

SCOPE OF WORK  
FOR  
THE FEASIBILITY STUDY  
ON  
CIDANAU-CIBANTEN WATER RESOURCES DEVELOPMENT PROJECT  
IN  
THE REPUBLIC OF INDONESIA

AGREED UPON BETWEEN

DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT  
MINISTRY OF PUBLIC WORKS

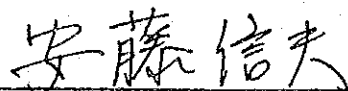
AND

JAPAN INTERNATIONAL COOPERATION AGENCY

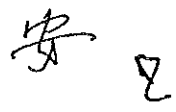
Jakarta, October 4, 1989



IR. MARTONO  
DIRECTOR OF PLANNING AND  
PROGRAMMING, DGWRD  
MINISTRY OF PUBLIC WORKS



MR. ANDO NOBUO  
LEADER OF THE PRELIMINARY  
SURVEY TEAM  
THE JAPAN INTERNATIONAL  
COOPERATION AGENCY



I. INTRODUCTION

In response to the request of the Government of the Republic of Indonesia (hereinafter referred to as "the Government of Indonesia"), the Government of Japan decided to conduct the Feasibility Study on Cidanau-Cibanten Water Resources Development Project (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 the technical cooperation programmes of the Government of Japan, will undertake the Study, in close cooperation with the authorities concerned of the Government of Indonesia.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVE OF THE STUDY

The objective of the Study is to examine technical and socio-economic feasibility of project which envisages mainly the municipal and industrial water supply in the Study area.

III. STUDY AREA

The Study area will cover the basins of the Cidanau and the Cibanten River and the area between the two basins as shown in the attached map.

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#### IV. SCOPE OF THE STUDY

In order to achieve the objective mentioned above, the Study shall cover the following items:

##### 1. Data collection and review of previous studies

- (1) National, regional and local socio-economic data
- (2) Topographical data and maps
- (3) Meteorological and hydrological data
- (4) Soil and geological data
- (5) River condition
- (6) Existing hydraulic structures and other relevant facilities
- (7) Present and future land use
- (8) Review of previous studies
- (9) Other related data and informations

##### 2. Field Investigations

- (1) Topographic mapping around dams/reservoirs and pipeline/canal routes
- (2) Geological investigation
- (3) Meteo-hydrological survey
- (4) Construction materials
- (5) Water demand and supply
- (6) Water quality
- (7) Others

##### 3. Study and Analysis

- (1) Hydrological and hydraulic analysis
- (2) Water demand and supply forecast
- (3) Study of combination plan of Cidanau and Cibanten

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- (4) Preliminary design of the proposed major structures
- (5) Water allocation
- (6) Environmental impact analysis
- (7) Others

4. Formulation of Feasibility Study Plan

- (1) Estimation of construction costs and benefits
- (2) Operation and maintenance plan
- (3) Project evaluation
- (4) Implementation schedule
- (5) Recommendations including institutional matters

V. SCHEDULE OF THE STUDY

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

VI. REPORTS

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

1. Inception Report

Forty (40) copies within forty-five (45) days from the date of the commencement of the Study.

2. Progress Report

Forty (40) copies within six (6) months from the date of the commencement of the Study.

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3. Interim Report

Forty (40) copies within eleven (11) months from the date of the commencement of the Study.

4. Draft Final Report

Forty (40) copies within sixteen (16) months from the date of the commencement of the Study covering all studies and analysis with enough supporting data.

Ministry of Public Works, Indonesia shall present their comments on the report within forty-five (45) days after receipt of the Draft Final Report.

5. Final Report

Fifty (50) copies within two (2) months after receipt of the comments on the Draft Final Report.

VII. UNDERTAKINGS OF THE GOVERNMENT OF INDONESIA

1. To facilitate smooth conduct of the Study, the Government of Indonesia shall take necessary measures:

- (1) to secure the safety of the Japanese Study Team;
- (2) to permit the members of the Japanese Study Team to enter, leave and sojourn in Indonesia for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees;
- (3) to exempt the members of the Japanese Study Team from taxes, duties, and other charges on equipment,

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machinery and other materials brought into Indonesia for the implementation 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 allowances paid to the members of the Japanese Study Team for their services in connection with implementation of the Study;
  - (5) to provide necessary facilities to the Japanese Study Team for remittance as well as utilization of the funds introduced into Indonesia 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;
  - (7) to secure permission for the Japanese Study Team to take all copies of data and documents related to the Study out of Indonesia to 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 Indonesia shall 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 arises from gross negligence or wilful misconduct on the part of the members of the Japanese Study Team.

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3. Directorate General of Water Resources Development, (hereinafter referred to as "DGWRD"), shall act as a counterpart agency to the Japanese Study Team and also as coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
4. DGWRD shall provide the Japanese Study Team with the followings in cooperation with other relevant organizations:
  - (1) Available existing data and information related to the Study;
  - (2) Counterpart personnel necessary for the Study;
  - (3) Suitable office space with necessary normal office equipment in Jakarta;
  - (4) Credentials or identification cards;
  - (5) To arrange vehicles with drivers.

#### VIII. UNDERTAKINGS OF JICA

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

1. to dispatch, at its own expense, the Japanese Study Team to Indonesia;
2. to pursue technology transfer to the Indonesian counterpart personnel in the course of the Study in Indonesia as well as in Japan.

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IX. CONSULTATION

JICA and DGWRD shall consult with each other in respect of any matter that may arise from or in connection with the Study.

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TENTATIVE SCHEDULE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	
WORK IN INDONESIA																						
WORK IN JAPAN																						
REPORTS																						

Remarks : IC/R : Inception Report

P/R : Progress Report

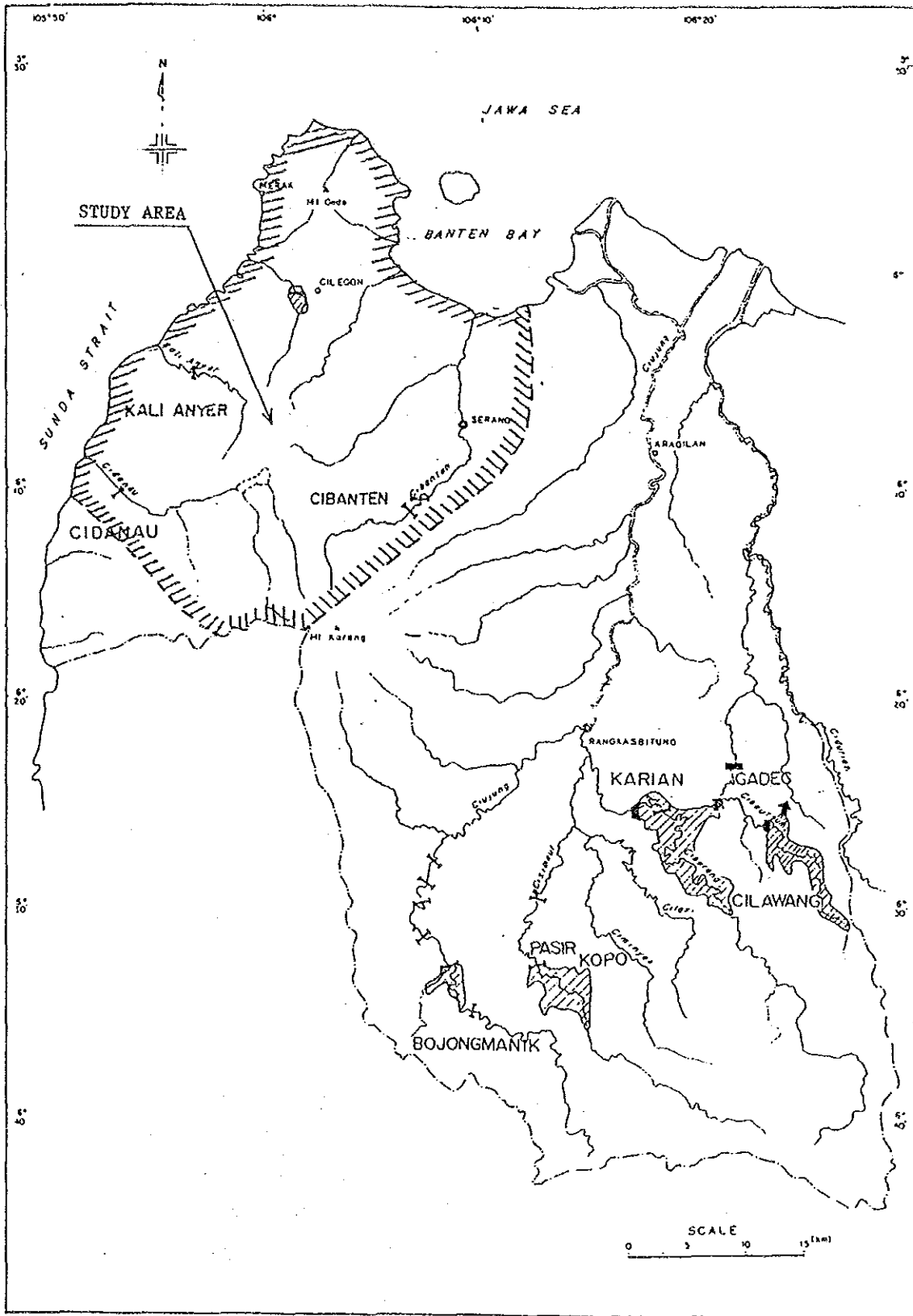
IT/R : Interim Report

DF/R : Draft Final Report

F/R : Final Report

○ : comments

*[Handwritten marks]*



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MINUTES OF MEETING

ON

SCOPE OF WORK

FOR

THE FEASIBILITY STUDY

ON

CIDANAU-CIBANTEN WATER RESOURCES DEVELOPMENT PROJECT

IN

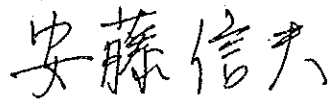
THE REPUBLIC OF INDONESIA

Jakarta, October 4, 1989



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DIRECTOR OF PLANNING AND  
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MR. ANDO NOBUO  
LEADER OF THE PRELIMINARY  
SURVEY TEAM  
THE JAPAN INTERNATIONAL  
COOPERATION AGENCY

In response to the request of the Government of the Republic of Indonesia, the Preliminary Survey Team (the Team) of Japan International Cooperation Agency (JICA), visited Indonesia from September 26th to October 5th, 1989, to discuss the Scope of Work for the Feasibility Study on Cidanau-Cibanten Water Resources Development Project (the Study).

The Team carried out field surveys of the Study area and held series of discussions with officials of Directorate General of Water Resources Development (DGWRD).

A final meeting was held on October 2nd, 1989, at the DGWRD office, Jakarta.

A list of those who attended is shown in the attached sheet.

The signing of the Scope of Work and Minutes of Meeting was held on October 4th, 1989.

The draft Scope of Work proposed by the Team was discussed in details between the Team and DGWRD and both sides agreed to adopt the Scope of Work with the following understandings:

1. In reference to II (Objective of the Study), DGWRD requested that the Study should be conducted in consideration not to disturb the existing irrigation water use.
2. In reference to IV.3 (2), the both sides agreed that planning range should be decided after analyzing water potential availability versus future water demand.
3. In reference to IV.3 (6), environmental impact analysis is to study the impact of the proposed project.

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4. In reference to IV.4 (5), DGWRD requested to introduce the method of cost allocation and management.
5. DGWRD requested that the Terms of Reference for the detail design should be included in the Final Report.
6. The Team requested to prepare the clerical services and vehicles with drivers necessary for the Study.

DGWRD answered that it is impossible to prepare them for financial reasons.

7. The Team requested permission to use walkie-talkies for the execution of the field survey.

DGWRD answered that they make efforts for permission to use smoothly when the equipment type is determined.

8. DGWRD requested equipment, installation, observation as well as operation of Listed equipment necessary for the Study as follows.

(1) four-wheel drive type vehicles	4 sets
(2) automatic water level recorder with accessories	4 sets
(3) automatic rainfall recorder with accessories	6 sets
(4) personal computer	4 sets
(5) current meter with accessories	2 sets
(6) altimeter	2 sets
(7) electronic distance measuring complete with accessories	2 sets
(8) climatological equipment	2 sets

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9. DGWRD requested that the following additional survey will be carried out by local consultant to be financed by the JICA Study Team.

- (1) topographic mapping from the existing aerophotograph and survey around dams/reservoirs and pipeline/cannal routes
- (2) geological investigation
- (3) soil test and water quality test
- (4) meteo-hydrological survey
- (5) others

The Team stated to convey the above request to the concerned agency in Japan.

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Meeting on Scope of Works  
Feasibility Study on Cidanau - Cibanten  
Water Resources Development Project  
October 2, 1989

L I S T O F A T T E N D A N T S  
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I. Indonesian Side :

- |                           |  |
|---------------------------|--|
| 1. Ir, M Sidharto         | Chief of River Basin Planning Division<br>Directorate of Planning and Programming<br>(DPP) |
| 2. Drs, Ch Nasri          | Chief of Inter Sectoral Cooperation, DPP   |
| 3. M Yusuf Kardi, MSc     | Chief of CJCB Project, DPP   |
| 4. Drs, M Soesatyo        | Chief of Foreign Aid Administration, DPP   |
| 5. Ir, Bambang Pramono    | Chief of Regional-II Section, DPP  |
| 6. Ir, Agni H, Dip HE     | Banten Sub Project Manager, DPP  |
| 7. Ir, Djumpono, M Eng    | Staff of DPP   |
| 8. Ir, Eddy Sudaryono     | Staff of DPP   |
| 9. Ir, Suntoro, Dip HE    | Chief of Technical Planning-I, Director-<br>ate of River                                   |
| 10. Drs, Sudarminto       | Chief of Industrial & Energy Section, DPP  |
| 11. Nugroho Purwanto, BSc | Staff of Banten Project  |
| 12. Yayat Hidayat         | Staff of DPP   |
| 13. Mr. Katsuhiko KIMURA  | JICA Expert, Dit BPP   |
| 14. Mr. Takuya KHON       | JICA Expert, Dit Sungai  |
| 15. Mr. Naoto OASHI       | JICA Expert, Dit Sungai  |

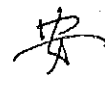
II. Japanese Side :

A. Preliminary Survey Team :

- |                        |             |
|------------------------|-------------|
| 1. Mr. Nobuo ANDO      | Team Leader |
| 2. Mr. Takashi IKEDA   | Member      |
| 3. Mr. Hitoshi YOSHIDA | Member      |
| 4. Mr. Tomiaki ITO     | Member      |
| 5. Mr. Junji EBIHARA   | Member      |

B. JICA Indonesia Office :

- |                        |  |
|------------------------|--|
| 1. Mr. Satoru HAGIWARA | Assistant Resident Representa-<br>tive |
|------------------------|--|

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附属資料 3. Questionnaire 及び回答

Questionnaire

on

Cidanau and Cibanten Water Resources Development Project

November 1989

Preliminary Study Team of JICA



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1. General

Item	Description	Availability	Notes
1. National Development Plan	- Latest existing long-term plan or five year plan	available	PELITA V
2. Regional Development Plan related to the Study		available	PELITA V JABAR
3. National Census related to the Study		available	Statistic Office
4. Socio-economic Conditions in and around the Cidanau and Cibanten river basin		available	Statistic Office
a) Administrative district (city, town, and village)		available	Statistic Office
b) Population and household		available	Statistic Office
c) Beneficiaries from the Project		available	Statistic Office
d) Land use		available	Statistic Office
e) Infrastructure	<ul style="list-style-type: none"> <li>- Road condition</li> <li>- Transportation</li> <li>- Electricity</li> <li>- Telecommunication/postal service</li> </ul>	available	<ul style="list-style-type: none"> <li>Statistic &amp; agraria</li> <li>Statistic &amp; agraria</li> <li>Statistic &amp; agraria</li> <li>Statistic &amp; agraria</li> </ul>

Item	Description	Availability	Notes
<p>5. Budget in the last five years</p> <p>a) National budget</p> <p>b) Flood control/Dam construction/Erosion control/Forestation (Whole country)</p> <p>c) Flood control/Dam construction/Erosion control/Forestation(Cidanau and Cibanten river basin)</p> <p>d) Maintenance cost for road, bridge flood control facilities, etc.</p> <p>6. up to date organization chart of the government and agency concerned the Project.</p>	<p>Portable water supply</p> <ul style="list-style-type: none"> <li>- Wells</li> <li>- Industry</li> <li>- Agriculture (irrigation)</li> <li>- Tourism and historical points</li> </ul>	<p>available</p> <p>available</p> <p>available</p> <p>available</p>	<p>Statistic &amp; agraria</p> <p>Statistic &amp; agraria</p> <p>Statistic &amp; agraria</p> <p>Statistic &amp; agraria</p> <p>Statistic &amp; agraria</p> <p>BAPPEDA</p> <p>PU</p> <p>PU</p>

2. Topographical Map

Item	Description	Availability	Notes
1. Topographical Map covering the Cidanau and Ciban-ten Rivers	<ul style="list-style-type: none"> <li>- Scales 1:100,000</li> <li>1: 50,000</li> <li>- Interval of contour line</li> <li>- Agency and administrative office</li> </ul>	available 25m	PZSA CJCB
2. Aerophotograph	<ul style="list-style-type: none"> <li>- Scale 1: <u>          </u></li> <li>- Photographing year</li> <li>- Control point</li> <li>- Agency and administration office</li> </ul>	1 : 20,000 1980 CV. Kutamas	PZSA CJCB
3. Topographical Map covering Project Area	<ul style="list-style-type: none"> <li>- Scales 1:25,000</li> <li>1:10,000</li> <li>1: 2,000</li> </ul>	available —	Dam site Cibanten only
4. Topographical Map at Project Sites	<ul style="list-style-type: none"> <li>- Scales 1: 5,000</li> <li>1: 1,000</li> </ul>	available —	Cidanau/geological
5. Cross Section of Dam Sites		— —	
6. Longitudinal Section of the River	<ul style="list-style-type: none"> <li>- Vertical Scale :</li> <li>- Horizontal Scale :</li> </ul>	available — —	
7. Survey	<ul style="list-style-type: none"> <li>- List and data of triangulation net for project site</li> <li>- List and data of leveling net for project area</li> <li>- List and data of bench-marks near project area</li> </ul>	available — available	

3. Geological Data

Item	Description	Availability	Notes
1. Published Map on Rock and Soil Classification	<ul style="list-style-type: none"> <li>- Extensive geological maps with geological structures and their explanation</li> <li>- Scale 1: _____</li> <li>- Agency and administrative office</li> </ul>	available	Directorate of Geology, Bandung
2. Project Site a) Geological Drawings and Geological Report	<ul style="list-style-type: none"> <li>- Plans, profiles and sections</li> <li>- Geological investigation reports</li> </ul>	available available 1989	PT. Gamma Epsilon
b) Results of Geological Investigation Work	<ul style="list-style-type: none"> <li>- Expanded drawings of exploration tunnels or shafts</li> <li>- Drilling log diagrams</li> <li>- Permeability test and loading test</li> <li>- Elastic-wave research</li> <li>- Rock tests (deformation and shearing)</li> </ul>	available (a part of the required data)	PZSA CJCB
3. Reservoir Geological Drawings and Geological Reports	<ul style="list-style-type: none"> <li>- Plans, profiles and sections</li> <li>- Geological investigation reports</li> </ul>	—	—

Item	Description	Availability	Notes
4. Hydro-geology		—	
a) Observed Under-ground Water Level		—	
b) Springing Spots		—	
c) Water Examination	- Pumping tests, chemical analysis	—	
5. Construction Materials			
a) Location	- Concrete aggregate, filling materials	available	Quarry Cidanau
b) Materials Test	- Plans and sections	available	Directorate of Geology
6. Published Report on Earthquake or Volcanic Activities		available	

4. Hydrological and Meteorological Data

Item	Description	Availability	Notes
1. Run-off	<ul style="list-style-type: none"> <li>- All available data at water gauging stations including location map (s)</li> <li>- Converted run-off data at the dam site</li> <li>- Authorities concerned</li> </ul>	<ul style="list-style-type: none"> <li>available</li> <li>available (project)</li> </ul>	
2. Flood Flow	<ul style="list-style-type: none"> <li>- By chosical method such as probable maximum method</li> <li>- By statistical method</li> <li>- Recorded Maximum flood</li> <li>- Authorities concerned</li> </ul>	<ul style="list-style-type: none"> <li>available</li> <li>available</li> <li>available</li> <li>available</li> </ul>	
3. Rating Curve	<ul style="list-style-type: none"> <li>- Downstream of damsite, including location map</li> </ul>	<ul style="list-style-type: none"> <li>available</li> </ul>	
4. Sedimentation	<ul style="list-style-type: none"> <li>- Suspended material and bed load material</li> <li>- Authorities concerned</li> </ul>	<ul style="list-style-type: none"> <li>available</li> <li>(DPMA) 1989</li> </ul>	
5. Evaporation	<ul style="list-style-type: none"> <li>- Monthly average (observed or estivated evaporation)</li> <li>- Authorities concerned</li> </ul>	<ul style="list-style-type: none"> <li>available</li> <li>(project)</li> </ul>	Station Padarincang
6. Precipitation	<ul style="list-style-type: none"> <li>- All available precipitation data for wet and dry seasons including location map(s) of station and authorities concerned</li> </ul>	<ul style="list-style-type: none"> <li>available</li> <li>(project)</li> </ul>	

Item	Description	Availability	Notes
7. Weather  8. Water Quality Record  9. Water Temperature Record	- Temperature, humidity and thunder (annual number of days per 10km square) including location map(s) of stations	available  available  available	



5. Planning Data

Item	Description	Availability	Notes
1. Development Plans of Cidanau and Cibanten Rivers	<ul style="list-style-type: none"> <li>- Reports and information</li> <li>- Authorities concerned</li> </ul>	available	
2. Regulation, Code, Criteria and so forth	<ul style="list-style-type: none"> <li>- Civil work (dam, penstock, road, etc.)</li> <li>- Building, Machine and Material</li> <li>- Communication</li> </ul>	available	
3. Name of Contractor (s) and / or Consultant(s)	<ul style="list-style-type: none"> <li>- Recommendable contractors and / or Consultants (survey, geology, transportation)</li> </ul>	available	
4. Installation Cost of Automatic Water Level Recorder	<ul style="list-style-type: none"> <li>- Measuring instrument, (1 set)</li> <li>- Installation of measuring instrument</li> </ul>	available	
5. Facilities and Arrangements for Field Investigation	<ul style="list-style-type: none"> <li>- Temporary bridges or boats and rafts to cross the river near the dam site</li> <li>- Facilities for climbing (if necessary)</li> <li>- Radiophones (Herz)</li> <li>- Arrangement of base camp near the site</li> </ul>	available available available available available	to be try to arrange

6. Unit Prices for Field Investigation Obtained during Recent Years in Wilayah II

Item	Description	Availability	Notes
1. Aerial Survey and Mapping	<ul style="list-style-type: none"> <li>- Aerial survey Aerophotos scale 1:20,000</li> </ul>	available	
2. Ground Survey, per ha.	<ul style="list-style-type: none"> <li>- Photogrammetric mapping (S=1:5,000), per ha. Including ground control, aerial triangulation process</li> <li>- Scale 1:500, Contour interval 1 m</li> <li>- Scale 1:1000, Contour interval 2 m</li> </ul>	available	
3. Drilling, per meter	<ul style="list-style-type: none"> <li>- Soil drilling and sampling (up to 5 m)</li> <li>- Core drilling (up to 100 m / bore hole) excluding mobilization</li> <li>- Core drilling (more than 30 m / bore hole) including mobilization</li> </ul>	available	The cost is including the field test and laboratory test.
4. Permeability (lugion) test of bore hole (5 m stage)	<ul style="list-style-type: none"> <li>- Field work and reporting</li> </ul>	available	
5. Seismic Prospecting per kilo meter	<ul style="list-style-type: none"> <li>- Service charges for permit, transport, storage, etc.</li> </ul>	available	

Item	Description	Availability	Notes
6. Test pitting for gravel deposits (up to 3 m depth), per pit		available	

7. Inland Transportation Data (Between Closest Harbour and Project Site)

Item	Description	Availability	Notes
1. Road Condition	<ul style="list-style-type: none"> <li>- Road map of transportation route</li> <li>- Limited loading weight (ton)</li> <li>- Limited loading dimension (height x width length in meters)</li> </ul>	<ul style="list-style-type: none"> <li>available</li> <li>available</li> <li>available</li> </ul>	<ul style="list-style-type: none"> <li>} in Bina Marga</li> </ul>
2. Harbour Facilities	<ul style="list-style-type: none"> <li>- Maximum harbour crane capacity (ton)</li> <li>- Maximum floating crane capacity (ton)</li> <li>- Area of stockyard and warehouse</li> </ul>	<ul style="list-style-type: none"> <li>available</li> <li>available</li> <li>available</li> </ul>	<ul style="list-style-type: none"> <li>} in Ministry of Transportation</li> </ul>
3. Cost of Inland Transportation	<ul style="list-style-type: none"> <li>- Landing and warehouse charge</li> <li>- Cost of inland transportation Rp./ton -km, Rp./ton, Rp./km, or other unit prices</li> <li>- Hire charge of truck, car, barge, etc.</li> </ul>	<ul style="list-style-type: none"> <li>available</li> <li>available</li> <li>available</li> </ul>	<ul style="list-style-type: none"> <li>} in Ministry of Transportation</li> </ul>

8. Cost Estimation Data

Item	Description	Availability	Notes
1. Construction Cost for Civil Works	- Labour	available	
2. Operation and Maintenance Yearly Cost	- Materials (cement, steel, oil, etc.)	available	
3. Interest Rate		available	
4. Escalation Rate		available	
5. Import duties	- Machinery and material for construction	available	

9. Economic Evaluation

Item	Description	Availability	Notes
1. Operation and Maintenance	- Annual operation and maintenance fees or ratios such as personnel expenses, repair expenses and others including pipe line	available	
2. Delivery Cost	- Administration, transmission, sub-station, distribution, sales, interest, tax, etc.	—	
3. Tariff Maintenance	- Current and in future	available	

10. Others

Item	Description	Availability	Notes
1. Organization in Charge of and/or concerned to the Project	<ul style="list-style-type: none"> <li>- Ministerial, Regional, Provincial organization</li> <li>- Responsible agency</li> </ul>	available	
2. Published Statistics	<ul style="list-style-type: none"> <li>- Statistics of economy, industry, trade, etc. in West Java and the Project area</li> </ul>	available	
3. Labour	<ul style="list-style-type: none"> <li>- Labour working law or regulations and unions (if any)</li> <li>- Public or official holidays</li> <li>- Daily working hour</li> <li>- Premium payment for holiday and overtime working</li> </ul>	available	} in Ministry of Man Power
4. Resettlement	<ul style="list-style-type: none"> <li>- Number of houses, population, farm, land, etc. necessary to be resettled</li> <li>- Unit prices of each item</li> </ul>	available	} in BAPPEDA Serang
5. Private Land and Forest	<ul style="list-style-type: none"> <li>- Schemes of land use, forest, etc.</li> </ul>	available	} in BAPPEDA or Agraria Serang

Item	Description	Availability	Notes
<p>6. Game Preserve</p> <p>7. Public holidays</p> <p>8. Hospitals</p>	<ul style="list-style-type: none"> <li>- Kinds of wildlife to be preserved (if any)</li> <li>- Area of game preserve</li> <li>- In the year of 1990 and 1991</li> <li>- Location</li> </ul>		



附属資料 4. 面談者リスト

(1) 公共事業省

- 1) Ir. Koesdaryono Assistance Minister for Water Resources Development

(2) 同省計画局

- 1) Ir. Martono Director, Directorate of Planning & Programming (DPP)  
2) Ir. M Sidharto Chief of River Basin Planning Division (DPP)  
3) Drs, Ch Nasri Chief of Inter Sectoral Cooperation (DPP)  
4) Ir. Yusuf Kardi Chief of CJC B Project (DPP)  
5) Drs, M Soesatyo Chief of Foreign Aid Administration (DPP)  
6) Ir. Bambang Pramono Chief of Regional- II Section (DPP)  
7) Ir. Agni Handoyo Banten Sub Project Manager (DPP)  
8) Ir. Djumpono Staff of DPP  
9) Drs, Sudarminto Chief of Industrial & Energy Section (DPP)  
10) Yayat Hidayat Staff of Banten Project (DPP)  
11) Nugroho Purwanto Staff of DPP  
12) Ir. Djoko Sardjono Chief of Foreign Aid Administration  
13) Mr. Katsuhiko KIMURA JICA Expert

(3) 同省河川局

- 1) Ir. Suntoro Chief of Technical Planning- I, Directorate of River  
2) Mr. Takuya KHON JICA Expert  
3) Mr. Naoto OASHI JICA Expert

(4) P.T. KRAKATAU STEEL

- 1) Ir. Bagus Kaswan S. Manager Pengelolaan Kawasan Industri  
2) Ir. E. Tomasowa

(5) 在インドネシア日本大使館

1) 上 田 敏 二等書記官

(6) JICA インドネシア事務所

1) 北 野 康 夫 所 長

2) 田 口 徹 次 長

3) 萩 原 知 所 員

5. 森林資源の現存状況

収集資料リスト

様式

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I	図面, 航空写真											
1	地形図 CIBANTEN地域 S=1/5,000 5枚					PSSA						
2	地形図 CIBANTEN71741 S=1/2,000 2枚					PSSA						
3	地形図 CIDANAU 71741 S=1/2,000 2枚					PSSA						
4	航空写真 全調査区域 S=1/20,000 1980年撮影					未取集 (PSSAにある)						
5	写真図 Ruwa Danau地域 S=1/10,000 A=10,000ha					未取集 (PSSAにある)						
II	水理											
1	LAPORAN TAHUNAN ANGGARAN 1978/1979 1978/1979 年度予算案		A4	21	コピー	PSSA						
2	LAPORAN TAHUNAN ANGGARAN 1979/1980 1979/1980 年度予算案		A4	14	コピー	PSSA						
3	WATER LEVEL AT SERUT (CIBANTEN RIVER) AND KUBANG BAROS (CIDANAU RIVER) STATIONS 1980/1981 チバンテン川セルット地点及びチダナウ川 クハン・パロス地点の水位, 1980/1981		A4	40	コピー	PSSA						
4	WATER LEVEL RECORD AT KUBANG BAROS AND SERUT STATIONS 1981/1982 クハン・パロス地点及びセルット地点の水 位記録, 1981/1982		A4	33	コピー	PSSA						
5	WATER LEVEL RECORD AT KUBANG BAROS AND SERUT STATIONS 1982/1983 クハン・パロス地点及びセルット地点の水 位記録, 1982/1983		A4	32	コピー	PSSA						
6	LAPORAN PENGUMPULAN DATA HIDROK- LIMATOLOGI WILAYAH BANTEN TAHUN ANGGARAN 1984/1985 (SWAKELOLA VOLUME I) 1984/1985 会計年度バンテン地区水理気象 データ取集報告書(SWAKELOLA), 第一巻		A4	21	コピー	PSSA						

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7	LAMPIRAN LAPORAN PENGUMPULAN DATA HIDROKLIMATOLOGI WILAYAH BANTEN TAHUN ANGGARAN 1984/1985 (SWAKELOLA VOLUME II) 1984/1985 会計年度バンテン地区水理気象データ収集報告書(SWAKELOLA)付属書, 第二巻		A4	49	コピー		P3SA						
8	LAMPIRAN LAPORAN PENGUMPULAN DATA HIDROKLIMATOLOGI BAGIAN PROYEK P2SA BANTEN TAHUN ANGGARAN 1985/1986 (SWAKELOLA VOLUME II) 1985/1986 会計年度バンテン地区P2SA工地区水理データ収集報告書(SWAKELOLA)付属書, 第二巻		A4	60	コピー		P3SA						
9	LAPORAN SURVEY PENGUMPULAN DAN ANALISA DATA HIDROKLIMATOLOGI TAHUN ANGGARAN 1987/1988 1987/1988 会計年度水理気象データ収集解析調査報告書		A4	73	コピー		P3SA						
10	LAPORAN SURVEY PENGUMPULAN DAN ANALISA DATA HIDROKLIMATOLOGI TAHUN ANGGARAN 1986/1987 VOLUME II 1987/1988 会計年度水理気象データ収集解析調査報告書, 第二巻		A4	49	コピー		P3SA						
11	LAPORAN SURVEY PENGUMPULAN DAN ANALISA DATA HIDROKLIMATOLOGI TAHUN ANGGARAN 1988/1989 1988/1989 会計年度水理気象データ収集解析調査報告書		A4	35	コピー		P3SA						
12	日雨量年表 (CADASARI) 1979/1989		A4	35	コピー		P3SA						
13	日雨量年表 (SERUT) 1979/1989		A4	35	コピー		P3SA						
14	日雨量年表 (KEPUH) 1979/1989		A4	35	コピー		P3SA						
15	時間雨量月表 (CADASARI) 1983年1~12月		A4	12	コピー		P3SA						

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16	PENELITIAN KUALITAS AIR DAN SEDIMENT TRANSPORT DI SUNGAI CIBANTEN チバンテン川水質及び送流土砂調査報告書						未収集 (PSSAにある)						
17	PENELITIAN KUALITAS AIR DAN SEDIMENT TRANSPORT DI SUNGAI CIDADANAU チダグナウ川水質及び送流土砂調査報告書						未収集 (PSSAにある)						
III	ダム												
1	DRAFT REPORT PEKERJAAN PENYELIDIKAN GEOLOGY TERNIS DAN PEMBORAN INTI UNTUK STUDY ALTERNATIF RENCANA DAM CIDADANAU (600HA/150meter) チダグナウ川ダム計画代替案策定のためのボーリング調査及び地質調査報告書 (ドラフト)		A4	76	コピー		PSSA						
2	DRAFT REPORT PEKERJAAN PENYELIDIKAN GEOLOGY TERNIS DAN PEMBORAN INTI LOKASI QUARRY BORROW AREA DI DAERAH RENCANA DAM CIDADANAU (300HA/100meter) チダグナウ川ダム計画の計画地域における土取場のボーリング調査及び地質調査報告書 (ドラフト)		A4	24	コピー		PSSA						
IV	環境												
1	DRAFT REPORT SURVEY DAN PENELITIAN/STUDI PENYUSUNAN PENYAJIAN INFORMASI LINGKUNGAN (PIL) DI DAERAH SUNGAI CIDADANAU 1. LAPORAN チダグナウ川ダム計画の計画地域における環境情報提供書(PIL)策定にかかわる研究調査報告書 (ドラフト), 報告書1		A4	104	コピー		DPU						
2	ENVIRONMENTAL IMPACT ANALYSIS SAMPEAN BARU GROUNDWATER IRRIGATION DEVELOPMENT PROJECT EAST JAWA EXECUTIVE SUMMARY FINAL REPORT FEBRUARY, 1989		A4	30	コピー		DPU						

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2	東部ジャワ州サンペンアン・バル地下水灌漑開発事業に関する環境影響分析、概要報告書(最終), 1989年2月												
3	ENVIRONMENTAL IMPACT ANALYSIS SAMPEAN BARU GROUNDWATER IRRIGATION DEVELOPMENT PROJECT EAST JAWA VOLUME 1. MAIN REPORT FINAL REPORT FEBRUARY, 1989 東部ジャワ州サンペンアン・バル地下水灌漑開発事業に関する環境影響分析、第一巻主報告書(最終), 1989年2月		A4	156	コピー		DPU						
4	ANDAL GUIDELINE FOR WATER RESOURCES DEVELOPMENT PROJECTS ESPECIALLY FOR IRRIGATION & RIVER PROJECTS FINAL REPORT MARCH, 1989 水資源開発事業の内特に灌漑及び河川事業に係わる環境影響分析(ANDAL)のガイドライン, 最終報告書 1989年3月		A4	47	コピー		DPU						
5	UNDANG-UNDANG REPUBLIC INDONESIA NOMOR 4 TAHUN 1982 TENTANG KETENTUAN-KETENTUAN POKOK PENGELOLAAN LINGKUNGAN HIDUP 生活環境の管理に関する基本規定, インドネシア共和国法律1982年第4号												
6	PERATURAN PEMERINTAH REPUBLIC INDONESIA NOMOR 29 TAHUN 1986 TENTANG ANALISIS MENGENAI DAMPAK LINGKUNGAN 環境影響分析に関する1986年第29号インドネシア共和国政府規則(内務省令)												
7	PEDOMAN PELAKSANAAN PERATURAN PEMERINTAH NO.29 TAHUN 1986 TENTANG ANALISIS MENGENAI DAMPAK LINGKUNGAN 「環境影響分析に関する1986年第29号規則」実施のためのガイドライン(施工細則集)												

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8	IRRIGATION SUB SECTOR PROJECT (ISSP) -LOAN IBRD 2880-IND FORMAL TRAINING PROGRAM 世銀信託2880-INDによる灌溉サブセクタープロジェクト(ISSP)にかかわる公式研修プログラム		A4	24	コピー		DPU						
V	雑		A4	14	コピー		DPU						
1	DRAFT TERMS OF REFERENCES PEKERJAAN KENYUSUNAN ANALISIS DAMPAK LINGKUNGAN TADANA WULI DAM BANGUNAN DI DAERAH BANTEN 環境影響分析(ANDAL)の特記仕様書(TOR)(トランプト)		A4	34	コピー		P3SA						
2	DAFTAR KETERANGAN LETAK PILAR TITIK-TITIK TRIANGULASI DI DAERAH BANTEN バンテン地区三角測量点位置表												





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