

ASSIGNMENT SHEET

3400⁹

ANALYST'S SECTION

Date Assigned: _____ Date Due: _____ Category: 7a Country: JO

Special Instructions:

ASSISTANT'S SECTION

Source: 3400. Unified Development of the Jordan Valley Waters, U.S. Dept. of State, Jan 1964.

Data:

Another account of the Johnston negotiations. Israel gets 40% of the Jordan, including 25 Mem from the Yarmok. Claims that no riparian has, as yet plus to take more than allotted in the Unified Plan. See #3379 + #377 for other accounts

Johnston
Plan
Ch VI

Comments:

Re. Johnston Plan



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Ref # 3400
U.S. Dept. of State
Jan. 1964

Tom Naff -

This was a briefing paper prepared by the Dept of State 20 years ago. You water wells may find it interesting.

Dick Park

Ch I

UNIFIED DEVELOPMENT OF THE JORDAN VALLEY WATERS

Mr. Eric Johnston was appointed as a special representative by President Eisenhower in 1953 and made a number of trips to the Middle East in 1953, 1954 and 1955 in an effort to obtain separate understandings with the Arabs and Israelis respectively on a plan for the unified development of the water resources of the Jordan Valley. This initiative by the United States was prompted by the realization at that early date that the plans for utilization of the Valley's water resources then being put into effect or being considered by the riparian states were likely to conflict and that, in the interests of area peace and economic utilization of the waters concerned, agreement should be reached in advance on an equitable distribution of the Jordan's resources among the riparians.

Mr. Johnston's discussions were based on UN survey recommendations, principally the 1949 Clapp report and the 1953 Charles T. Main report prepared for UNRWA under direction of the Tennessee Valley Authority. Mr. Johnston's discussions did not result in formal agreement on a single document, but he did obtain the agreement of the technical representatives of all the riparian states to a series of recommendations and water allocations which are discussed below and which constitute the "Unified Development Plan". The technical representatives of the Arab states in their negotiations with Mr. Johnston as well as the Israeli representatives in their separate talks endorsed the plan and submitted favorable recommendations to their respective governments. However, the Arab League Political Committee in October 1955 failed to endorse the plan for political reasons and returned it to the Technical Committee (composed of the Arab technical representatives) for "further consideration."

it was sabotaged by Lebanon

Since 1955 no feasible alternative for reaching international agreement on the issue of Jordan waters has been suggested and no comprehensive plan for the equitable distribution of the waters other than that outlined below has been formulated. The United States continues to believe that the equitable distribution of Jordan-Yarmouk waters along the lines of the Unified Development Plan offers the best means for resolving peacefully this thorny problem.

1. Basic Premises - The basic principle of the Unified Development Plan was to assure enough water to meet the needs of all the land in the Jordan Valley which it is feasible to irrigate. After these in-basin needs were fully met and the equitable distribution determined for all riparians, it was understood that each of the riparians could utilize its allocation wherever it wished, whether in the basin or not.

2. Storage -

A. The Upper Yarmouk - The plan envisaged construction of a dam at Maqarin on the upper Yarmouk to impound 300 million cubic meters of regular flow of Yarmouk River water and to generate 150 million kilowatt hours of electric energy a year. This storage is essential if the Kingdom of Jordan is to have adequate

water for its extensive program for irrigating the Jordan Valley. Both Syria and Jordan would benefit from the power generated.

B. Lake Tiberias - Since no dam on the Yarmouk can economically capture and store all the Yarmouk flow, the plan proposed storage of the excess flood waters, which are absolutely essential for complete irrigation of Arab lands, in Lake Tiberias for the "account" of Jordan. Averaged out over a period of years, these flood flows would amount to about 80 million cubic meters a year. Technically it would have been much more economical (by reducing evaporation losses) to store all the Yarmouk waters in the single reservoir of Tiberias. However, Johnston acceded to the Arab contention that because Israel controls Tiberias and its outlets, sole storage there would not be politically feasible for the Arabs. Hence he and the representatives concurred in the construction of the Magarin Dam, whose size would be sufficient to assure Arab interests.

C. The Hasbani - The Plan provided for a survey to determine the feasibility of constructing a storage dam on the Hasbani River in Lebanon to assure that the water allocated to Lebanon could actually be made available.

3. Division of Water - International law recognizes that each of the nations on an international river system has a right to an equitable portion of the water. Since there is no single generally accepted principle on which the division of water can be based, in the Unified Plan the basic principle was adopted of assuring to the in-basin users enough water to meet the needs of all their lands that could feasibly be irrigated. In accomplishing this objective, the Plan divided the waters as follows, in mcms:

To Lebanon	35 mcms from the Hasbani
To Syria	20 mcms from the Pannias 22 mcms from the Jordan <u>90 mcms from the Yarmouk</u> 132 mcms total
To Jordan	377 mcms from the Yarmouk 100 mcms from the Jordan <u>243 mcms from the side wadis of the Jordan</u> 720 mcms total
To Israel	25 mcms from the Yarmouk

It was understood that, once the above withdrawals and deliveries were assured, other waters of the Jordan River, or approximately 40% of the total, would be available for Israel's use. The Plan further stipulated that if and when it became possible to collect and channel off the highly saline water from certain springs in Lake Tiberias, half of this saline water so diverted, amounting to 15 mcms, might be considered part of Jordan's 100 mcms share of upper Jordan waters from Lake Tiberias.

It should be noted that as of January 1964 only a small fraction of the water allocation which would go to the Kingdom of Jordan under the Unified Development Plan is being utilized (also true with regard to Lebanon and Syria, which are only minor users). In the Johnston negotiations it was envisaged that an East Ghor and a West Ghor canal would be constructed in the Jordan valley, thus making possible the irrigation of over 500,000 dunums of Kingdom of Jordan land, about five times that presently being irrigated. In fact, water would be provided for all the arable land in the valley as far south as the Dead Sea. Without an arrangement such as the Unified Development Plan the Kingdom of Jordan would be the greatest single loser.

4. International Supervision - An essential ingredient in the Plan would be an impartial body of water engineers, none of whom would be a national of any Arab state or of Israel, or be in their employ. This body's functions would include ensuring that no project inconsistent with the Plan be undertaken, establishing patterns for and supervising withdrawals and releases of water, making calculations for releases, keeping records, and making reports.

Miscellaneous Observations. Countries cannot stand still. They must make progress. The utilization of any water not previously used, whether it be by Israel in its water program, or by Jordan in the East Ghor Canal System, or by Syria and Lebanon on the Hasbani, changes the traditional water usage pattern of the basin. It is this fact that accentuates the importance in the case of the Jordan River system of a program such as the Unified Development Plan.

Until now, none of the riparians, including Israel, has taken or appears to be planning to take more than the allocations allotted under the Unified Development Plan. In the absence of alternative arrangements, it seems almost indispensable that, if peace and progress in the area are to be maintained, limitations such as those of the UDP continue to be observed.

January 1964

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Source: 3379. The Political Economy of Conflict over Water Rights in the Jordan Valley Since 1948. David Wishart, 1983
Unpub. MS.

Data:

Account of Johnston negotiations (relevant portions attached) and account of conflicting uses of the River by Israel & Jordan just prior to 1967. Specifically mentioned are Israel's National Water Carrier, which carried Jordan water outside the Jordan Valley, and Jordan's diversion of water from the headwaters (Hasbani & Baniyas) to the Mukhaibah dam on the Yarmuk. The author sees a potential for increased cooperation beginning in the sharing of new technologies (i.e. drip irrigation, etc.)

Comments: See 7a, Abu-Jaber, whose account of Johnston negotiations differs substantially. See 6a.

Valley Unified Plan has to date been the program for coordinated development of the Jordan River watershed to gain the most general acceptance among the states concerned. United States Ambassador Eric Johnston negotiated the Unified Plan from 1953 through 1955. Table I gives the schedule that was to govern withdrawals from the Jordan's flow by riparian states.

Table I

Volume of Jordan River System's Flow Apportioned Between States in the Final Form of the Unified Plan (in million cubic meters, mcm)

Jordan	480 mcm/yr.
Syria	132 mcm/yr.
Lebanon	35 mcm/yr.
Israel*	466 mcm/yr.

Total Flow = 1113 mcm/yr.

*The residual flow given that these amounts were claimed as necessary by the other states. This amount was estimated and would vary according to flow conditions in the river system.

(Source: Stevens, p. 15)

The Unified Plan was a 60-40 percentage split of the Jordan River's flow between the Arab states and Israel. It was at one point deemed acceptable by the technical advisors of all the countries (Stevens, p. 14). Johnston's formula for water-sharing was a compromise between a program put forth by the Arab states at meetings in Cairo and Israel's water development plan, the Cotton Plan, that were made public in the spring of 1954.

The initial Arab and Israeli proposals for development of water resources in the Jordan Valley exhibited very different

concepts regarding the appropriate system for water rights assignment, indicating the presence of high transaction costs. Israel's water development efforts held to the principle that water should be made available where it could best be used in the context of national development goals (Stevens, p. 29). Diversions of water beyond the source of flow were accomplished by Jewish settlers during the Palestine mandate (Granovsky, p. 204). Large diversions of water were called for in the Cotton Plan.

On the other hand, the Arab states were guided by principles found in the Mejlle, The Ottoman Civil Code, in forming their water development proposals. The Mejlle holds that the joint owner of a private stream may not "...divert his share of the water from such a river on to other land not enjoying a right of taking water" (Hooper, p. 328). The other owners of a private stream may grant permission for such a diversion, but they, or their heirs, are free to withdraw their permission at any subsequent date (Hooper, p. 328). The original Arab proposals allotted just 20 percent of the Jordan's flow to Israel; a share so small that none of it could have been diverted outside the Jordan Valley (Stevens, p. 16).

Johnston had to convince the Arab negotiators that a larger share of the Jordan's flow could be allocated to Israel while still meeting their needs for water. A detailed engineering study conducted jointly by two American firms -- Michael Baker, Jr., Inc. and Harza Engineering Company -- from 1953 to 1955 held conclusions that made this task of persuasion easier. The Baker-Harza team found that a larger area in Jordan was irrigable with less water than most previous studies had

shown (Schmidt, p. 12). Given this information, Johnston was able to show the Arab technicians that more water could be supplied to Israel and still guarantee enough for the Arab states to greatly extend irrigation in their territories (Stevens, p. 31).

The final form of Johnston's Unified Plan allowed Israel to divert Jordan River water outside the Jordan watershed (see the map on the following page). It also included a component of the Arab's Plan -- construction of a dam on the Yarmuk River at Maqarin (American Friends of the Middle East, pp. 46-47). On accepting the Unified Plan, the Arab Technical Committee referred it to the Political Committee of the League of Arab States for final approval in October, 1955. A decision was made to send the Unified Plan back to the Arab Technical Committee until an agreement that better protected Arab interests could be reached (American Friends of the Middle East, p. 50). Thus, hopes for a cooperative, regional program for water development in the Jordan Valley were scuttled.

An obvious political factor that led to the suspension of negotiations is that any settlement would have involved states that were still at war. The Arab states would have been sanctioning a plan that held substantial benefits for their opponent. Jordan stood to gain most among the Arab countries from acceptance of the Unified Plan. Jordan needed some kind of development program to aid in the settlement of 475,000 Palestinian refugees within her borders (Peretz, p. 411). But Jordan went along with the suspension of negotiations toward an agreement, forgoing an aid package that included

The national importance of water development in Israel is evident in the Water Law enacted in 1959. The Water Law placed ownership of all water resources with the state and organized existing bureaucracies concerned with water management into a centralized system (Galnoor, p. 293). This bureaucratic system is structured as follows. The Water Council represents the agricultural sector and other interest groups by making policy recommendations to the Water Commission which is part of the Ministry of Agriculture (Galnoor, p. 294). The Head of the Water Commission administers all water-related matters. Pricing of water is accomplished through the Water Prices Adjustment Fund (Galnoor, p. 294). Two corporations, Tahal and Mekorot, are responsible for planning and implementation of water projects (Galnoor, p. 294).

The primary achievement of water policy in Israel in the late 1950s and early 1960s was construction of the National Water Carrier. The Carrier began pumping water in 1964 from the northern end of Lake Tiberias southward along the pre-1967 West Bank boundary to the Negev. The Carrier touched-off protests by the Arab states. Their main objection was to the diversion of Jordan River waters outside the Jordan Valley when it was felt that the land within the valley was entitled to the total available flow which would leave no surplus for Israel's use in the Negev (Stevens, p. 14). The Arab objection lost some weight in view of the fact that Israel maintained withdrawals from the Jordan within the limits set by the Johnston formula (Stevens, p. 81).

But Johnston formula was rejected.

Still, the Carrier did not alleviate water scarcity in Israel to the extent that was desired. Fresh well water was

... usually reached the limit of irrigation development in the Jordan Valley until a dam on the Yarmuk can be built" (Stevens, p. 49). Construction of a dam on the Yarmuk at Mukhaibah began in 1964. The Mukhaibah Dam's storage capacity was to be supplemented with water diverted to the Yarmuk from the Hasbani and the Baniyas (Doherty, p. 65). This scheme for increasing Jordan's water supply through diversion of the Jordan River's headwaters can be read as a response by the Arab states to Israel's diversion of a share of the Jordan's flow outside the Jordan River watershed via the National Water Carrier.

C. Jordan Valley Water Management and the Six-Day War

Israel had consistently maintained prior to the mid-1960s that any significant diversion of the Jordan's headwaters would be viewed as an act of aggression and would be met with a military response (Stevens, p. 75). Prior to the start of work on the diversion of water to Mukhaibah, Dr. Mohammed Selim, chairman of the Arab Technical Committee, estimated that after the diversion Israel would have access to 150-180 million cubic meters of the Jordan's annual flow (Stevens, p. 67). The Carrier was then designed to transport 320 million cubic meters, so the Arab's diversion would have cut in half the supply of Jordan River water available to Israel.²

Israel executed air strikes aimed at water works begun by the Arab states during the Six-Day War. As a result of these strikes the partially completed dam at Mukhaibah was destroyed (Ministry of Information, p. 19). The East Ghor Canal was also damaged during the war (Kanovsky, p. 421).

Syrian fortifications were removed from the Golan Heights in the course of the Six-Day War. Syrian forces had prevented Israel from dredging a four mile stretch of the Jordan above

tion of agricultural interests and a promotion of
an-industrial interests exists in Jordan as well as in Israel.

IV. The Prospects for Cooperation Between Israel and Jordan in Water Management

The prospects for cooperation between Israel and Jordan in water management are better now than at any time since the Johnston negotiations. The nature of cooperation is likely to be quite different from that envisioned by Dr. Lowdermilk and Ambassador Johnston. Rather than in the area of agreements concerning division of the Jordan Valley's total supply of surface water between the states, cooperation is more likely to occur first in the transfer of methods that permit a cubic meter of water to do more in various production processes.

Elevation of the water supply problem in Jordan to a position of primary national importance, similar to the position the problem occupies in Israel, should reduce the transaction costs associated with cooperation. The concern of water managers in the two countries is no longer tied so closely to preserving a Zionist or a traditional Moslem ideology, but rather, now lies with how to improve water use efficiency in ways that permit continued economic development. Indeed, it is because economic development has occurred that greater complementarity of water management needs along with a reduction of the transaction costs associated with cooperation has been achieved.

Economic development in Jordan has already led to the introduction of new techniques for water use such as sprinkler irrigation, drip irrigation, and hot house cultivation of vegetables that were largely developed in Israel. One could