

付 図



Expert	Name	1989 (Fiscal Year)												1990 (Fiscal Year)																	
		J	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F								
		1989 (Fiscal Year)												1990 (Fiscal Year)																	
Leader	Takayosi YAMAZAKI			■					■			□						■													
Agronomist	Hisashi IKEWADA								■									■													
Civil Engineer	Fusao WATANABE								■																						
Meteo - Hydrologist	Isamu TOYOKURA								■																						
Dry Farming Expert	Hiroyasu OHNUMA								■																						
Pedologist Landuse Planner	Masayuki KOYAMA								■																						
Project Economist	Tadaharu MURONO																												□		
Report									▲																			▲			

Legend: ■ Field Work □ Home Office Work

IC/R : Inception Report, P/R : Progress Report, IT/R : Interim Report, DF/R : Draft Final Report, F/R : Final Report

図 1.2 調査期間

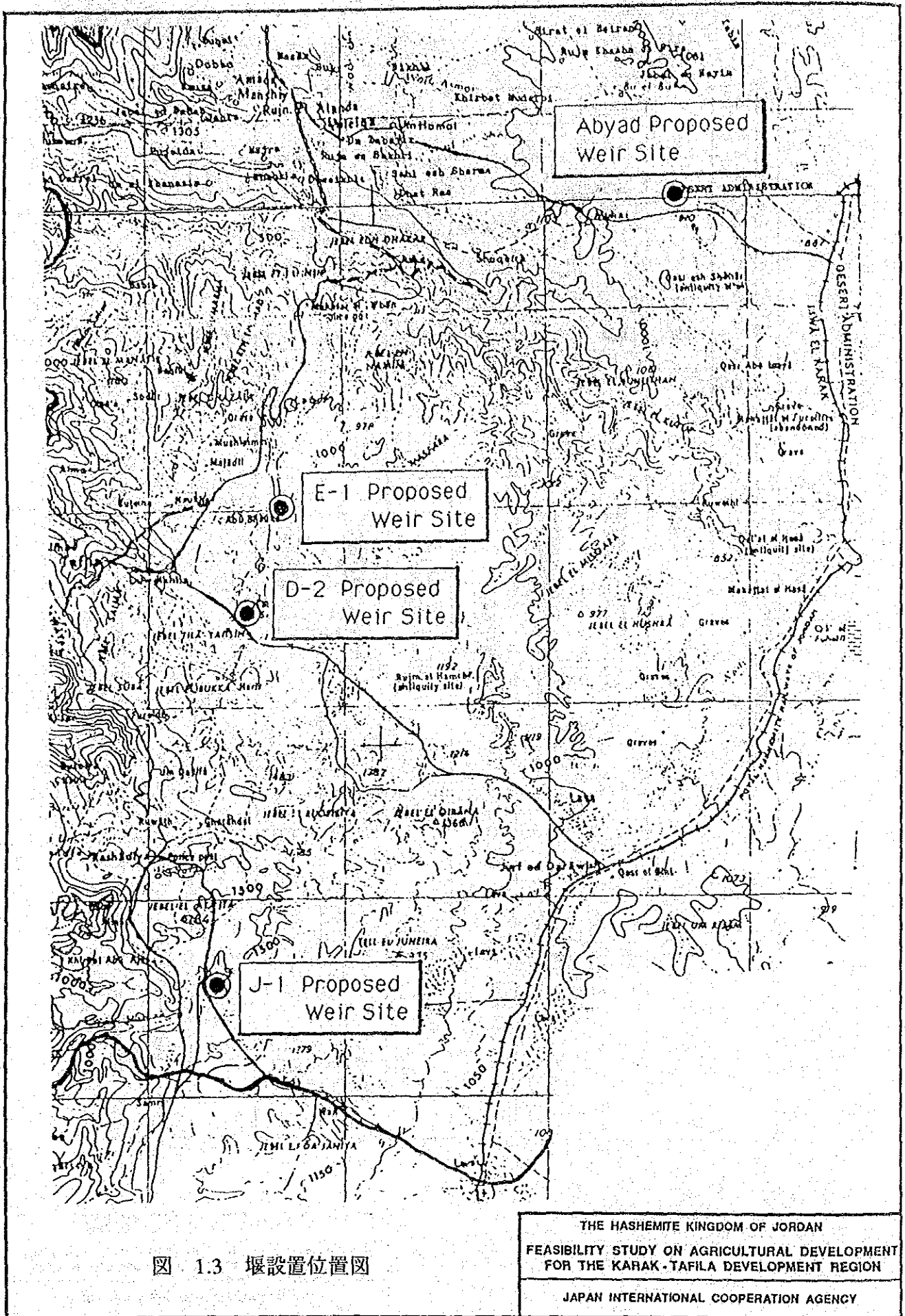


図 1.3 堰設置位置図

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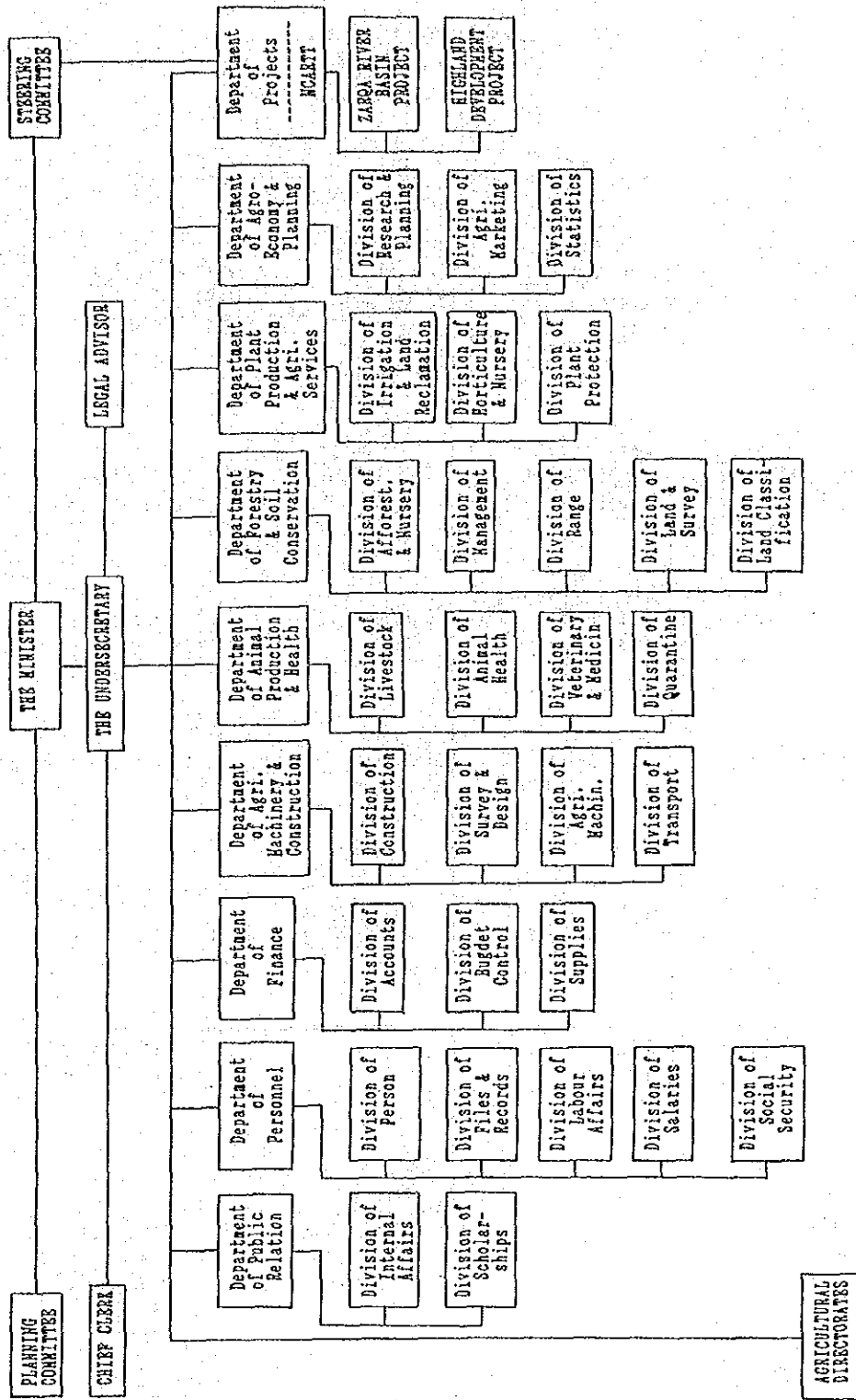


図 2.1 農業省の組織図

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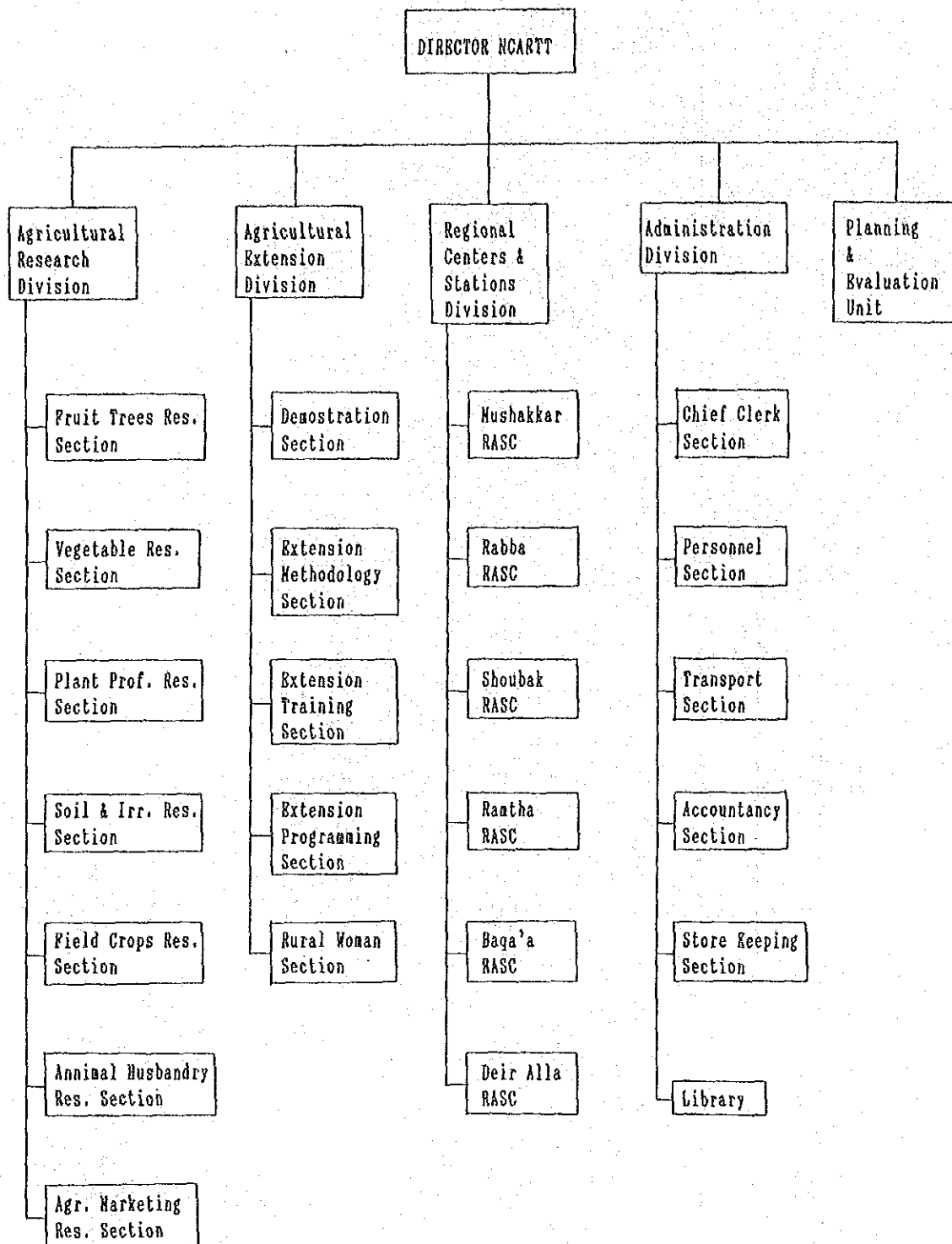
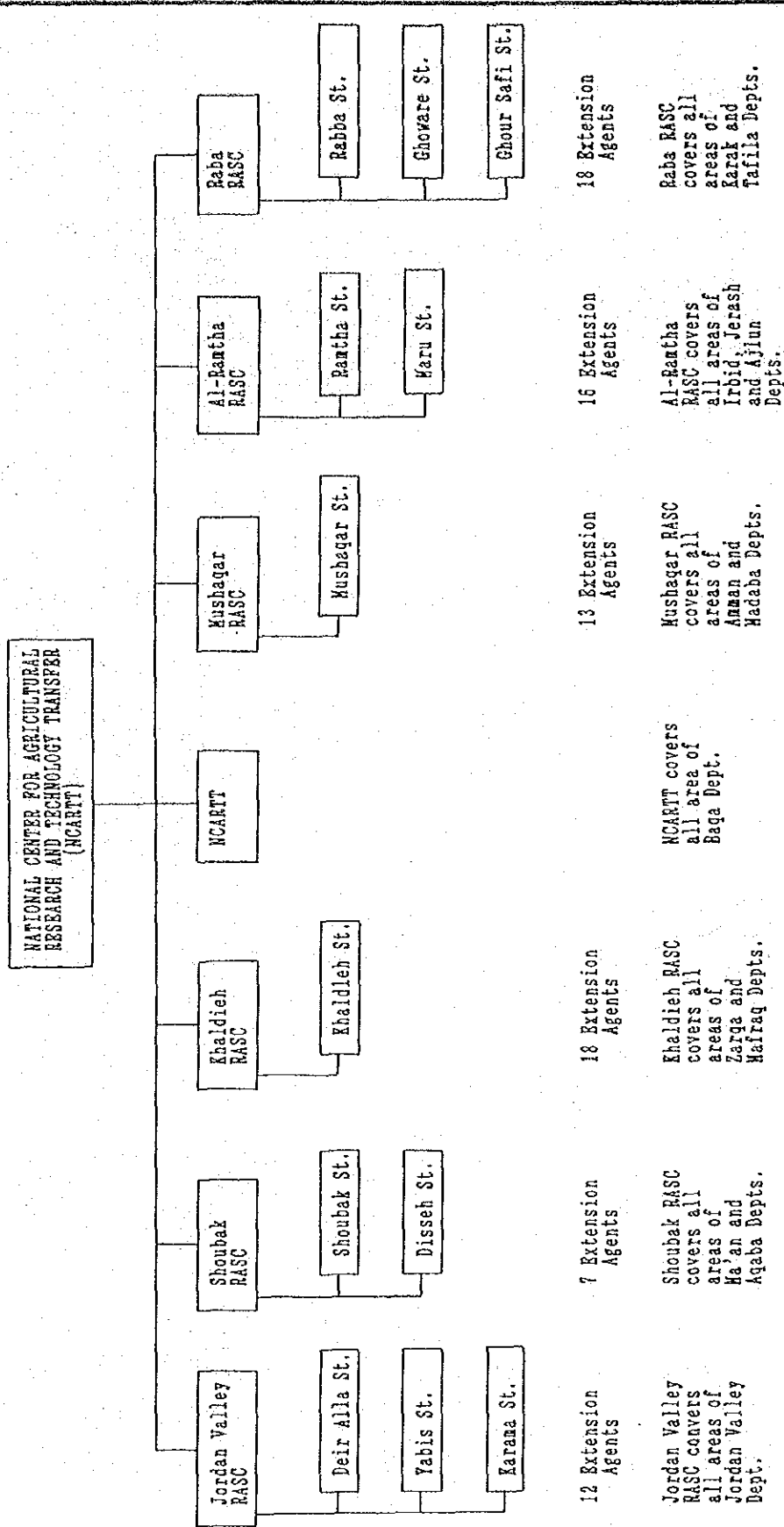


図 2.2 NCARTTの組織図

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図 2.3 ジョルダンの農業普及システム



Remark: \* RASC - Regional Agricultural Service Center

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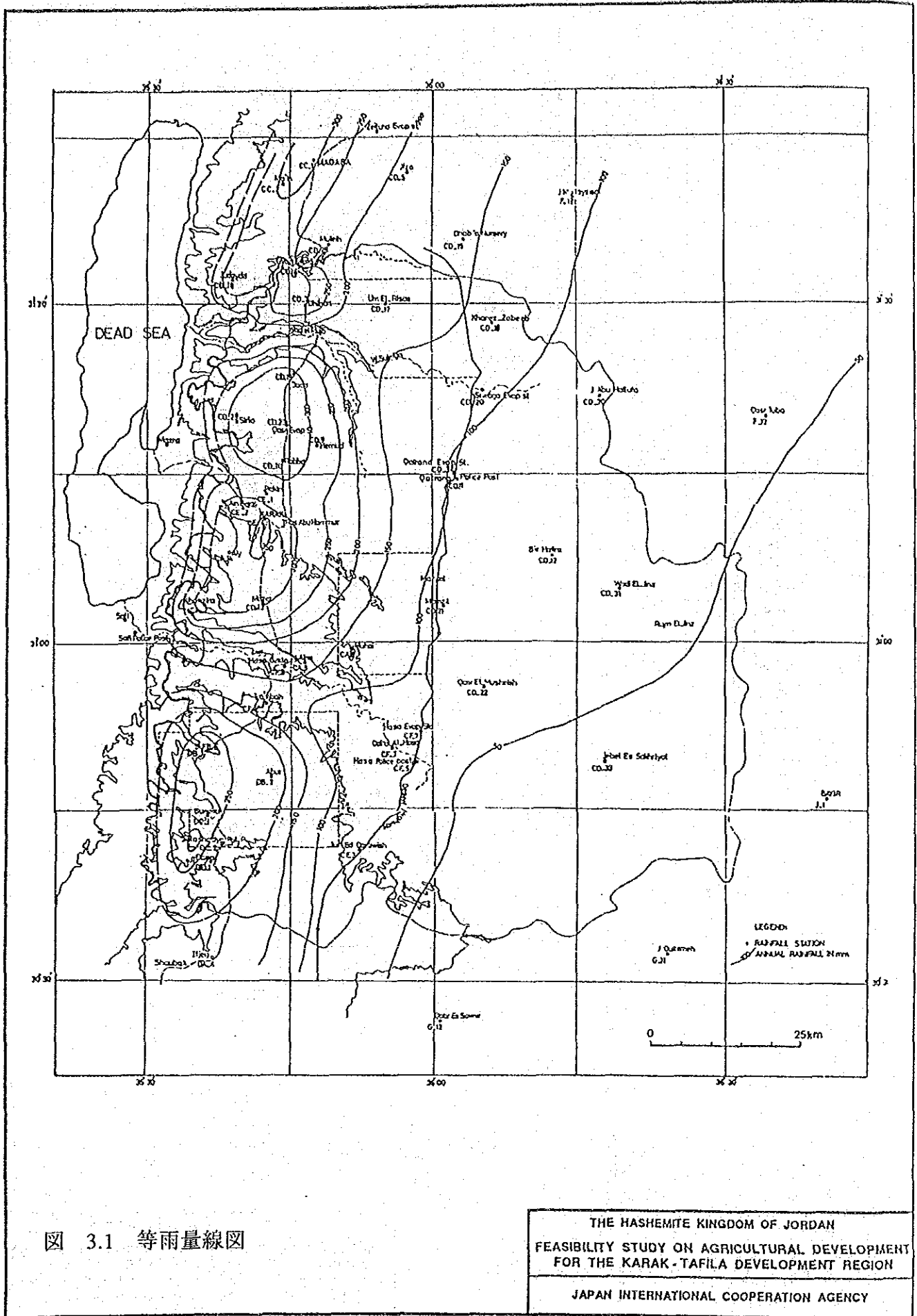


図 3.1 等雨量線図

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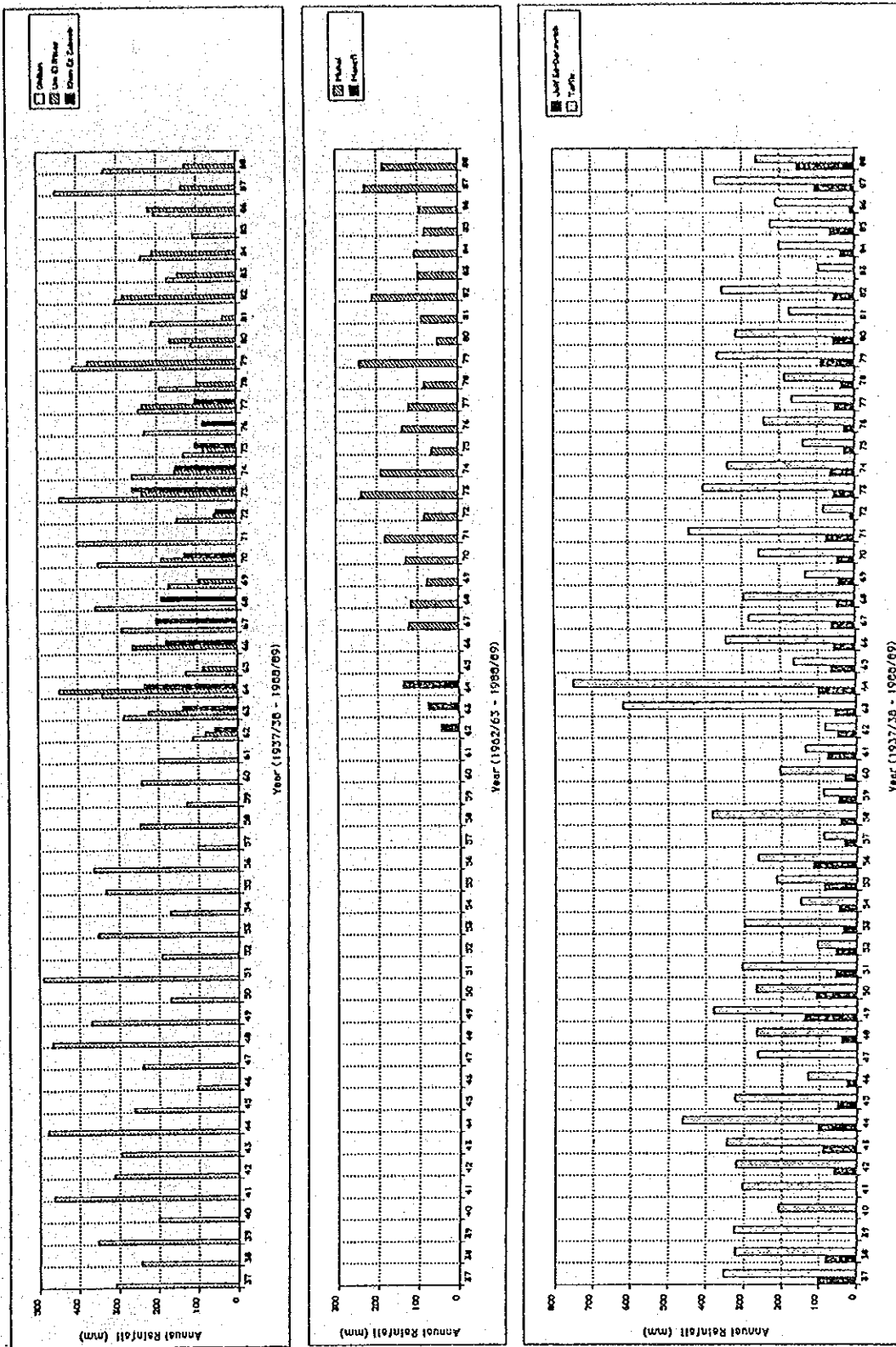
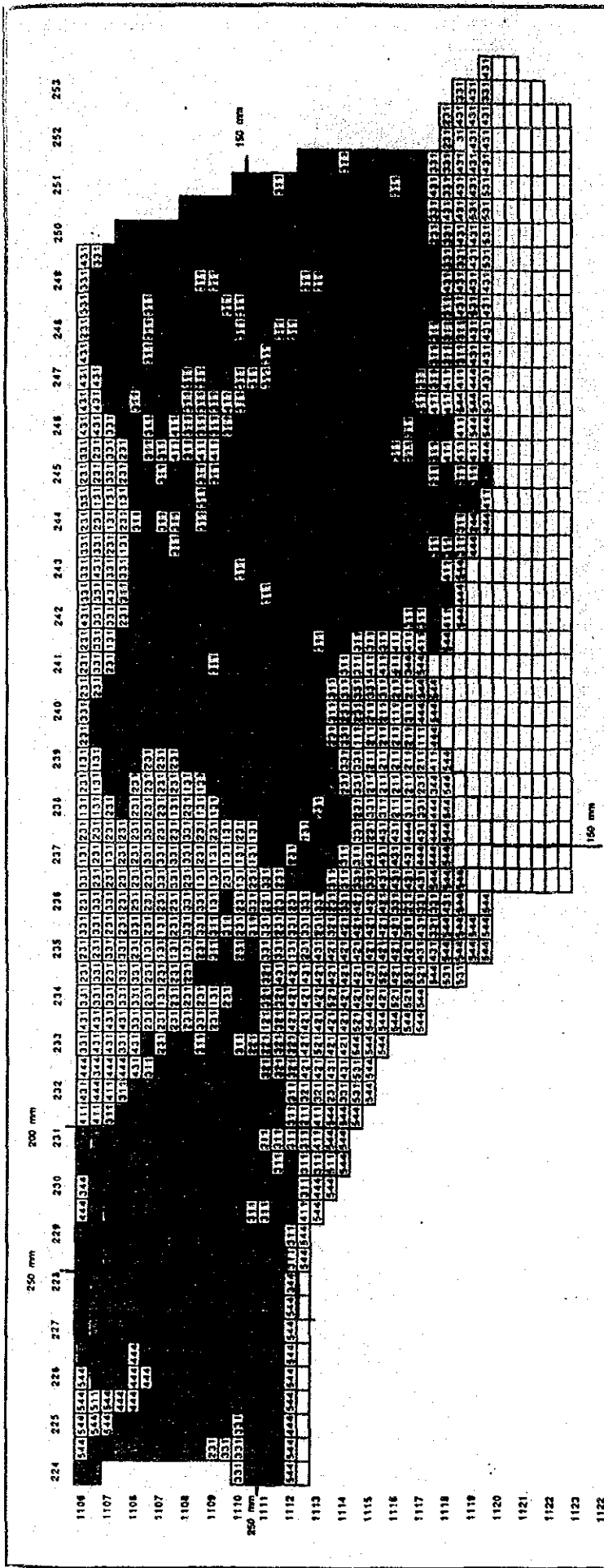


図 3.2 優先開発地域における年降水量変化

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**TOPOGRAPHY**  
 100: Flat to Almost Flat (0-4%)  
 200: Undulating (4-9%)  
 300: Rolling (9-12%)  
 400: Hilly (12-30%)  
 500: Mountainous (30% <)

**SOIL DEPTH**  
 10: Deep (100 cm <)  
 20: Deep to Moderately Deep (100-50 cm)  
 30: Moderately Deep (50-20 cm)  
 40: Shallow (20 cm >)

**ROCKINESS**  
 1: Non Rocky (0-10%)  
 2: Rocky (10-25%)  
 3: Very Rocky (25-50%)  
 4: Extremely Rocky (50% <)

For example, 123 indicates the land class of (1) Flat to Almost Flat, (2) Deep to Moderately Deep Soils and (3) Very Rocky.

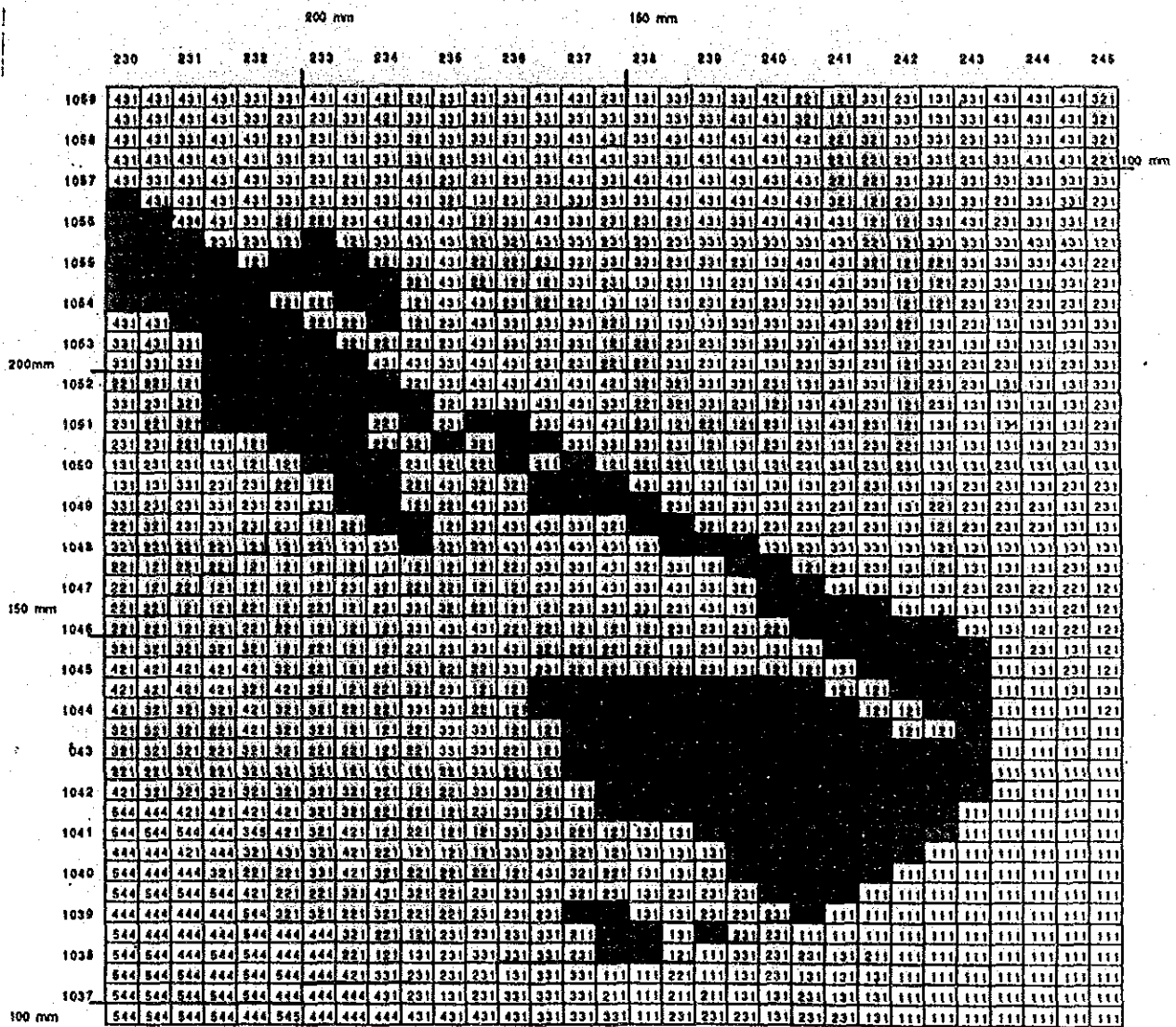
**Land Suitability**

- Field Crops
- Fruit Trees
- Barley & Forage Legume
- Fodder Shrubs

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図 3.3 ヌィバン地域の土地分類図





RATING CRITERIA

TOPOGRAPHY	SOIL DEPTH	ROCKINESS
100: Flat to Almost Flat (0-4%)	10: Deep (100 cm <)	1: Non Rocky (0-10%)
200: Undulating (4-8%)	20: Deep to Moderately Deep (100-50 cm)	2: Rocky (10-26%)
300: Rolling (8-12%)	30: Moderately Deep (50-20 cm)	3: Very Rocky (25-50%)
400: Hilly (12-30%)	40: Shallow (20 cm >)	4: Extremely Rocky (50% <)
500: Mountainous (30% <)		

For example, 123 indicates the land class of (i) Flat to Almost Flat, (ii) Deep to Moderately Deep Soils and (iii) Very Rocky.

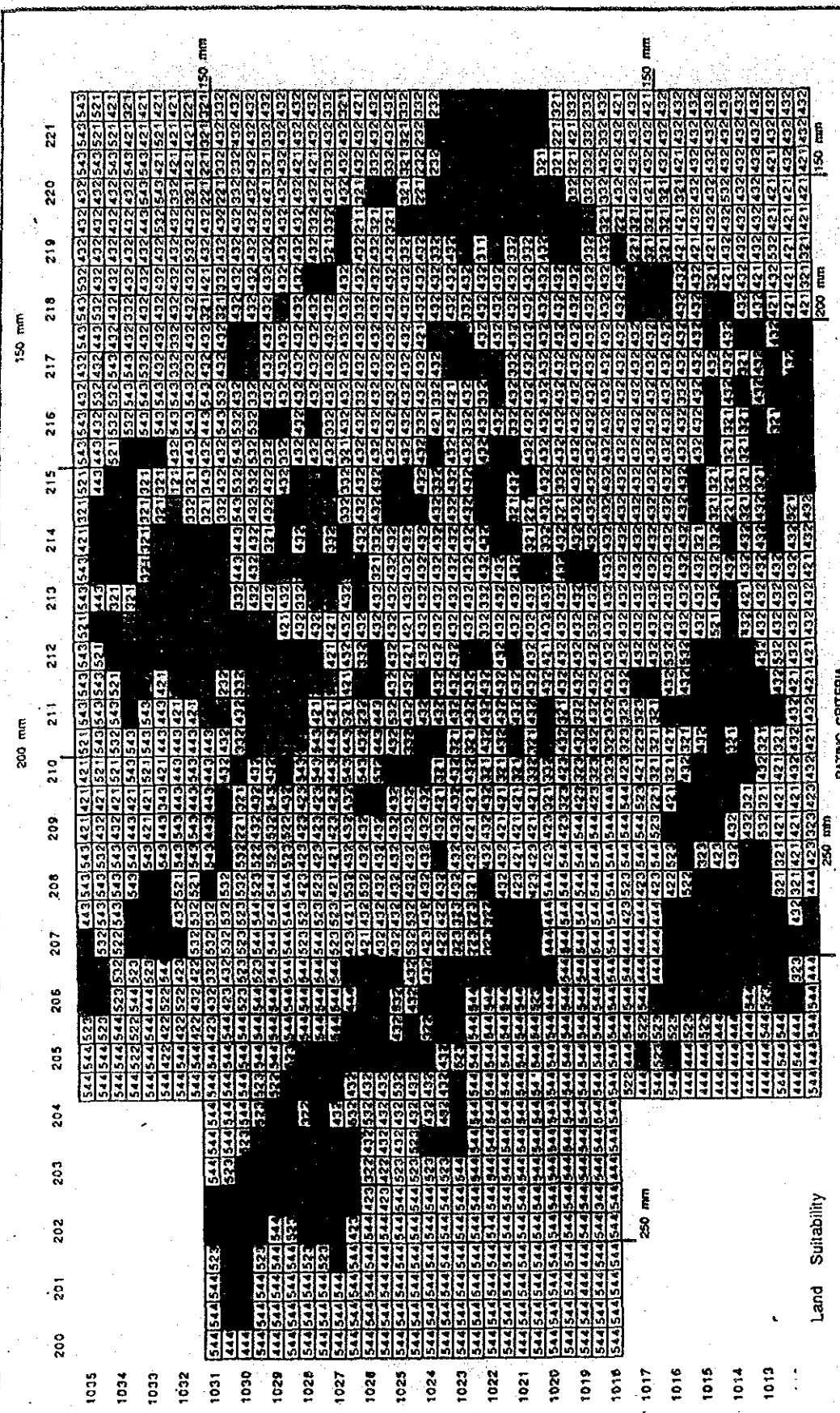
Land Suitability

- Field Crops
- Fruit Trees
- Barley & Forage Legume
- Fodder Shrubs

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図 3.4 アビヤド地域の土地分類図





**TOPOGRAPHY**

- 100: Flat to Almost Flat (0-4%)
- 200: Undulating (4-8%)
- 300: Rolling (8-12%)
- 400: Hilly (12-30%)
- 500: Mountains (30% >)

**SOIL DEPTH**

- 10: Deep (100 cm <)
- 20: Deep to Moderately Deep (100-50 cm)
- 30: Moderately Deep (50-20 cm)
- 40: Shallow (20 cm >)

**ROCKINESS**

- 1: Non Rocky (0-10%)
- 2: Rocky (10-25%)
- 3: Very Rocky (25-50%)
- 4: Extremely Rocky (50% <)

**Land Suitability**

- Field Crops
- Fruit Trees
- barley & Forage Legume
- Fodder Shrubs

RATING CRITERIA

図 3.5 タフイーラ地域の土地分類図

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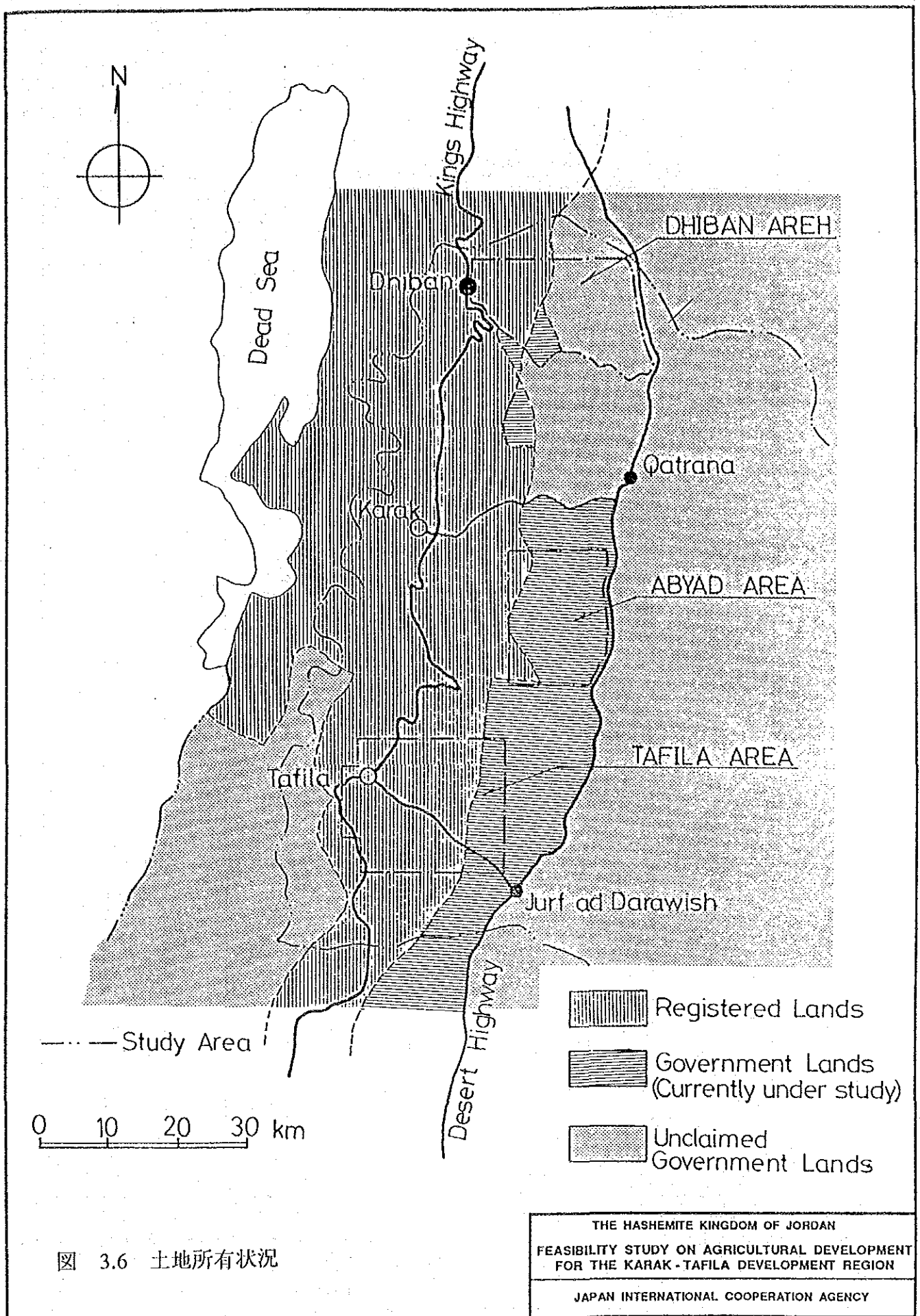


图 3.6 土地所有状况

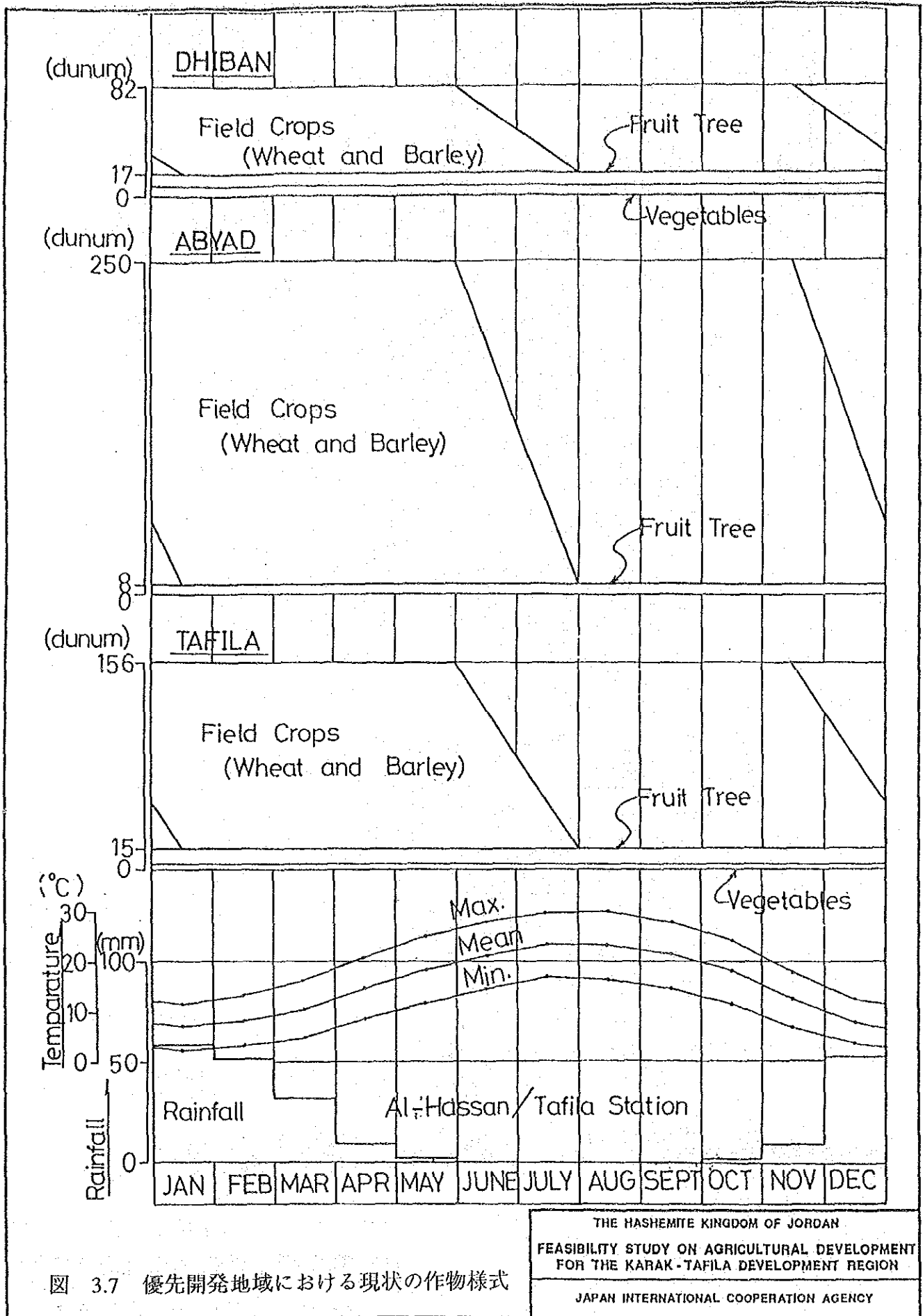
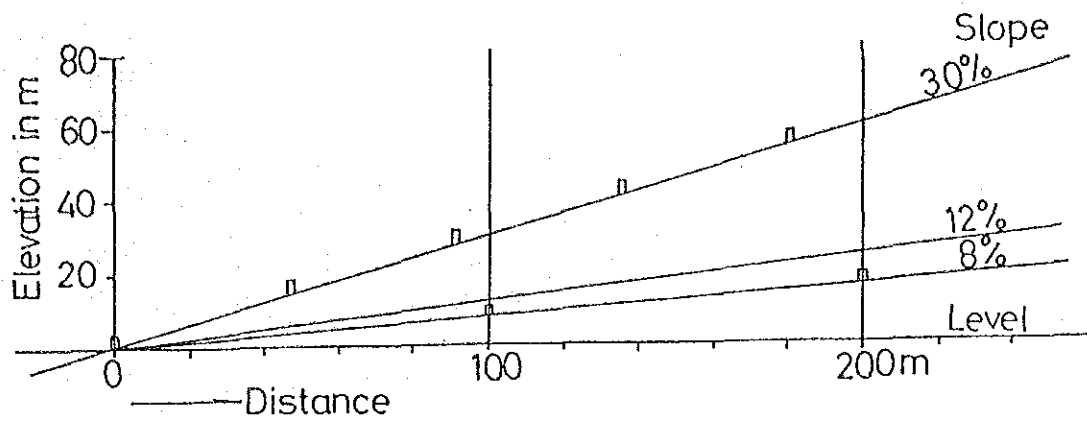


図 3.7 優先開発地域における現状の作物様式

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Spacing of Contour Stone Walls

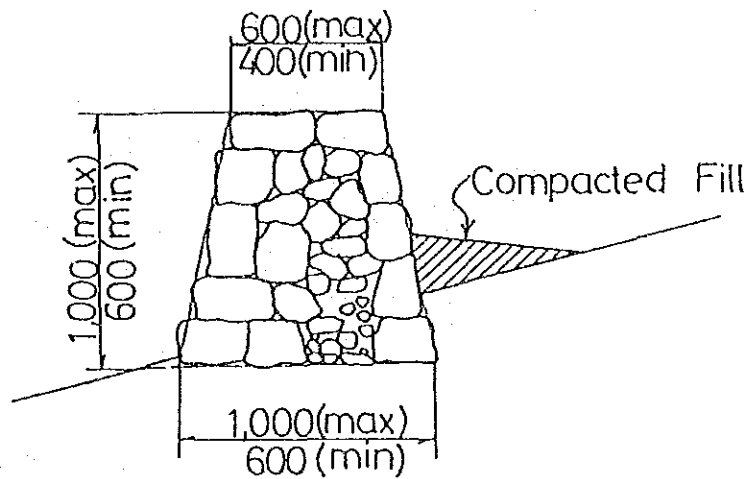
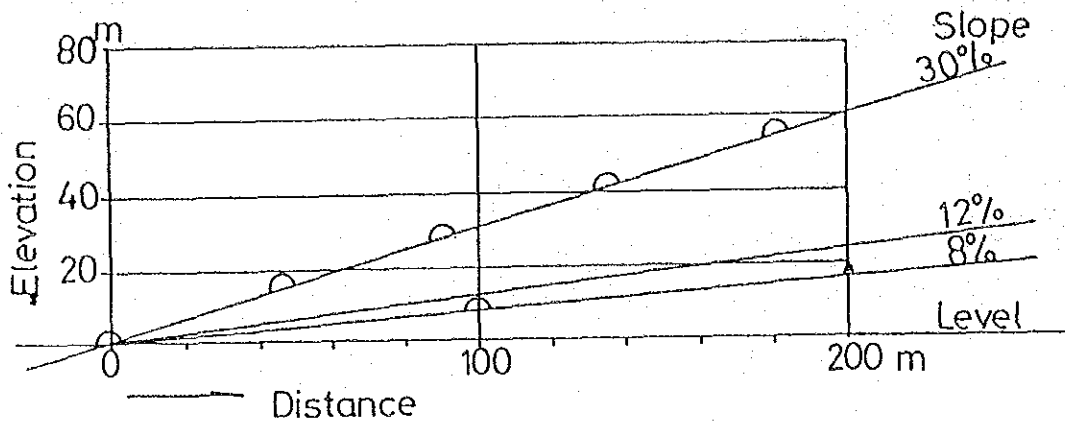


図 4.1 ストーンウォール横断面図

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Spacing Of Absorption Earth Banks

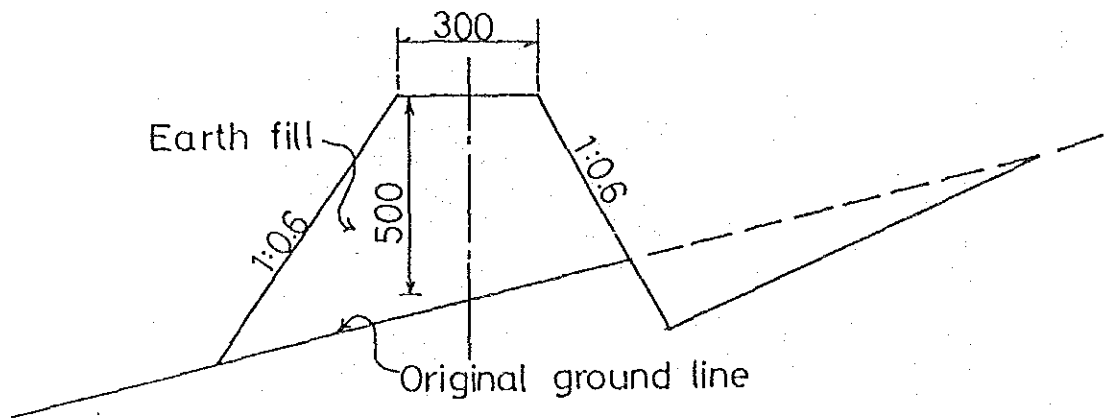
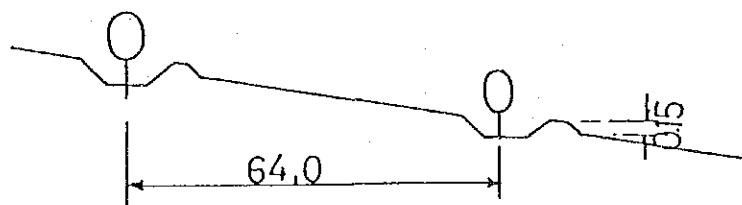
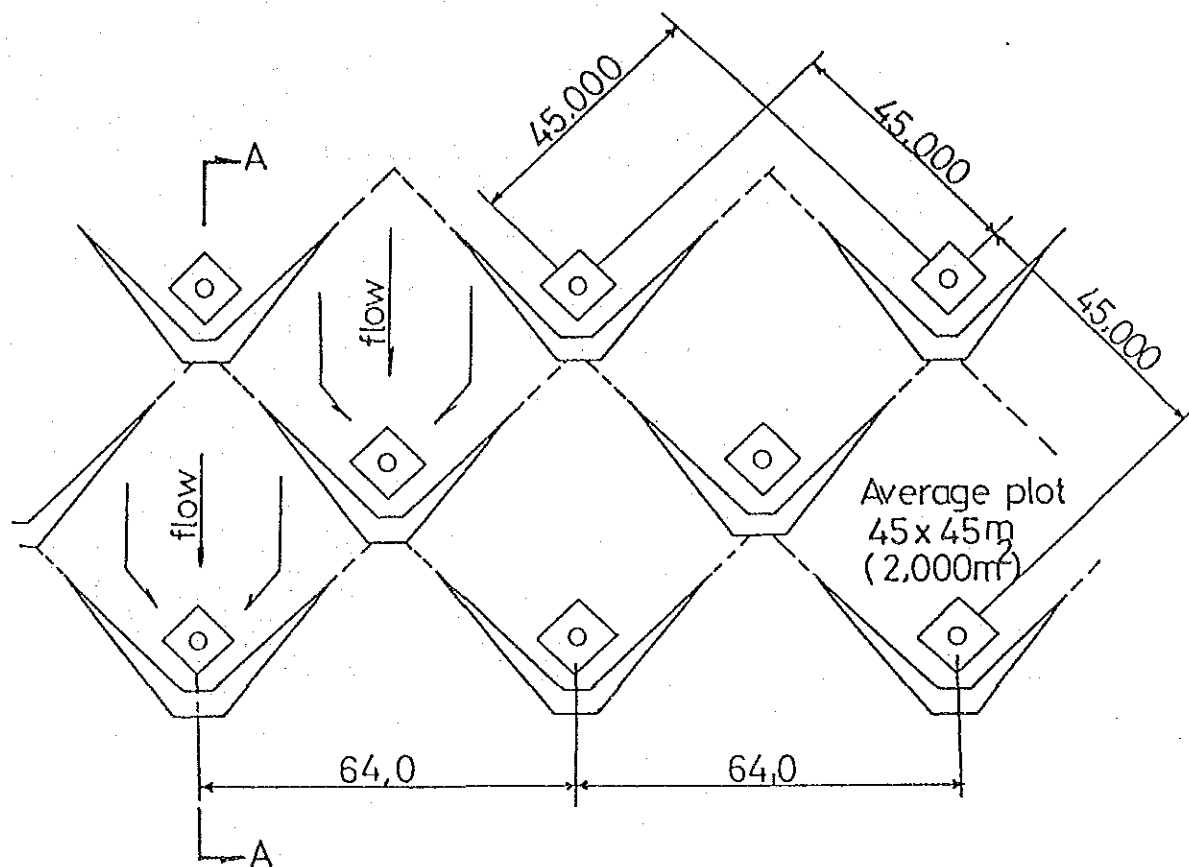


図 4.2 アースバンク横断図

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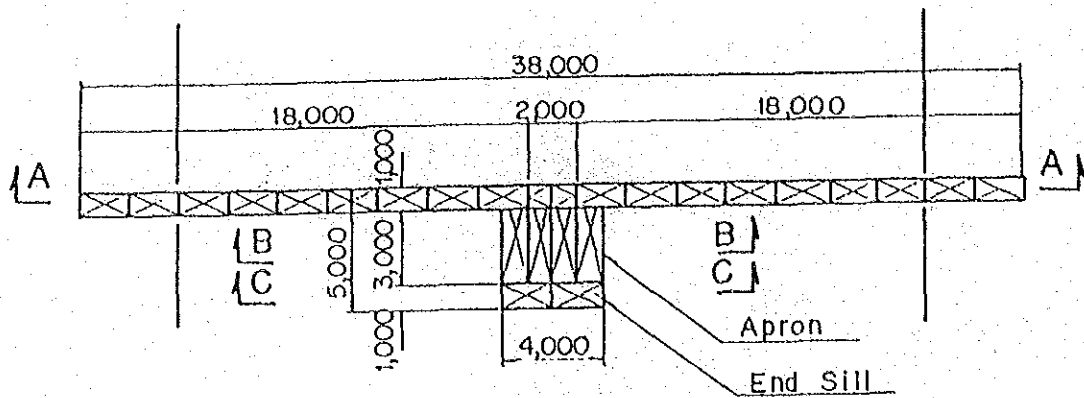


SECTION A-A

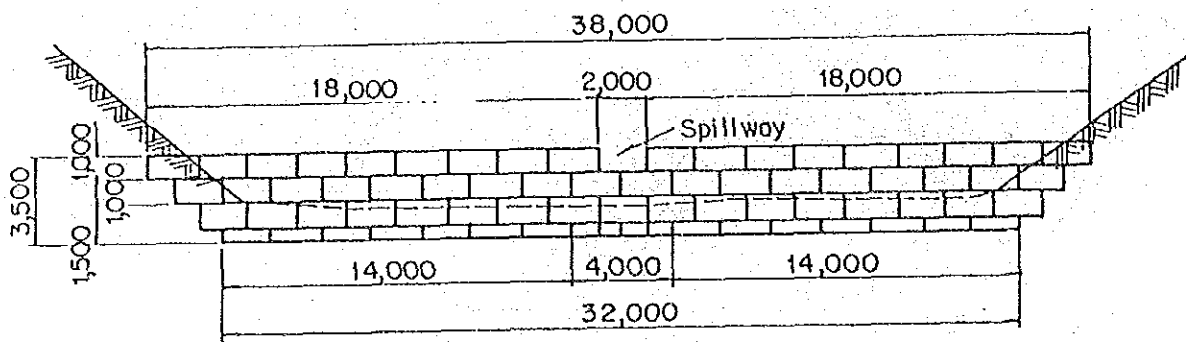
図 4.3 マイクロキャッチメント図

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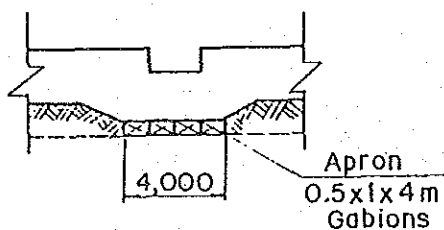
JAPAN INTERNATIONAL COOPERATION AGENCY



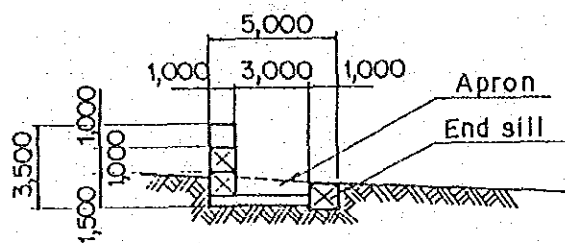
PLAN



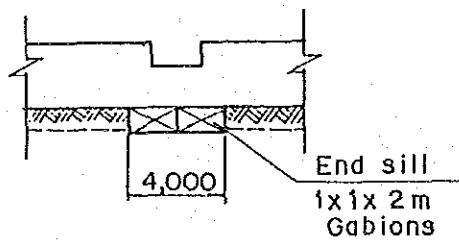
SEC. A-A



SEC. B-B



PROFILE



SEC. C-C

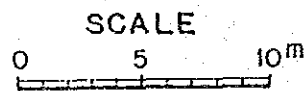
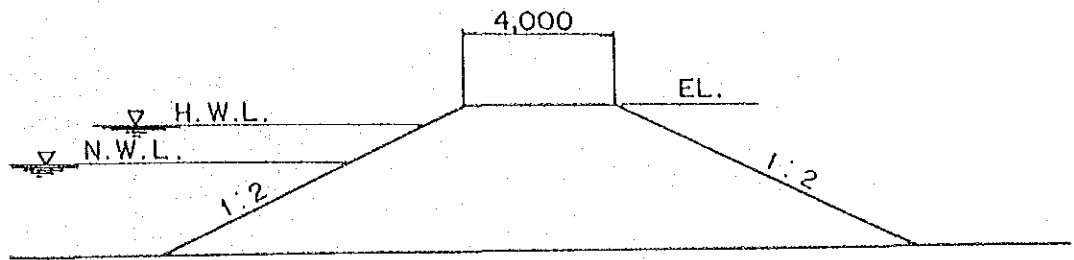


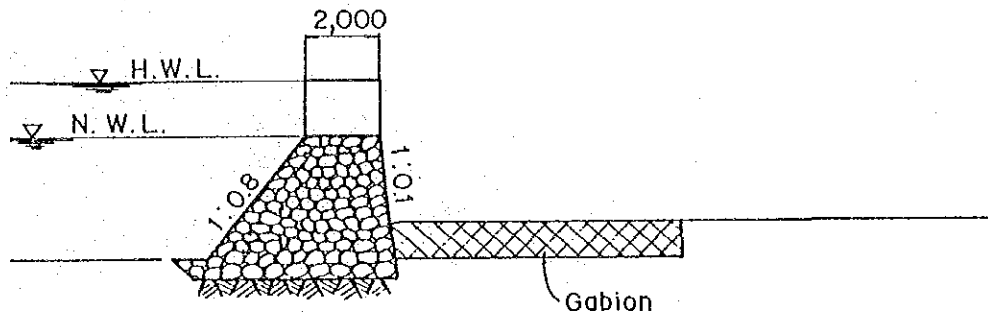
図 4.4 チェックダム図

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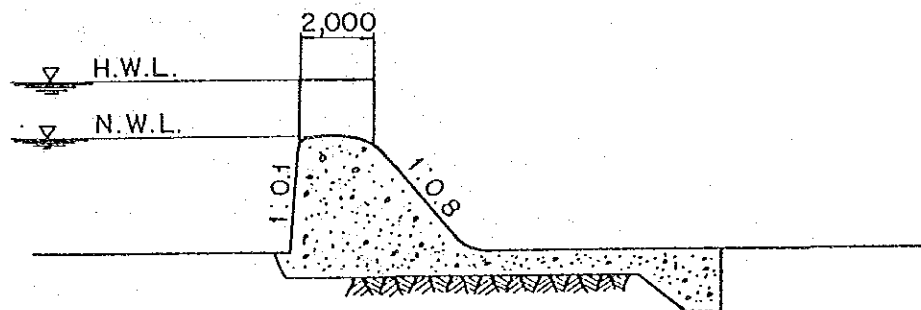
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HOMOGENEOUS EARTH FILL



WET MASONRY



CONCRETE GRAVITY

図 4.5 堰の典型的タイプ

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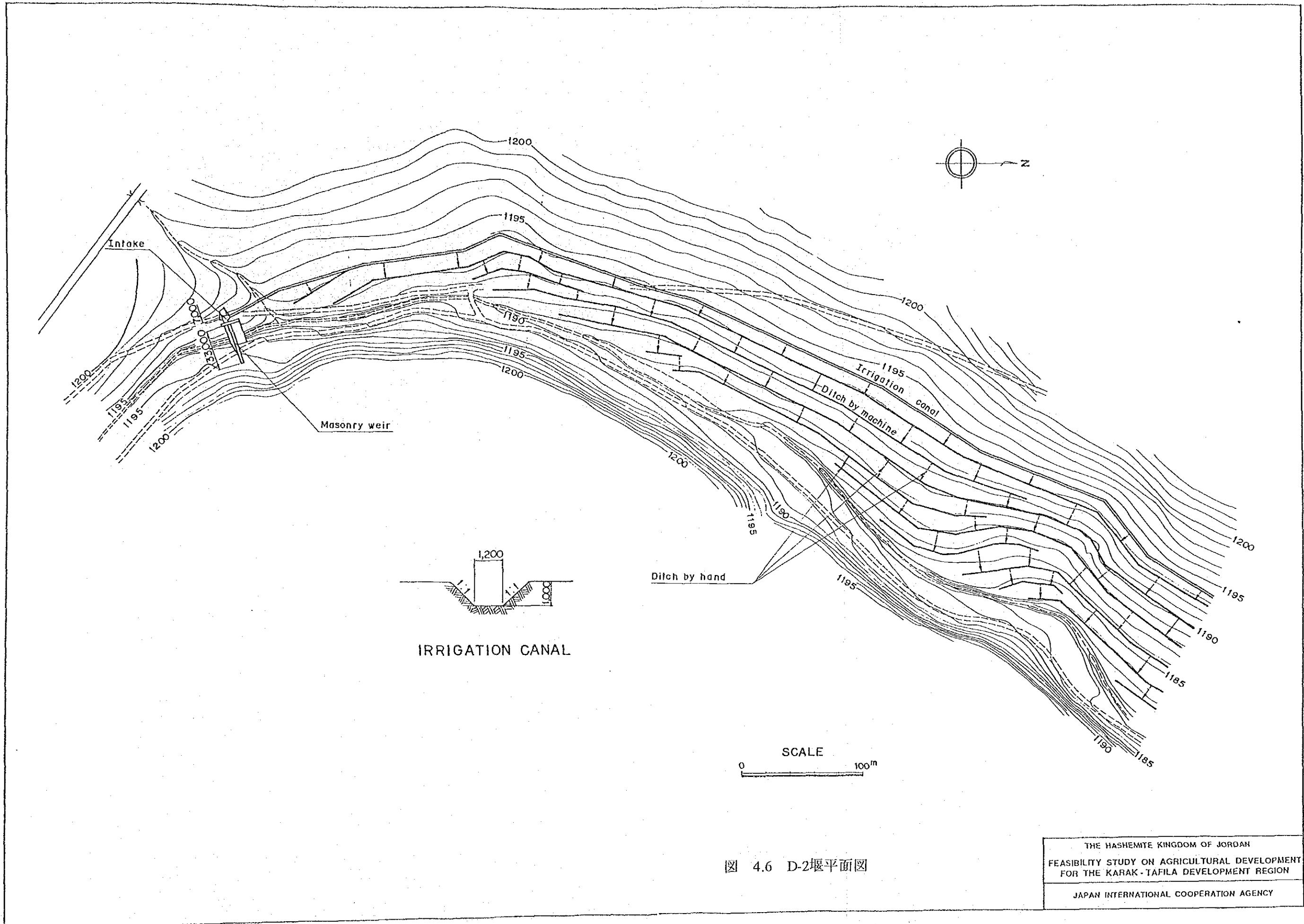
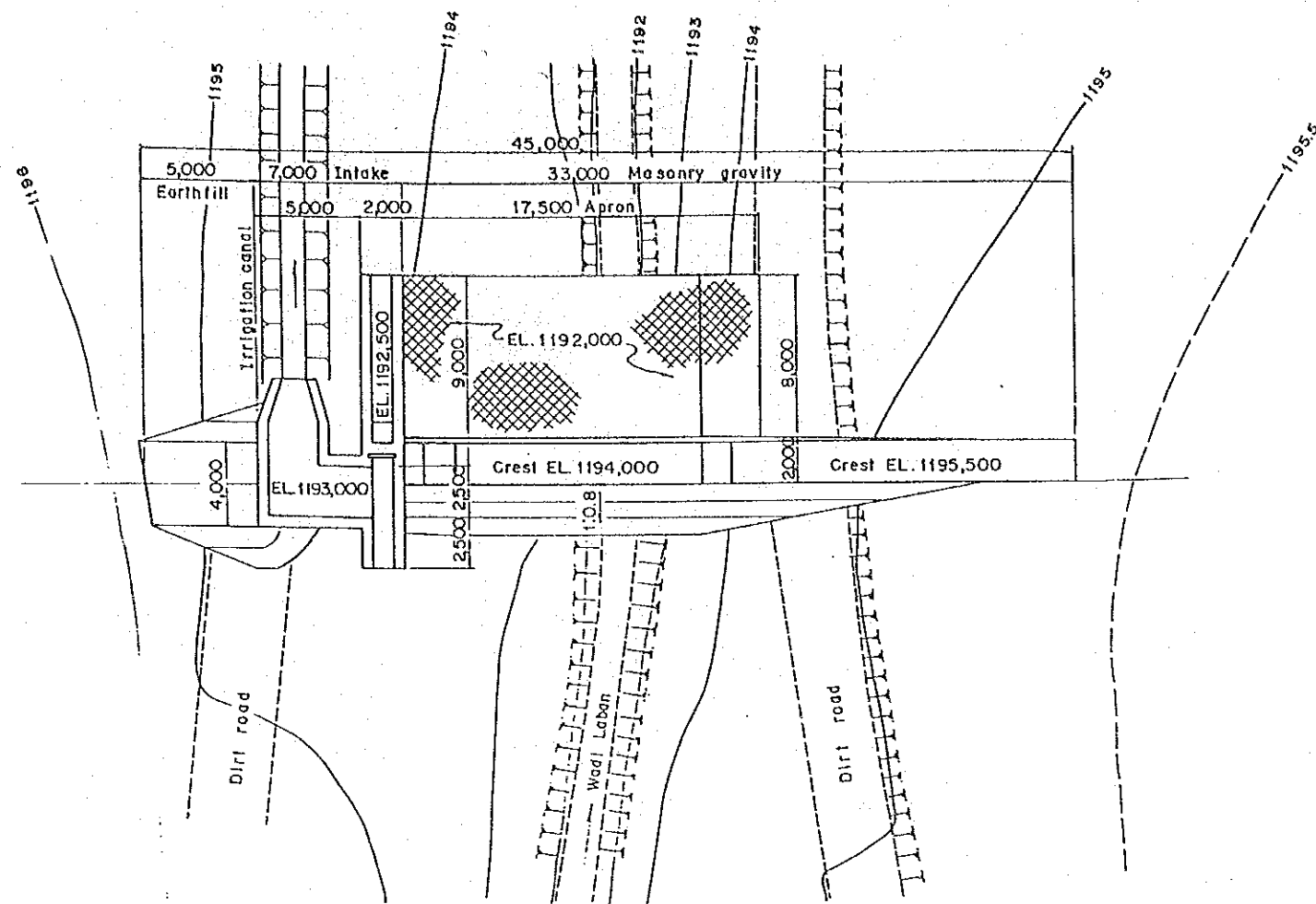


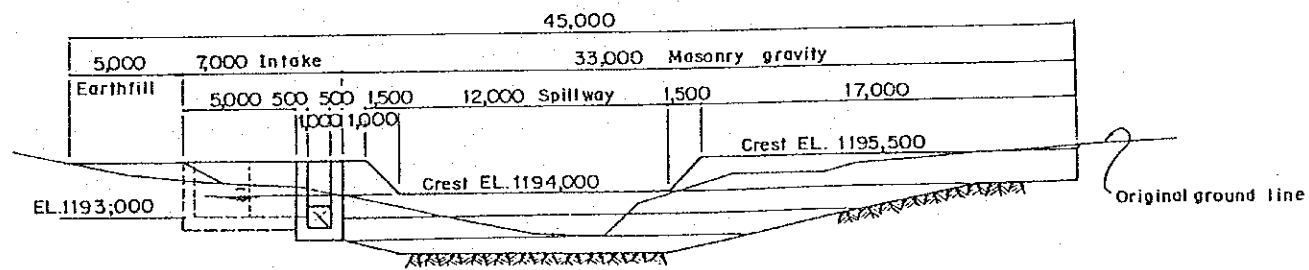
图 4.6 D-2堰平面图

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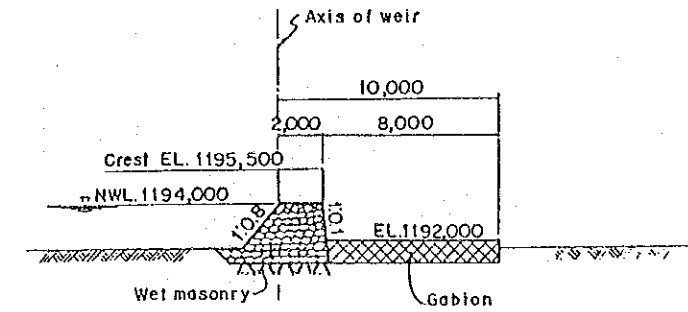




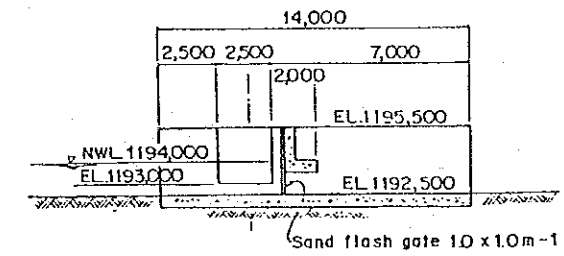
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PROFILE



SECTION OF MASONRY GRAVITY WEIR



PROFILE OF INTAKE

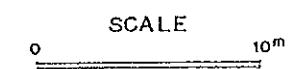


图 4.7 D-2堰 (石造) 图

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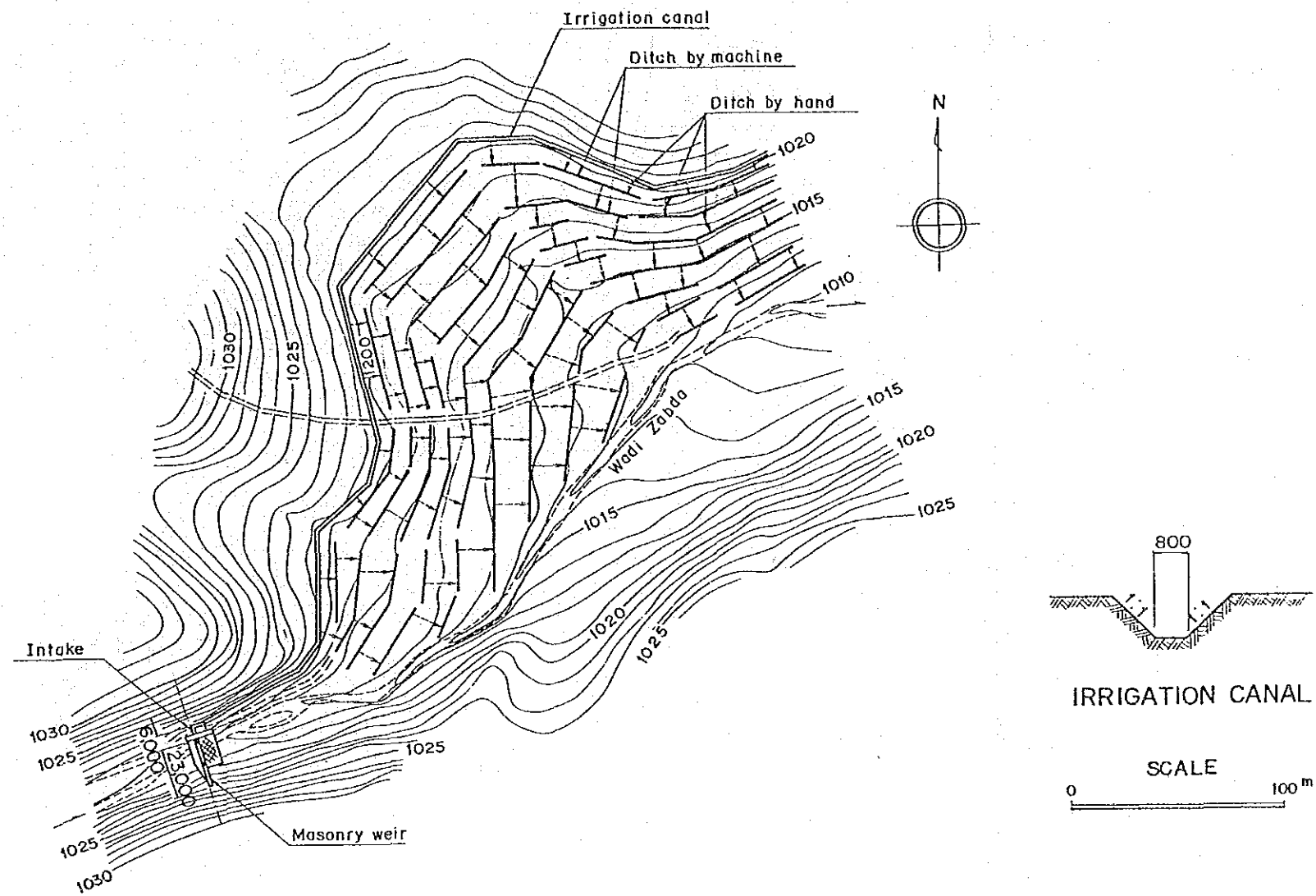
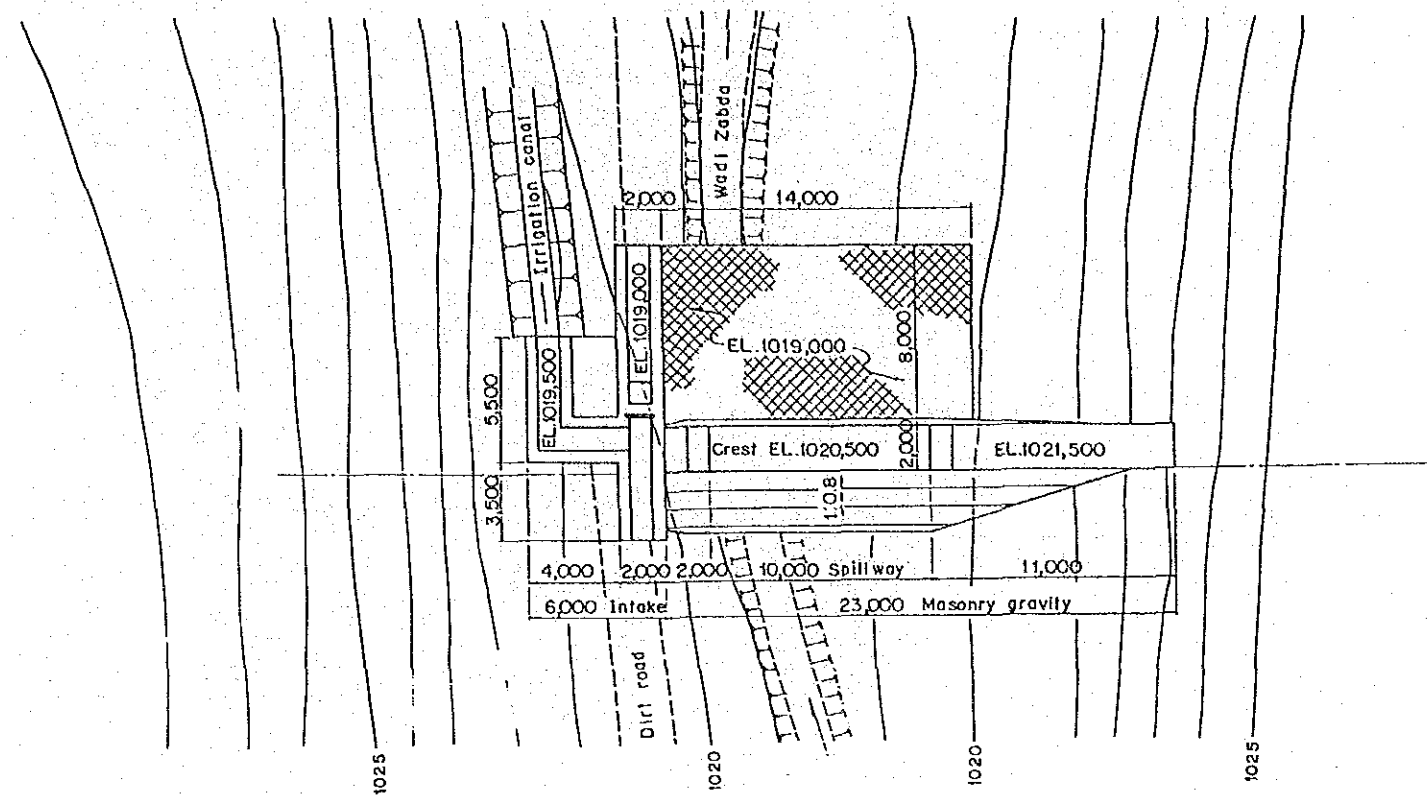
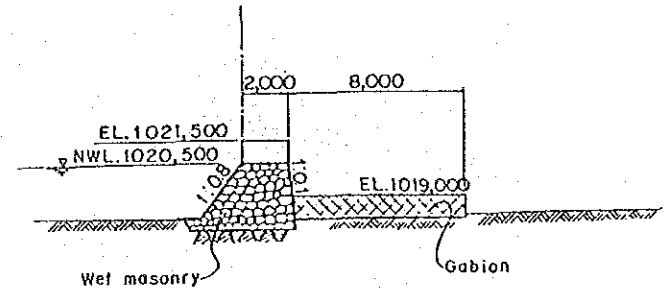


图 4.8 E-1 堰平面图

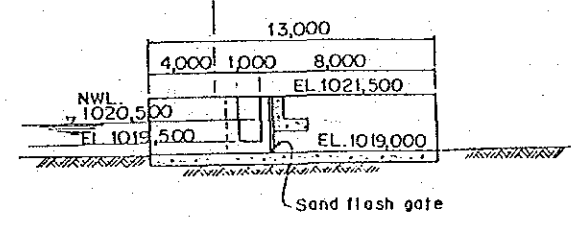
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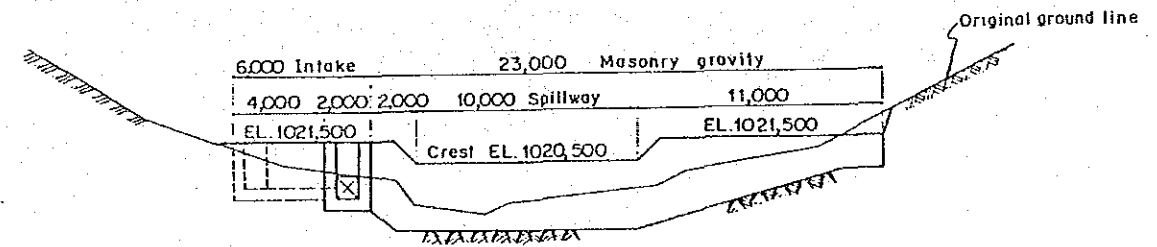
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SECTION OF MASONRY GRAVITY WEIR



PROFILE OF INTAKE



PROFILE

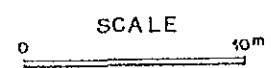


图 4.9 E-1堰 (石造) 图

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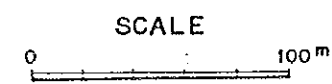
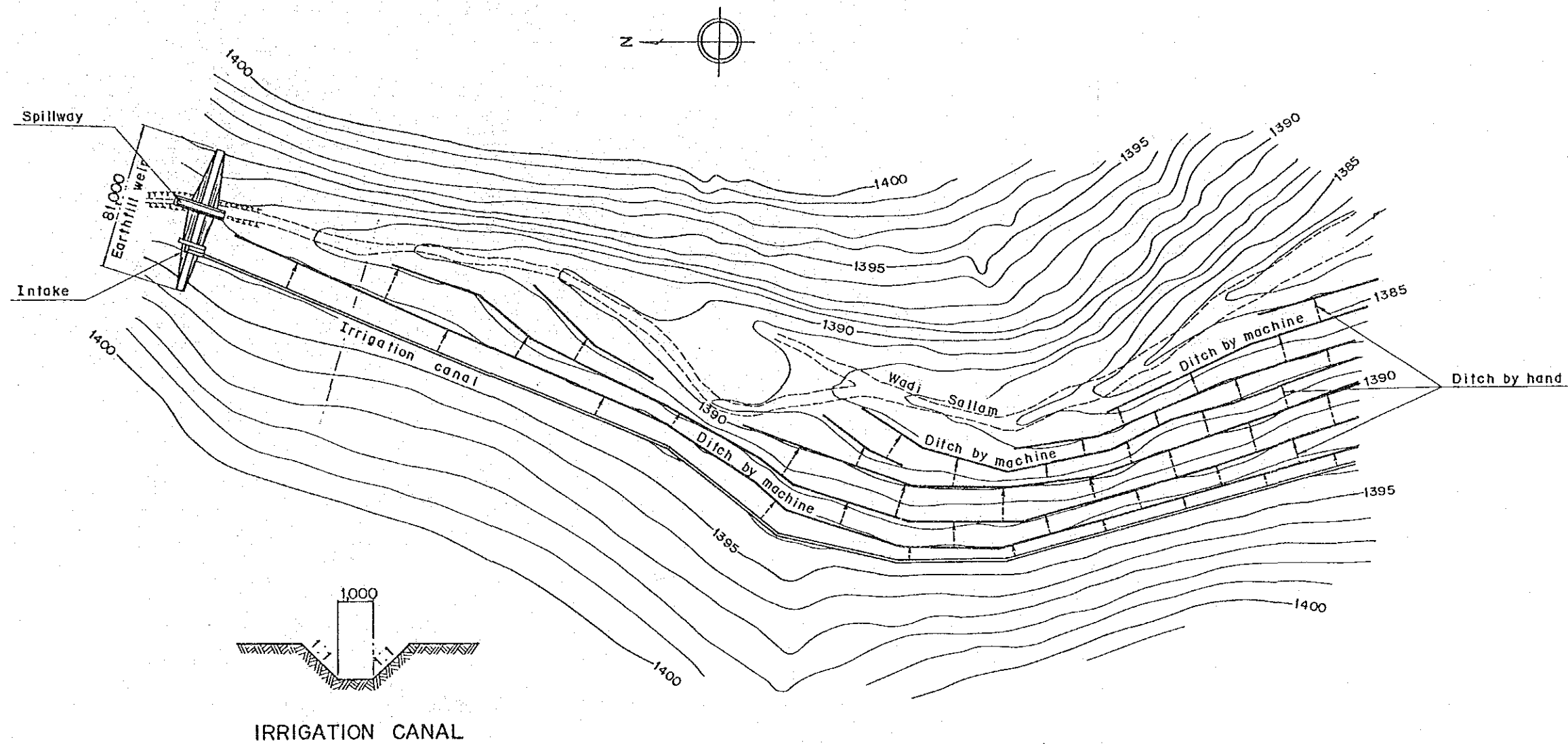


图 4.10 J-1堰平面图

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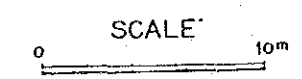
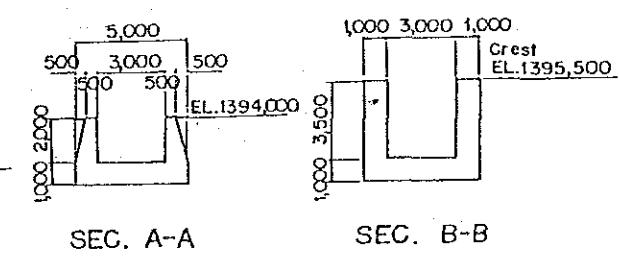
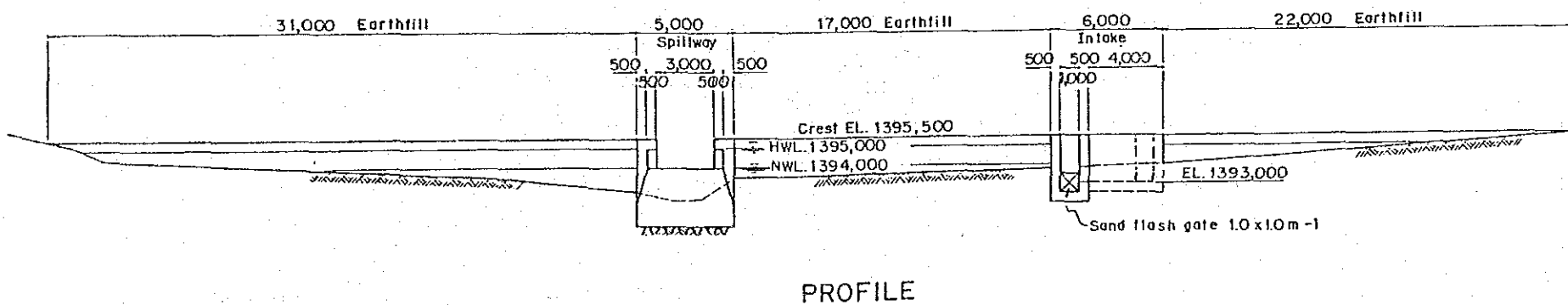
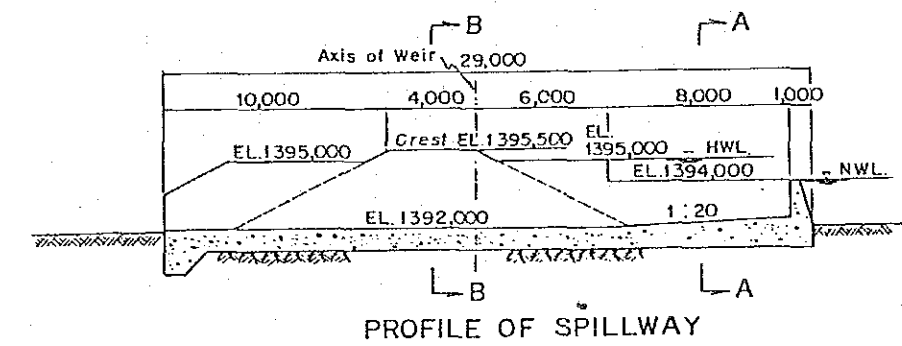
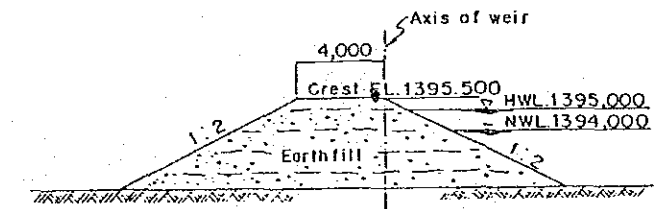
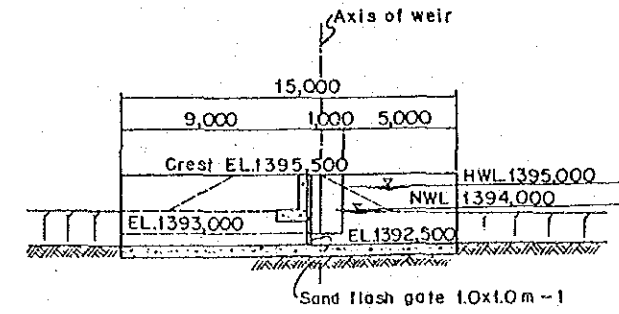
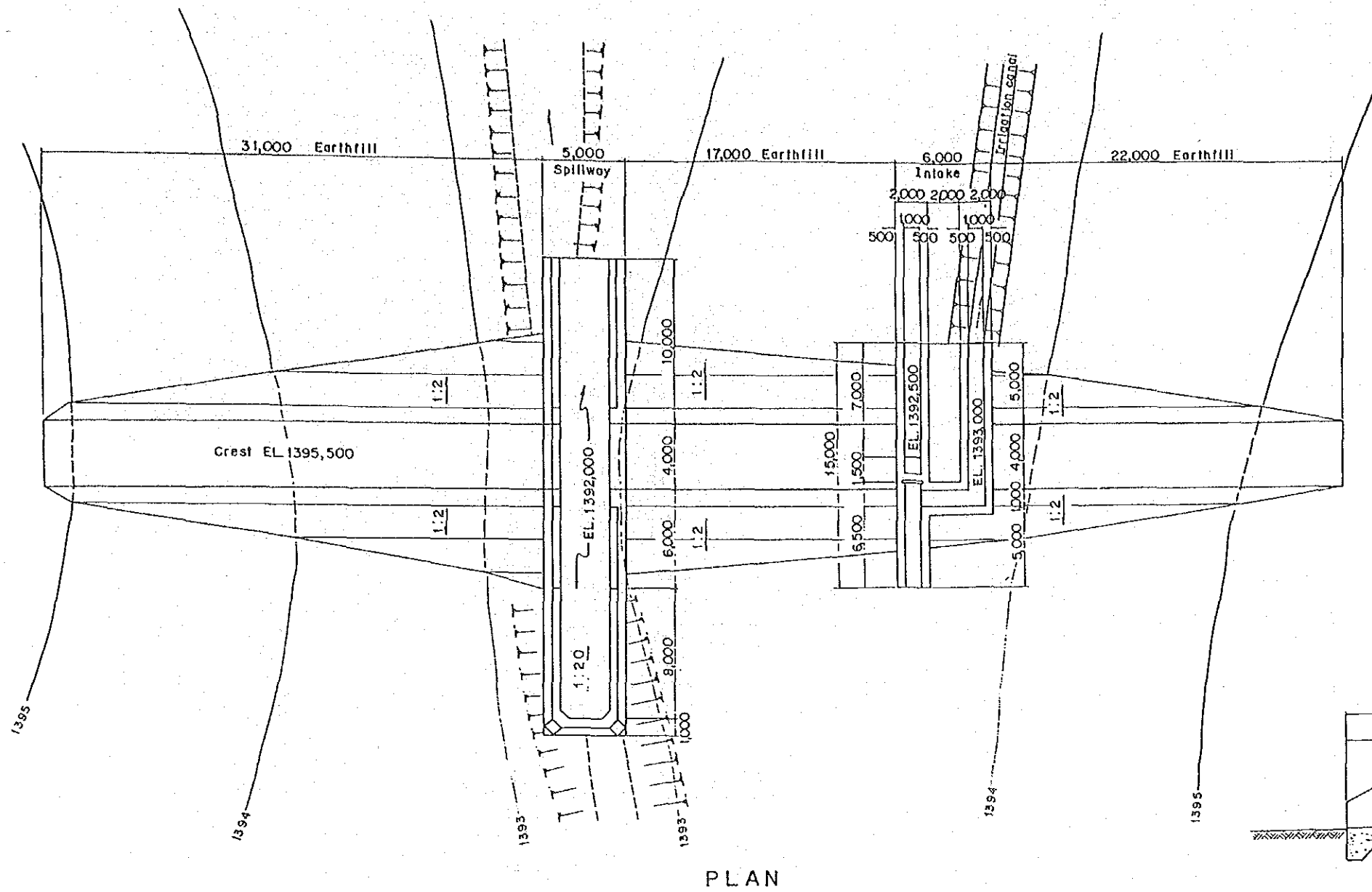


图 4.11 J-1堰 (石造) 图

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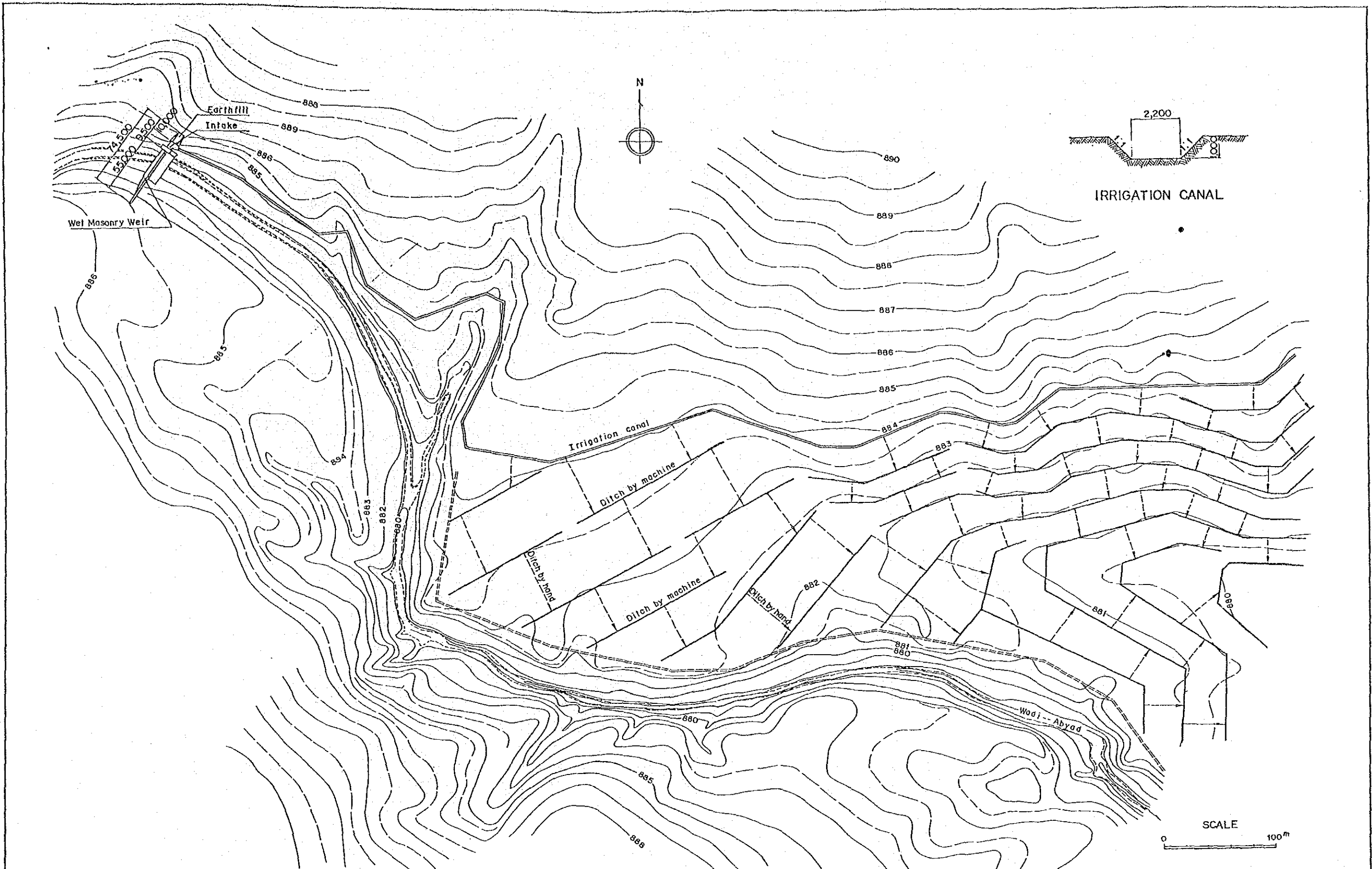


図 4.12 アビヤド堰平面図

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 FEASIBILITY STUDY ON AGRICULTURAL DEVELOPMENT  
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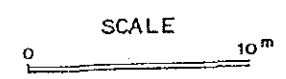
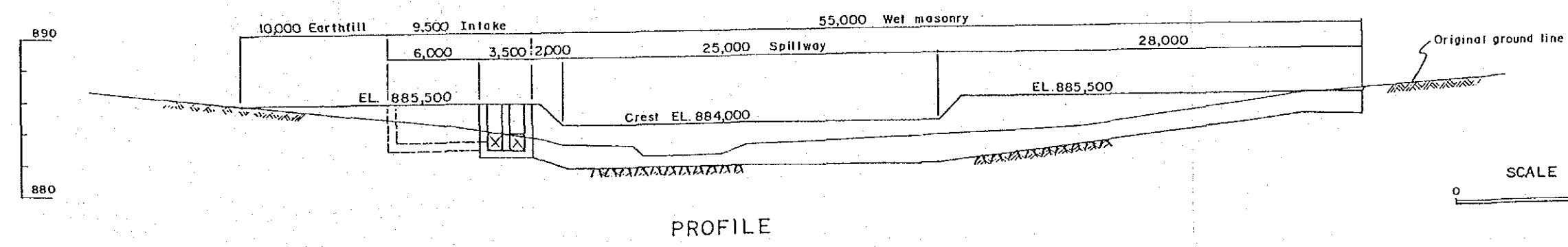
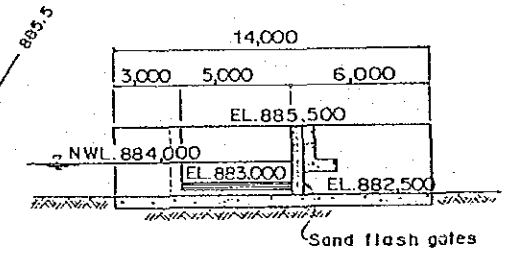
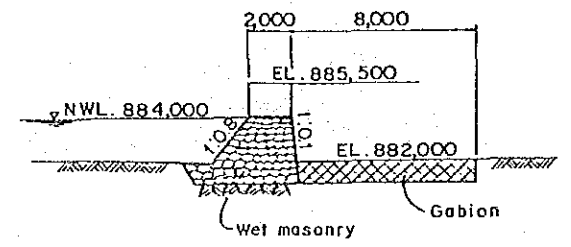
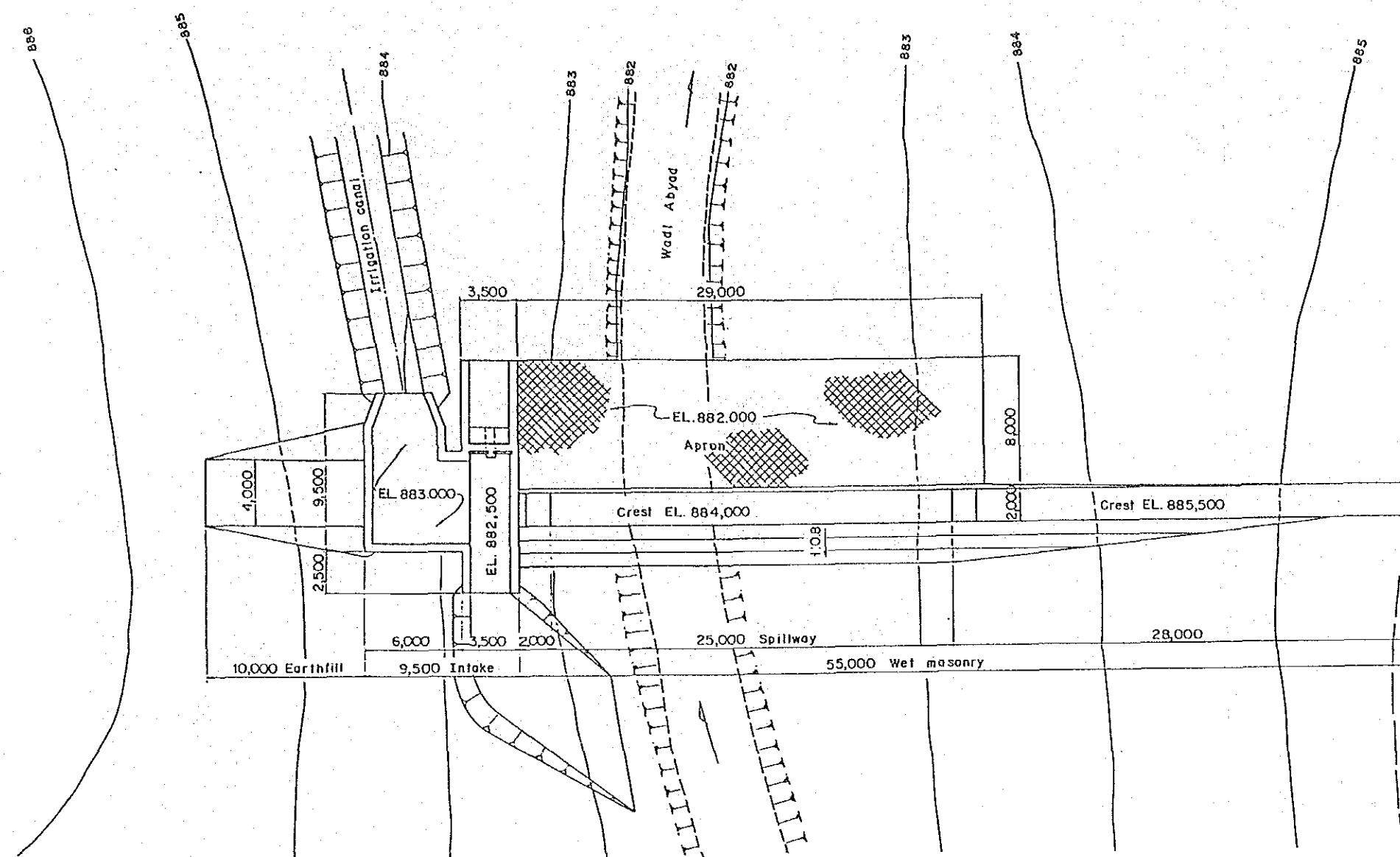


図 4.13 アビヤド堰 (石造) 図

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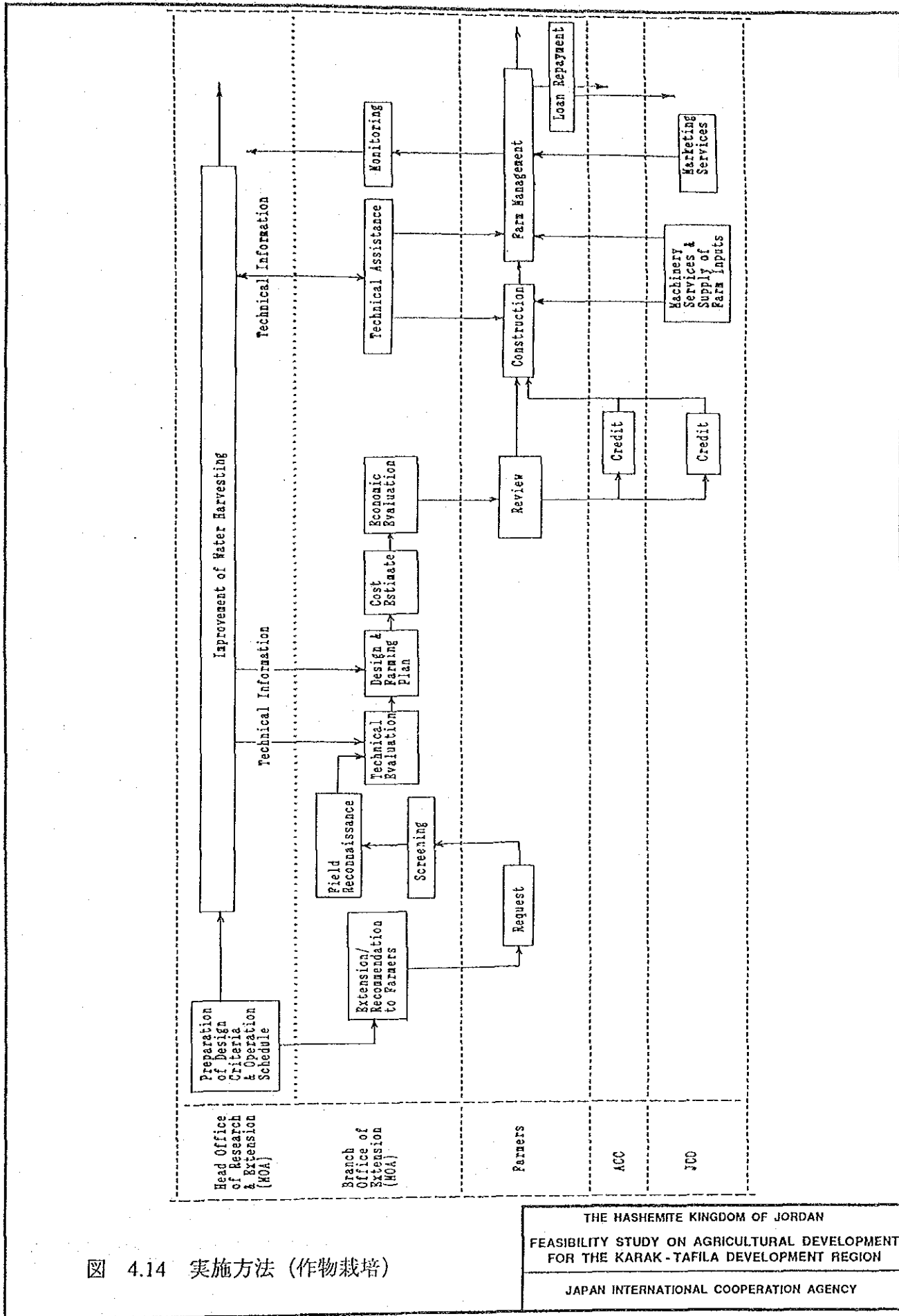


图 4.14 实施方法 (作物栽培)

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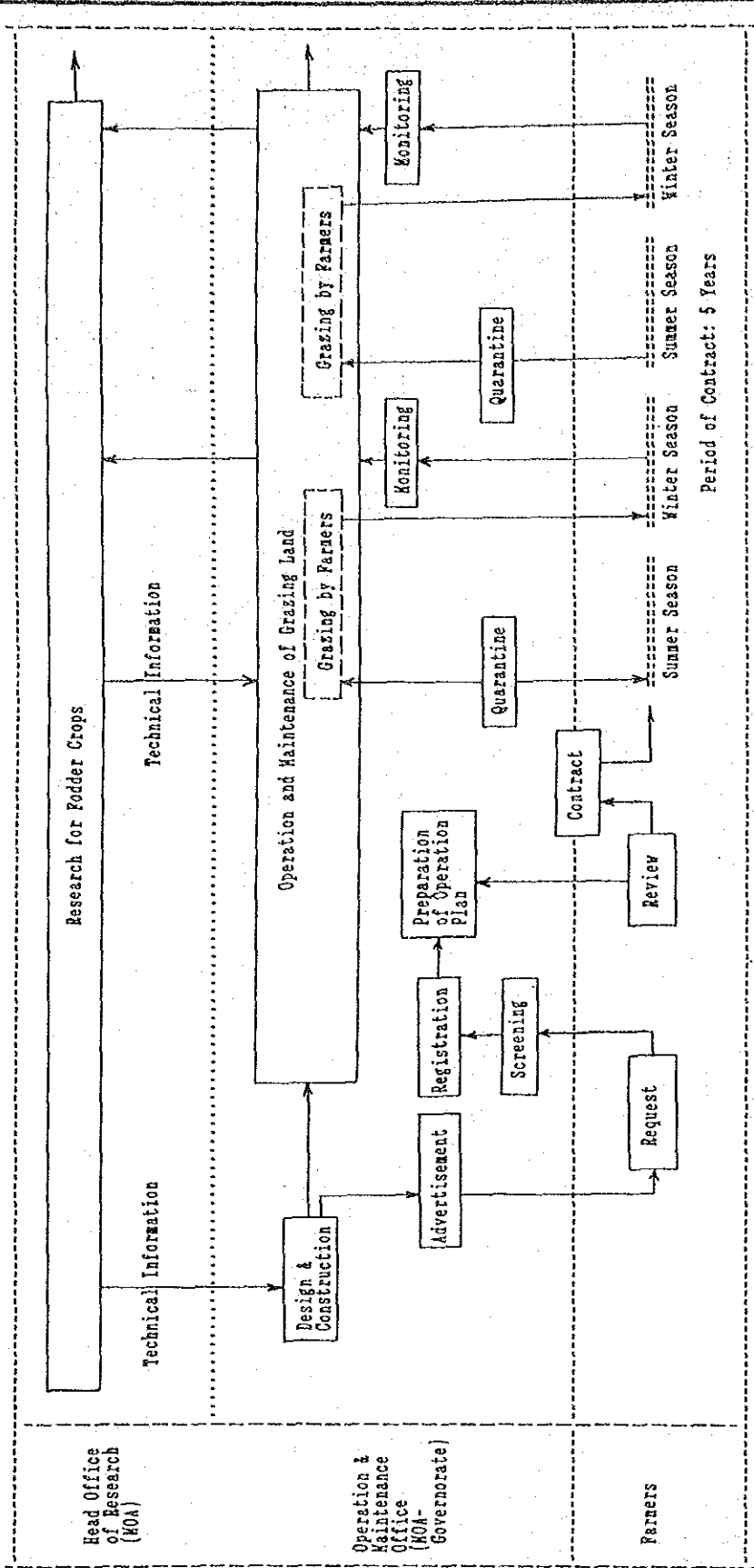


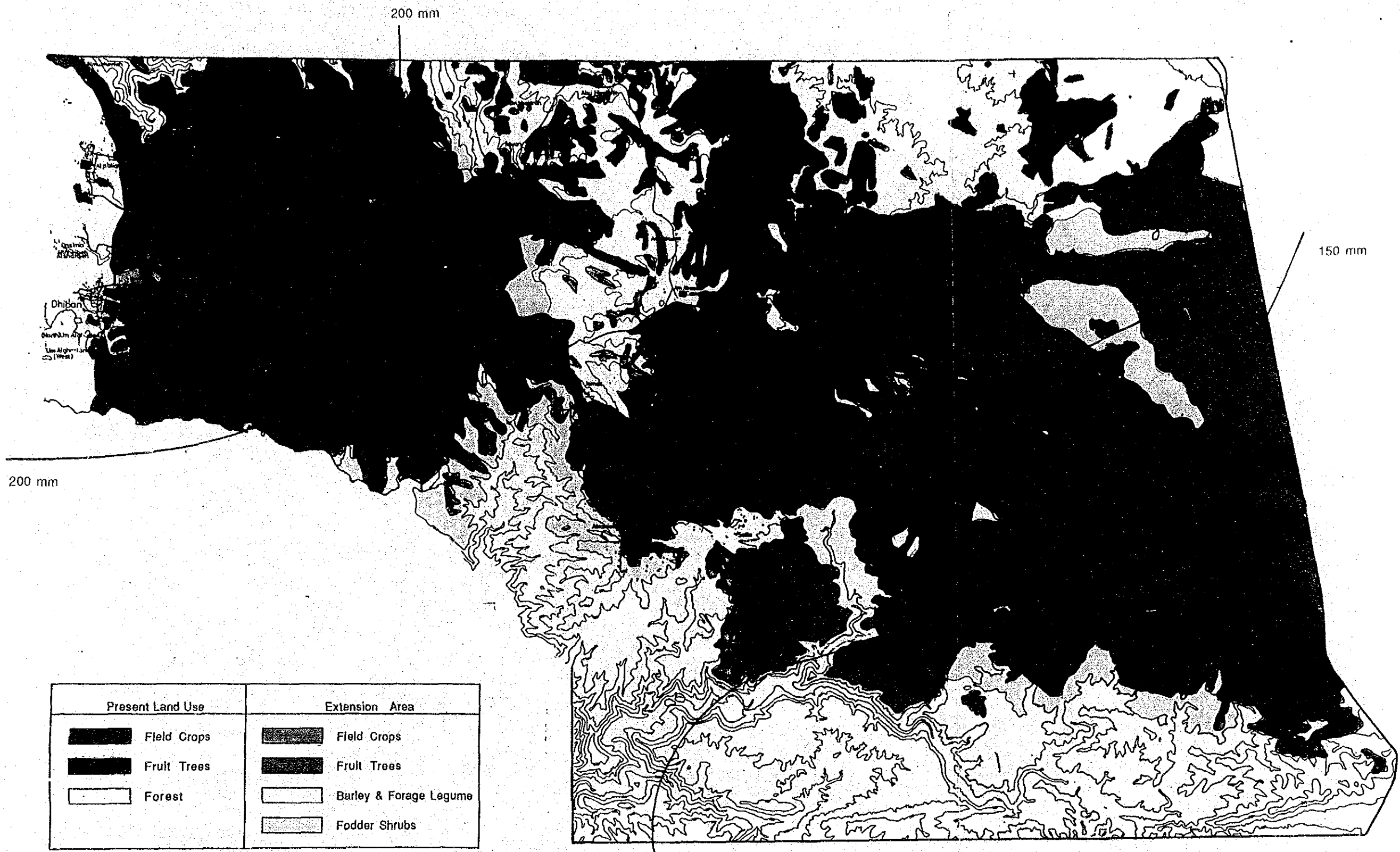
図 4.15 実施方法 (樹葉飼料)

	Phase-I					Phase-II					Phase-III					
	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>A. CROP PRODUCTION SCHEME</b>																
1. Phase-I																
1) Trial farming and researches of water harvesting measures at the existing experimental farm																
2) Extension of tentative water harvesting measures to the existing fields																
3) Training of extension agents related to the scheme																
4) Improvement and strengthening of agricultural supporting services																
5) Preparation of design criteria																
6) Implementation of winter irrigation																
7) Preparation of extension plan for Phase-I and II																
2. Phase-II (Construction)																
3. Phase-III (Construction)																
<b>B. FODDER SHRUB PRODUCTION SCHEME</b>																
1. Phase-I																
1) Experiments including trial grazing in the existing project area																
2) Detailed design																
2. Phase-II																
1) Construction																
- Land leveling and making of stone wall																
- Construction of fence																
- Planting of fodder shrub																
2) Advertisement and screening of farmers																
3) Preparation of operation plan and contract																
4) Grazing																

図 4.16 実施計画

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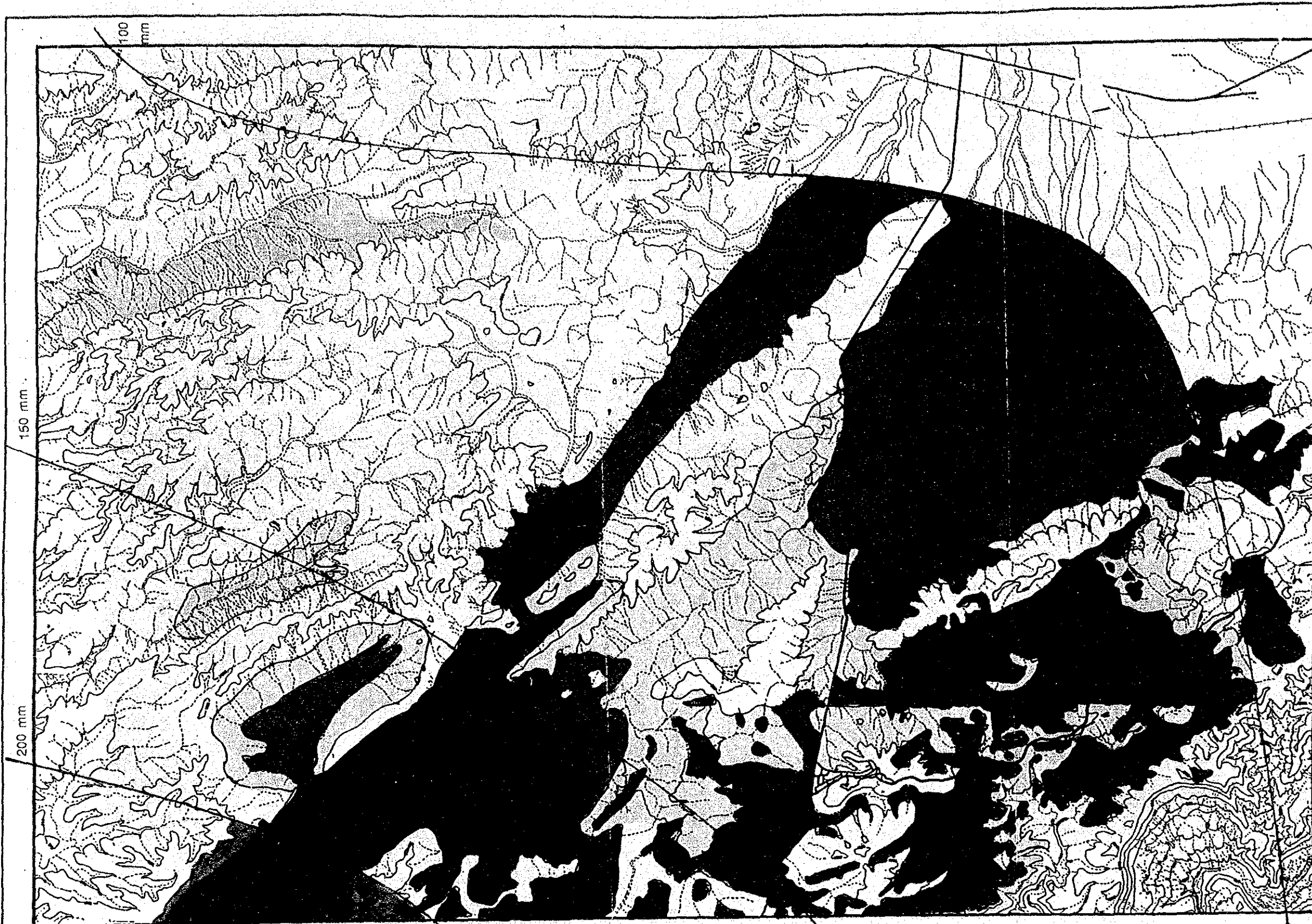
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Present Land Use	Extension Area
Field Crops	Field Crops
Fruit Trees	Fruit Trees
Forest	Barley & Forage Legume
	Fodder Shrubs

PLATE 1 ディバン地域における土地利用計画図

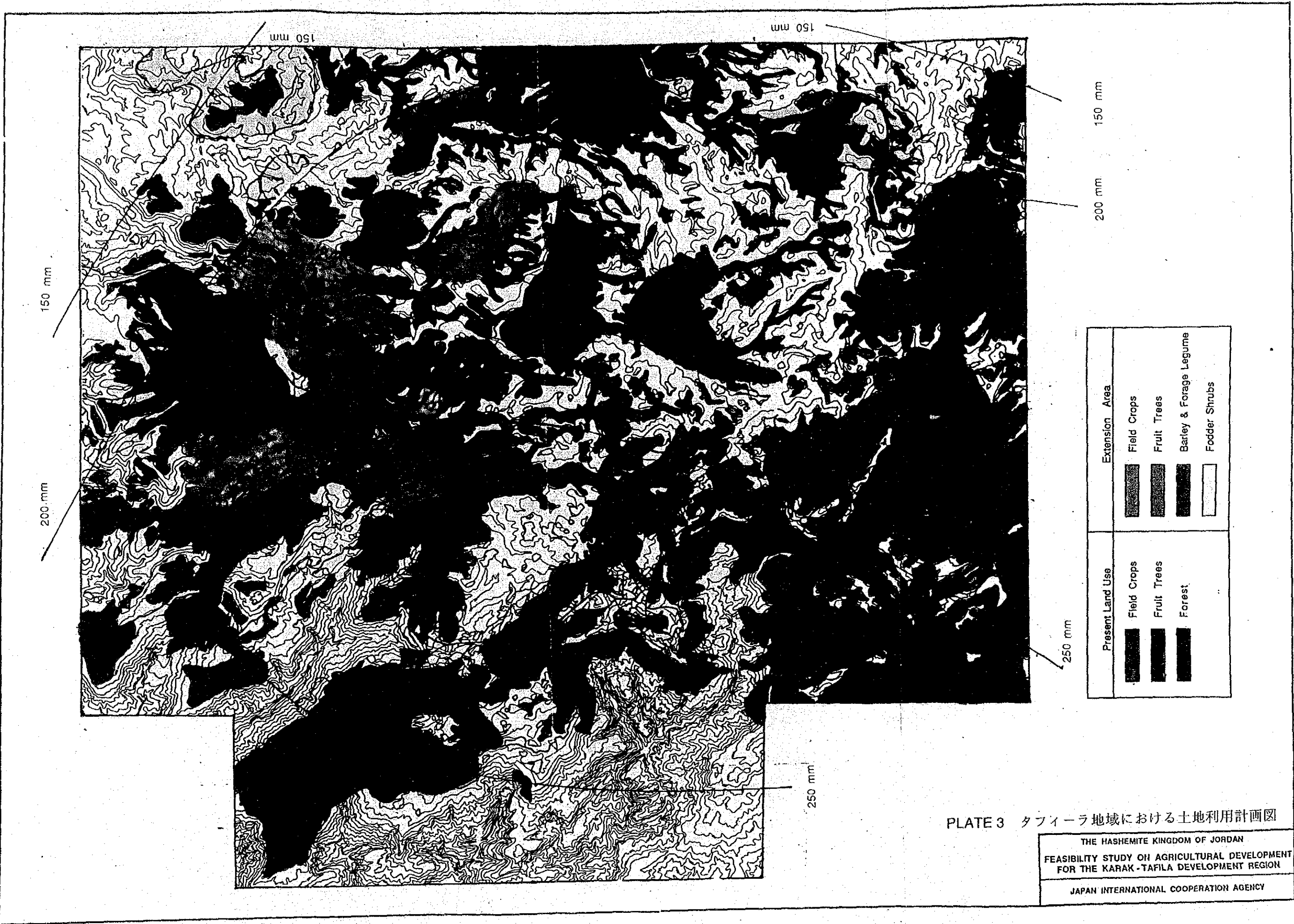
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Present Land Use	Extension Area
Field Crops	Field Crops
Fruit Trees	Fruit Trees
Forest	Barley & Forage Legume
	Fodder Shrubs

PLATE 2 アビヤド地域における土地利用計画図

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Present Land Use	Extension Area
Field Crops	Field Crops
Fruit Trees	Fruit Trees
Forest	Barley & Forage Legume
	Fodder Shrubs

PLATE 3 タフィーラ地域における土地利用計画図

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