

FIGURE 5.7 SCHEMATIC DIAGRAM OF PRESENT IRRIGATION SYSTEM (1978)

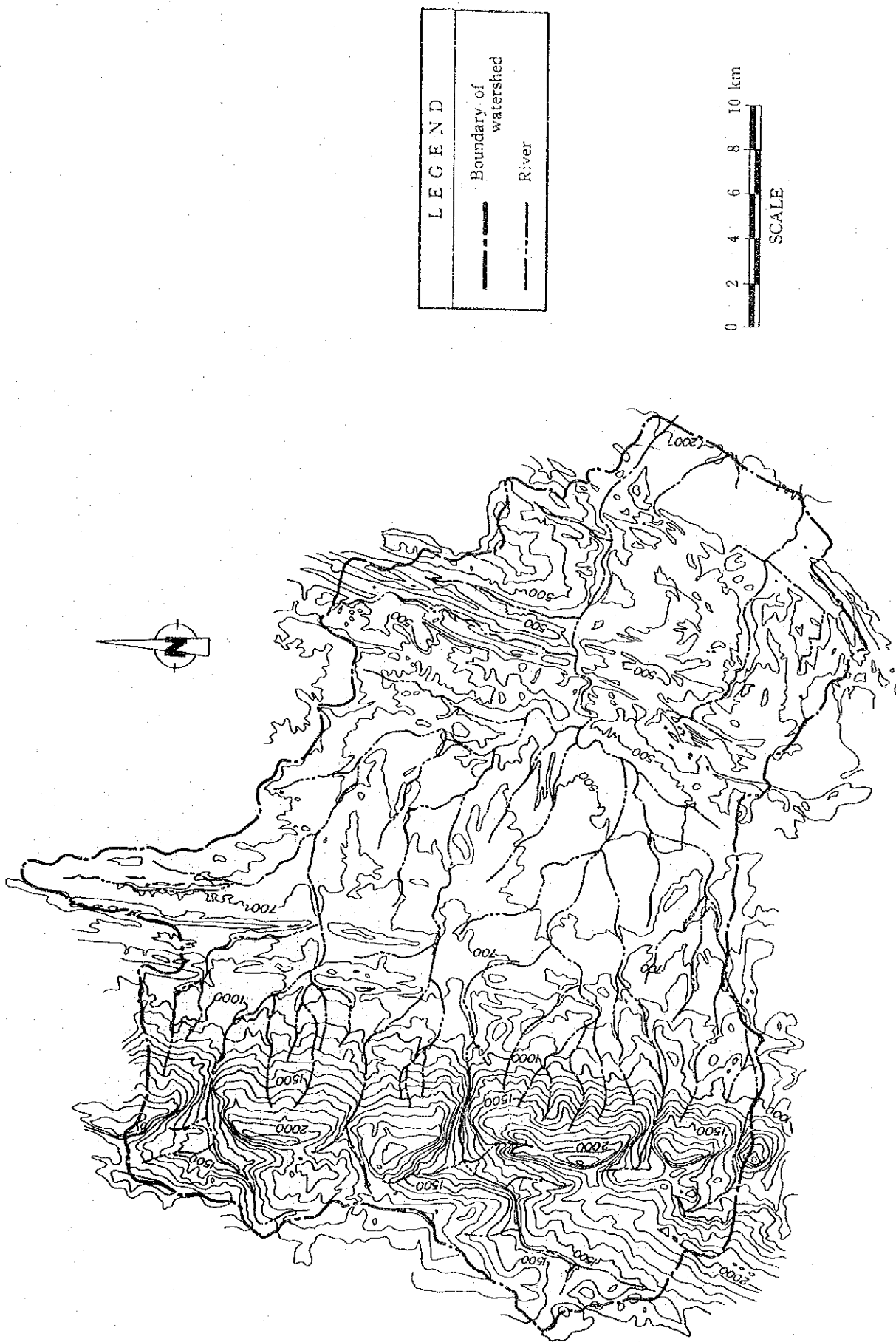
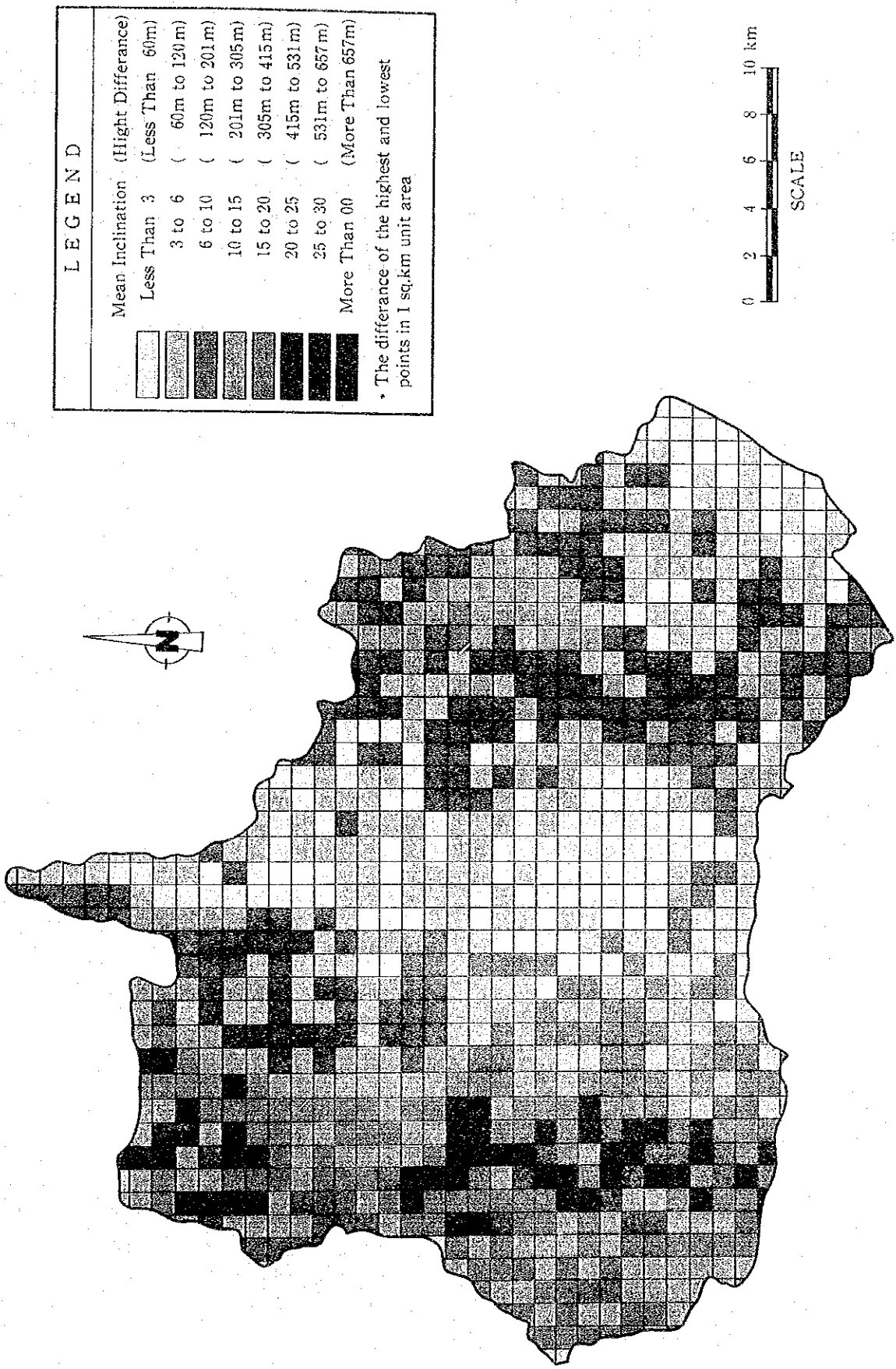


FIGURE 5.8 RELIEF MAP OF VIDORE WATERSHED



LEGEND

Mean Inclination	(Height Difference)
Less Than 3	(Less Than 60m)
3 to 6	(60m to 120m)
6 to 10	(120m to 201m)
10 to 15	(201m to 305m)
15 to 20	(305m to 415m)
20 to 25	(415m to 531m)
25 to 30	(531m to 657m)
More Than 30	(More Than 657m)

* The difference of the highest and lowest points in 1 sq.km unit area

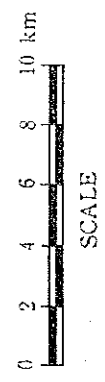


FIGURE 5.9 RELATIVE RELIEF OF VIDORE WATERSHED

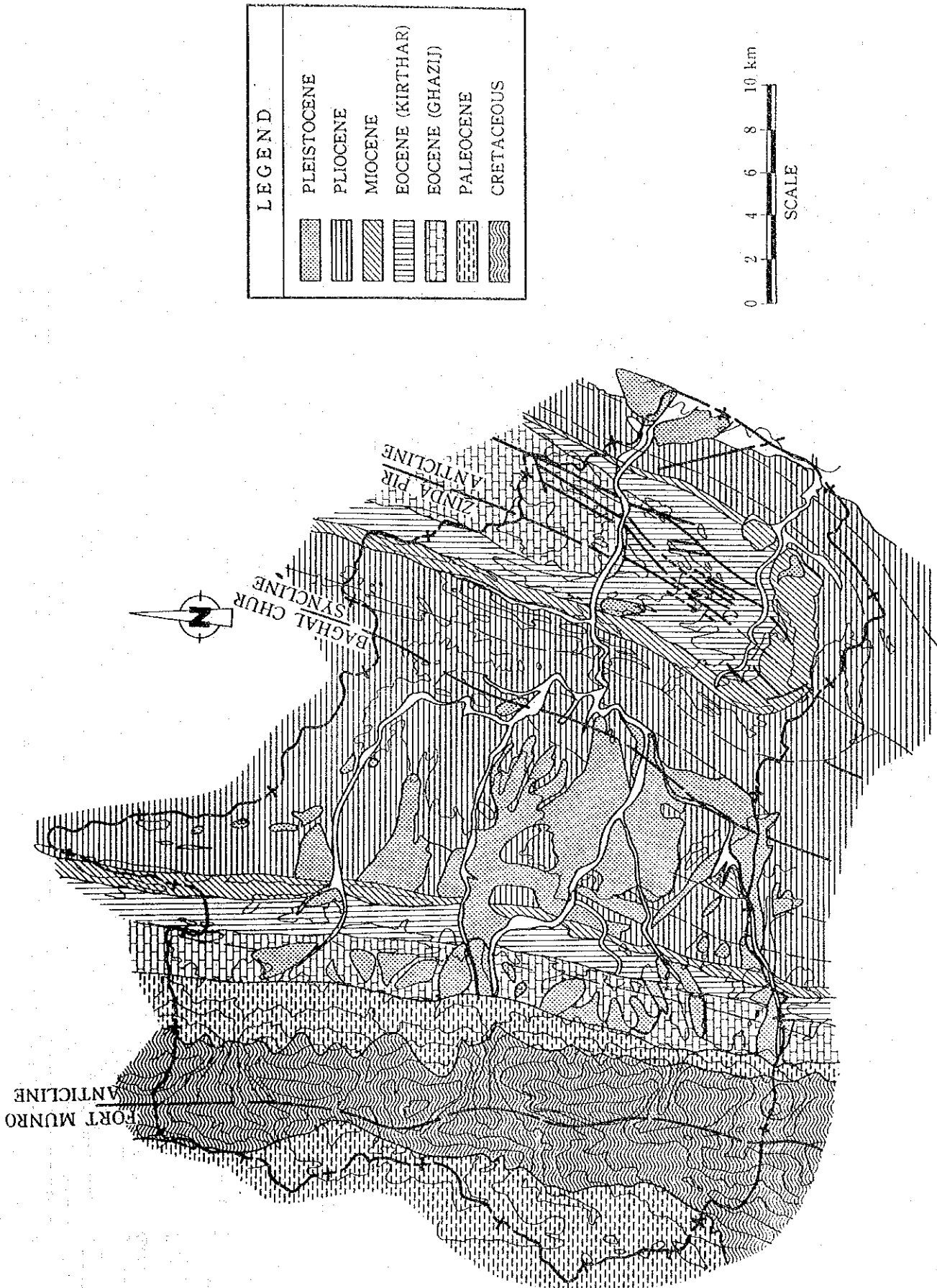


FIGURE 5.10 GEOLOGICAL MAP OF VIDORE WATERSHED

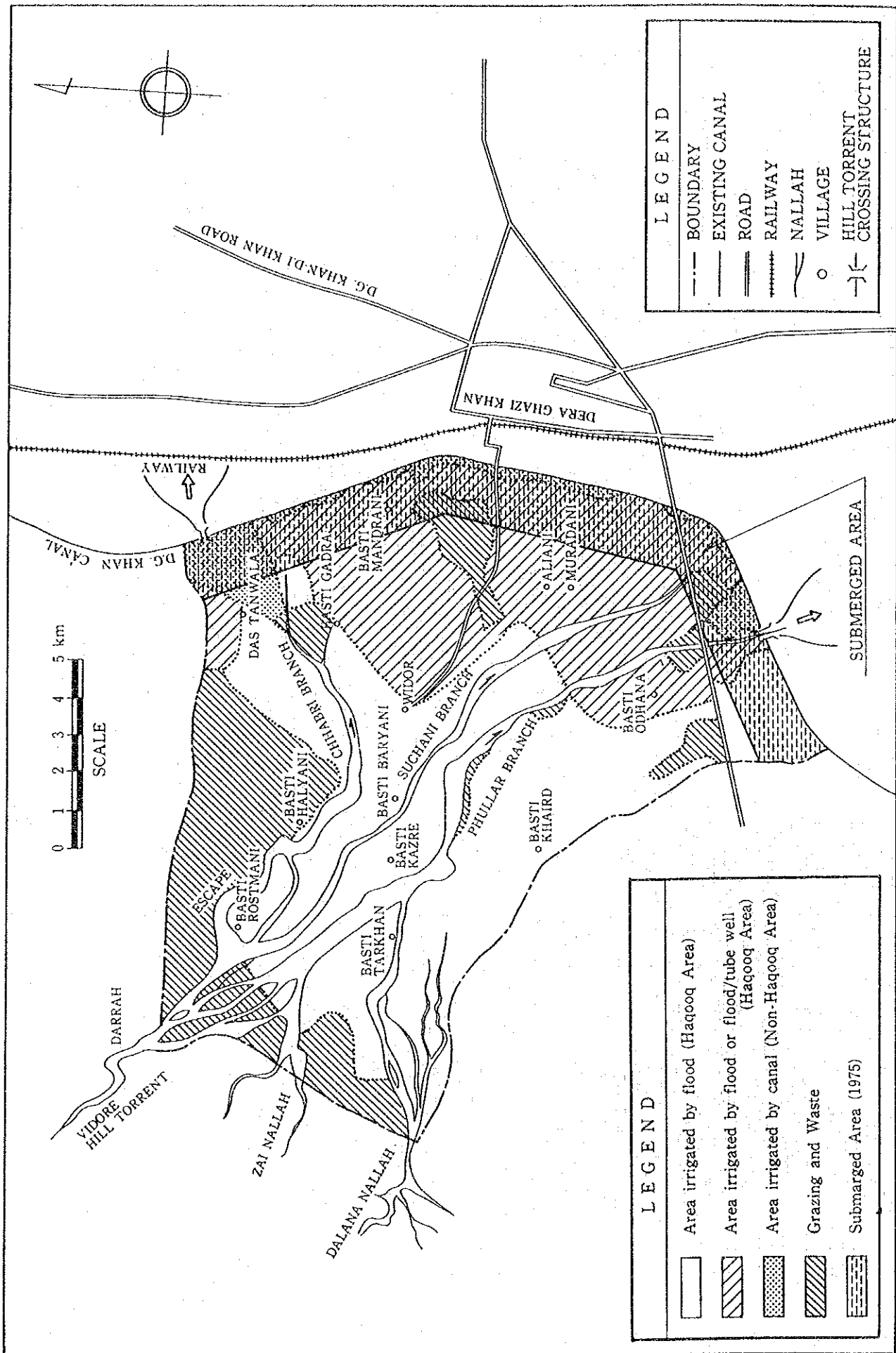


FIGURE 5.11 SUBMERGED AREA BY FLOOD WATER AS OF 1975

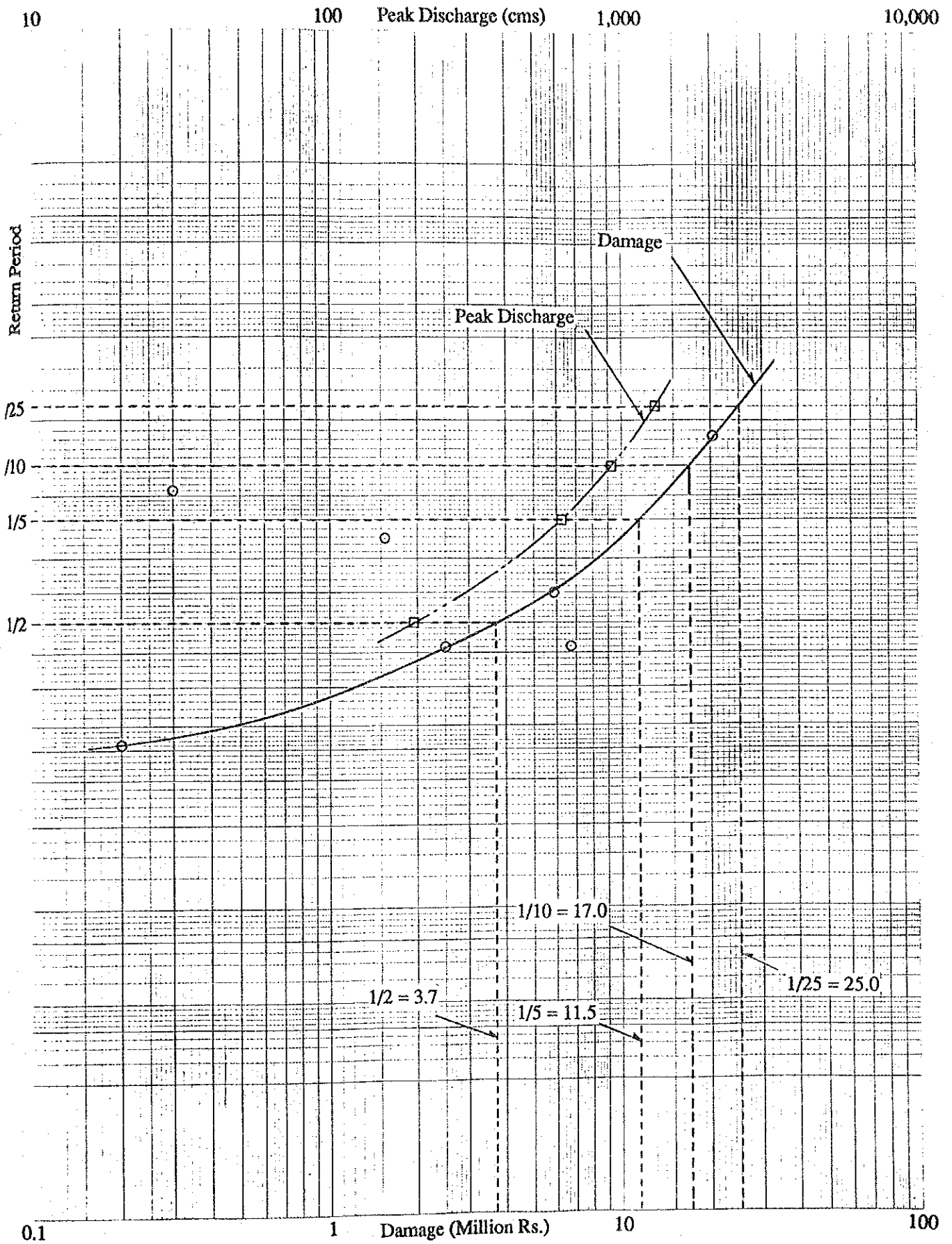
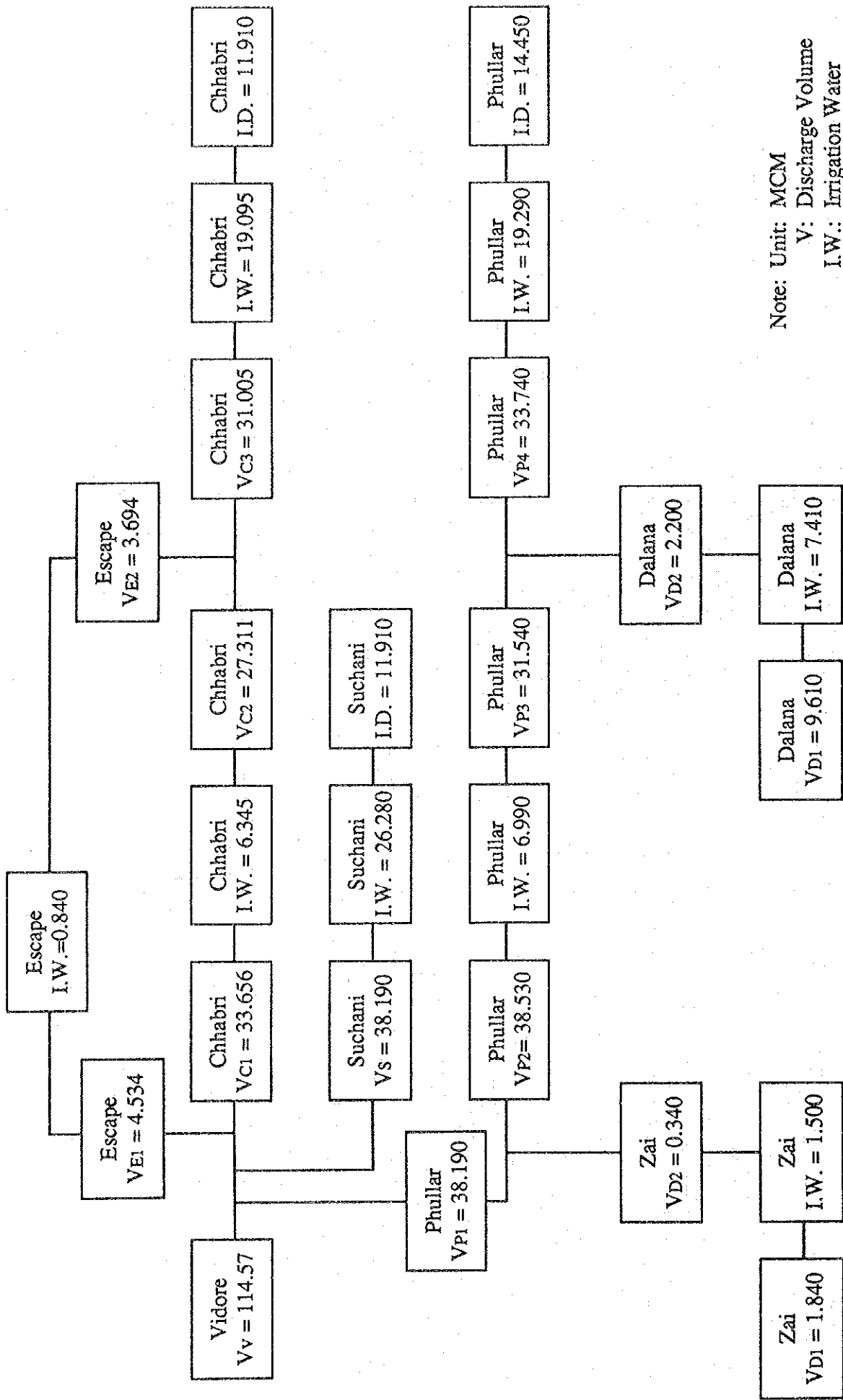


FIGURE 5.12 PRESENT FLOOD DAMAGE



Note: Unit: MCM
 V: Discharge Volume
 I.W.: Irrigation Water
 I.D.: Ineffective Discharge

FIGURE 6.1 WATER BALANCE (CASE A / 1978)

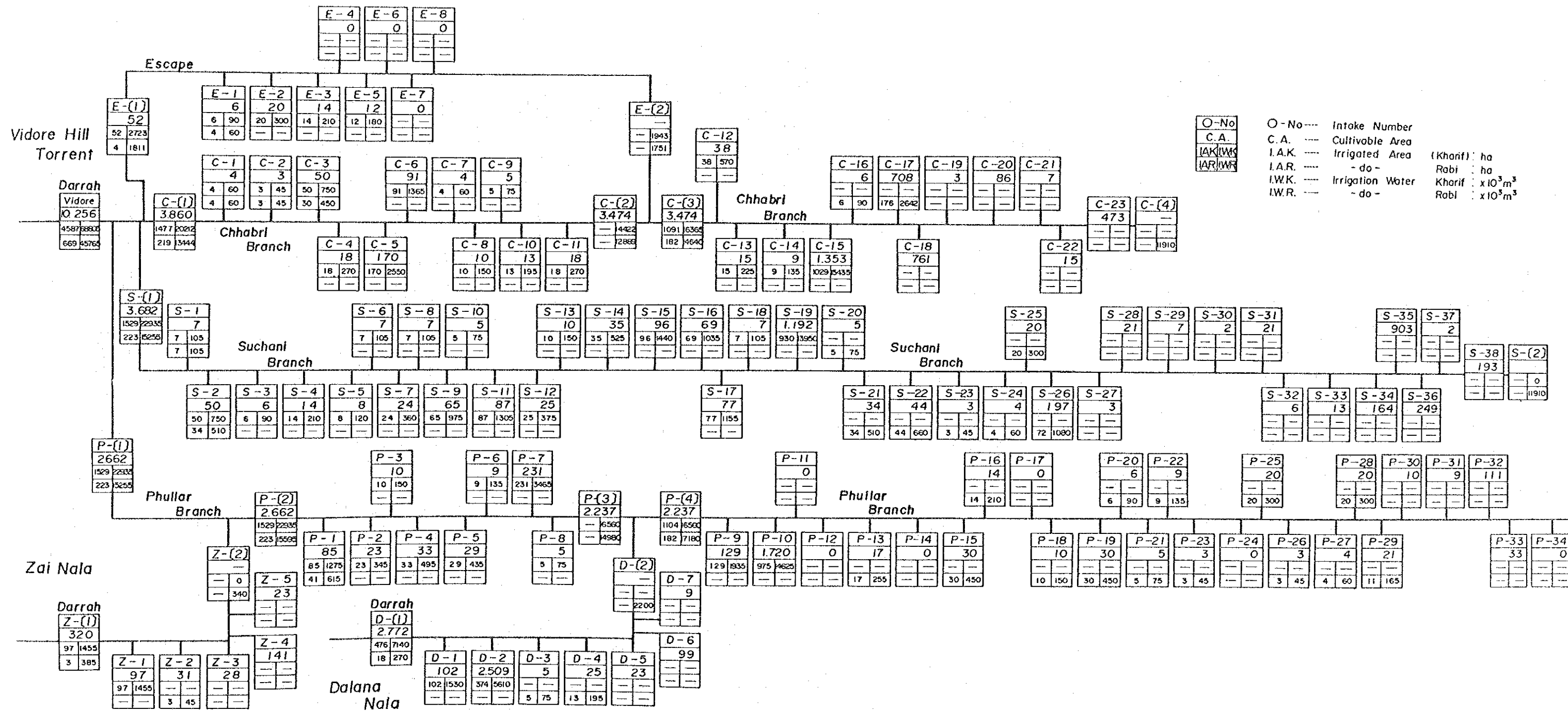


FIGURE 6.2 SCHEMATIC DIAGRAM OF PROPOSED IRRIGATION SYSTEM(Case A/1978)

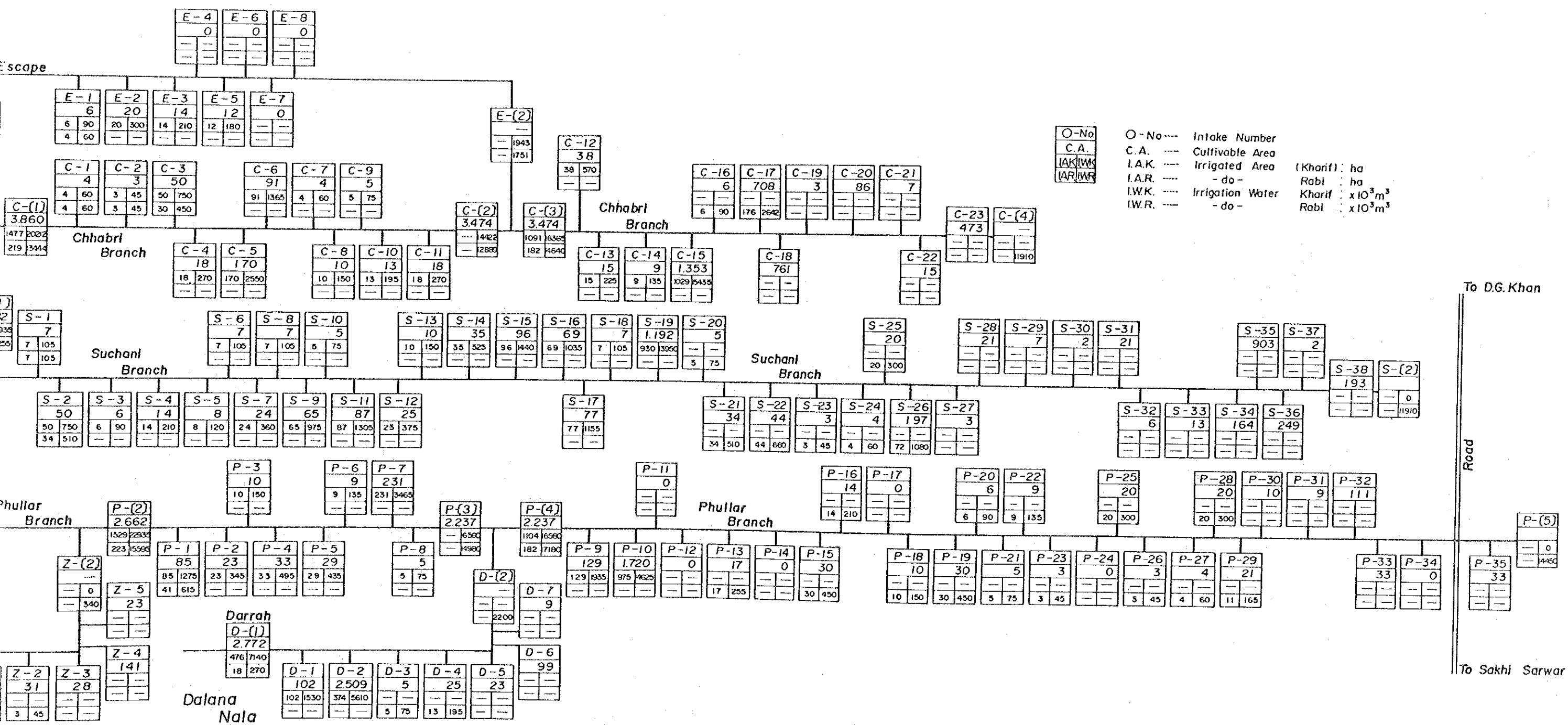


FIGURE 6.2 SCHEMATIC DIAGRAM OF PROPOSED IRRIGATION SYSTEM(Case A/1978)

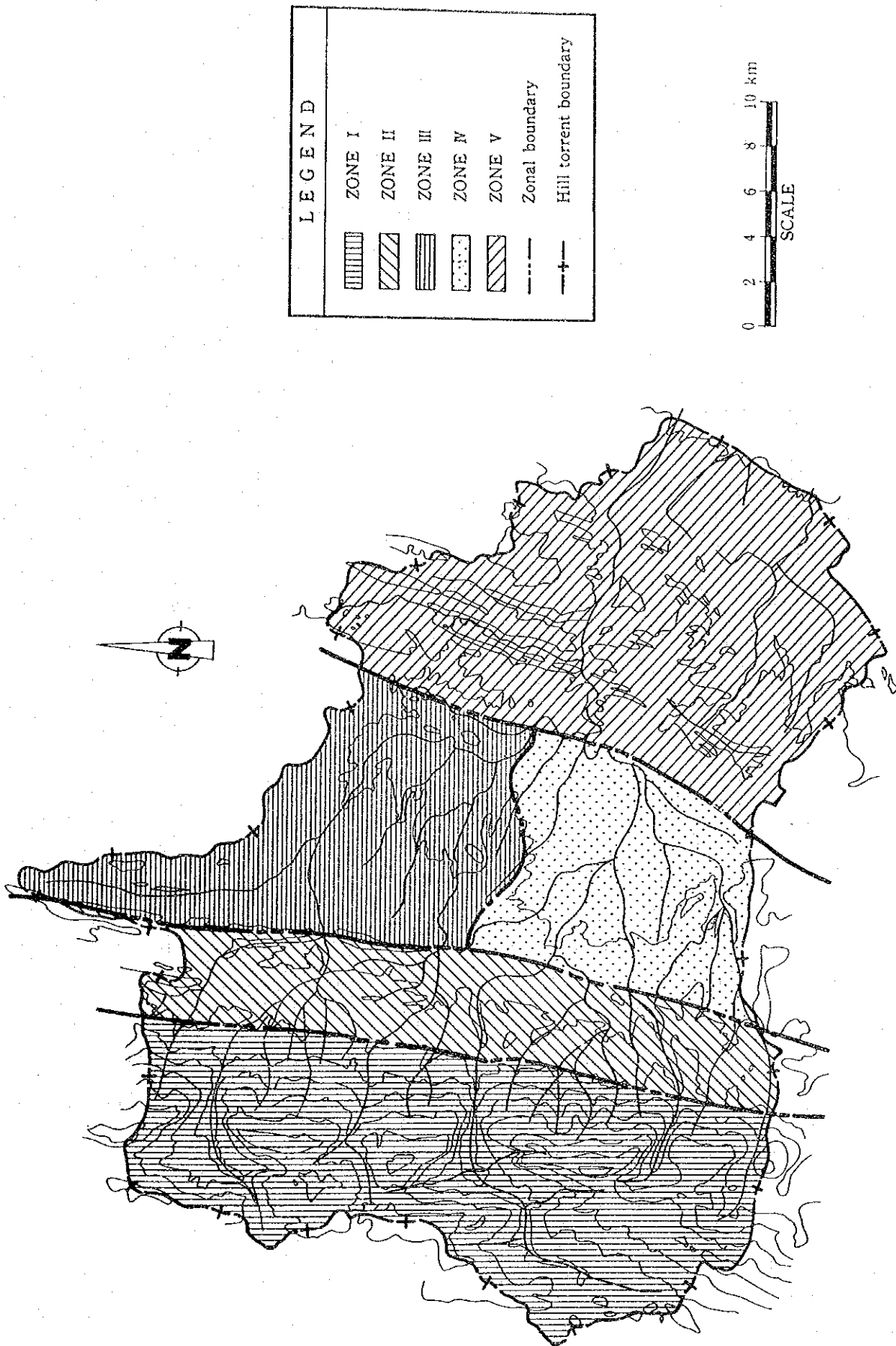


FIGURE 6.3 ZONED WATERSHED BY PHYSICAL CHARACTERISTICS

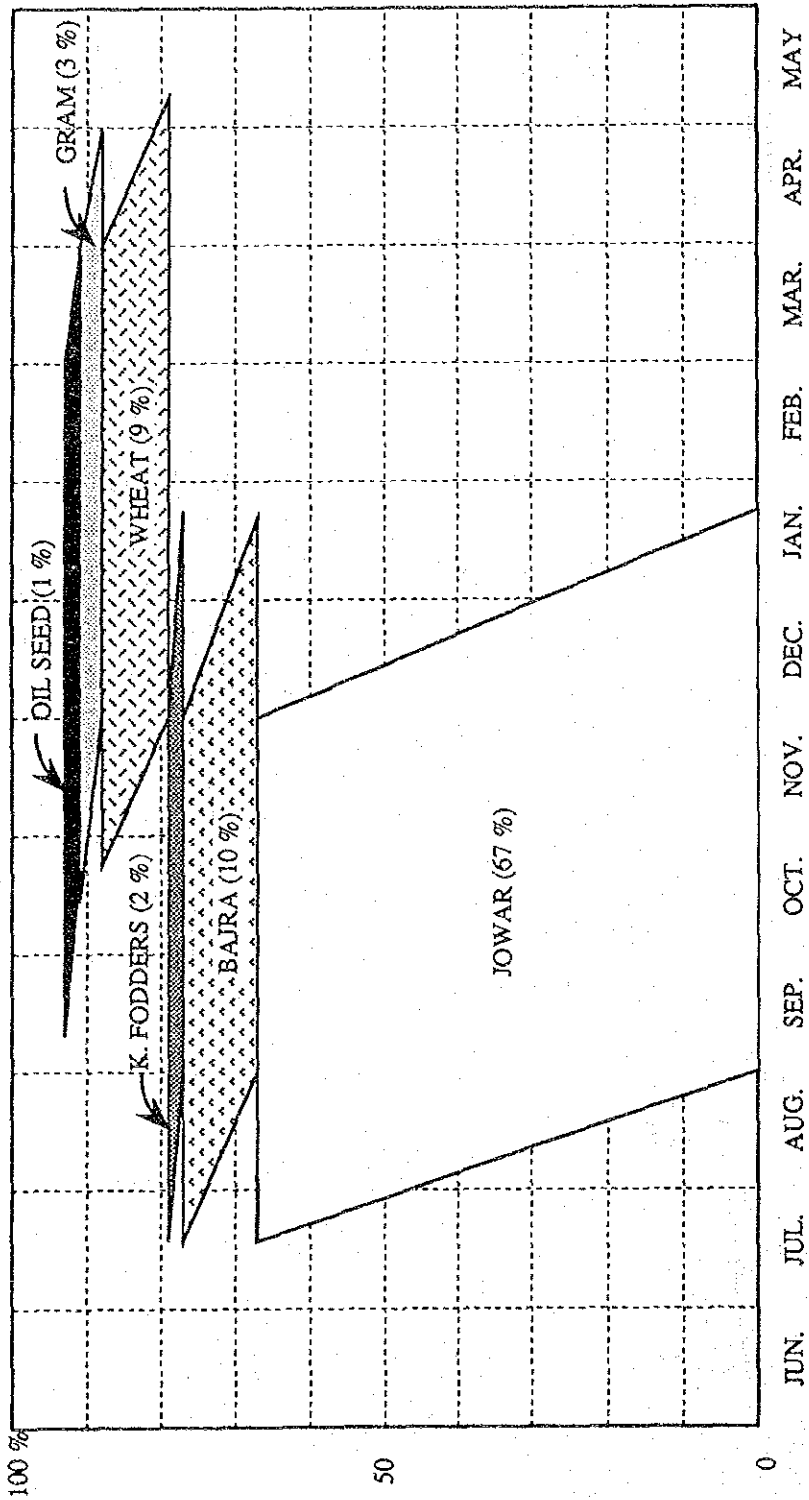


FIGURE 6.4 PROPOSED CROPPING PATTERN IN CASE A (RETURN PERIOD 25-YEAR)

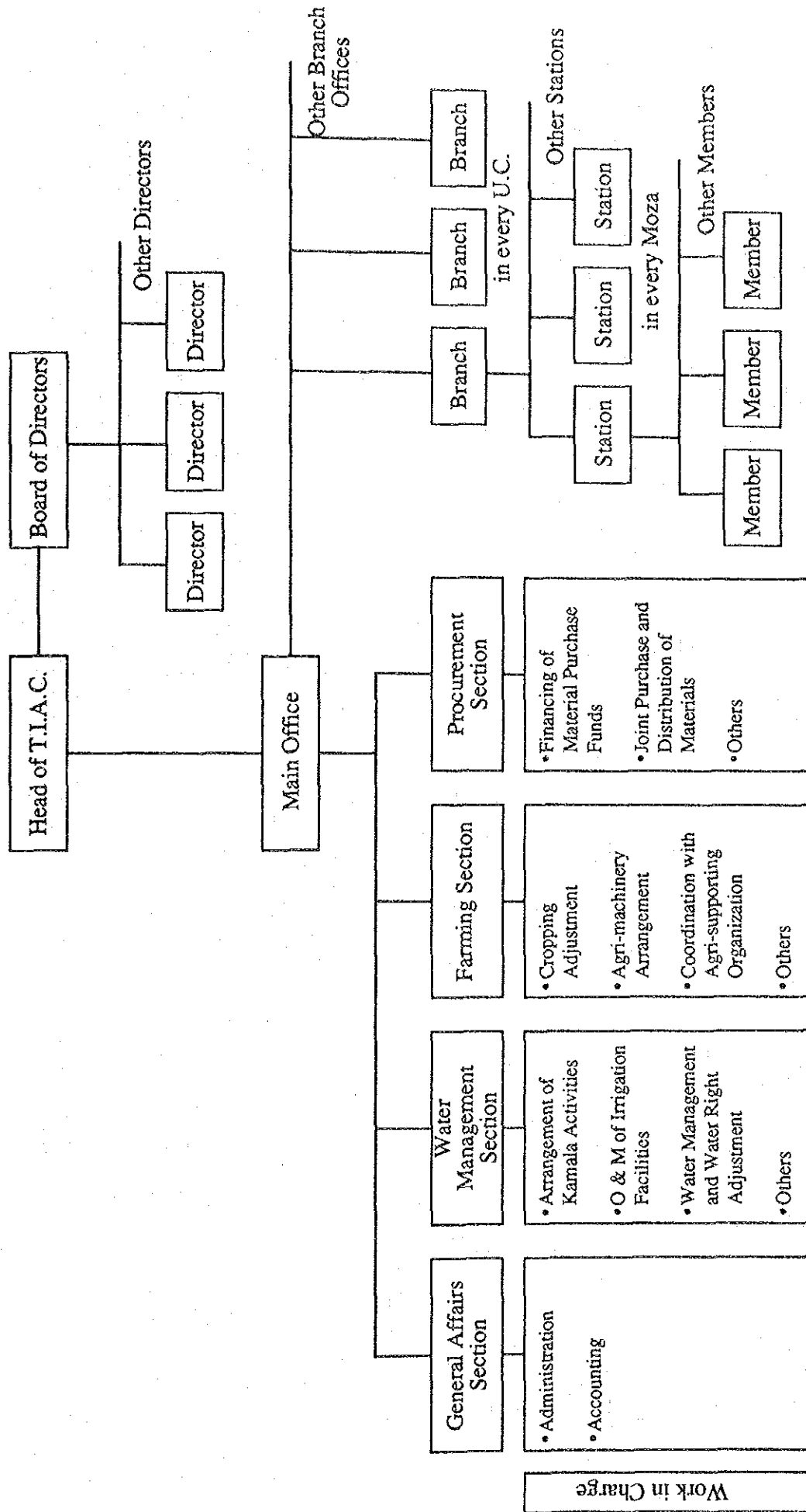


FIGURE 6.5 PROPOSED ORGANIZATION CHART OF HILL TORRENT IRRIGATION AGRICULTURAL COOPERATIVE

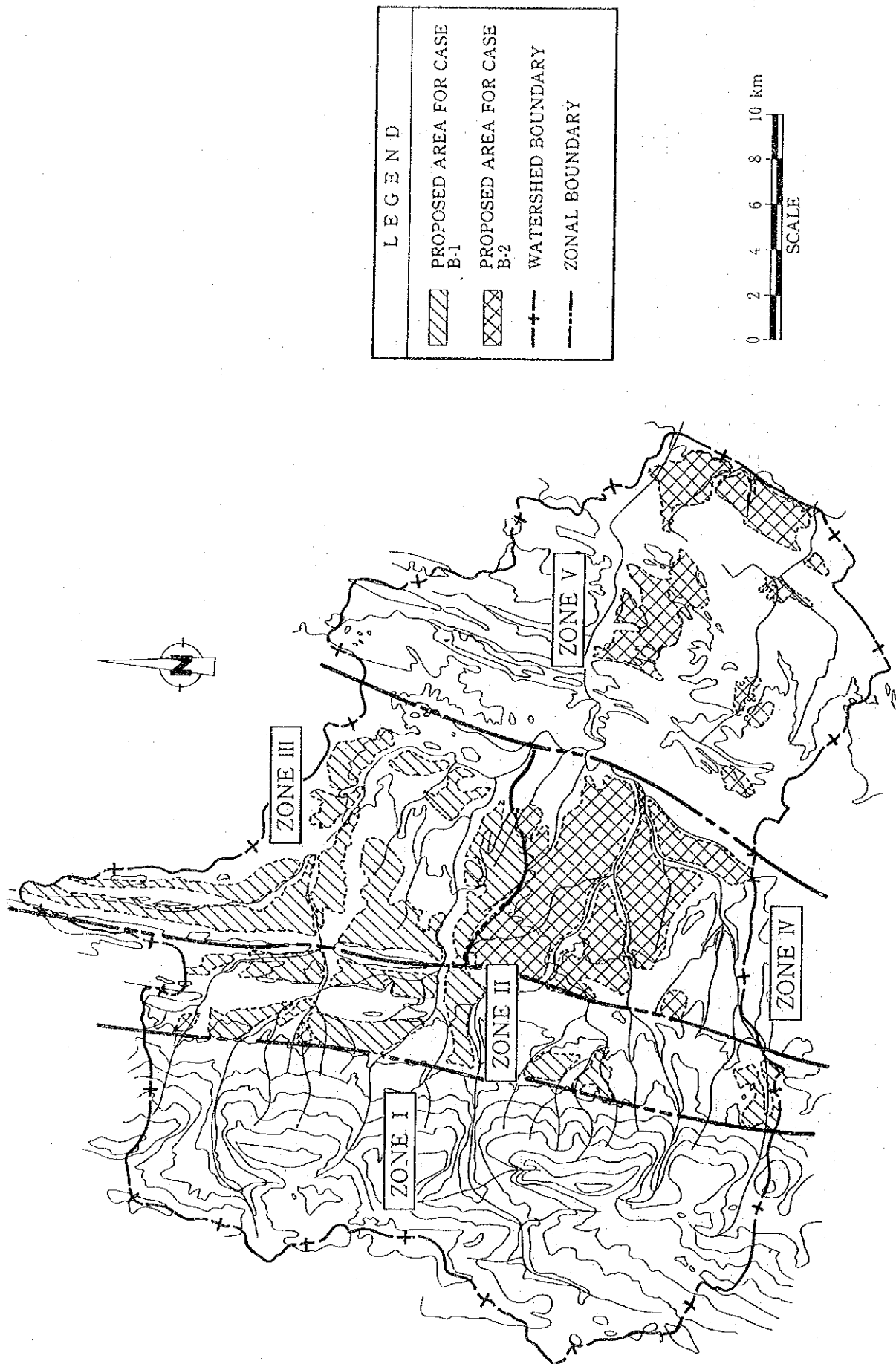


FIGURE 6.6 GENERAL PLAN FOR THE WATERSHED MANAGEMENT

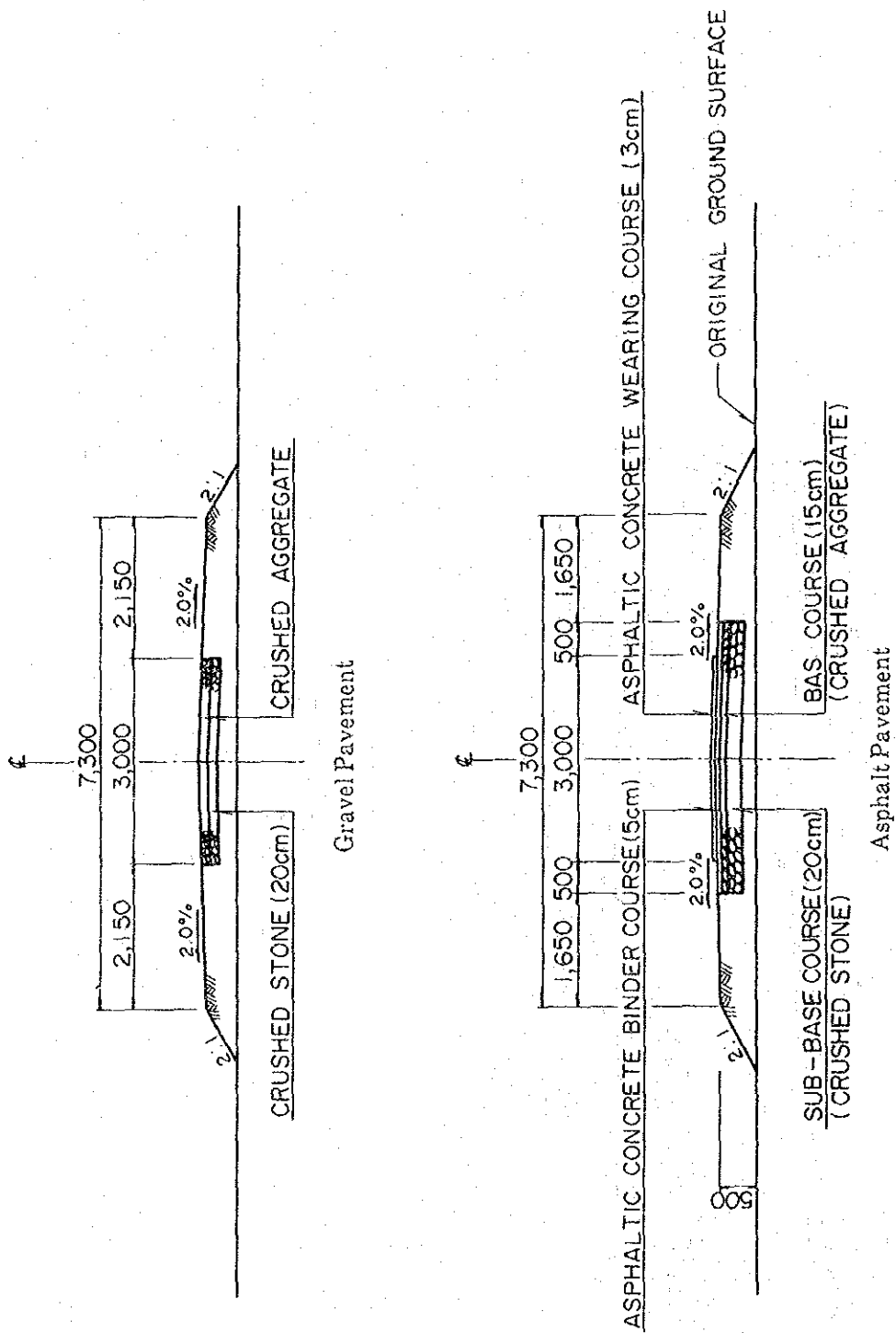


FIGURE 6.8 TYPICAL CROSS SECTION OF ROAD

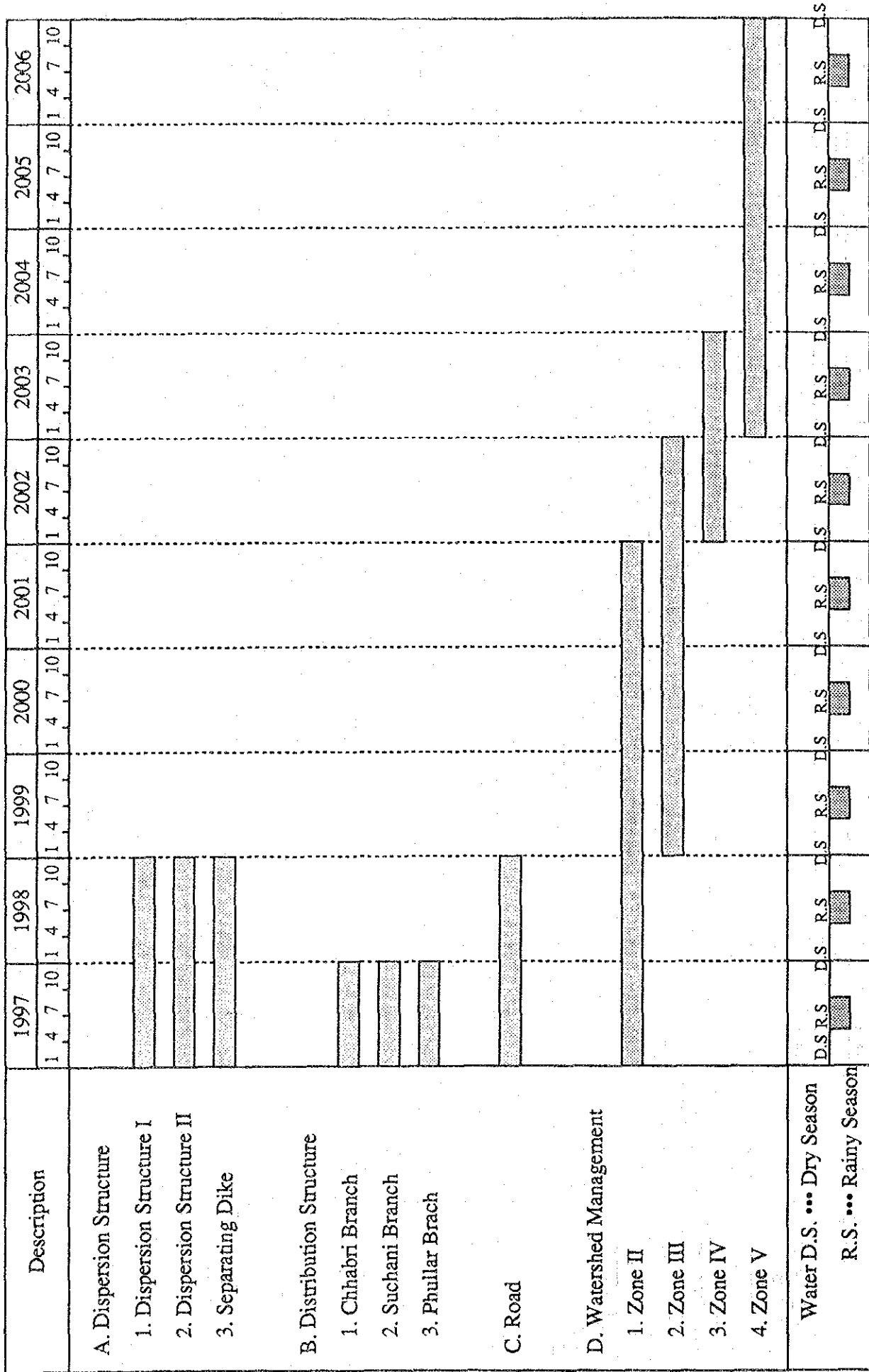


FIGURE 7.2 CONSTRUCTION SCHEDULE

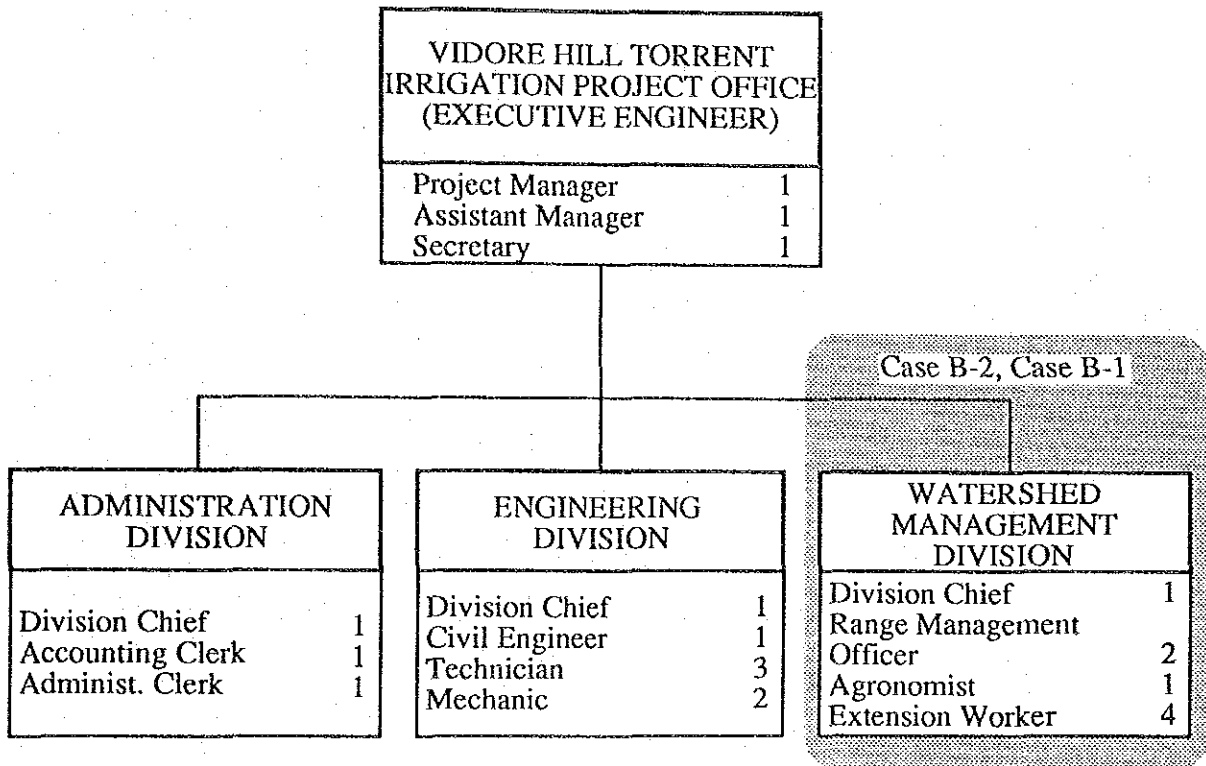


FIGURE 7.3 PROPOSED ORGANIZATION OF PROJECT IMPLEMENTATION

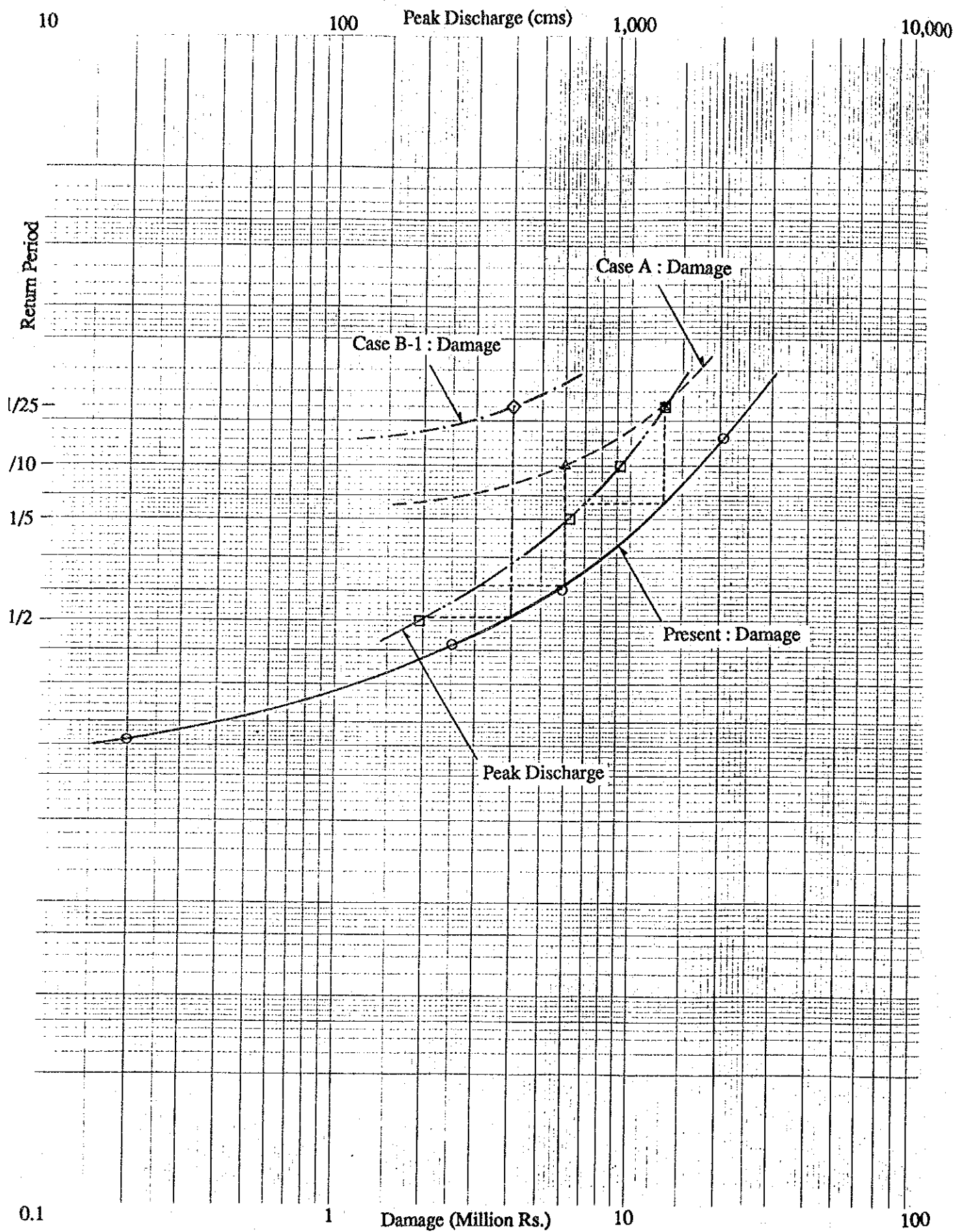


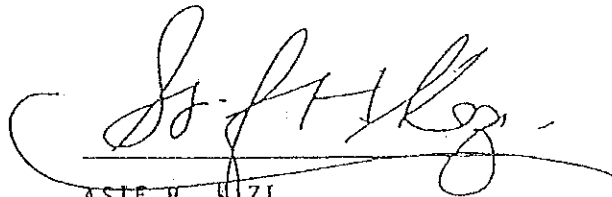
FIGURE 8.1 PLANNED FLOOD DAMAGE

ATTACHMENTS

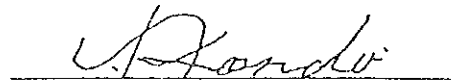
SCOPE OF WORK
FOR
THE FEASIBILITY STUDY
ON
DEVELOPMENT OF IRRIGATION BASED UPON FLOOD
FLOWS OF D. G. KHAN HILL TORRENTS

AGREED UPON BETWEEN
THE GOVERNMENT OF ISLAMIC REPUBLIC OF PAKISTAN
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

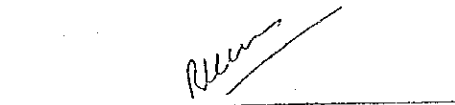
ISLAMABAD, 29TH AUGUST 1990



ASIF H. RAZI
CHIEF ENGINEERING ADVISOR/
CHAIRMAN,
FEDERAL FLOOD COMMISSION,
MINISTRY OF WATER AND POWER,
THE GOVERNMENT OF PAKISTAN



SUMIO KONDO
LEADER,
THE PRELIMINARY STUDY TEAM,
THE JAPAN INTERNATIONAL
COOPERATION AGENCY



RANA KHURSHID ANVER
SECRETARY, IRRIGATION AND
POWER DEPARTMENT,
THE GOVERNMENT OF PUNJAB

I . INTRODUCTION

In response to the request of the Government of the Islamic Republic of Pakistan, the Government of Japan has decided to undertake the feasibility study on Development of Irrigation Based upon Flood Flows of D.G. Khan Hill Torrents (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of technical cooperation programmes of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of Pakistan.

The present document sets forth the Scope of Work with regard to the Study.

II . OBJECTIVES OF THE STUDY

The objectives of the Study are:

1. to formulate the Feasibility Study on Development of Irrigation Based upon Flood Flows of D. G. Khan Hill Torrents
2. to undertake on-the-job training of the Government's officials in the course of the study

III. STUDY AREA

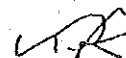
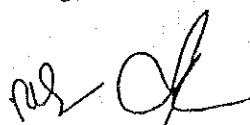
The Study area is to cover hill torrents at D. G. Khan and Rajanpur Districts of Punjab Province.

IV. SCOPE OF THE STUDY

In order to achieve the above objectives, the Study will cover the following items.

PHASE I STUDY

1. Collection and review of the relevant existing data and information, and field survey including:



- (1) Natural condition
 - a. Topography
 - b. Meteorology and hydrology
 - c. Geology and soil
 - d. Others

- (2) Agriculture
 - a. Land use and tenure
 - b. Cropping pattern and yield
 - c. Agro-economy and institution
 - d. Others

- (3) Agricultural infrastructure
 - a. Irrigation and drainage
 - b. Farm road
 - c. Other rural infrastructure

- (4) Socio-economic situation
 - a. Population, household and farmers
 - b. Regional socio-economy and farm household economy
 - c. Extension services
 - d. Social and farmers organizations
 - e. Agricultural credit
 - f. Farmers' intension
 - g. Historical right for irrigation
 - h. Others

- (5) Other information related to the project
 - a. Administrative organizations related to the project
 - b. Environmental impact
 - c. Others

2. Review of all hill torrent programme, excluding Kaha hill torrent.

3. Identification of the project priority, excluding Kaha and Mithawan hill torrents.

PHASE II STUDY

1. Feasibility Study of First priority project
 The Study, based on the results of the phase I Study, covers the following items:

- (1) Additional field survey, data collection and analysis including:
 - a. Hydrology and meteorology
 - b. Geology and soil classification
 - c. Land use and tenure
 - d. Cropping pattern and yield
 - e. Irrigation and drainage
 - f. Inundation problem: flood damage
 - g. Water requirement for crop and domestic use.
 - h. Regional socio-economy and farm household economy
 - i. Social and farmers organizations
 - j. Construction materials
 - k. Environment
 - l. Others
- (2) Formulation of an agricultural development programme based upon the sound measures for the management of hill torrent floods.
- (3) Preliminary design of the major structures of the project including supplementary topographic survey
- (4) Preparation of the implementation schedule
- (5) Estimate of the project costs and benefits
- (6) Recommendation

Three handwritten signatures in black ink, appearing to be initials or names, located to the right of the list.

V. THE STUDY SCHEDULE

The Study will be carried out in accordance with the tentative schedule attached.

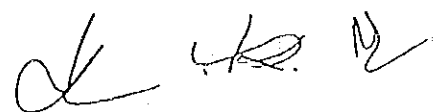
VI. REPORTS

JICA will prepare and submit the following reports in English to the Government of Pakistan.

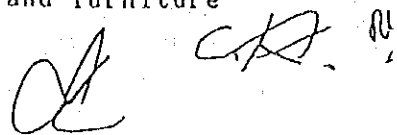
1. Inception Report
Thirty (30) copies at the commencement of the phase I Study.
2. Progress Report(I)
Thirty (30) copies at the end of the field work of the phase I Study.
3. Interim Report
Thirty (30) copies at the commence of the phase II Study.
4. Progress Report(II)
Thirty (30) copies at the end of the field work of the phase II Study.
5. Draft Final Report
Thirty (30) copies within one (1) month after the end of the phase II Study.
The Government of Pakistan shall provide its comments on the Draft Final Report within one (1) month after its reception.
6. Final Report
Hundred (100) copies within two (2) months after the receipt of the comments on the Draft Final Report.

VII. UNDERTAKING OF THE GOVERNMENT OF PAKISTAN

1. To facilitate smooth conduct of the Study, the Government of Pakistan shall take necessary measures:
 - (1) to secure the safety of the Study Team,
 - (2) to permit the members of the Japanese Study Team, to enter, leave and sojourn in Pakistan for the duration of their assignment therein, and exempt them from consular fees,
 - (3) to exempt the members of the Japanese Study Team from taxes, duties, fees and other charges on equipment, machinery and other materials brought into Pakistan for the conduct of the Study.



- (4) to exempt the members of the Japanese Study Team from income tax and other charges of any kind imposed on or in connection with any emoluments or allowance paid to the members of the Japanese Study Team for their services in connection with the implementation of the Study.
 - (5) to provide necessary facilities to the Japanese Study Team for remittances as well as utilization of the funds introduced into Pakistan from Japan in connection with the implementation of the Study.
 - (6) to secure permission for entry into private properties or restricted areas for the conduct of the Study, according to prevailing regulations of the Government of Pakistan.
 - (7) to secure permission to use all data and documents related to the Study including photographs (excluding restricted area) in Japan.
 - (8) to provide medical services as needed. Its expenses will be chargeable on the members of the Japanese Study Team.
2. The Government of Pakistan will bear claims, if any arises, against the members of the Japanese Study Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese Study Team.
 3. Irrigation and Power Department, the Government of Punjab (here in after referred to as "the Department") shall act as a counterpart agency to the Japanese Study Team and also as a coordinating body to other relevant organizations for the smooth implementation of the Study.
 4. The Department shall, at its own expense, provide the Japanese Study Team with the following, in cooperation with other agencies concerned, if necessary:
 - (1) Available data and information related to the Study
 - (2) Counterpart personnel
 - (3) Suitable office with necessary equipment and furniture

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- (4) Credentials or identification cards to the members of the Japanese Study Team,

VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

1. To dispatch, at its own expense, the Study Team to Pakistan.
2. To pursue technology transfer to the Pakistani counterpart personnel in the course of the Study.

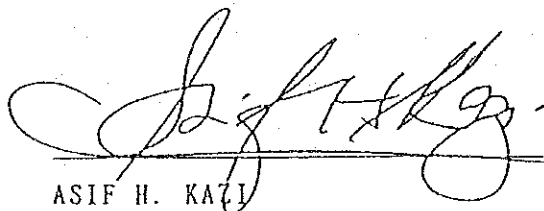
IX OTHERS

JICA and Ministry of Water and Power of Pakistan will consult with each other in respect of any matter that may arise from or in connection with the Study.



MINUTES OF MEETING
THE FEASIBILITY STUDY ON DEVELOPMENT OF IRRIGATION BASED UPON
FLOOD FLOWS OF D. G. KHAN HILL TORRENTS

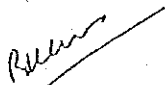
ISLAMABAD, 29TH AUGUST 1990



ASIF H. KAZI
CHIEF ENGINEERING ADVISOR/
CHAIRMAN,
FEDERAL FLOOD COMMISSION,
MINISTRY OF WATER AND POWER,
THE GOVERNMENT OF PAKISTAN



SUMIO KONDO
LEADER,
THE PRELIMINARY STUDY TEAM,
THE JAPAN INTERNATIONAL
COOPERATION AGENCY



RANA KHURSHID ANVER
SECRETARY,
IRRIGATION AND POWER DEPARTMENT,
THE GOVERNMENT OF PUNJAB

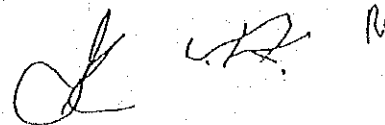
TENTATIVE SCHEDULE

Item \ Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
WORK IN PAKISTAN		▬▬▬							▬▬▬							▬	○		
WORK IN JAPAN	▬						▬▬▬						▬▬						
REPORTS	△			△					△			△			△				△
	INC/R			P/R (I)					INT/R			P/R (II)			DF/R				F/R

(Remarks) INC/R : Inception Report P/R : Progress Report
 INT/R : Interim Report DF/R : Draft Final Report
 F/R : Final Report
 ○ Comments on DF/R by Pakistan side

[Handwritten signature]

1. The Preliminary Survey Team for the Feasibility Study on Development of Irrigation Based upon Flood Flows of D. G. Khan Hill Torrents (hereinafter referred to as "the Study"), headed by Mr Sumio Kondo and organised by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), visited Pakistan from 20 August 1990 to 31 August 1990 in order to clarify further the request made by the Government of Islamic Republic of Pakistan, and to discuss the draft Scope of Work for the Study proposed by the Team.
2. The Team exchanged views and had a series of discussions with the Ministry of Water and Power of Pakistan (hereinafter referred to as "MWP") and conducted a field survey in the study area.
3. MWP and the Team agreed to the following matters:
 - a. MWP requested JICA to provide necessary vehicles for the Study. The Team confirmed to convey this request to JICA for the further consideration.
 - b. Punjab Irrigation Department confirmed to provide one set of topographic maps (1:50,000) in whole Study area before the commencement of the Study.
 - c. Mithawan hill torrent is not to be prioritized because it has already been given priority by Punjab Government.
 - d. Kaha hill torrent is not ^{to be} studied because it is included in ADB programme.
 - e. The Team recommended that officials in agricultural sector from Punjab Agricultural Department should be involved in this Study. Necessary coordination in this respect should be carried out through Punjab Irrigation Department.
4. The list of officials attending the discussions is attached in Annex.

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Japanese side

I. The Preliminary Study Team

- | | |
|-------------------------|--------|
| 1. Mr. Sumio KOHDO | Leader |
| 2. Mr. Tetsuro MIYAZATO | Member |
| 3. Mr. Satoshi NAGATA | " |
| 4. Mr. Yoshiaki TSUJI | " |
| 5. Mr. Katsumi OTANI | " |

II. Embassy of Japan

- | | |
|----------------------|-----------------|
| 1. Mr. Yutaka SUMITA | First Secretary |
|----------------------|-----------------|

III. JICA Pakistan Office

- | | |
|-----------------------|-------------------------|
| 1. Mr. Kazuo TANIGAWA | Resident Representative |
|-----------------------|-------------------------|

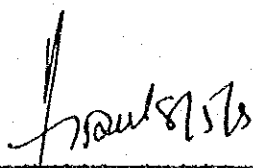
PAKISTAN SIDE

1. Maj. Gen. (Retd.)
Agha Manzoor Rauf
Additional Secretary (W),
Ministry of Water and Power.
3. Mr. Asif H. Kazi,
Chief Engineering Adviser/Chairman,
Federal Flood Commission.
3. Mr. I.B. Sheikh;
Chief Engineer (Flood).
4. Mr. Akbar Hayat Gandpur
Deputy Secretary, M/o Commerce.
5. Mr. Muhammad Raziq,
Deputy Secretary, M/o Interior.
6. Syed Zaki Haider,
Deputy Financial Adviser (W&P).
7. Malik Ahmad Khan,
Director Kalabagh,
I&P Deptt. Punjab.
8. Mr. Mumtaz Ahmad,
Section Officer, M/o Water & Power.
9. Mr. R.K. Anver,
Secretary, I&P Deptt. Punjab.
10. Mr. Khalid Javed,
Section Officer, Economic Affairs Division.

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MINUTES OF MEETING
ON
INCEPTION REPORT
OF
THE FEASIBILITY STUDY
ON
DEVELOPMENT OF IRRIGATION BASED
UPON FLOOD FLOWS OF D.G. KHAN HILL TORRENTS

Lahore, May 8th, 1991



AHSAN HUSSAIN ZAIHI
ADIL: SECRETARY,
IRRIGATION & POWER DEPTT,
GOVERNMENT OF PUNJAB.



NORIKAZU TSUJII
CHAIRMAN
ADVISORY COMMITTEE
FOR THE STUDY,
THE JAPAN INTERNATIONAL
COOPERATION AGENCY

i. G. u. p 8/5/91

ILLIYAH B. SHEIKH
CHIEF ENGINEER (FLOODS)
FEDERAL FLOOD COMMISSION,
MINISTRY OF WATER & POWER,
THE GOVERNMENT OF PAKISTAN.



TADASHI ONOHI
LEADER,
THE STUDY TEAM.

MEETING ON THE INCEPTION REPORT

Date: May 8th, 1991
Place: Irrigation & Power Department,
Government of the Punjab.
Attendants: As per Annex

In accordance with the scope of works for the feasibility study on development of Irrigation based upon Flood Flows of D.G. Khan Hill Torrents (hereinafter referred to as "the study"), signed on August 29th, 1990 between the Japan International Cooperation Agency (hereinafter referred to as "JICA") and the Govt. of Pakistan, the JICA Study Team prepared and submitted the Inception Report to the Irrigation & Power Department of the Govt. of Punjab through the Ministry of Water & Power, Govt. of Pakistan, on May 2nd, 1991 prior to the commencement of the study.

The meeting was held on May 8th, 1991, for the discussion on the Inception Report. Both parties have mutually confirmed the followings :

1. The Inception Report of the study was accepted by both, Ministry Water & Power (Federal Flood Commission) and Irrigation and Power Department, Punjab.
2. The study team requested the Irrigation & Power Department (Punjab) to provide/supply the available data of the Hill Torrents with the Department and with NESPAK. The request was agreed to by the Department as well as by the Federal Flood Commission (Islamabad).

LIST OF ATTENDANTS

<u>Name</u>	<u>Position/Department</u>
1. Mushtaq Ahmad Gill	Director on Farm Water Management, Agriculture Department.
2. Zaka Ullah	Chief, Planning, Agriculture Deptt.
3. Malik Ahmad Khan	Chief (W&P), P&D Deptt. Govt. of the Punjab.
4. Tariq Bashir Dar	Deputy Secretary (Development) Irrigation & Power Department.
5. Muhammad Iqbal	Chief Engineer, Irrigation, Multan.
6. I.B. SHAIKH	Chief Engineer (Federal Flood Commission) Ministry Water & Power, Islamabad.
7. A.H. Zaidi	Addl. Secretary, Irrigation & Power Department.
8. Norikazu Tsujii	Chairman of Advisory Committee, JICA
9. Mitsuhiko Ota	Coordinator of Advisory Mission, JICA
10. Tadashi Chori	Team leader of JICA Study Team
11. Eotoo Taki	Irrigation & Drainage
12. Shigemi Kimura	Watershed Management
13. Olivier Daniel Serrat	Agro-Economy & Project Evaluation
14. Qazi Anwar Ali	Under Secretary, Irrigation & Power Department.
15. Faiz-ul-Hassan	Deputy Director, P&R Zone Representing Chief Engineer P&R Zone.
16. Sajjad Nasim	Executive Engineer, Rajanpur Canal Division, D.G. Khan.

MINUTES OF THE MEETING
HELD ON
OCTOBER 8, 1991 IN THE
IRRIGATION AND POWER DEPARTMENT
GOVERNMENT OF PUNJAB,
LAHORE.

In response to the request of the Government of the Islamic Republic of Pakistan, the Government of Japan decided to undertake the Feasibility Study for Development of Irrigation based upon flood flows of D.G.Khan hill torrents. Accordingly the Japan International Cooperation Agency (JICA) was instructed to despatch a study team to undertake the said study.

The Team has now completed phase-I of the study and as stipulated in the scope of works for the study presented this day to the Federal Flood Commission, Ministry of Water and Power Government of Pakistan, and to the Irrigation and Power Department, Government of Punjab, thirty (30) copies of Progress Report (1). A brief explanation of the study area and project strategy was given using satellite pictures by the Team Leader.

The Ministry of Water and Power, Government of Pakistan, and the Irrigation and Power Department, Government of Punjab, acknowledged reception of the said report, discussed its contents, and agreed to the proposed program Presented in the Report.

The Team took careful note of the points raised in the course of the discussion and requested the Irrigation and Power Department to facilitate the smooth conduct of phase-II for the study, scheduled to begin from January 1992, and provide the Team with the Aerial

Contd...P/2.

Photographs for the Phase-II.

✓/18

RANA KHURSHEED ANVER,
SECRETARY,
IRRIGATION AND POWER DEPARTMENT
GOVERNMENT OF PUNJAB, LAHORE.

[Handwritten signature]

ANISAN HUSSAIN ZILDI,
ADDITIONAL SECRETARY,
IRRIGATION AND POWER DEPARTMENT,
GOVERNMENT OF PUNJAB, LAHORE.

[Handwritten signature]

TADASHI OHORI
TEAM LEADER
JICA STUDY TEAM


...

LIST OF ATTENDANTS

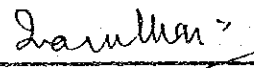
Name	Position/Department
1. Rana Khurshid Anver	Secretary, Irrigation & Power Department.
2. A.H. Zaidi	Addl. Secretary, Irrigation & Power Department.
3. Qazi Anwar Ali	Under Secretary, Irrigation & Power Department.
4. Tariq Bashir Dar	Deputy Secretary, Irrigation & Power Department.
5. Mahammad Dilpazer	O.S.D Irrigation & Power Department.
6. M. Arif Khan	S.E(flood) Water & Power, Islamabad
7. S.M. Ilyas	Superintending engineer, D.G.Khan
8. Sajjad H. Nassim	XEN JMP Constructino Division, D.G.Khan
9. Tahir Ahmad Malial	Principal Punjab Engineering Academy
10. Tadashi Ohori	Team Leader of JICA Study Team
11. Motoo Taki	Irrigation & Drainage
12. Kunihiko Ohno	Agronomy
13. Akira Kotou	Soil & Land Use
14. Atushi Kikuoki	Meteorology & Hydrology
15. Olivier Daniel Serrat	Agro economy & Project Evaluation
16. Yoichi Kishi	Watershed Management
17. Kenichi Takase	Assistant Engineer

MINUTES OF MEETING
ON
INTERIM REPORT
OF
THE FEASIBILITY STUDY
ON
DEVELOPMENT OF IRRIGATION BASED
UPON FLOOD FLOWS OF D.G.KHAN HILL TORRENTS

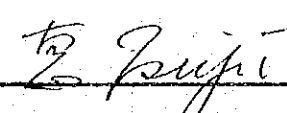
LAHORE, JANUARY 14TH, 1992.



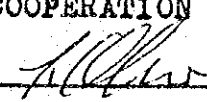
AHSAN HUSSAIN ZAIDI
ADDL. SECRETARY,
IRRIGATION & POWER DEPTT.
GOVERNMENT OF PUNJAB.



MR. RIAZUL HAQ SHEIKH
CHIEF ENGINEER (DRAINAGE &
FLOODS) IRRIGATION & POWER
DEPARTMENT, GOVERNMENT OF
THE PUNJAB.



TSUJII NORIKAZU
CHAIRMAN
ADVISORY COMMITTEE
FOR THE STUDY,
THE JAPAN INTERNATIONAL
COOPERATION AGENCY



TADASHI OHORI
LEADER,
THE STUDY TEAM.

MEETING ON THE INTERIM REPORT

DATE JANUARY 14TH, 1992.
PLACE: IRRIGATION & POWER DEPARTMENT
GOVERNMENT OF THE PUNJAB.
ATTENDANTS: AS PER ANNEX.

In accordance with the scope of work for the feasibility study on development of Irrigation based upon Flood Flows of D.G.Khan Hill Torrents signed on August 29th, 1990 between the Japan International Cooperation Agency(JICA) and the Government of Pakistan, the JICA Study Team prepared and submitted the Interim Report to the Irrigation & Power Department of the Government of the Punjab, on January 09th, 1992 prior to the commencement of the Phase II of the study.

The meeting was held on January 14th, 1992, for the discussion on the Interim Report. Both parties have mutually confirmed the followings :

1. The Interim Report of the study was accepted by Irrigation & Power Department, Punjab.
2. The Chairman of Supervisory Committee explained that the Interim Report had also been agreed upon by the Committee.
3. It was suggested by the Director General of Agriculture Department that the Feasibility Study may also include provisions for Agricultural Management such as improvement of Agricultural practices, cropping patterns and establishment of demonstration Farms so as to educate farmers.
4. The JICA Team Leader acknowledged the importance of on-Farm Management of Agriculture Practices in the Project Area but elaborated that Ist priority of the Study should be given to the Flood Water Management, which will provide assured water supply to the farmers ultimately developing confidence among them to adopt improved agricultural practices.
5. The Mithawan Pilot Project was also discussed among participants:
 - i) It was advised by the Committee to replace the proposed construction of large scale check dams with low check dams, and also to include the

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experimental provisions for vetiver grass application to watershed management within the scope of Mithawan Pilot Project.

- ii) The Chief Engineer, Drainage & Flood Zone, suggested the importance of management and monitoring of the project activities since it is a Pilot Project.
- iii) It was then agreed by the participants to revise the project components of Mithawan Pilot Project so as to replace large check dams with low check dams, and to include experimental provisions for vetiver grass and also monitoring activities within the scope of experimental provisions.

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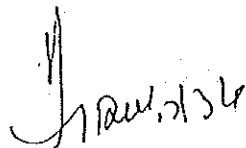
[Handwritten initials]

LIST OF PARTICIPANTS.

<u>Name</u>	<u>Position</u>
A. <u>Irrigation & Power Deptt. Punjab.</u>	
1. Mr. A. H. Zaidi	Additional Secretary.
2. Mr. Riaz Ul Haq.	Chief Engineer, D&F.
3. Rana M. Akhtar Chehan.	Chief Engineer, P&R Zone.
4. Mr. Tariq Bashir Dar.	Deputy Secretary (Development).
5. Mr. Muhammad Dilpazir.	Officer on Special Duty.
6. Qazi Anwar Ali.	Under Secretary (Floods)
7. Mr. Sajjad H. Hasim.	Executive Engineer Jampur. Construction Division, D.G. Khan.
B. <u>Planning and Development Department.</u>	
1. Mr. Abdul Hafeez.	Assistant Chief (Water & Power).
C. <u>Agriculture Department.</u>	
1. Mr. Mushtaq A Gill.	Director General Agri W.M.Pb.
D. <u>Supervisery Committee /JICA.</u>	
1. Mr. Norikazu Tsujii.	Leader.
2. Ms. Yeshimi Katsumata.	Co-Ordinator (JICA, H.Qs).
E. <u>JICA Study Team.</u>	
1. Tadashi Oheri.	Team Leader.
2. Moteo Taki.	Irrigation & Drainage.
3. Atsushi Kikueki	Hydrology.

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MINUTES OF MEETING
ON
PROGRESS REPORT
OF
THE FEASIBILITY STUDY
ON
DEVELOPMENT OF IRRIGATION BASED
UPON FLOOD FLOWS OF D.G. KHAN
HILL TORRENTS



AHSAN HSSAIN ZAIDI
ADDITIONAL SECRETARY
IRRIGATION & POWER DEPARTMENT
GOVERNMENT OF THE PUNJAB



TADASHI OHORI
LEADER
THE STUDY TEAM
JICA

MEETING ON THE PROGRESS REPORT-II

DATE: MARCH 17TH, 1992.

PLACE: IRRIGATION & POWER DEPARTMENT
GOVERNMENT OF THE PUNJAB.

ATTENDANTS: AS PER ANNEX.

In accordance with the scope of work for the feasibility study on development of Irrigation based upon Flood Flows of Dera Ghazi Khan Hill Torrents signed on August 29th, 1990 between the Japan International Cooperation Agency (JICA) and the Government of Pakistan, the JICA Study Team prepared and submitted ^{thirty (30) copies of} the Progress Report (II) to the Irrigation & Power Department of the Government of Punjab, on March 17th, 1992.

The meeting was held on March 17th, 1992 for the explanation on the Progress Report (II). Both parties have mutually confirmed the followings:

- i. The progress report (II) of the Project was accepted by Irrigation & Power Department Punjab.
- ii. The Team Leader of the consultants study team explained the different parameters of the detailed progress report (II).
- iii. It was suggested by the Irrigation and Power Department that the water rights as existing under Minor Government Act of 1905 should not be disturbed. The dispersion structures should be designed as per share of each branch as described in the said act.

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- iv. Efforts should be made to introduce the local grasses in the water shed area. For this purpose the agencies working on such Projects in Pakistan may be consulted.

LIST OF PARTICIPANTS.

<u>Sr.No.</u>	<u>NAME</u>	<u>POSITION.</u>
<u>A. IRRIGATION & POWER DEPARTMENT, PUNJAB.</u>		
1.	Mr. Rana Anver	Secretary.
2.	Mr. A. H. Zaidi	Additional Secretary
3.	Mr. Muhammad Dilpazir	Officer on Special Duty
4.	Mr. Malik Ahmed	Chief (Water & Power)
5.	Mr. Qazi Anwar Ali	Under Secretary (Floods)
6.	Mr. Muhammad Zarif	Director Floods
7.	Mr. Muhammad Ilyas	S.E. Derajat
<u>B. AGRICULTURE DEPARTMENT.</u>		
1.	Mr. Zaka Ullah	Chief (Planning)
2.	Mr. Mushtaq Ahmed Gill	Director General Agriculture (Water Management)
<u>C. JICA STUDY TEAM.</u>		
1.	Tadashi Ohori	Team Leader
2.	Motoo Taki	Irrigation & Drainage Asst. Team Leader
3.	Kunihiko Ohno	Agronomy
4.	Motoyoshi Yamada	Agro-economy & Project Evaluatio
5.	Fumihiko Komada	Design & Cost Estimate
6.	Yoichi Kishi	Watershed Management

JICA