

TOPOGRAPHY of the Jordan Valley Region

Prepared at the request of the
UNITED NATIONS
 under direction of
TENNESSEE VALLEY AUTHORITY
 by
CHAS. T. MAIN, INC.
 BOSTON, MASS. CONFIDENTIAL

1953

FIGURE 1

LEGEND

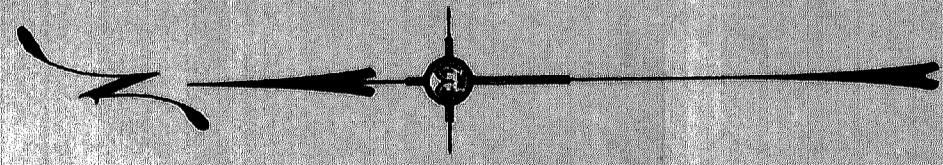
- River & Wadi
- Marsh
- Town
- Sand dunes
- Sea level
- 0 — CONTOUR

SCALE

KILOMETERS 0 5 10 20

MILES 0 5 10

ELEVATIONS ARE IN METERS REFERRED TO MEAN SEA LEVEL



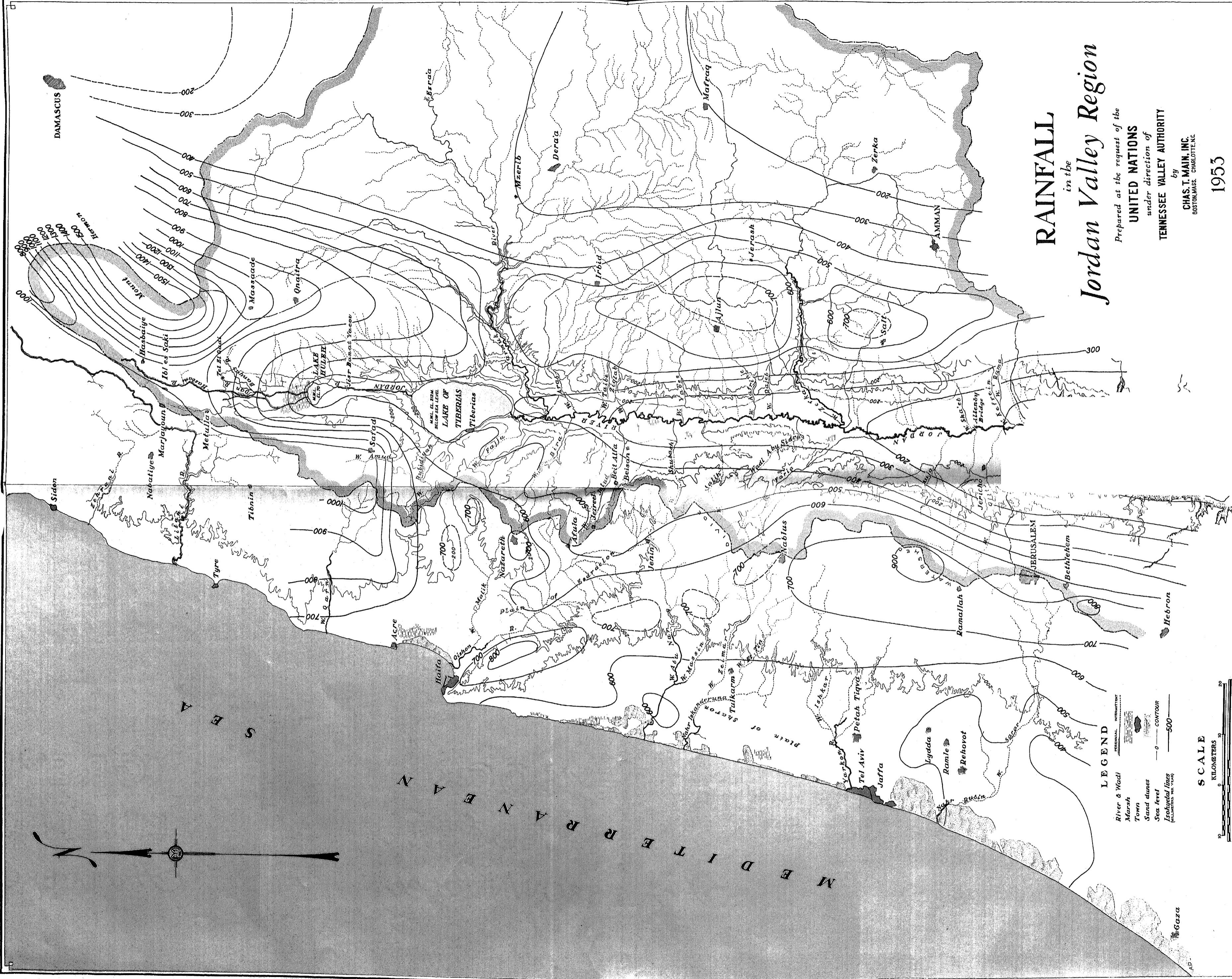
M E D I T E R R A N E A N

DAMASCUS

AMMAN

JERUSALEM

Gaza



RAINFALL

in the

Jordan Valley Region

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FIGURE 2

LEGEND

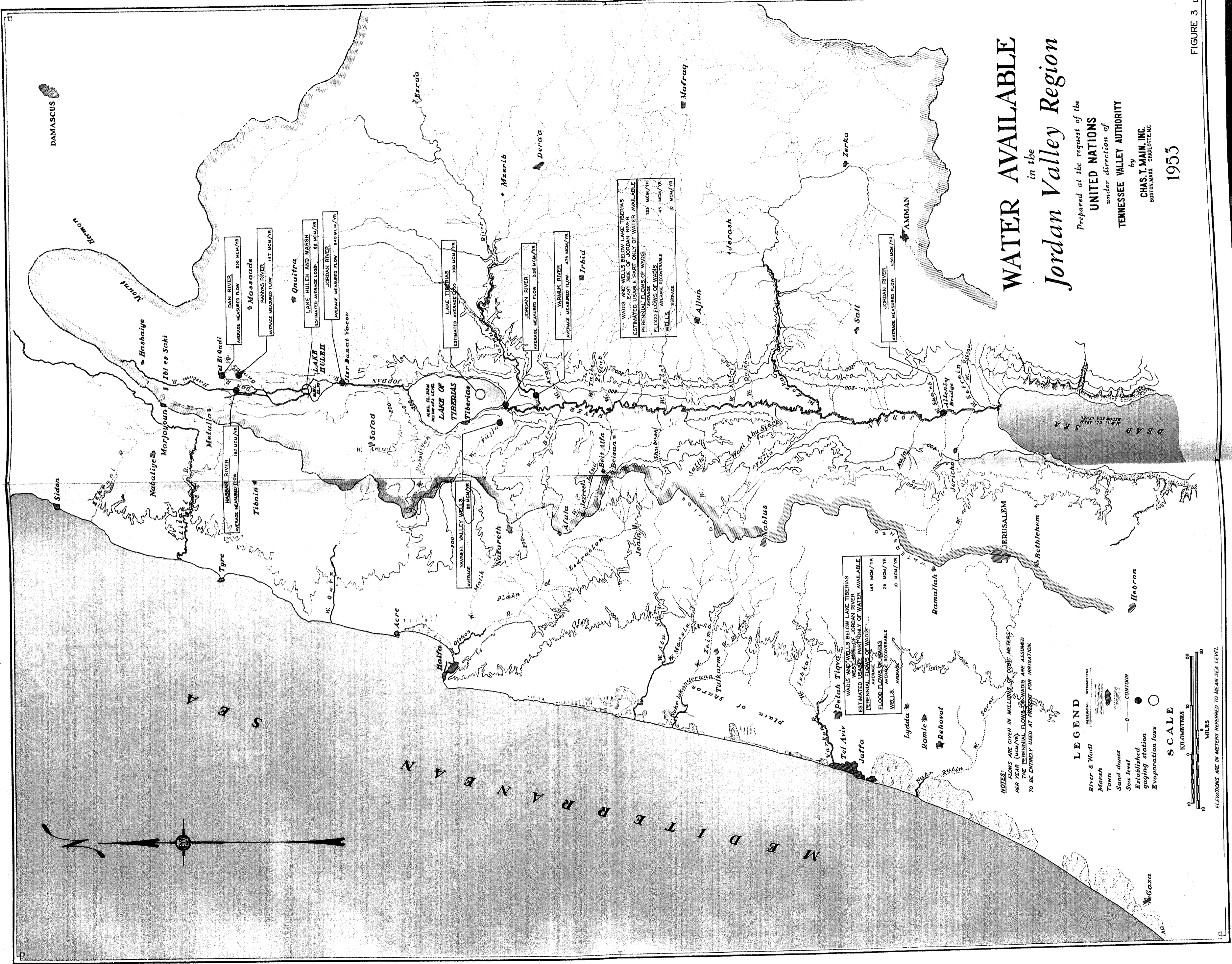
- River & Wadi
- Marsh
- Town
- Sand dunes
- Sea level
- Isobathal lines
- Isobathal lines (contour interval 100)

SCALE

KILOMETERS 0 10 20

MILES 0 10 20

ELEVATIONS ARE IN METERS REFERRED TO MEAN SEA LEVEL



WATER AVAILABLE in the Jordan Valley Region

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BOSTON, MASS. CHARLOTTE, N.C.

1955

FIGURE 3

Wadis and wells below Lake Tiberias west side of Jordan River. Estimated usable part only of water available. Average annual flow of wadis: 145 MCM/YR. Flood flows of wadis: 29 MCM/YR. Average recoverable wells: 10 MCM/YR.

Wadis and wells below Lake Tiberias east side of Jordan River. Estimated usable part only of water available. Average annual flow of wadis: 125 MCM/YR. Flood flows of wadis: 49 MCM/YR. Average recoverable wells: 10 MCM/YR.

Lake Tiberias. Estimated average flow: 350 MCM/YR.

Jordan River. Average measured flow: 338 MCM/YR.

Jordanak River. Average measured flow: 475 MCM/YR.

Jordan River. Average measured flow: 320 MCM/YR.

Dani River. Average measured flow: 235 MCM/YR.

Massadeh River. Average measured flow: 157 MCM/YR.

Lake Huleh and Marsh. Estimated average loss: 82 MCM/YR.

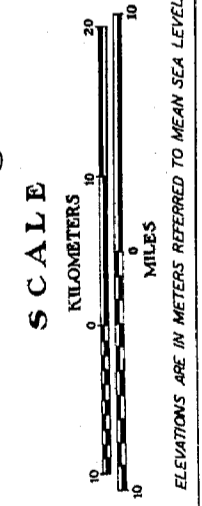
Jordan River. Average measured flow: 810 MCM/YR.

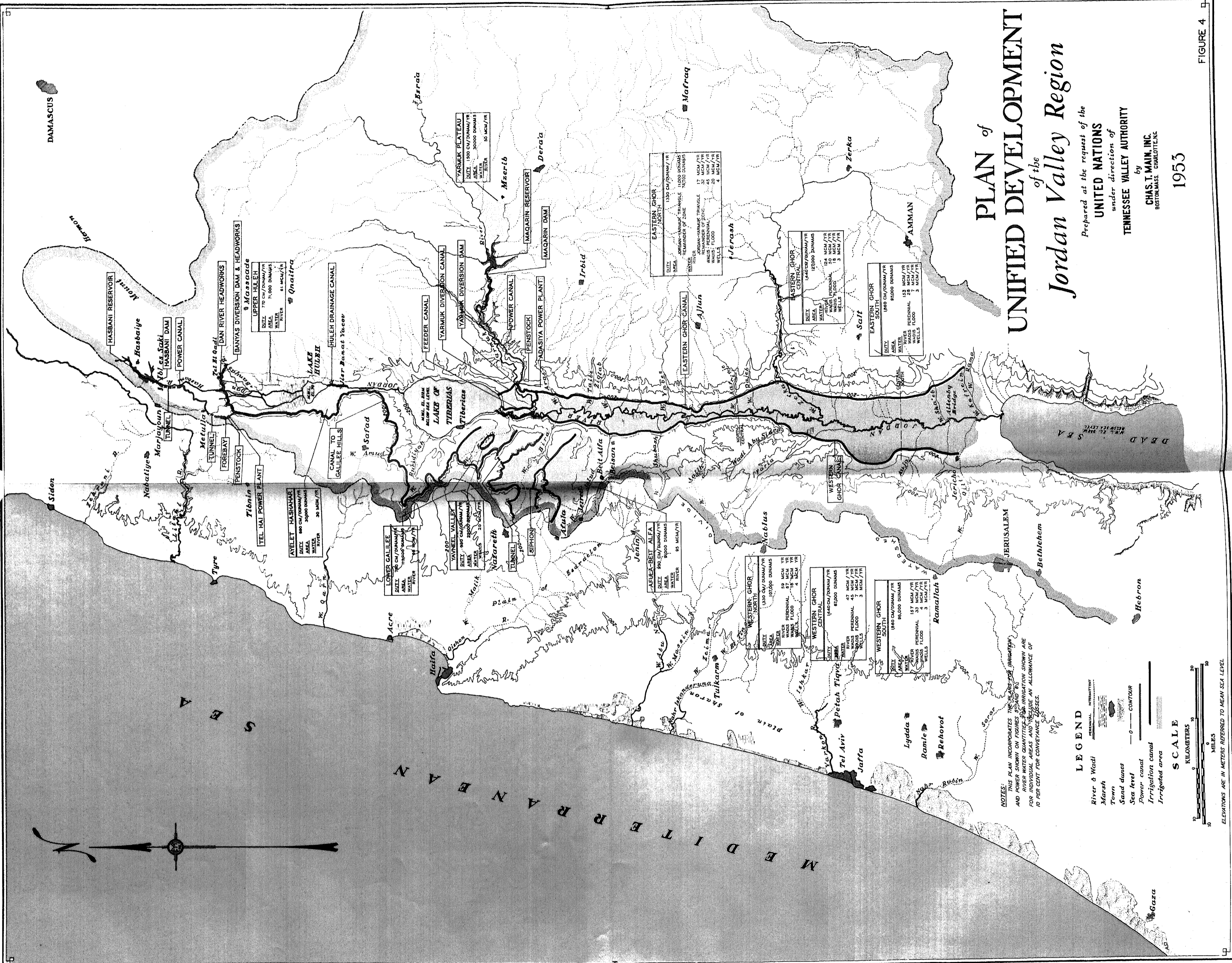
Yannet Valley Wells. Average flow: 30 MCM/YR.

Hasbani River. Average measured flow: 187 MCM/YR.

NOTES:
FLOWS ARE GIVEN IN MILLIONS OF CUBIC METERS PER YEAR (MCM/YR). FLOWS OF WADIS ARE ASSUMED TO BE ENTIRELY USED AT PRESENT FOR IRRIGATION.

- LEGEND**
- River & Wadi
 - Marsh
 - Town
 - Sand dunes
 - Sea level
 - Established gaging station
 - Evaporation loss





PLAN of UNIFIED DEVELOPMENT of the Jordan Valley Region

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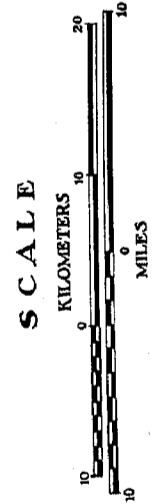
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FIGURE 4

NOTES: THIS PLAN INCORPORATES THE PROPOSED IRRIGATION AND POWER SHOWN ON FIGURES 3 AND 5. RIVER WATER CAPACITY AND FLOOD ALLOWANCE ARE FOR CONVEYANCE BASES AND SHOULD BE INCREASED 10 PER CENT FOR CONVEYANCE LOSSES.

LEGEND

- River & Wadi
- Marsh
- Town
- Sand dunes
- Sea level
- Power canal
- Irrigation canal
- Irrigated area



ELEVATIONS ARE IN METERS REFERRED TO MEAN SEA LEVEL.

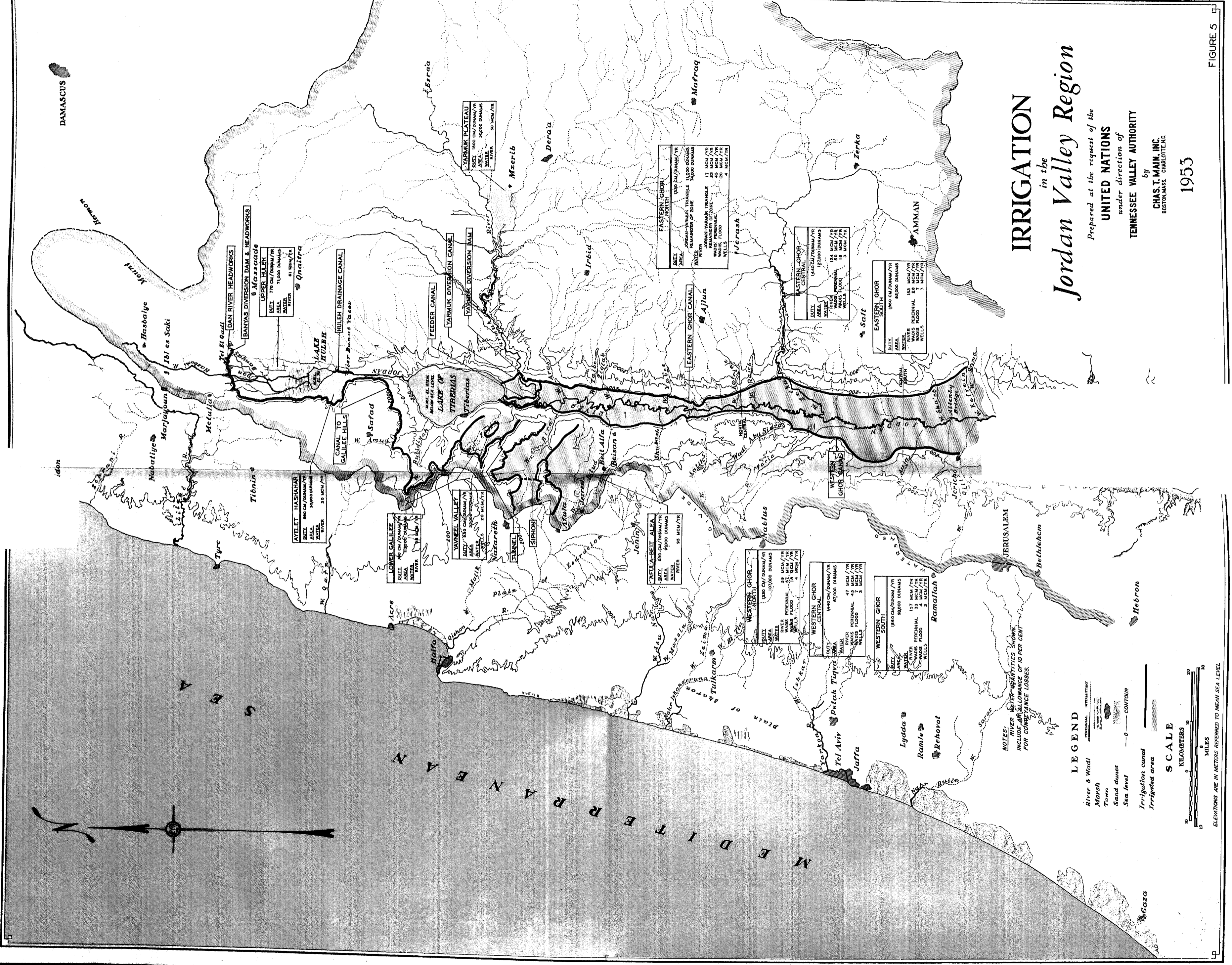
DAMASCUS

IRRIGATION in the Jordan Valley Region

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FIGURE 5

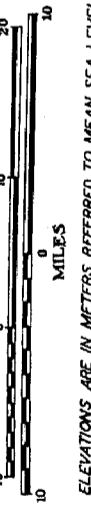


NOTES:
RIVER WATER QUANTITIES SHOWN
INCLUDE AN ALLOWANCE OF 10 PER CENT
FOR CONVEYANCE LOSSES.

LEGEND

- River & Wadi
- Marsh
- Town
- Sand dunes
- Sea level
- Irrigation canal
- Irrigated area

SCALE



ELEVATIONS ARE IN METERS REFERRED TO MEAN SEA LEVEL

EASTERN GHOR	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

WESTERN GHOR	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

EASTERN GHOR SOUTH	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

LOWER GALILEE	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

JERUSALEM	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

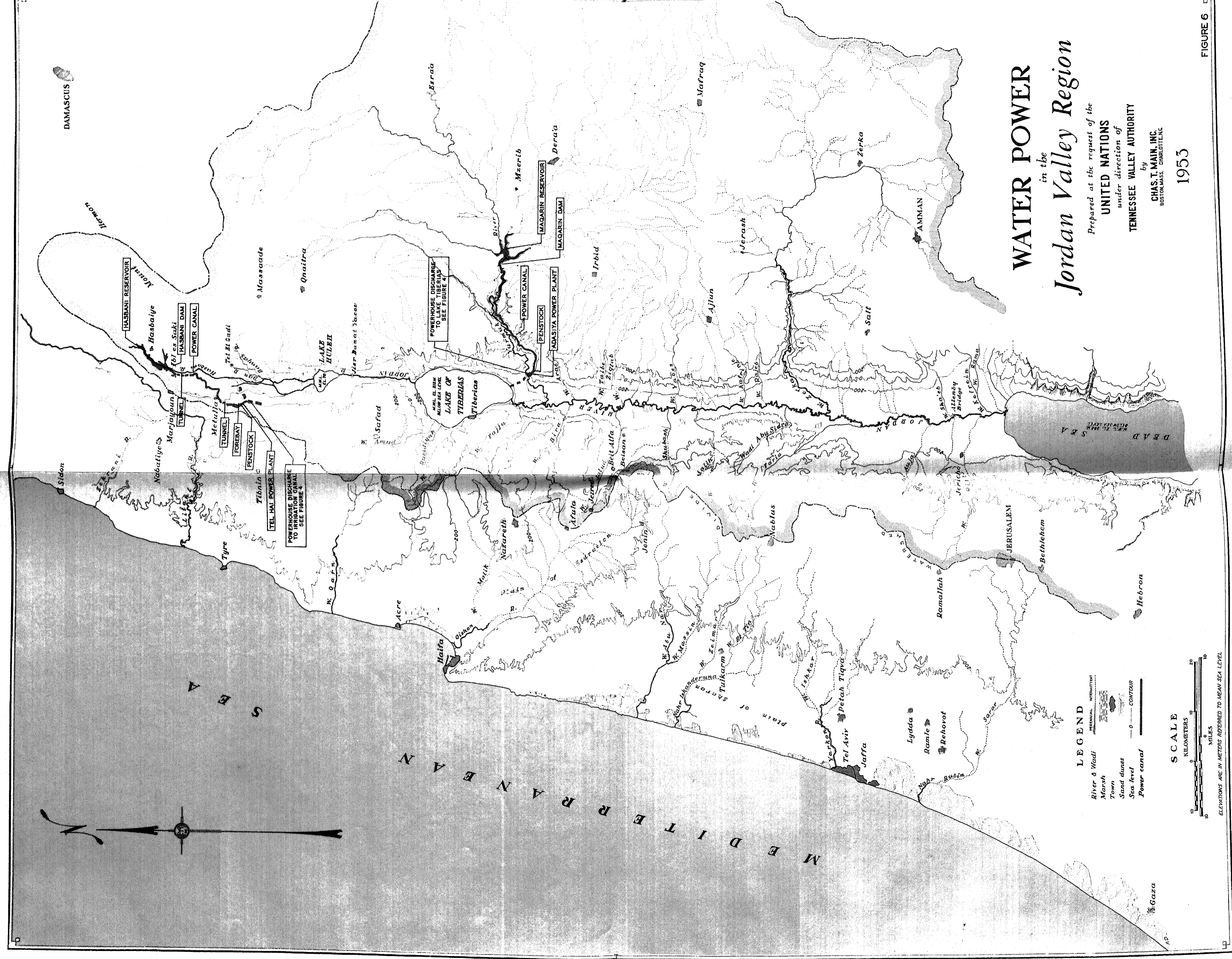
WESTERN GHOR NORTH	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

WESTERN GHOR CENTRAL	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

WESTERN GHOR SOUTH	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

YARMAK PLATEAU	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4

UPPER HILLY	
DUTY AREA	1,200 SQ. KILOMETERS/3,900 SQ. MILES
WATER AVAILABLE	1,000 CUM/DAM/1/1R
PERENNIAL FLOOD	12 MCM/1/1R
WATER AVAILABLE	22 MCM/1/1R
WELLS	4



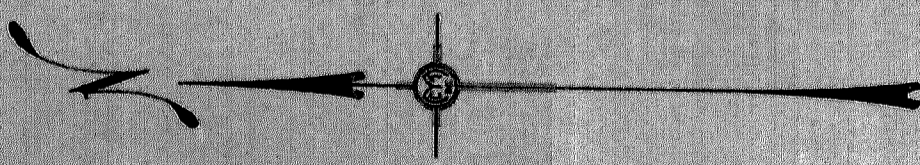
DAMASCUS

WATER POWER in the Jordan Valley Region

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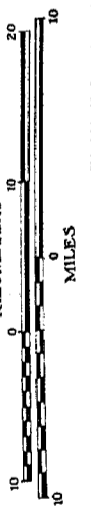
FIGURE 6



LEGEND

- River & Wadi
- Marsh
- Town
- Stand alone
- Sea level
- Power canal

SCALE



ELEVATIONS ARE IN METERS REFERRED TO MEAN SEA LEVEL

M E D I T E R R A N E A N S E A

DEAD SEA

JERUSALEM

Lydada
Ramle
Rehovot

Tel Aviv
Jaffa

Tulkarm
Zelma

Beit Alfa
Pisqa

Nazareth
Afula

Haifa
Acre

Tybe
Tiberias

Metulla
Tibnia

Hasbani Reservoir
Hasbani Dam

Magarin Reservoir
Magarin Dam

Adasiya Power Plant
Penstock

Derata
Magarin Dam

Erra
Mazrib

Mafrag

AMMAN

Zerka

Ajlun

Irbit

Qnaitra

Massacade

Qnaitra

Lake Huleh

Umm el-Sikki

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

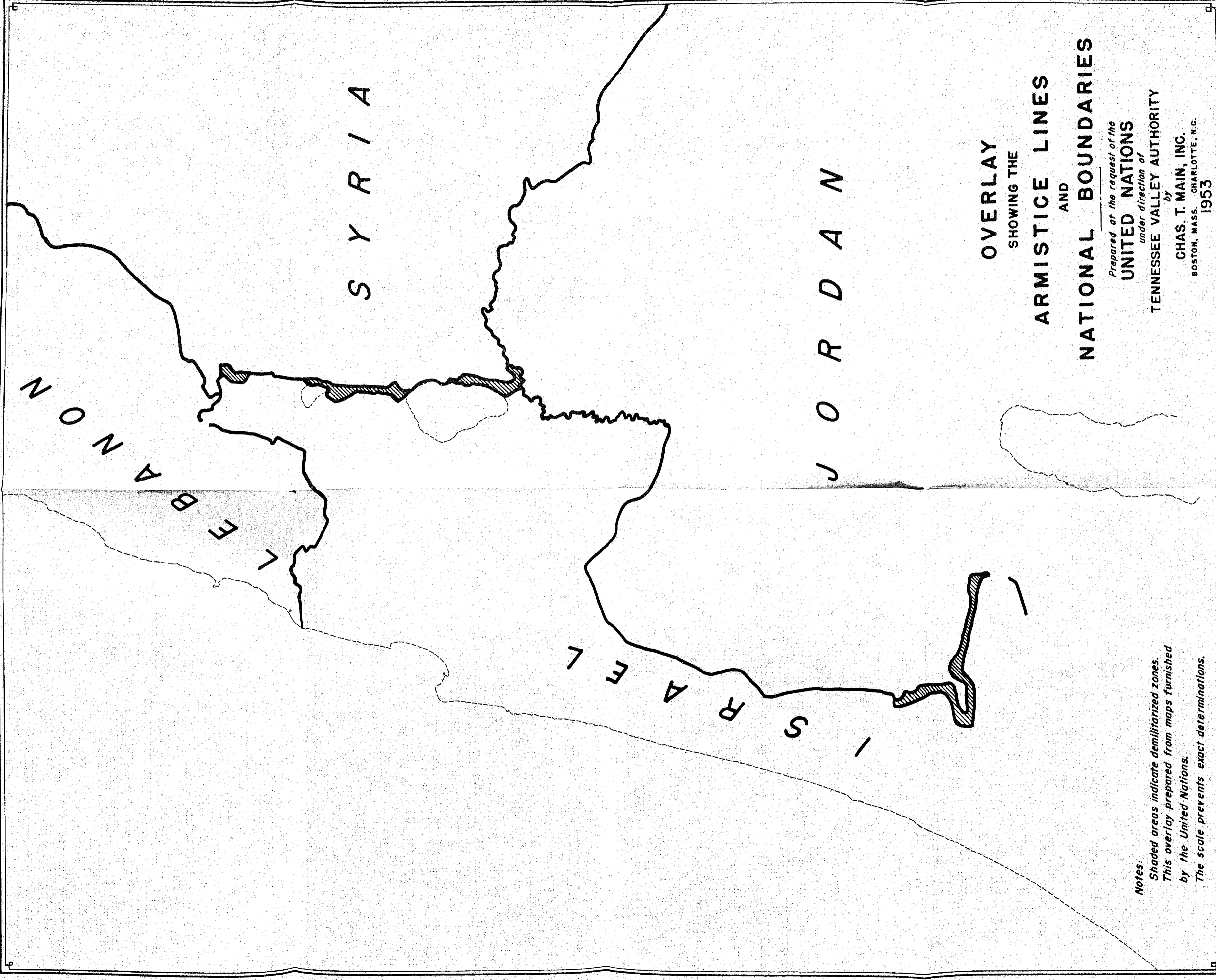
Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir

Hasbani Reservoir



OVERLAY
SHOWING THE
ARMISTICE LINES
AND
NATIONAL BOUNDARIES

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Notes:
*Shaded areas indicate demilitarized zones.
This overlay prepared from maps furnished
by the United Nations.
The scale prevents exact determinations.*