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REPUBLIC OF INDONESIA
MINISTRY OF PUBLIC WORKS AND ELECTRIC POWER
DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT

THE CITANDUY RIVER BASIN
DEVELOPMENT PROJECT

MONTHLY REPORT FOR THE PERIOD
Ending : 28 February 1974

SUBMITTED BY :

ENGINEERING CONSULTANTS, INC.

DENVER, COLORADO USA

BANJAR, INDONESIA



ENGINEERING CONSULTANTS, INC.

CABLE ADDRESS
ECIBANJAR
WEST JAVA
INDONESIA

PROYEK CITANDUY
PATARUMAN
BANJAR, WEST JAVA
INDONESIA

February 28, 1974

Director General of
Water Resources Development
Ministry of Public Works
and Electric Power
Jalan Pattimura 7/20
Kebayoran Baru. Jakarta
Republic of Indonesia.

Attn : Director of River and
Swampy Area Development.

Our file : 1138/19
Mr 2/74
Subject : Monthly Report
Citanduy River
Basin Development
Project.

Dear Sir :

We are herewith submitting our seventh Monthly Report, which includes the calendar month of February 1974. This report is particularly important to us because it marks the point of formal approval by the Steering Committee of our recommended first and second priority feasibility studies.

It is hoped that this report will prove to be a useful tool in the evaluation of our work progress to date.

Encl : Thirty (30) copies
of Progress Report No. 7

Yours truly,
Engineering Consultants, Inc.

Gifford E. Rogers
Resident Manager

CC :

1. USAID/Indonesia, American Embassy
Jakarta, Republic of Indonesia
Attn : Mr. McAleer, Engineering Section.
Six (6) enclosures.
2. Directorate of River and Swamps. Banjar Office.
Attn : Ir. Soebandi Wirosoemarto, Project Manager
Citanduy Project. Five (5) enclosures.
3. P.T. Indah Karya. Bandung.
Attn : Ir. Sahat T.P. Siagian, Counterpart Team Leader.
Five (5) enclosures.
4. ECI/Denver.
Attn : Mr. C.M. Langford, Project Sponsor.
Three (3) enclosures.
5. ECI/Staff. Banjar.
Five (5) enclosures.

MONTHLY REPORT NO. 7

Period ending 28/2/1974

I. GENERAL

Perhaps the most important event that occurred during this report period was the meeting of the Steering Committee held in Jakarta on February 19th. Preparation for this meeting occupied the principal part of the staff's time during the first half of the month. Subsequent to the receipt of the decision of the Steering Committee, the staff has been principally occupied with the preparation of outlines and the assembly of pertinent data required for the master plan and the two feasibility studies.

The reader will recall that the Steering Committee at their meeting held on December 18, 1973, approved the recommended first priority project in principle, but with the reservation that further study should be made of the Banjar damsite. In order to comply with the decision of the Steering Committee, ECI prepared a special report, "Technical And Socio-Economic Factors As They Affect Damsite Selection," which was presented to the Committee at the February meeting.

Needless to say, we are pleased to report that the Steering Committee handed down an affirmative opinion regarding not only our recommended first and second priority feasibility studies, but also for our recommendation to change the name of the first priority project. The final conclusions of the Committee were as follows :

1. Approval is granted for the Consultant to proceed with his recommended first priority feasibility study; namely, "A Comprehensive Water Management Scheme For The Lower Citanduy/Ciscol River System."

2. Approval is granted for the Consultant to proceed with his recommended second priority feasibility study; namely, "The Reclamation Of The Segara Anakan And Its Environment."

The visit by Mr. C.M. Langford, Project Sponsor extended into February. The highlight of his last few days in Banjar was a visit to the Segara Anakan in the company of Mr. Sarbini, Project officials, counterpart members, and several consultant staff members. Mr. Langford also spent a few days in Jakarta visiting with top officials in the Directorate of Water Resources Development and with other officers, both of Government and of international agencies.

In our last monthly report we commented on the unseasonal dry period that prevailed during most of January. Subsequent to this report, conditions reverted to normal; i.e., rainfall everyday accompanied by high river stages. This anomaly was a great lesson to the Consultants, for it showed how quickly the Citanduy River responds to changes in rainfall patterns.

II. PERSONNEL

A. Present at last report :

1. Gifford E. Rogers - Resident Manager
2. Wallace J. Schoenleber - Civil Engineer
3. David E. Bogan - Irrig. and Drain. Engineer
4. Robert E. Struthers - Economist
5. Roydon T. Edwards - Agriculturist
6. Donald P. Scott - Geologist
7. Robert A. Gardner - Soil Scientist
8. Herbert C. Fletcher - Land Management Specialist

B. Arrivals subsequent to last report :

1. Dick Churchill, Environmentalist.
Arrived in Jakarta on 17-2-74 and in Banjar on 22-2-74.
Mr. Churchill will remain on the project for a period of six weeks.

C. Departures subsequent to last report :

1. Mr. Cecil H. Langford, Project Sponsor, departed Jakarta on 8-2-74 after discussions with Government of Indonesia Officials and members of the USAID mission.

D. Scheduled to arrive next month :

1. Michael Saunders - Planning Engineer - 17 March 1974
2. Yin Au Yeung - Hydrologist - 17 March 1974

E. Scheduled to arrive at a later date :

1. Max Kuehl - Chief Engineer - April 1974
2. Eric Will - Chief Planner - May 1974

I I. IMPORTANT EVENTS

<u>No.</u>	<u>Date</u>	<u>Location</u>	<u>Purpose</u>	<u>Personnel</u>
A. <u>Meetings</u>				
1.	4-2-74	Bandung	Meet with P.T. Indah Karya	Langford, Rogers
2.	4-2-74	Bandung	Meet with Hydr. Inst.	Gardner
3.	5-2-74	Bogor	Meet with Soils Inst.	Gardner and Messrs. Soebagiyo and Edi.
4.	5,6,7 - 2-74	Jakarta	Meet with D.G.W.R.D.	Langford and Rogers
5.	7,8,9,- 2-74	Bandung	Irrig. Directorate	Fletcher and Krebet
6.	11,12 - 2-74	Semarang	Land-Use Directorate	Fletcher and Krebet
7.	13,14,15- 2-74	Yogyakarta	Water-Shed Management	Fletcher and Krebet
8.	16,17 - 2-74	Bandung	Hydraulic Institute	Fletcher and Krebet
9.	18-2-74	Jakarta	Visit D.R. & SWA.	Churchill, Rogers
10.	19-2-74	Jakarta	Steering Committee Meeting	Struthers, Bogan, Rogers, Fletcher, and Churchill.
11.	20-2-74	Bogor	Visit Forestry	Struthers and Imam, Churchill and Fletcher.

<u>No.</u>	<u>Date</u>	<u>Location</u>	<u>Purpose</u>	<u>Personnel</u>
12.	21-2-74	Bandung	Visit Ecology	Struthers and Churchill
13.	22-2-74	Bandung	Hydraulic Institute	Fletcher and Krebet
14.	26-2-74	Bogor	Soil Institute	Gardner and Soebagiyo and Edi
15.	26-2-74	Banjar	Mapping and Geologic borings	Soebandi, Rogers, Schoenleber, Bogan and Scott.

B. Field Trips

1.	2-2-74	Segara Anakan	Visit lagoon & Cilacap	Langford, Gardner, Rogers, Schoenleber, Scott, Sarhini, Sriyono and Krebet
2.	5-2-74	Sidareja	Visit Farms	Edwards and Tossin
3.	7-2-74	Matenggeng	Visit Damsite	Scott and Iing
4.	8-2-74	Matenggeng	Visit Damsite	Scott and Iing
5.	7,8-2-74	Bandung	Visit Horticulture Sta.	Edwards and Tossin
6.	21,22-2-74	Lakbok	Visit Farms	Edwards and Tossin

IV. MAJOR PROBLEM AREAS

A. Vehicles And Transportation.

One of our long-wheel-base vehicles was damaged in an accident in the middle of the month and has not yet been repaired and returned to our service. This has caused some inconvenience in the scheduling of transportation.

We are happy to report that some steps have been taken to alleviate the chronic gasoline shortage to the satisfaction of all concerned.

B. Housing Facilities.

The house being prepared for Dr. Gardner was finally completed and occupied on 17/2/74. We understand that the last unit, to be occupied by Mr. Saunders, will be ready for his arrival, which is now scheduled for 17/3/74.

There has been no action taken to supply voltage regulators for the burned out refrigerators due to excessive voltage surges in the PLN system. To date, the occupants have been forced to take their own action to avoid further damage to the project-owned equipment.

V. PROGRESS

A. Technical.

Since December 1973, we have been reporting that our soil analyses work had been promised for early delivery, but has not yet appeared. This is still the case. However, we understand that the complete set of analyses will be delivered in early March. Meanwhile, our Soil Scientist has reviewed the work to date and found that there is little or no indication that the soils of the Segara Anakan area cannot be successfully reclaimed.

Based on this optimistic confirmation of our previous prognostication, we reported to the Steering Committee that we felt that the reclamation of the Segara Anakan and its environs would be a viable project and should be approved as our recommendation for a second priority feasibility study. As reported previously, this approval was given by the Steering Committee.

On 6 February, ten suspended sediment water samples were taken at a relatively high stage of the Citanduy River at Pataruman. This was done on the request of our Denver office to augment sediment samples taken by the LPMA organization at lower stages. It is hoped that the sediment sampling program as recommended in our Mapping and Basic Data Report will be started in the near future.

B. Administrative.

The following tables show the standings of both the Rupiah and the U.S. Dollar accounts. We have now completed 39% of our Contract. For this period we have expended Rp. 8,290,671. or about 34% of total budgeted funds. For the US \$, we have spent some \$ 193,900, or about 35% of total budgeted funds.

Budget Status - Rupiah Account

I T E M	AMOUNTS (Rp.)		
	Authorized	Spent	Remaining
Per Diem	12,040,000	3,815,000	8,225,000
Cables	1,100,000	245,445	854,555
Postage	1,100,000	144,230	955,770
Reproduction and Printing	2,000,000	1,061,540	938,460
Supplies and Materials	1,100,000	749,899	350,101
Other Minor Items	700,000	272,049	427,951
Administrative Staff	6,300,000	2,002,508	4,297,492
T o t a l	24,340,000	8,290,671	16,049,329

Budget Status - US \$ Account

(Reimbursable Costs Only)

I T E M	AMOUNTS (US \$)		
	Authorized	Spent	Remaining
Overseas Salary	153,680	53,700	99,980
Overseas Differential	39,920	13,500	26,420
Overhead (Overseas)	95,278	40,800	54,478
Denver Office Salaries	82,050	23,300	58,750
Denver Office Overhead	57,435	14,400	43,035
Special Consultants	10,000	3,000	7,000
Per Diem	2,838	1,200	1,638
Transportation (International)	59,400	24,000	35,400
Transportation, Baggage, Household Effects	20,800	9,000	11,800
Other Direct Costs	28,500	11,000	17,500
T o t a l	549,901	193,900	356,001

VI. PROGRAM

- A. In our last monthly report we mentioned that our third Rupiah payment was due in February and that we hoped that it would be paid on schedule. Unfortunately, by the end of February, the payment still had not been deposited. Our Rupiah funds are very low and we will be unable to operate as planned if additional funds are not deposited quickly.
- B. With the approval by the Steering Committee of our first two recommendations for feasibility studies, we are now able to concentrate our efforts on the preparation of our formal reports. Since the Committee expects the Consultant to present some concrete progress on recommendation number one at our next meeting, the study will occupy top priority.

VII. APPENDICES

- Fig. 1 - Manpower Strength (for end of period)
- Fig. 2 - Actual vs. Scheduled Progress
- Table 1 - Manpower Schedule - cumulative totals U.S.
- Table 2 - Manpower Schedule - cumulative totals
Indonesian (Counterpart)
- Table 2A - Manpower Schedule - cumulative totals
Indonesian (Direct Hire)
- Table 3 - Arrivals and Departures U.S. Nationals
- Table 4 - Arrivals and Departures Indonesian
- Table 5 - Schedule of Submissions

LEGEND

- U.S. NATIONALS
- 3rd. COUNTRY NATIONALS
- x- INDONESIAN COUNTERPART
- INDONESIAN DIRECT. HIRE

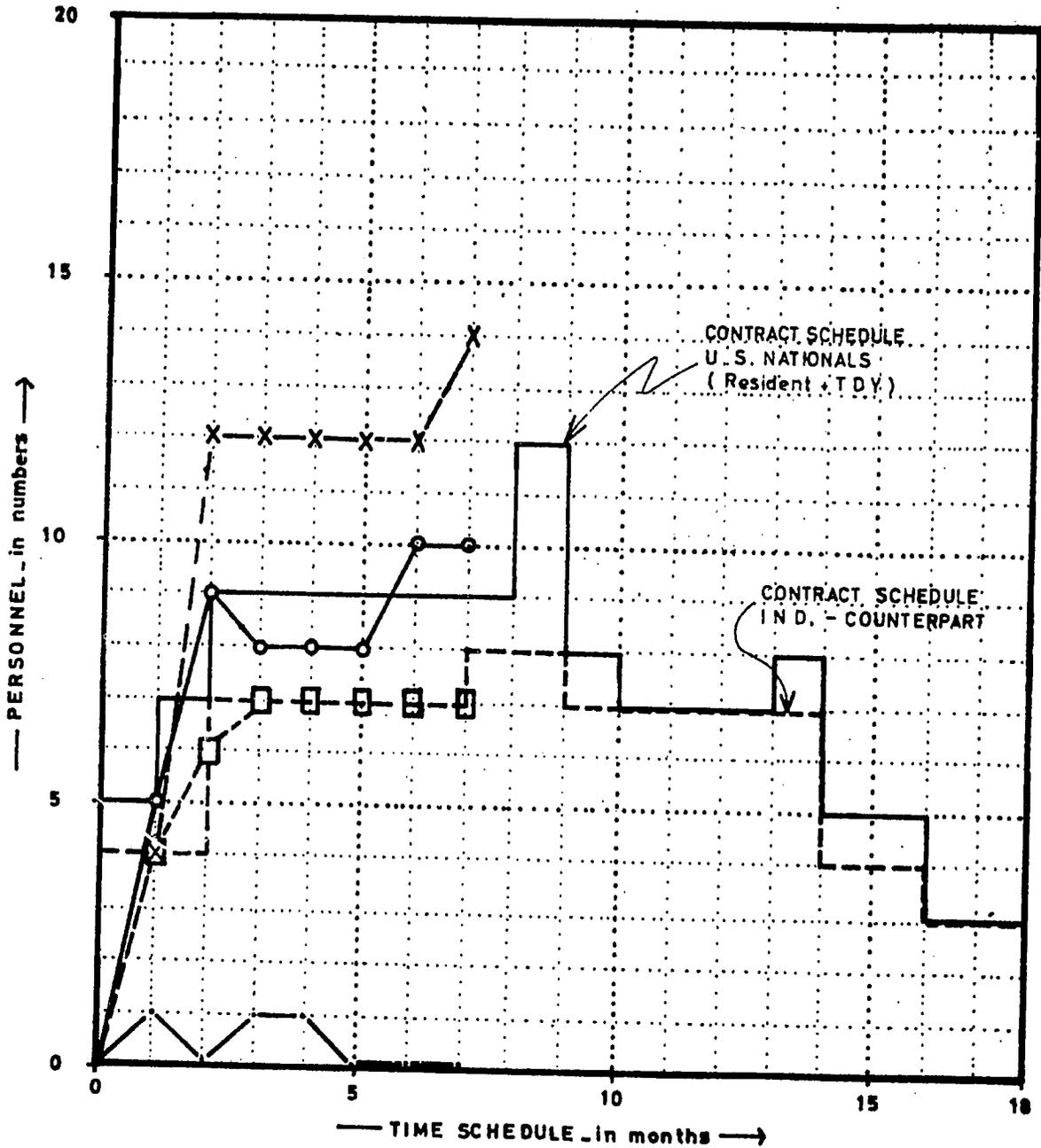


figure No.1. MANPOWER STRENGTH (for end of period)

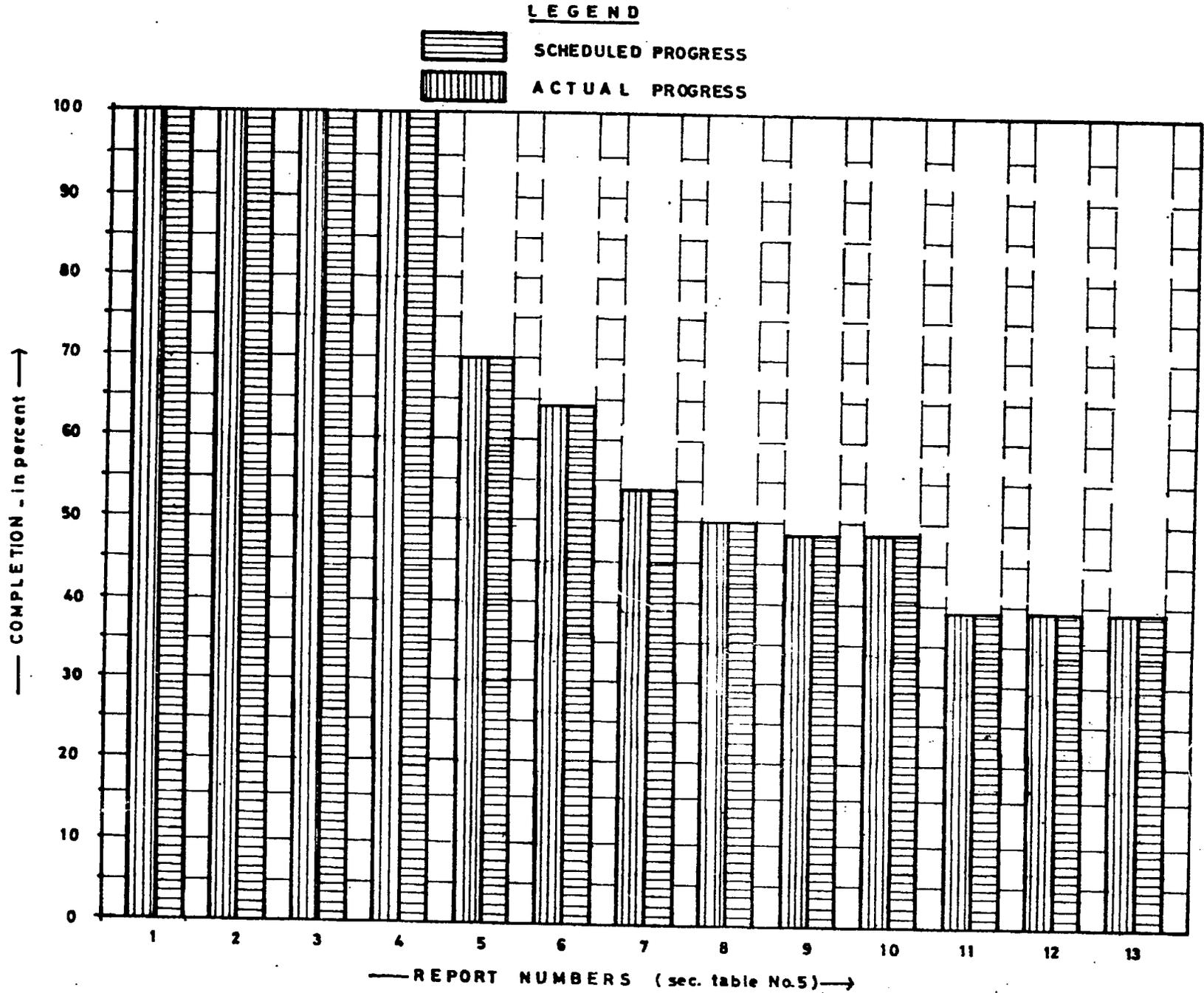


figure No. 2 - ACTUAL VS. SCHEDULED PROGRESS (End of Report Period)

Table No.1 - MANPOWER SCHEDULE - cumulative totals in man months

U.S. NATIONALS	1973					1974												1975	TOTALS		
	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY.	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.		JAN.	ACTUAL	CONTRACT
RESIDENT STAFF																					
1. ROGERS -RES.MGR	1.00	2.00	3.00	4.00	5.00	6.00	7.00														18.00
2. SCHOENLEBER-C. E.	1.00	2.00	3.00	4.00	5.00	6.00	7.00														16.00
3. BOGAN -IRRIG.	0.61	1.61	2.61	3.61	4.61	5.61	6.61														14.00
4. EDWARDS -AGRI.	-	0.50	1.50	2.50	3.50	4.50	5.50														12.00
5. SCOTT -GEOLOG.	-	0.53	1.53	2.53	3.53	4.53	5.53														7.00
6. GARDNER -SOILS.	-	0.53	1.53	2.53	3.53	4.53	5.53														12.00
7. STRUTHERS -ECON.	-	0.53	1.53	2.53	3.53	4.53	5.53														16.00
8. SAUNDERS -PLAN.	-	-	-	-	-	-	-														11.00
9.																					
SUB TOTALS	2.61	7.70	14.70	21.70	28.70	35.70	42.70														106.00
HOME OFF. & TDY.																					
1. LANGFORD - SPON.	0.13	0.13	0.13	0.13	0.13	0.29	0.58														2.00
2. WILL - PLAN.	-	0.53	0.98	0.98	0.98	0.98	0.98														6.00
3. AU-YEUNG - HYD.	0.23	1.23	1.43	1.43	1.43	1.43	1.43														4.00
4.																					
5. BURKE - ROCK.	-	-	-	-	-	-	-														2.00
6. CHURCHIL - ENVIR.	-	-	-	-	-	-	0.79														1.50
7. FLETCHER - LANDUSE	-	-	-	-	-	0.61	1.61														4.00
8. SPECIALISTS AS REQ'D.	-	-	-	-	-	-	-														9.00
9.																					
SUB TOTALS	0.36	1.89	2.54	2.54	2.54	3.31	5.39														28.00
THIRD COUNTRY NAT.																					
1. KUEHL - C. E.	0.19	0.79	0.79	0.79	0.79	0.79	0.79														2.50
2. STEVENS - FLOODCON.	-	-	0.13	1.13	1.16	1.16	1.16														4.00
SUB TOTALS	0.19	0.79	0.92	1.92	1.95	1.95	1.95														6.50
TOTALS	3.16	10.38	18.16	26.16	33.19	40.96	50.04														141.00

4-V

table No.2_ MANPOWER SCHEDULE - cumulative totals in manmonths

INDONESIAN COUNTERPART	1973					1974												1975	TOTALS		
	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	ACTUAL	CONTRACT	
1. IR. SAHAT . TEAM LEADER	1.00	2.00	3.00	4.00	5.00	6.00	7.00														18.00
2. IR. YASIN - C. E.	1.00	2.00	3.00	4.00	4.22	4.22	4.22														16.00
3. IR. AMIRUDIN - PLAN.	0.55	1.55	2.55	3.55	4.55	5.55	6.55														14.00
4. IR. TOSSIN - AGRI.	-	0.50	1.50	2.50	3.50	4.50	5.50														12.00
5. IR. IMAM H. - ECON.	-	0.50	1.50	2.50	3.50	4.50	5.50														16.00
6. IR. YUSRON - HYDROL.	0.23	1.23	1.63	1.63	1.63	1.63	1.63														4.00
7. ACHMAD DJ. - IRRIG.	-	-	-	1.00	2.00	3.00	4.00														
8. DRS. SUBAGIYO - SOILS	-	-	1.00	2.00	3.00	4.00	5.00														
9. IING SUGANDHY - GEOL.	-	-	-	0.84	1.84	2.84	3.84														
10. IR. SRI YONO - RIVER	-	-	-	0.50	0.50	0.50	0.50														
11. IR. PARIJAN - DRAIN.	-	-	-	-	-	-	0.90														
12. IR. ARWADI - ENVIR.	-	-	-	-	-	-	0.40														
SUB TOTALS	2.78	7.78	14.18	22.52	29.74	36.74	45.04														80.00
ASST. COUNTERPART																					
1. KREBET - PLAN.	1.00	2.00	3.00	4.00	5.00	6.00	7.00														14.00
2. NAPITUPULU - C. E.	0.06	1.06	2.06	3.06	4.06	5.06	6.06														16.00
3. NADAPDAP - HYDROL.	0.06	1.06	2.06	3.06	4.06	5.06	6.06														4.00
4. ACHMAD DJ. - IRRIG.	-	0.60	1.60	1.60	1.60	1.60	1.60														14.00
5. DRS. SITANGGANG - C. E.	-	-	-	1.00	2.00	3.00	4.00														16.00
6. SUMARDI - SOILS	-	0.23	1.23	2.23	3.23	4.23	5.23														12.00
7. ADIWIDJAJA - AGRI.	-	0.23	1.23	2.23	3.23	4.23	5.23														12.00
8. DRS. WILDAN - ECON.	-	-	0.75	1.75	2.75	3.75	4.75														
9.																					
10.																					
SUB TOTALS	1.12	5.18	11.93	18.93	25.93	32.93	39.93														9.00
TOTALS	3.90	12.96	26.11	41.45	55.67	69.67	84.97														178.00

table No.2A _ MANPOWER SCHEDULE _ cumulative totals in man months

INDONESIAN	1973					1974												1975	TOTALS		
	DIRECT HIRE	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	ACTUAL	CONTRACT
1. NUNGKI S.W. - SECR.	0.62	1.62	2.62	3.62	4.62	5.62	6.62														18.00
2. SRI Z. OEMAR - CLERK	0.62	1.62	2.62	3.62	4.62	5.62	6.62														18.00
3. SUPIARTI - CLERK	0.29	1.29	2.29	3.29	4.29	5.29	6.29														18.00
4. ETJIH SUHARI - TYPIST	0.13	1.13	2.13	3.13	4.13	5.13	6.13														18.00
5. DJOELIANDI - INTER.	-	0.94	1.94	2.94	3.94	4.94	5.94														18.00
6. SULIANTI - INTER.	-	0.10	1.10	2.10	3.10	4.10	5.10														18.00
7. DASIRAN - MESS.	-	1.00	2.00	3.00	4.00	5.00	6.00														18.00
8.																					
9.																					
10.																					
11.																					
12.																					
SUBTOTALS	1.66	7.60	14.70	21.70	28.70	35.70	42.70														126.00
MISC. SUPPORT																					
1. DRAFTSMEN	4.00	6.00	8.00	10.00	12.00	14.00	16.00														*
2. MESSENGER	2.00	2.00	4.00	6.00	8.00	10.00	12.00														*
3. DRIVERS	4.00	15.00	26.00	32.00	38.00	44.00	50.00														*
4. CUSTODIANS	4.00	2.00	4.00	6.00	8.00	10.00	12.00														*
5.																					
6.																					
7.																					
8.																					
9.																					
10.																					
SUBTOTALS	14.00	25.00	42.00	54.00	66.00	78.00	90.00														*
TOTALS	15.66	32.60	56.70	75.70	94.70	113.70	132.70														126.00

* Not specified in contract

TABLE NO. 3 - ARRIVALS AND DEPARTURES

A. U.S. NATIONALS

<u>NAME</u>	<u>POSITION</u>	<u>ARRIVED</u>	<u>DEPARTED</u>
1. LANGFORD, C.M.	Project Sponsor	23-7-73	4- 8-73
LANGFORD, C.M.	Project Sponsor	27-1-73	8- 2-74
2. ROGERS, G.E.	Resident Manager	30-7-73	-
3. SCHOENLEBER, W.J.	Civil Engineer	1-8-73	-
4. BOGAN, D.E.	Irrig. Engineer	12-8-73	-
5. AU YEUNG, YIN	Hydrologist	25-8-73	13-10-73
6. WILL, ERIC	Chief Planner	15-9-73	15-10-73
7. EDWARDS, R.T.	Agriculturist	16-9-73	-
8. STRUTHERS, R.E.	Ag. Economics	15-9-73	-
9. GARDNER, R.A.	Soil Scientist	15-9-73	-
10. SCOTT, D.P.	Geologist	15-9-73	-
11. FLETCHER, H.C.	Land Use & Management	13-1-74	-
12. CHURCHILL, DICK	Environmentalist	17-2-74	-

B. THIRD COUNTRY NATIONALS

<u>NAME</u>	<u>POSITION</u>	<u>ARRIVED</u>	<u>DEPARTED</u>
1. KUEHL, M.K.	Chief Engineer	26-8-73	18- 9-73
2. STEVENS, M.A.	Flood Control	27-10-73	1-12-73

TABLE NO. 4 - ARRIVALS AND DEPARTURES

A. INDONESIAN - COUNTERPART

<u>NAME</u>	<u>POSITION</u>	<u>ARRIVED</u>	<u>DEPARTED</u>
1. Sahat T.P. Siagian	Team Leader	25-7-73	-
2. Yasin Umar K.	Civil Engineer	1-8-73	7-12-73
3. Amirudin	Plan. Engineer	15-8-73	-
4. Tossin A.	Agriculturist	17-9-73	-
5. Imam Hidayat	Economist	19-9-73	-
6. Yusron Lubis	Hydrologist	25-8-73	13-10-73
7. Achmad Djojoadinoto	Irr.&Drain.	12-9-73	-
8. Soebagiyo	Soils	2-10-73	-
9. Iing Sugandhy	Geology	6-11-73	-
10. Sriyono	River Regime	1-11-73	1-12-73
11. Parijan	Irr.& Drain.	4- 2-74	-
12. Arwadi, N.	Environ.	18-2-74	-
13. Radhi Sinaro	Irr.& Drain.	25-2-74	-

B. INDONESIAN - COUNTERPART ASSISTANTS

1. Krebet Suryondadari	Planner	1- 8-73	-
2. T. Maruly Nadapdap	Hydrologist	29- 8-73	-
3. Wildan Arifin	Economist	8-10-73	-
4. E. Sumardi A.S.	Soil & Rec.	24- 9-73	-
5. Rahmat Adiwidjaja	Agriculture	24- 9-73	-
6. P. Napitupulu	Team Leader	29- 8-73	-
7. Drs. Sitanggang	Civil Eng.	1- 9-73	-

C. INDONESIAN - DIRECT HIRE

1. Nungki S.W.	Secretary	13- 8-73	-
2. Sri Z. Oemar	Clerk	13- 8-73	-
3. Supiarti	Clerk	23- 8-73	-
4. Etjih Suhari	Clerk	29- 8-73	-
5. Sylvia Djoeliandi	Interpreter	3- 9-73	-
6. Pauline Sulianti	Interpreter	28- 9-73	-
7. Dasiran Tapawira	Messenger	1- 9-73	-

TABLE NO. 5 - SCHEDULE OF SUBMISSIONS

<u>REPORT NO.</u>	<u>CONTRACT PARAGRAPH</u>	<u>SUBJECT</u>	<u>DATE DUE</u>	<u>DATE SUBMITTED</u>	<u>MONTHS</u>
1.	2. 3. 1.	Mapping requirement	30- 9-73	30- 9-73	2
2.	2. 3. 2.	Basic data collection	30- 9-73	30- 9-73	2
2a.	2. 3. 2.	Addendum No. 1	-	15-11-73	3.5
3.	2. 5. 1.	1 st Priority Project Evaluation	30-11-73	30-11-73	4
4.	2. 5. 1.	2 nd Priority Project Evaluation	30-12-73	30- 1-74*	5
4a.		Special Report	-	15- 2-74**	
5	2. 5. 1.	1 st Feasibility Study (Draft Form)	31- 5-74		10
6.	2. 5. 1.	2 nd Feasibility Study (Draft)	30- 6-74		11
7.	2. 5. 1.	1 st Feasibility Study (Final)	31- 8-74		13
8.	2. 5. 1.	2 nd Feasibility Study (Final)	30- 9-74		14
9.	2. 3.	Comprehensive Study (Draft)	15-10-74		14.5
10.	2. 4.	Master Plan (Draft)	15-10-74		14.5
11.	2. 3.	Comprehensive Study (Final)	31- 1-75		18
12.	2. 4.	Master Plan (Final)	31- 1-75		18
13.	2. 6. 4.	Completion Report	31- 1-75		18

* 30 day extension recommended by Steering Committee in order to await soils analysis results.

** Special Report - "Technical and Socio-Economic Factors As They Affect Damsite Selection".