. Southern Lebanon has three fair-sized rivers (Litani, Awali and Ibrahim) but irrigable lands for only one-fourth the flow of these rivers.

(7) Syria has, in addition to numerous fair-sized rivers, springs, etc., two large rivers flowing in its territory -- the Orontes, whose average annual flow is $2\frac{3}{4}$ billion cubic metres, and the Euphrates, whose annual flow averages 25 billion cubic metres--

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more than enough to meet the country's water needs. The irrigated area, which now exceeds four million dunams, can be more than doubled from the country's ample water resources.

(8) The cultivable land in Jordan lies almost entirely in the Jordan River valley, and is limited in extent. In addition to the river flow, numerous springs and ample underground water occur in the valley.

D. Israel's Progress Since 1948

(9) The goal of Israel's agricultural programme is to make the country as nearly self-sufficient in the production of foodstuffs as possible. The increase in land under irrigation is proof of the progress achieved to date. Local and regional waterwork construction made possible an increase in irrigated land under cultivation from 230,000 dunams in 1948 to 700,000-800,000 dunams in 1954. (One dunam equals $\frac{1}{4}$ acre).

(10) The water resources of Israel are integrated into an overall national water plan, designed to bring surplus water from the Jordan tributaries in the north to the Negev area in the south, andto regulate the water supply all over the country. In addition to construction of two large north-south pipelines , the "All-Israel Water Scheme" calls for the building of a series of reservoirs in various parts of the country to catch and store the winter rains. Hydro-electric projects are also included in the plan.

(11) The two Yarkon-Negev lines, the Huleh drainage scheme, the Bet -Shaan (Beisan) and Kishon regional projects are proceeding on schedule. Local waterworks improvements and drilling for new wells also continued in 1954.

E. Syrian Obstruction Since 1951

(12) Israel's efforts to develop the utilization of domestic water resources has been viewed with special hostility by Syria. Twice Syria has brought complaints to the UN Security Council, in 1951 and 1953,and is threatening to do so again in 1955.

(13) In 1951 Syria objected to the drainage of the malaria-infested Huleh swamps, located partly in the Israel demilitarized zone on the Syrian border. The Israel delegation explained in the Security Council that no Arab land rights in the area would be infringed upon, and that the purpose of the drainage project was to wipe out one of the region's major malaria breeding grounds while simultaneously bringing rich farmland into production. The Security Council rejected the notion that Syrian consent to irrigation schemes within Israel, including the demilitarized zone, was necessary.

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(14) Syria again attempted to exercise a veto over Israel's water planning in 1953, when it challenged Israel's right to build part of a canal diverting Jordan water to a new hydro-electric project through the demilitarized zone. Israel voluntarily suspended work on the portion of the project in the demilitarized zone on the eve of discussion in the Security Council. The draft resolution, which allowed for resumption of construction provided that land and water rights in the demilitarized zone were safeguarded, received the requisite seven votes in the Council, but one of the two dissents was the USSR. The negative vote of the USSR, which constituted a veto, thereby blocked further action on the issue by the Security Council.

(15) Syria is reportedly considering raising the issue of irrigation construction in the Bet-Shaan (Beisan) Valley of Israel before the Security Council in 1955. Jordan had initially raised the question before the Israel-Jordan Mixed Armistice Commission on 12 November 1954, but it failed of passage. Syria's reported decision to take up the question is a continuation of its policy to obstruct Israel's internal economic development. (Incidentally similar works have recently been constructed by Hashemite Jordan on the eastern bank of the Jordan).

F. Regional Water Planning

(16) Israel's water planning has always been premised on the assumption that international cooperation is necessary in the utilization of all the water resources of the region, in order that the states involved may reap the maximum benefit.

(17) Cooperation between Arab and Jewish Palestine was envisaged in the first comprehensive development scheme for the area, which was drawn up by the American export, James B. Hays, in 1945, before the establishment of the State. Based on a study by Dr. Walter C. Lowdermilk, renowned American conservation expert, the Hays Plan included the waters of the Jordan and Litani watersheds in outlining full use of the region's resources.

(18) The Government of Israel maintains its stand in favour of cooperation with the neighbouring Arab states on regional water use. Therefore the 1953 and 1954 missions of Ambassador Eric Johnston on behalf of the United States Government to discuss the regional cooperation were welcomed on principle.

G. Johnston Proposals

(19) On his first visit in October-November 1953, Mr. Eric Johnston presented for consideration by Israel and the Arab states a plan for the development of the Jordan River valley. This plan was drawn up by the Charles T. Main Inc. engineering firm of Boston, on behalf of the UNRWA (+), on the basis of a desk study only, and without reference to Israel's numerous surveys and studies on this subject.

(+) UNRWA -- the United Nations Relief and Works Agency for Palestine Refugees.

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(20) A major defect in the plan, in the view of the Israel Government, was that use of waters currently going to waste in the area was not provided for, since the Litani River of Lebanon was excluded from the regional scheme. In 1949 the U.N. Economic Survey Mission for the Middle East had noted:

> "Additional utilization of the important economic resource to be obtained from the development of the Litani River can be achieved by diverting that portion of the water not used for irrigation purposes, that is, approximately 7/8 of the regulated flow, into the Jordan Valley, where a total drop of some 550 metres is available between the bend of the river and the Dead Sea level....."

The Survey Mission suggested that this be exploited for the construction of hydro-electric projects to benefit the states in the region.

(21) Further, the Main Plan arbitrarily limited use of the Jordan waters to lands within the boundary of the river's watershed. Such a limitation is uneconomic in that it compels water to be used on lands inferior to those beyond the watershed. In Israel's case, this would rule out the irrigation of the Northern Negev, potentially the country's most fertile agricultural area.

(22) The water allocation under the Main Plan was unacceptable to Israel because it failed to take into account the country's vital water needs. The proposed water allocation would have grievously restricted all prospect of large-scale agricultural development, on which Israel's future depends.

H. Israel Government's Proposal

(23) In February 1954, Mr. John S. Cotton, noted American consulting engineer, for many years Chief Engineer of the Federal Power Commission for the Western states, who was commissioned by the Israel Government to draw up a comprehensive regional scheme, presented a report entitled "Plan for the Development and Utilization of the Water Resources of the Jordan and Litani River Basins".

(24) The Cotton Plan provides for irrigation of 2,600,000 dunams in comparison to the Main Plan's total of 940,000 dunams. The total annual water allotment under the Main Plan is but 1,213 million cubic metres, whereas under the Cotton Plan this would be increased to 2,345.7 million cubic metres.

(25) The area to be irrigated in Israel under the Cotton Plan is 1,700,000 dunams in comparison to only 420,000 dunams under the Main Plan. The flow allocated to Syria and Jordan is sufficient to water all irrigable areas which are within reach of the water resources, and lands in southern Lebanon, completely omitted in the Main Plan, are to be irrigated under the Cotton Plan.

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(26) Under the Cotton Plan, diversion of presently unitilized waters of the Litani would make it possible to increase electric power generation in the Jordan valley for the benefit of all the basin states. Estimated annual power production according to the Cotton Plan is 1,400 million kilowatt hours, a sum considerably larger than that envisaged in the Main Plan.

I. New Discussions with Ambassador Johnston

(27) Mr. Johnston is returning to the Middle East at the end of January 1955 to renew discussions with Israel and the Arab states on plans for regional water use.

(28) The Israel Government stands by its position favouring international cooperation in the development of regional water resources, and therefore welcomes the mediation of the United States Government to this end.

(29) The Israel Government maintains that in any regional water settlement, which must be freely entered into by the states concerned, the benefits must be equitably shared among all parties to the scheme. All the water resources of the region must be included in the planning and none should go to waste. The implementation of such a settlement should rest with the countries of the region.

(30) Israel feels that the approach to such a settlement must be based primarily on relevant economic data rather than on extraneous political considerations. Water is too precious a commodity in the Middle East to be wasted in misused as a political bribe.

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