

UNITED STATES GOVERNMENT

Memorandum

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TO : PPC/DPRE/PR, Mr. Ray Solem
THRU : PPC/PDA/DA, John Eriksson *J.E.*
FROM : PPC/PDA/DA, Donald G. McClelland *DM*

DATE: 2/7/74

20p

SUBJECT: Comments re: IRR - Korea - National Irrigation Program - \$17.0 million

1. The project consists of supporting the construction of small and medium scale irrigation systems, but does not suggest the extent to which small and medium farmers will be the beneficiaries. What proportion of the beneficiaries will be small farmers, and how are these defined?
2. AID will reimburse the ROKG 75% of the estimated cost of the irrigation systems regardless of the actual cost. (p.7) What is the rationale behind this arrangement; why not reimburse 75% of whichever cost (estimated or actual) is lower?
3. One of AID's major concerns is employment creation, and this project would seem to have substantial employment implications. Yet, the question of labor-intensive vs. capital-intensive technology will "depend on the local contractor." (p. 9) The IRR points out that "the question of labor intensive technology for the construction of these projects was discussed with the ROKG..." (p. 9) What was the outcome of these discussions with respect to the type of technology that will be utilized? It seems to me that this question warrants further discussion.
4. The Farmer Land Improvement Associations (FLIA) will be responsible for the operation and maintenance of the completed irrigation projects. (p. 10) Are the 127 FLIA located near all of the proposed project areas, or only in areas currently irrigated; if the latter, will new FLIA organizations need to be established?
5. The IRR recognizes that health hazards (malaria and encephalitis) may be increased as a result of some sub-projects. (p. 12) We need to take special care to assure that sub-projects are not commenced if these health hazards constitute a potential by-product.



cc: PPC/PDA/DA, J. Eriksson
PPC/RC/ASIA, E. Griffel

01 FEB 1974

MEMORANDUM

TO: Asia Advisory Committee for Capital Assistance

FROM: ASIA/CD: Project Committee

SUBJECT: Korea - Request for Authorization to Proceed with the Intensive Review of a Proposal for Capital Assistance to the Government of Korea to Assist in Financing a National Irrigation Program focused on Small-Medium-Scale Irrigation Systems.

1. Summary:

- a. Borrower: Government of the Republic of Korea (ROKG)
- b. Implementing Agencies: Agricultural Development Corporation (ADC), a government entity operating under the auspices of the Ministry of Agriculture and Fisheries (MAF), and Farm Land Improvement Associations (FLIA), which are local organizations of farmers.
- c. Amount of Loan: \$17 million
- d. Terms: A.I.D.'s standard terms for Development Loans, i.e. repayment within 40 years, including a 10 year grace period, with interest at 2% during the grace period and 3% thereafter.
- e. Project: The project consists of financing 75% of the local costs of completing the construction of a number of small-medium scale irrigation systems (based primarily on reservoirs, pumping stations, and canals). The total estimated cost of these systems is \$22.7 million equivalent. These systems are part of a national program, designed to increase the amount of irrigated paddy land by providing irrigation facilities for rain-fed paddy land and by converting certain upland and forest areas into irrigated land. The result will be to increase the amount of land that can be double cropped and thereby increase the production of basic food crops namely rice and barley. The increased production

will reduce Korea's foreign exchange costs for these commodities and also increase rural farm income, both ROKG goals for the agriculture sector.

2. Background: Water resource development including irrigation is an activity which has been pursued in Korea since the early 1900's. By the time of Korea War (1950-1953), apx. 400,000 hectares of the country's paddyland was benefitting from irrigation, but the war resulted in destruction of many of the existing irrigation systems. After the war, a major reconstruction and rehabilitation program was implemented in irrigation, with the assistance of United Nations agencies (e.g. UNKRA and FAO) and bilateral aid from the U.S. Government. Thereafter the ROKG began a long-term program of constructing new irrigation works, and by 1967 fully irrigated paddyland amounted to 751,000 hectares.

Severe droughts in 1967 and 1968 caused serious food shortages and resulted in the adoption of the ROKG's "All Weather Farming Program" designed to reduce the effect of future droughts on the country's production of basic food crops. The ultimate goal of this program is to bring 90% of the country's paddyland, or 1,147,500 hectares, under full irrigation. A part of this program includes completing construction on 88 small to medium size irrigation systems consisting of reservoirs, pumping stations weirs, canals and other supporting structures. Construction on 20 of the systems began in the 1960's but was not completed on schedule because of insufficient ROKG budgetary resources. The remaining 68 systems were begun within the

past three years and, in the absence of external financial assistance, would probably be completed sometime over the next three to five years depending upon the ROKG's resources and competing priorities.

A.I.D.'s interest in the ROKG's irrigation program - as a potential candidate for Development Loan (DL) assistance - developed as a result of a review of the AID financed Michigan State University study of Korea's agricultural sector completed in 1972. This study included a separate sub-study of the investment priorities within the sector.

The latter study recommended eight areas of sufficiently high investment priority to be considered by external lenders, and ranked them in order. The first two priority areas identified were agricultural research, and transportation, respectively. A.I.D. recently authorized a \$5 million DL to assist in financing an agricultural research project, and the IBRD has approved a loan for \$47 million for road improvement projects over the next three years. Irrigation was third on the list, and the ROKG and USAID/Korea began a dialogue which has led to this proposal for a \$17 million DL in FY '74, with a possible additional loan for this purpose to be considered in FY 75.

3. Description of Project to be Financed: The proposed A.I.D. loan of \$17 million together with the ROKG resources currently available to complete the construction or irrigation systems (subprojects) should make possible the completion of at least a significant portion of the 88 system program by 1975. The attached map indicates the location of these 88 systems. The subprojects selected from among these for AID financing will constitute the project.

The AID loan will finance 75% of the local costs of completed subprojects meeting AID's selection criteria. The actual subprojects eligible for AID financing will be selected on the basis of economic and technical soundness, estimated completion date, and ROKG and AID budget limitations. (See Attachment A for list of proposed irrigation subprojects)

The economic criterion is to rank the subprojects by their IRR's with 12% as the cutoff point for selecting subprojects. The technical criteria is to review a sample of the final designs, specifications, and cost estimates for the subprojects meeting the economic criterion, including selected on site inspections to verify the plans. The completion date criterion is that AID will only finance subprojects which can be completed in two years. The budget criterion is based on AID's policy which limits maximum financing for any project to 75% of the total project cost. The ROKG budget limitation is the \$15 million equivalent allocated to this program in CY 74 and the proposed budget allocations in CY 75.

With respect to the completion date requirement of within two calendar years it should be noted from Attachment A that there are 10 subprojects requiring total new investments in excess of \$1,000,000 each. Since over half of the proposed new investment in each of these subprojects is programmed for CY 1975 there is considerable doubt if some of the subprojects can be completed by the end of CY 1975. The construction time factor for these proposed subproject will be carefully appraised during an intensive review. If there is a reasonable chance that one or more of these subprojects can be completed by 12/31/75 they

4. Relation to Sector Problems: Two chronic, fundamental problems in Korea's agricultural sector are insufficient production of basic food grain crops and lagging rural income. For the ROKG's 88 irrigation systems program described in para 2 above, the use rate for paddy land is forecast to go up from 115% to 165%. This is due to the availability of irrigation water and timely drainage which permits more double cropping and thus greater yields of food grains. In addition other lands growing lesser value, or no crops will be converted to paddy with rice and barley production the anticipated result. In this broader 88 project program, subproject net incremental benefits to the average farmer are computed at 89,000 won (\$247) per annum.

Since as mentioned in the previous section the proposed AID financed subprojects will have an IRR of at least 12% it is likely that the impact on grain production and farmer income of the AID financed project will at least meet if not exceed the above averages.

5. Relation to AID Program and Country Priorities: The Agricultural/Rural Sector is one of the main areas of concentration for A.I.D.'s assistance program to Korea. This program is discussed in the FY 74 Program Presentation to Congress. The proposed loan reflects both (a) the Agency's emphasis on problems of food and nutrition, under-employment and the lower income segments of aid-recipient countries, and (b) the ROKG's own awareness as expressed in the Third Five Year Plan (TFYP) of the need to bring the country's Agricultural/Rural Sector more in balance with the other, faster-growing sectors of the economy.

6. Cost of the Project: Under its remaining DL availabilities for FY 74, AID apparently can make available to Korea \$17 million. USAID has agreed with the ROKG that if this loan is made AID will reimburse (up to the maximum amount of the loan) 75% of the total estimated cost of each subproject meeting AID's selection criteria and estimated to be completed before the end of CY 75. Thus the total estimated cost of the AID financed project is approximately \$22,700,000. All of these costs are in local currency as goods and services required for the project are available in Korea.

(Note AID may wish to consider financing from FY 75 DL availabilities for Korea up to \$24 million more toward the completion of the program on a similar basis to the presently proposed project--i.e., financing up to 75% of the cost of completing subprojects meeting AID criteria and completed by the end of CY 1976).

The ROKG has budgeted \$15 million equivalent for the project in CY 74. This appears to be adequate budgetary authority to get sufficient priority subprojects underway toward completing in excess of \$22.7 million of these by the end of CY 75. A covenant in the loan agreement would require that the ROKG provide the necessary funds in its CY 75 budget to complete priority subprojects aggregating at least the \$22.7 million level.

Although the ROKG has already budgeted the \$15 million equivalent for this project in CY 74, it did so in order to get the project underway during the coming construction season and with the expectation that if the proposed loan is made, the ROKG would be partially reimbursed for such budgetary expenditures. (See section 7 below for proposed reimbursement procedure.)

It should be noted that a percentage of the total subproject costs will ultimately be shared by the farmers who use the irrigation systems. Approximately 30% of the cost of each system will be in the form of a loan from ADC to the FLIA which will take over ownership, operation and maintenance of the system once construction is completed. Terms of these loans remain to be finalized, but are usually 30 years repayment with interest at 3.5 to 5% per annum and a 10 year grace period.

7. Method of Disbursement: In the case of Korea, AID/W has determined that any local cost financing will be done under special letter of credit procedures.

USAID will be requested to work out a reimbursement procedure with the ROKG along the following lines and include it in the CAP:

- (a) A mutually agreed cost estimate ^{CY 74 and CY 75 of} for/completing each subproject selected to be included in the AID financed project would be developed.
- (b) A list of such subprojects aggregating in total cost, say, 10 to 15% (whatever the ROKG chooses) over \$22.7 million would be drawn up. This list would constitute the project.
- (c) Upon certification of subproject completion by the ROKG and such inspection by USAID as deemed necessary, AID would be prepared to reimburse to the ROKG 75% of the previously agreed estimated cost of the subproject regardless of actual costs.
- (d) Reimbursement in the form of issuances on increases in special letters of credit would take place from time to time as significant reimbursable amounts accumulate.
- (e) The SIC would be drawn down by imports of US goods and services and against invoices and bills of lading evidencing such imports.

8. Economic and Financial Considerations:

(a) Project Analysis: Preliminary data on the estimated benefits and costs of each subproject has been developed. The IRR's for these projects range from 52.5% to 5.7%. As a result of discussions with the ROKG, it was tentatively agreed to use an IRR of 12% as the lower economic cut off level for selecting projects. Using this criterion a list of 55 eligible projects was prepared (see Attachment A). Since these original calculations were based on total project costs, which included bank costs, the ROKG was requested to redo the calculations on an incremental cost basis. (The results of these revised calculations have just been received and are included herein as Attachment B, but are not otherwise used in this paper.) The ROKG has also been requested to review cost estimates to insure adequate provision has been made for price escalation.

Based on the current priority ranking of the subprojects and the funds available from the ROKG plus the proposed AID loan it is estimated approximately 16 projects would be eligible for financing. However if financing for the 10 largest subprojects (which exceed \$1 million equivalent each in new investment) is deferred because most of these probably cannot be completed in two years approximately 40 small to medium size projects would be eligible. The decision to exclude any of these larger subprojects would only be made after discussions with the ROKG. It is possible the ROKG would request AID financing for these subprojects in FY 75.

(b) National Economic Benefits: The average IRR for the total program is approximately 18%. The principal national benefits are the expected increase of food grain production of 41,250 M/T and a foreign exchange savings of \$12,623,000 due to the reduction of food grain imports. It is difficult to quantify the increase in employment opportunities. However, utilizing the loan application data it is estimated that the increased rural employment due to construction of these projects would total approximately 5,400 man days with an increased income of \$7,700,000 equivalent for the proposed \$22.7 million project.

The question of labor intensive technology for the construction of these projects was discussed with the ROKG but since the construction of these projects has already been contracted for, the techniques utilized will depend on the local contractor.

9. Implementing Agencies: The Agriculture Development Corporation (ADC) a semi-autonomous corporation under the MAF has the responsibility for planning and designing irrigation and reclamation projects throughout the country. The ADC currently has a technical staff of 700 engaged in these programs and will establish a training program for the FLIA's to increase the number of engineers available for these type of projects. All the field surveys, preliminary and final designs of these projects were prepared by the ADC staff or by FLIA's under ADC supervision and review. The ADC will either be directly responsible for the construction supervision on the proposed projects or will monitor supervision by the FLIA's.

The actual construction of the projects will be undertaken by experienced local contractors under contract to either ADC or the FLIA's.

It is USAID Korea's evaluation that ADC, the FLIA and the experienced contracting community can undertake design, construction supervision and construction of these systems without external assistance.

The operation and maintenance of the completed irrigation projects will be the responsibility of Farmer Land Improvement Associations (FLIA) which are organizations of farmers whose lands benefit from irrigation projects. In 1973, there were 127 FLIA established throughout the country. These FLIA operate and maintain their own irrigation facilities and collect water charges for operation and maintenance, including wages of hired staff and workmen. The water charge is collected in kind or in cash after the fall harvest. Water charges cover operation and maintenance plus repayment of 20-30% of the construction cost originally financed by MAF loans in case of projects over 50 ha in size.

USAID Korea has a very favorable evaluation of the capability of the FLIA's to provide satisfactory O&M of the completed systems. This question was reviewed with senior irrigation personnel of the IBRD who have undertaken appraisals of Korea's performance in irrigation in recent years. IBRD supports USAID's evaluation re the FLIA's. In a recent Bank credit, proposed technical assistance in O&M was deleted after the Bank and their consulting engineer concluded such assistance was unnecessary.

10. Status of Project Development: The Mission has already had informal discussions with the ROKG based on a review of the loan application submitted for this project in September 1973. The ROKG is anxious to receive approval in principle of AID financing for the proposed project in order to finalize the construction schedule for CY 74 so construction can begin in March, which is the beginning of the construction season in Korea.

In order to adhere to this schedule, the Mission requested early approval of this intensive review request so that the loan paper can be prepared during February and March.

As a result of informal discussions in AID/W regarding the design and cost estimates of the individual subprojects, a decision has been made to have a short-term consultant assist the Mission in reviewing a sample of the individual subprojects. This review would include on-site visits to the largest project, three or four of the larger projects and a representative sample of the smaller projects. The consultant would then prepare an evaluation of the proposed program based on the study of representative sample of the subprojects.

The evaluation would treat all aspects of the program including project plans, designs, construction cost estimates, operation and maintenance costs, and the organization capabilities of both the ADC and the FLIA's. The consultant would also assess the availabilities and capabilities of local contractors to carry out the planned work within the proposed time schedule.

It is anticipated that the evaluation will require about one month and take place during February. During this time the Mission would prepare an initial draft of the loan paper. Refinement of the CAP would be accomplished during March. Authorization and signing the loan agreement is scheduled for April and May, respectively. The proposed loan agreement would establish January 1, 1974 as the eligibility date for reimbursable expenses in order to match the ROKG fiscal year. Discussions and review of the subprojects with the ROKG is already well advanced, and selection of the initial package of subprojects is scheduled to be completed in February.

11. Environmental Consideration: Health hazards from water-related diseases, namely malaria and encephalitis, may be increased by the enlargement of paddy lands and construction of reservoirs. To the extent the subprojects are in malaria-potential and in encephalitis-potential regions it will be recommended to the ROKG that care be taken in project design, execution and operation to minimize the possibility of producing new mosquito-breeding areas.

12. Issues (to be addressed in CAP)

(a) An issue relating to benefits is whether AID should accept benefit calculations based on the government-supported prices, or use import prices (which are currently higher) or attempt to establish a price for rice and barley. The inclination is to accept the government-supported price, since this is a government program which will continue and represents the minimum market price.

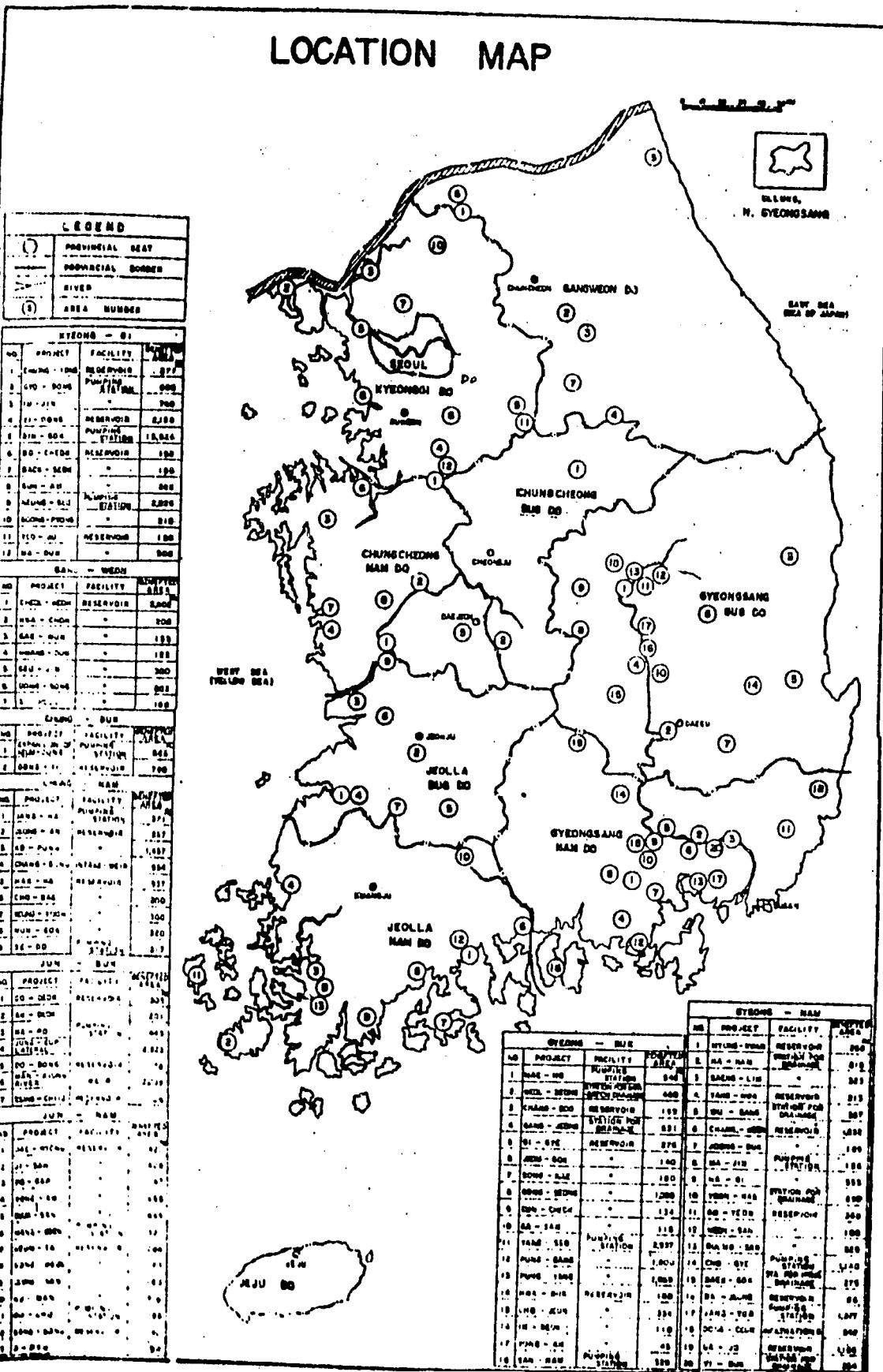
(b) Is a minimum IRR of 12% based on an incremental analysis an acceptable criterion for subproject selection?

(c) Do we wish to imply any commitment to sympathetically consider for FY 75 financing at least some of the larger subprojects which would

be excluded from the present project?

(d) Does USAID have staff capability to inspect and certify every completed subproject? e.g. will we be able to rely primarily on ADC and FLIA institutional capability with limited USAID detailed review or will some supplemental support to USAID be required.

LOCATION MAP



LEGEND	
(1)	PROVINCIAL SEAT
(2)	PROVINCIAL BORDER
(3)	RIVER
(4)	AREA NUMBER

GYEONGGI - GI			
NO	PROJECT	FACILITY	ACQUIRED AREA
1	CHONG - TONG	RESERVOIR	277
2	CHO - BONG	PUMPING STATION	200
3	SI - JIN	"	700
4	SI - BONG	RESERVOIR	2,100
5	SI - SOO	PUMPING STATION	18,000
6	SO - CHONG	RESERVOIR	100
7	BAG - SEON	"	100
8	SI - SOO	"	200
9	SI - SOO	PUMPING STATION	2,000
10	SI - SOO	"	210
11	SI - SOO	RESERVOIR	100
12	SI - SOO	"	200

GANGWON - WONG			
NO	PROJECT	FACILITY	ACQUIRED AREA
1	CHONG - WONG	RESERVOIR	2,000
2	SI - CHONG	"	200
3	SI - SOO	"	100
4	SI - SOO	"	100
5	SI - SOO	"	300
6	SI - SOO	"	200
7	SI - SOO	"	100

CHUNGCHONG - CHONG			
NO	PROJECT	FACILITY	ACQUIRED AREA
1	SI - SOO	PUMPING STATION	200
2	SI - SOO	RESERVOIR	700

CHUNGCHONG - NAM DO			
NO	PROJECT	FACILITY	ACQUIRED AREA
1	SI - SOO	PUMPING STATION	270
2	SI - SOO	RESERVOIR	217
3	SI - SOO	"	1,037
4	SI - SOO	STAIR WALK	334
5	SI - SOO	RESERVOIR	217
6	SI - SOO	"	300
7	SI - SOO	"	100
8	SI - SOO	"	300
9	SI - SOO	"	210

GYEONGSANG - GYONG			
NO	PROJECT	FACILITY	ACQUIRED AREA
1	SI - SOO	RESERVOIR	207
2	SI - SOO	"	207
3	SI - SOO	"	400
4	SI - SOO	"	2,023
5	SI - SOO	"	70
6	SI - SOO	"	2,010
7	SI - SOO	"	70

GYEONGSANG - NAM DO			
NO	PROJECT	FACILITY	ACQUIRED AREA
1	SI - SOO	RESERVOIR	200
2	SI - SOO	STAIR WALK FOR DAM	200
3	SI - SOO	RESERVOIR	210
4	SI - SOO	STAIR WALK FOR DAM	200
5	SI - SOO	RESERVOIR	1,000
6	SI - SOO	"	100
7	SI - SOO	"	100
8	SI - SOO	"	100
9	SI - SOO	"	100
10	SI - SOO	"	100
11	SI - SOO	"	100
12	SI - SOO	"	100
13	SI - SOO	"	100
14	SI - SOO	"	100
15	SI - SOO	"	100
16	SI - SOO	"	100
17	SI - SOO	"	100
18	SI - SOO	"	100
19	SI - SOO	"	100
20	SI - SOO	"	100

(Unit \$)

Order	Project	IRR	Total Area (Ha)	Total Cost	Cost Per Ha	Prior Investment	FY '74 Investment	FY '75 Investment	Total New Investment
1	Ha-Gi	52.48	553	350,973	635	300,330	50,643	----	50,643
2	Chang-Won	31.01	1,832	1,071,313	585	278,350	330,000	462,963	792,963
3	Jeong-Eup	30.30	2,823	2,234,920	809	386,903	412,500	1,485,508	1,898,018
4	Gang-Jeong	28.44	1,000	428,430	428	154,008	274,423	-----	274,423
5	Yoon-Nae	26.00	650	324,808	500	100,000	224,808	-----	224,808
6	Man-Kyung-Gang	25.44	2,099	3,086,660	1,471	484,555	412,500	2,189,605	2,602,105
7	Cheol-Weon	24.95	2,902	2,532,038	873	1,444,725	412,500	674,813	1,087,313
8	Gyo-Dong	24.75	600	1,074,435	1,791	476,095	598,340	-----	598,340
9	Gi-Gye	24.73	276	537,655	1,948	191,057	346,598	-----	346,598
10	Dong-Cheon	24.29	592	343,495	580	10,500	238,495	-----	238,495
11	Neung-Seo	23.66	2,026	1,909,565	941	1,260,453	649,113	-----	649,113
12	Jang-Ha	23.32	231	225,705	977	81,492	144,213	-----	144,213
13	Yang-Seo	23.25	2,937	4,175,035	1,422	1,601,322	550,000	2,023,713	2,573,713
14	Pung-Yang	22.78	1,699	2,375,098	1,398	963,833	550,000	861,265	1,411,265
15	Yeo-Ju	22.14	180	209,248	1,162	52,515	156,733	-----	156,733
16	Sin-Gok	21.68	15,926	12,505,775	785	2,872,870	1,100,000	8,532,905	9,632,905
17	Pung-Gang	20.98	1,800	2,454,630	1,364	1,556,805	412,500	485,325	897,825
18	Go-Deok	19.75	305	381,858	1,252	207,625	174,233	-----	174,233
19	Dong-Song	18.97	802	2,193,375	2,735	471,553	550,000	1,171,822	1,721,822
20	Goong-Pyong	18.85	210	350,518	1,669	29,988	320,530	-----	320,530
21	Ma-Jim	18.76	156	420,965	2,698	180,000	240,965	-----	240,965
22	An-Deok	18.68	201	396,583	1,973	182,475	214,105	-----	214,105
23	Expansion Keum-Dong	18.35	883	1,170,983	1,326	563,233	330,000	277,750	607,750
24	Mae-Ho	17.88	546	927,243	1,698	404,145	523,098	-----	523,098
25	Yi-dong	17.80	2,160	2,627,418	1,216	25,000	412,500	2,189,918	2,602,418
26	Jeom-Gok	17.58	140	381,963	2,728	127,445	254,675	-----	254,675
27	Do-Cho	16.54	343	728,610	2,124	146,775	330,000	251,835	581,835
28	Se-Do	16.10	317	511,740	1,614	305,315	206,425	-----	206,425
29	Ku-Man	15.85	516	909,398	1,762	434,775	474,623	-----	474,623
30	Mang-Deok	15.83	320	729,545	2,280	221,620	507,835	-----	507,835
31	Ga-Jo	15.18	1,166	3,032,578	2,601	203,250	550,000	2,279,328	2,829,328
32	Joong-Buk	15.09	189	512,225	2,710	117,195	395,030	-----	395,030
33	Saeng-Lim	15.07	323	710,395	2,199	382,338	328,058	-----	328,058
34	Cheong-Yong	15.01	277	374,710	1,353	181,018	193,693	-----	193,693

The ROKG is reviewing all cost estimates for potential cost escalation and individual IRR's are being recalculated on an incremental cost and incremental benefit basis.

Attn.
A

IRRIGATION PROJECTS STATUS

(Unit \$)

Order	Project	Irr 1/	Total Area (HA) 2/	Total Cost	Cost Per Ha 3/	Prior Investment	FY '74 Investment	FY '75 Investment	Total New Investment
35	Chang-Soo	14.94	199	588,340	2,956	259,493	328,848	-----	328,848
36	Do-Gap	14.90	147	360,018	2,449	162,283	197,735	-----	197,735
37	Keum-Sa	14.77	288	586,733	2,037	105,000	481,733	-----	481,733
38	Yong-Am	14.73	169	525,183	3,108	195,000	330,183	-----	330,183
39	O-Ryu	14.64	150	381,223	2,541	164,540	216,683	-----	216,683
40	Geo-Jin	14.51	300	662,083	2,207	190,920	471,163	-----	471,163
41	Wun-Gok	14.13	320	687,653	2,149	199,968	487,685	-----	487,685
42	Hwa-Jeon	14.00	200	442,783	2,214	255,900	186,883	-----	186,883
43	Eum-Cheok	13.85	134	379,420	2,831	29,900	349,520	-----	349,520
44	Myong-Kwan	13.74	268	515,953	1,925	317,330	198,623	-----	198,623
45	Baek-Gok	13.61	275	796,995	2,898	73,500	330,000	393,495	723,495
46	In-Deok	13.58	201	309,533	1,540	50,670	258,863	-----	258,863
47	Gun-Am	13.20	288	491,983	1,708	252,818	239,165	-----	239,165
48	Ko-pung	13.01	1,457	3,793,750	2,604	1,368,337	550,000	875,413	2,425,413
49	Cho-Gye	12.96	1,140	1,765,740	1,549	1,191,263	330,000	244,478	574,478
50	Im-Jin	12.85	760	729,225	960	314,400	414,825	-----	414,825
51	(Chang-Dong) Dae-Cheon	12.79	954	3,036,180	3,183	2,087,603	412,5000	536,078	948,578
52	Hak-Ha	12.66	537	1,058,508	1,971	398,525	330,000	329,983	659,983
53	Cho-Jeon	12.45	334	679,038	2,033	295,000	384,038	-----	384,038
54	Weon-San	12.26	100	353,480	3,535	77,875	275,605	-----	275,605
55	Jang-Yoo	12.25	1,377 2/	2,542,105	1,846 3/	1,776,610	765,495	-----	765,495
TOTAL COST		18.69	56,578	72,841,392	1,287	26,166,502	20,408,683	26,266,207	46,674,890

/ Average IRR 18.69

/ Total Area 56,578 ha

/ Average Cost Per ha \$1,287

ATTACHMENT
A

Korea: Small and Medium Scale Irrigation Projects
Internal Rates of Return by Project

Province	Project	Incremental costs and benefits with conversion		Total costs and benefits with conversion	
		Order	% IRR ^{1/}	Order	% IRR ^{2/}
Gang-weon	Cheol-woon	1	71.81	5	31.27
Geong-gi	Neung-seo	2	64.84	14	24.80
Geong-bug	Pung-gang	3	63.32	16	24.00
Geong-nam	Ha-gi	4	62.91	1	57.85
Geong-gi	Gyo-dong	5	57.68	7	28.54
Geong-bug	Seong-su	6	54.62	4	31.44
Geong-nam	Chang-weon	7	52.37	3	35.92
Chung-nam	Dae-cheon	8	52.03	34	15.89
Jeon-bug	Go-deok	9	51.44	17	22.49
Chung-nam	Se-do	10	47.96	23	18.54
Geong-nam	Jang-yu	11	46.50	55	12.97
Geong-bug	Pung-yang	12	46.43	9	26.24
Geong-nam	Cho-gye	13	46.04	36	15.69
Geong-bug	Yang-seo	14	44.86	11	25.43
Geong-nam	Yoon-nae	15	44.49	8	28.32
"	Myeong-gwan	16	42.76	38	15.47
"	Saeng-lim	17	42.14	26	17.74
Chung-nam	Jang-ha	18	41.67	13	25.04
Geong-bug	Gi-gye	19	40.74	12	25.21
Jeon-bug	An-deok	20	40.65	19	20.84
Chung-bug	Geum-dong expansion	21	38.85	20	20.32
Jeon-bug	Jeung-eup	22	38.29	6	30.04
Geong-nam	Dong-cheon	23	38.13	25	24.62
Chung-nam	Jeong-an	24	36.93	57	12.48
Gang-weon	Hwa-chon	25	36.72	37	15.58
Jeon-nam	Ku-man	26	35.97	25	17.92
Geong-bug	Mae-ho	27	34.49	24	18.53
Geong-nam	Ma-jin	28	33.57	21	18.72
Jeon-nam	Cheong-ryong	29	33.33	32	16.59
Jeon-bug	Man-Gyeong-gang	30	32.03	10	25.68
Geong-gi	Sin-gog	31	31.92	2	36.62
"	Gun-am	32	31.23	46	14.08
Jeon-nam	O-ryu	33	29.85	33	15.89
Geong-gi	Yeo-ju	34	29.05	18	21.37
Geong-bug	Chang-su	35	28.05	39	15.21

Transcribed by USAID/K DLD from data supplied by ROKG MAF Land Improvement Bureau

Province	Project	Incremental costs and benefits with conversion		Total costs and benefits with conversion	
		Order	% IRR <u>1/</u>	Order	% IRR <u>2/</u>
Jeon-nam	Do-gap	36	27.47	40	15.14
Geong-bug	Jeom-gog	37	27.17	27	17.63
Jeon-nam	Ji-san	38	26.53	48	13.66
Geong-gi	Im-jin	39	26.25	44	14.28
Jeon-nam	Mang-deok	40	26.15	30	17.27
Gang-weon	Dong-song	41	24.31	22	18.55
Geong-bug	Cho-jeon	42	24.09	54	12.98
Gang-weon	Hwang-dun	43	22.65	68	10.18
Jeon-nam	Do-cho	44	22.49	29	17.49
Chung-nam	Un-gog	45	21.85	41	15.09
Geong-nam	Ie-buk	46	21.66	58	12.34
Chung-nam	Go-pung	47	21.36	52	13.06
Chung-nam	Hag-ha	48	21.28	53	12.99
Geong-nam	Jung-buk	49	21.12	35	15.72
Gang-weon	Gae-un	50	21.08	79	8.31
"	Geo-jin	51	21.00	43	14.67
Geong-gi	Ma-dun	52	20.31	72	9.25
"	Gung-pyong	53	19.42	28	17.63
Geong-nam	Yang-hwa	54	18.37	80	8.25
Jeon-nam	Geum-sa	55	18.27	42	14.69
Chung-nam	Seong-yeon	56	18.18	59	12.00
Geong-bug	Weol-seong	57	17.69	60	11.96
Geong-gi	Ie-dong	58	17.12	31	16.92
Geong-nam	Weon-san	59	16.47	56	12.51
"	Ha-nam	60	16.36	61	11.80
Geong-bug	In-deok	61	16.33	50	13.45
Jeon-bug	Na-po	62	16.30	88	6.29
Geong-nam	Da-jeong	63	15.65	69	10.10
"	Ga-jo	64	14.92	47	13.74
Geong-gi	Do-check	65	14.86	74	9.01
Geong-nam	Baek-gog	66	14.84	51	13.32
Geong-bug	Eun-check	67	14.84	49	13.56
"	Yong-am	68	14.80	45	14.20
Geong-gi	Baek-seok	69	14.37	70	9.39
Jeon-bug	Seo-ma	70	14.18	65	11.02
Geong-bug	San-nam	71	14.14	71	9.34
Jeon-nam	Seong-san	72	13.65	62	11.62
Chung-nam	Cho-dae	73	13.08	77	8.62
Geong-bug	Gong-seong	74	12.97	64	11.30
"	Hwa-bug	75	12.91	67	10.27
Chung-bug	Dong-je	76	12.86	66	10.30
Jeon-nam	Yong-am	77	12.05	85	7.33
"	Deok-san	78	11.99	78	8.59
Geong-bug	Ga-san	79	11.79	63	11.36
Jeon-nam	Sang-song	80	11.47	73	9.16

Province	Project	Incremental costs and benefits with conversion		Total costs and benefits with conversion	
		Order	% IRR <u>1/</u>	Order	% IRR <u>2/</u>
Geong-nam	Go-yeon	81	11.13	82	7.73
Gang-weon	O-weon	82	10.95	75	8.92
Geong-nam	U-gang	83	10.81	83	7.52
Jeon-bug	Do-bong	84	9.99	76	8.72
Geong-bug	Song-nal	85	9.61	87	6.77
Jeon-nam	Dae-Ryong	86	9.49	84	7.49
"	Song-weol	87	9.39	81	8.02
Geong-nam	Bul-no-san	88	8.36	86	6.92

- 1/ Internal Rate of Return based on incremental costs (i.e. those to be expended from now on) including costs of land conversion to be done by farmers and based on all anticipated benefits over and above any already being realized from partial project completion.
- 2/ Internal Rate of Return based on total costs (i.e. those already expended as well as those to be expended from now on) including costs of land conversion to be done by farmers and based on all anticipated benefits.

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

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2025

A.I.D. Loan No. 489-T-090
Project No. 489-22-120-706
Amendment No. 2

LOAN AUTHORIZATION AMENDMENT

Provided from: Food and Nutrition Category
(Korea: Irrigation Project)

Pursuant to the authority vested in me as Assistant Administrator, Bureau for East Asia, Agency for International Development ("A.I.D.") by the Foreign Assistance Act of 1961, as amended, (the "Act") and the Delegations of Authority issued thereunder, I hereby authorize pursuant to Part I, Chapter I, Section 103 and Chapter 2, Title 1, the Development Loan Fund, the further amendment of Loan Authorization for A.I.D. Loan No. 489-T-090, dated May 31, 1974, as amended on December 31, 1974, to the Government of the Republic of Korea ("Borrower"), as follows:

- a. The amount of the loan is increased by Two Million Dollars (\$2,000,000) to a total amount not to exceed Twenty-Five Million Seven Hundred Thousand Dollars (\$25,700,000).
- b. The loan increase shall be subject to such other terms and conditions as A.I.D. may deem advisable consistent with the terms and conditions of the previous authorizations for this loan.

Arthur Handly
Assistant Administrator
Bureau for East Asia

June 23 1975
Date

Clearances:

GC/EA:HEMorris 6/13/75
EA/CCD:FCollins, Jr. _____
EA/TD:TCClark _____
SER/ENGR:JLSloan _____
EA/EAA:SJLittlefield _____
EA/DP:LMarinelli 6/13/75
SER/FM:TBlacka _____

PPC/DPRE:AHandly AMH

DA:JEMurphy (info) _____

EA/CCD:RQueener:kgh:GC/EA:HEMorris:hp:6/13/75

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D. C. 20523

4890706

OFFICE OF
THE ADMINISTRATOR

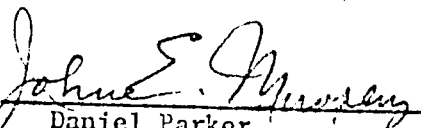
A.I.D. Loan No. 489-T-090A
Project No. 489-22-120-706
Amendment No. 1

LOAN AUTHORIZATION AMENDMENT

Provided from: Food and Nutrition Category
(Korea: Irrigation Project)

Pursuant to the authority vested in the Administrator, Agency for International Development ("A.I.D."), by the Foreign Assistance Act of 1961, as amended, (the "Act") and Delegations of Authority issued thereunder, I hereby authorize pursuant to Part I, Chapter I, Section 103 and Chapter 2, Title I, the Development Loan Fund, the amendment of the Loan Authorization for A.I.D. Loan No. 489-T-090, dated May 31, 1974, to the Government of the Republic of Korea ("Borrower"), as follows:

- a. The amount of the Loan is increased by Six Million Five Hundred Thousand Dollars (\$6,500,000) to a total amount not to exceed Twenty-Three Million Seven Hundred Thousand Dollars (\$23,700,000).
- b. The loan increase shall be subject to such other terms and conditions as A.I.D. may deem advisable consistent with the terms and conditions of the original Loan Authorization, signed May 31, 1974.

for 
Daniel Parker
Administrator

12/31/74
Date

PPC/DI
5/24/77

PPC/DI
ACTION ASSIGNMENTS

<u>NO.</u>	<u>TITLE</u>	<u>DATE REC'D</u>	<u>ACTION</u>	<u>STATUS</u>	<u>TARGET COMPLETION DATE</u>
22	Memo from Klein, AFR/DR, requesting info for Liberia on Small Farmer Tenure Problems	12/15/76	Hageboeck	Awaiting info from SIDA	N.A.
9	Letter from M. Lau, USAID/Peru requesting info on appropriate rural technologies	1/14/77	Chatman	a. <u>Cactus</u> : Compiling final response.	6/3
7	<u>Ethiopia</u> : Request from Klein, AFR/DR, re info on Marginal Lands <u>Kenya</u> : Tel 623 requesting Agency experience on Marginal Lands - 79 PID	1/28/77	Thompson	b. <u>Potatoes</u> : Awaiting M. Hageboeck redraft of cover memorandum	5/25
29	Ethiopia--IRD (6630193), 78 PID	3/30/77	Thompson/ Chatman	Compiling Final Response	6/3
32	Burundi--IRD (6950011), 78 PID	3/30/77	Thompson/ Chatman	" " "	6/3
34	Senegal--IRD (6850224), 78 PID	4/7/77	Thompson/ Chatman	" " "	6/3
37	Costa Rica--Forestry (5150134), 78 PID	4/7/77	Chatman	Received PID 4/8; info requested from other organizations	6/3
38	Jamaica--Screwworm Eradication (5320042), 78 PID	4/8/77	Chatman	USDA responded directly; PPC/DI awaiting copy of response for review	N.A.

<u>NO.</u>	<u>TITLE</u>	<u>DATE REC'D</u>	<u>ACTION</u>	<u>STATUS</u>	<u>TARGET COMPLETION DATE</u>
40	Syria--Ag' Credit/Poultry, 78 PID	4/10/77	Goodhart	Compiling information received from outside organizations	6/6
41	Egypt--Poultry (2630060), 78 PID	4/19/77	Goodhart	Compiling information received from outside organizations	6/6
42	Morocco--Forage Seed (6080137), 78 PID	4/19/77	Goodhart	Compiling information received from outside organizations	6/6
43	Rwanda-Kibuye Ag School, 79 PID	4/5/77	Watts	Compiling information received & continuing search	6/6
45	Ethiopia (6630192), Farmer Scholar Training, 78 PID	5/10/77	Chatman		6/24
46	Rwanda (6960106), Rural Training Centers, 79 PID	5/10/77	Chatman		6/24
47	Ag Research Evaluations	5/6/77	Hageboeck/ Goodhart	For PPC/Bobel Trip	5/27
48	Action Ble, 79 PID, 688-0212	5/13/77	Kerber	Requesting info from other organizations	6/10
49	LCBD Inst. Dev., 79 PID, 625-0018	5/16/77	Kerber	Requesting info from other organizations	6/10
50	ASIA/PD, Nussbaum, Rural Electrification	5/24/77	Chatman		6/10
51	TA/RD for Paraguay--Land Banks	5/24/77	Goodhart		6/10

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4890706

A.I.D. Loan No. 489-T-090

23p

LOAN AGREEMENT

(KOREA - Irrigation Project)

Between

THE REPUBLIC OF KOREA

and

THE UNITED STATES OF AMERICA

Dated: SEP 11 1974

CONFORMED COPY

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Annex 1 - List of Sub-Projects

LOAN AGREEMENT

LOAN AGREEMENT, dated SEP 11 1974 between the GOVERNMENT OF THE REPUBLIC OF KOREA (hereinafter called the "Borrower") and the UNITED STATES OF AMERICA, acting through the AGENCY FOR INTERNATIONAL DEVELOPMENT (hereinafter called "A.I.D.>").

ARTICLE I

The Loan

SECTION 1.1. The Loan. A.I.D. hereby agrees to lend to the Borrower, pursuant to the Foreign Assistance Act of 1961, as amended, an amount of not to exceed Seventeen Million Two Hundred Thousand United States Dollars (\$17,200,000), to assist in financing up to 75% of the reasonable local currency costs of certain goods and services required for the Project as defined in Section 1.2 hereof. Goods and services financed hereunder are hereinafter referred to as "Eligible Items", and the aggregate amount disbursed hereunder is hereinafter referred to as "Principal".

SECTION 1.2. Project. As used in this Agreement, the Project shall consist of the completion of the construction of up to sixty-six (66) small/medium scale irrigation systems ("sub-projects") as described in the Borrower's Loan Application dated May 7, 1974. A list of the sub-projects is contained in Annex 1 attached hereto, which Annex may be modified by mutual agreement in writing. The goods and services to be financed under the Loan shall be listed in the implementation letters referred to in Section 9.2 ("Implementation Letters").

ARTICLE II

Borrower Repayment Terms and Interest

SECTION 2.1. Interest. The Borrower will pay semiannually to A.I.D., in dollars, interest on the outstanding balance of the Principal and on any due and unpaid interest. Such interest shall accrue from the dates of the respective disbursements hereunder, the first such interest payment to be due and payable no later than six (6) months after the first such disbursement on a date to be specified by A.I.D. Interest will accrue at a rate of two percent (2%) per annum for ten (10) years after the first disbursement hereunder and at a rate of three percent (3%) per annum thereafter; all interest hereunder shall be computed on the basis of a three hundred sixty-five (365) day year. Disbursements hereunder will be deemed to occur on the date on which A.I.D. establishes special letters of credit or amends upward their amounts in favor of the Borrower.

SECTION 2.2. Principal. The Borrower shall repay the Principal to A.I.D. in United States dollars within forty (40) years from the date of the first disbursement hereunder in sixty-one (61) approximately equal semi-annual installments. The first installment of principal shall be payable nine and one-half (9-1/2) years after the date on which the first interest payment is due in accordance with Section 2.1. Upon completion of disbursements, A.I.D. will furnish the Borrower with an amortization schedule in accordance with this Section.

SECTION 2.3. Application and Place of Payment. All payments shall be applied first to the payment of any interest due and unpaid and then to the repayment of Principal. Except as A.I.D. may otherwise agree in writing, all such payments shall be made to the Controller, United States Agency for

International Development, Washington, D.C., and shall be deemed to have been paid when there received.

SECTION 2.4. Prepayment. The Borrower shall have the right to prepay, without penalty, on any date on which interest is due, all or any part of the Principal. Any prepayment shall be applied first to the payment of any accrued and unpaid interest and then to the remaining installments of Principal in the inverse order of their maturity.

ARTICLE III

Conditions Precedent to Disbursement

SECTION 3.1. Conditions Precedent to Any Disbursement. Unless A.I.D. otherwise agrees in writing, prior to any disbursement under the Loan, the Borrower shall furnish A.I.D., in form and substance satisfactory to A.I.D.:

(a) An opinion of the Minister of Justice of the Borrower that this Loan Agreement has been duly authorized or ratified by, and executed on behalf of, the Borrower and that it constitutes a valid and legally binding obligation of the Borrower in accordance with its terms;

(b) Statements of the names of the persons who will act as the representatives of the Borrower pursuant to Section 9.1 hereof, together with evidence of their authority and a specimen signature of each such person, certified as to its authenticity by either the person rendering the legal opinion pursuant to Section 3.1(a) or the person executing this Loan Agreement;

(c) A financial plan including a schedule of expenditures by category and a schedule of funding by source which demonstrates that funds required

for the Project will be made available on a timely basis; and

(d) Material describing the contracting rules and procedures which have been or will be applied by the Borrower in entering into contracts with respect to the Project.

SECTION 3.2. Conditions Precedent to the Financing of the Advance.

Unless A.I.D. otherwise agrees in writing, prior to A.I.D. issuing an Advance Special Letter of Credit (defined in Section 4.1) under the Loan, the Borrower shall meet all the conditions of Section 3.1 and furnish A.I.D., in form and substance satisfactory to A.I.D.:

(a) Evidence of an appropriated supplemental budget for 1974 for this Project;

(b) An estimate of funds anticipated to be expended under the supplemental budget; and

(c) Evidence that from the supplemental budget the Borrower has deposited in a segregated account 1.4 won for each won equivalent of advance that the Borrower is requesting from A.I.D.

SECTION 3.3. Conditions Precedent to Reimbursement. Unless A.I.D. otherwise agrees in writing prior to A.I.D. issuing Special Letter(s) of Credit (defined in Section 4.2) for reimbursement of Eligible Items under the Loan, the Borrower shall meet all the conditions of Section 3.1 and furnish A.I.D. in form and substance satisfactory to A.I.D.:

Documents described in Implementation Letters issued pursuant to Section 9.2 hereof as necessary to support requests for 75% reimbursement for Eligible Items by the Borrower for the Project.

SECTION 3.4. Terminal Date for Meeting Conditions Precedent. Except as A.I.D. may otherwise agree in writing, if the conditions required by Section 3.1 and 3.2 have not been satisfied within four (4) months or for the initial disbursement under Section 3.3 within six (6) months after the date of execution of this Loan Agreement, A.I.D. may at any time thereafter terminate this Agreement by giving notice to the Borrower. Upon such termination, and notwithstanding any other provisions of this Loan Agreement, the Borrower shall repay to A.I.D. the unpaid Principal, if any, and any accrued interest. Upon full payment in accordance with the foregoing, all other obligations of the Borrower and A.I.D. under this Agreement shall cease.

SECTION 3.5. Notification of Meeting of Conditions Precedent. A.I.D. shall notify the Borrower upon its determination that the conditions precedent specified in Sections 3.1, 3.2 and 3.3 have been met.

ARTICLE IV

Disbursements

SECTION 4.1. Advance. Upon satisfaction of the conditions precedent of Sections 3.1 and 3.2 above, A.I.D., upon request, will establish a Special Letter of Credit in a United States bank for the benefit of the Borrower in the principal amount of up to \$5,000,000. The establishment of this Special Letter of Credit (referred to as the "Advance Special Letter of Credit") shall be deemed to be a disbursement of its dollar amount under this Loan. The Advance Special Letter of Credit shall permit draw-downs from time to time to or on behalf of the Borrower upon presentation to the issuer thereof of supporting documentation evidencing Korean imports from the United States

on or after the eligibility date in an amount which is equal to the dollar value of the subject imports for which the draw-down(s) is made excluding freight charges on all but U.S.-flag vessels. The form of the documentation required together with procedures upon which the advance may be disbursed shall be set forth in Implementation Letters issued pursuant to Section 9.2 hereof.

SECTION 4.2. Reimbursement for Local Currency Costs - Special Letters of Credit.

(a) Reimbursement for local currency costs: A.I.D. will reimburse the Borrower for up to 75% of the eligible local currency costs incurred in the completion of sub-projects as described in Section 1.2. Eligible local currency costs are considered to be the costs of Eligible Items less any taxes imposed specifically and explicitly on such Eligible Items. In requesting reimbursement from A.I.D., the Borrower will deduct the amount of any such taxes (for example, but not necessarily limited to, commodity taxes imposed on cement, steel bars and pumping equipment) from the total cost of the completed sub-projects before computing the amount (i.e., up to 75% of the eligible costs) to be reimbursed. Procedures for accepting completed sub-projects and establishing local cost expenditures under this provision will be set forth in Implementation Letters.

(b) Upon satisfaction of the conditions precedent of Section 3.3 including satisfactory completion and acceptance by A.I.D. of one or more sub-projects, the Borrower may obtain reimbursement for local cost expenditures by submitting requests to A.I.D. for the issuance of irrevocable Special

Letters of Credit ("SLC") by one or more banks in the United States designated by the Borrower and satisfactory to A.I.D. to the Borrower or any designee of the Borrower pursuant to such documentation requirements as A.I.D. may prescribe in the SLC's and Implementation Letters. Such documentation shall include, among other things, evidence of Korean general commodity imports from the United States of equal value to the dollars requested for disbursement excluding freight charges on all but U.S.-flag vessels. Banking charges incurred pursuant to this Section in connection with commitment documents and disbursements shall be for the account of the Borrower and if requested, may be financed hereunder. Disbursements hereunder shall be deemed to occur on the date the U.S. bank, as instructed by A.I.D., issues a SLC in favor of the Borrower or his designee.

(c) Exchange Rate: The rate of exchange used in determining the amount of dollars to be made available is the highest rate of exchange, won to dollars, that is not unlawful on the date reimbursement is approved. This rate of exchange is interpreted as the country's selling rate for dollars and includes only the exchange rate itself. Taxes, fees, commissions, and similar charges, if any, are not included in determining the appropriate exchange rate.

SECTION 4.3. Other Forms of Disbursement. Disbursements may also be made through such other means as the Borrower and A.I.D. may agree to in writing.

SECTION 4.4. Terminal Date for Requests for Reimbursement and for Disbursements. Except as A.I.D. may otherwise agree in writing, no

disbursements as defined in this Article shall be made against documentation received after thirty (30) months, from the date of execution of this Loan Agreement. An SLC or an Advance Special Letter of Credit, however, will remain available for drawdown for up to three years following the last upward adjustment in its face amount. After that time A.I.D. may at its option terminate it and apply any realized funds to a reduction in the outstanding principal.

ARTICLE V

Particular Covenants and Warranties Concerning the Project

SECTION 5.1. Borrower's Covenants. Except as A.I.D. may otherwise agree in writing, the Borrower covenants and agrees that it shall:

(a) Carry out the Project, or cause the Project to be carried out in conformity with the Project plan as described in the Borrower's Loan Application for Expansion of Irrigation Facilities Project dated May 7, 1974, with due diligence and efficiency, and in conformity with sound engineering, construction, financial, administrative and management practices. Proposed deviations from this plan in carrying out the Project shall receive the prior written approval of A.I.D.

(b) Adequately maintain, repair and operate, in accordance with sound engineering, construction, financial, administrative and management practices, all sub-projects financed by the Loan.

(c) Adhere to the financial plan submitted in satisfaction of Section 3.1(c) of this Loan.

(d) Provide all resources in addition to this Loan and all Korean won which may be necessary for the punctual and effective carrying out of

the Project. In no event shall the Borrower's contribution hereunder be less than 25% of the funds contributed to the Project.

(e) Adhere to the materials concerning contract procedures submitted in satisfaction of Section 3.1(d) of this Loan and, upon request, submit executed contracts used in connection with sub-projects financed by this Loan.

ARTICLE VI

General Covenants, Warranties and Agreements

SECTION 6.1. Utilization of Eligible Items. Except as A.I.D. may agree otherwise in writing, all Eligible Items shall be used exclusively in carrying out the Project. This restriction shall apply only until such time as such goods can no longer be usefully employed for the Project, provided that no goods financed hereunder shall be exported from the Republic of Korea without the prior written approval of A.I.D., and provided further that no Eligible Items shall at any time be used to promote or assist any project or activity associated with or financed by any country not included in Code 935 of the A.I.D. Geographic Code Book as in effect at the time of such projected use except with the prior written consent of A.I.D.

SECTION 6.2. Information and Marking. The Borrower shall give publicity to the Loan provided for herein and the Project as a program of United States aid, and identify the sub-project sites financed under the Loan as prescribed in Implementation Letters.

SECTION 6.3. Notice of Material Developments. The Borrower represents and warrants that it has disclosed to A.I.D. all circumstances which may materially affect the Project or the discharge of its obligations under

this Loan Agreement, and shall inform A.I.D. of any conditions which may constitute a default hereunder or which interfere, or which it is reasonable to believe may interfere, with the Project or the discharge of any of its obligations hereunder.

SECTION 6.4. Inspections. The authorized representatives of A.I.D. shall have the right at all reasonable times, whether prior to completion of the Project or subsequent thereto, to inspect the Project, the sub-projects, the utilization of all Eligible Items, the books and records referred to in Section 6.8 and any other documents, correspondence, memoranda, or records relating to the Loan provided for herein or to the Project. The Borrower shall cooperate with A.I.D. to facilitate such inspections and shall afford a reasonable opportunity for authorized representatives of A.I.D. to visit any part of the Republic of Korea for any purpose related to the Loan provided for herein.

SECTION 6.5. Taxes. The Borrower covenants and agrees that this Loan Agreement shall be free from, and the Principal and interest shall be paid to A.I.D. without deduction for and free from, any taxation or fees imposed under any laws or decrees in effect within the Republic of Korea or any such taxes or fees so imposed or payable shall be reimbursed by the Borrower.

SECTION 6.6. Commissions, Fees and Other Payments. The Borrower warrants and covenants that in connection with obtaining the Loan provided for herein or taking any action under or with respect to this Loan Agreement, it has not paid, and will not pay or agree to pay, nor to the best of its knowledge has there been paid or will there be paid or agreed to be paid by any other person or entity, commissions, fees or other payments of any kind, except as regular compensation to the Borrower's full-time officers

and employees or as compensation for bona fide professional, technical or other comparable services. The Borrower shall promptly report to A.I.D. any payment or agreement to pay for such bona fide professional, technical or comparable services to which it is a party or of which it has knowledge (indicating whether such payment has been made or is to be made on a contingent basis), and if the amount of any such payment is deemed unreasonable by A.I.D., the party concerned shall cause a reduction satisfactory to A.I.D. to be made therein.

SECTION 6.7. Renegotiation of Terms of the Loan. The Borrower agrees to negotiate with A.I.D. at such time or times as A.I.D. may request, an acceleration of the repayment of the Loan in the event that there is any significant improvement in the internal and external economic and financial position and prospects of the country of the Borrower.

SECTION 6.8. Maintenance and Audit of Records. The Borrower shall maintain, or cause to be maintained, in accordance with sound accounting principles and practices consistently applied, books and records relating to the Project, the sub-projects, and to this Loan Agreement. Such books and records shall, without limitation, be adequate to show:

- (a) The receipt and use made of Eligible Items;
- (b) The progress of the Project; and
- (c) Current data covering operations.

Such books and records shall be regularly audited, in accordance with sound auditing standards, for such period and at such intervals as A.I.D. may require, and shall be maintained for five (5) years after the date of the last disbursement by A.I.D. or until all sums due A.I.D. under this Loan Agreement have been paid, whichever date shall first occur.

SECTION 6.9. Reports. The Borrower will furnish A.I.D. with such information and reports relating to the Project, the sub-projects, Eligible Items, and the Loan provided for herein as A.I.D. may reasonably request.

SECTION 6.10. Continuing Consultation. The Borrower and A.I.D. shall cooperate fully to assure that the purpose of the Loan will be accomplished. To this end, the Borrower and A.I.D. shall from time to time, at the request of either party, exchange views through their representatives with regard to the progress of the Project, the performance by the Borrower of its obligations under this Agreement, the performance of the consultants, contractors, and suppliers engaged on the Project, and other matters relating to the Project.

ARTICLE VII

Covenants Concerning Procurement

SECTION 7.1. Procurement Source and Origin. Except as A.I.D. may otherwise agree in writing:

(a) All Eligible Items shall have both their source and origin in the Republic of Korea.

(b) All other goods and services obtained for the Project but not financed by A.I.D. shall have their source and origin in countries included in Code 935 of the A.I.D. Geographic Code Book as in effect at the time such goods or services are procured. This covenant shall be construed in accordance with A.I.D. regulations as from time to time amended.

SECTION 7.2. Eligibility Date. Except as A.I.D. may otherwise agree in writing, no costs incurred prior to January 1, 1974 for Eligible Items shall be reimbursed.

SECTION 7.3. Reasonable Price. No more than reasonable prices shall be paid for any goods or service financed, in whole or in part, under the Loan, as more fully described in Implementation Letters. Such items shall be procured on a fair and, except for professional services, on a competitive basis in accordance with the Borrower's contracting procedures furnished to A.I.D. pursuant to Section 3.1 of this Loan.

ARTICLE VIII

Cancellation and Suspension

SECTION 8.1. Cancellation by the Borrower. The Borrower may, with the prior written consent of A.I.D., by written notice to A.I.D., cancel any part of the Loan which, prior to the giving of such notice, A.I.D. has not disbursed or committed itself to disburse.

SECTION 8.2. Events of Default; Acceleration. If any one or more of the following events ("Events of Default") shall occur:

(a) The Borrower shall fail to pay in full any interest payment or installment of Principal required under this Agreement when the same shall become payable by it;

(b) The Borrower shall fail to comply with any other provision contained herein applicable to it;

(c) Any representation or warranty made by or on behalf of the Borrower with respect to obtaining the Loan provided for herein or made or required to be made hereunder is incorrect in any material respect;

(d) A material default shall have occurred after the date hereof, and not been remedied after notice, under any other loan agreement between the Borrower and A.I.D.;

then A.I.D., at its option, may declare all or any part of the unrepaid Principal under the Loan provided for herein to be due and payable immediately, and upon any such declaration, unless the default may be cured and is cured within sixty (60) days thereafter, such Principal and all interest accrued thereon shall become immediately due and payable.

SECTION 8.3. Termination of Disbursements. In the event that at any time:

(a) An Event of Default has occurred and has not been remedied as provided above; or

(b) An event occurs that A.I.D. determines to be an extraordinary situation which makes it improbable that the purposes of the Loan provided for herein will be attained or that the Borrower will be able to or will perform its obligations hereunder; or

(c) Any disbursement would be in violation of the legislation governing A.I.D.;

then A.I.D. at its option, after notice to the Borrower, may (i) decline to issue further commitment documents, (ii) suspend or cancel outstanding commitment documents to the extent that they have not been utilized, giving notice to the Borrower thereof, and (iii) decline to make other disbursements.

SECTION 8.4. Cancellation by A.I.D. Following any suspension of disbursements pursuant to Section 8.3, if the cause or causes for such suspension of disbursements shall not have been eliminated or corrected within sixty (60) days from the date of such suspension, A.I.D. may, at its option, at any time or times thereafter, cancel all or any part of the Loan that is not then disbursed.

SECTION 8.5. Continued Effectiveness of Agreement. Notwithstanding any cancellation, suspension of disbursement, or acceleration of repayment, the provisions of this Agreement shall continue in full force and effect until the payment in full of all Principal and any accrued interest hereunder.

SECTION 8.6. Refunds.

(a) In the case of any disbursement not supported by valid documentation in accordance with the terms of this Agreement, or of any disbursement not made or used in accordance with the terms of this Agreement, A.I.D., notwithstanding the availability or exercise of any of the other remedies provided for under this Agreement, may require the Borrower to refund such amount in United States dollars to A.I.D. within thirty days after receipt of a request therefor. Such amount shall be made available first for the cost of goods and services procured for the Project hereunder, to the extent justified; the remainder, if any, shall be applied to the installments of Principal in the inverse order of their maturity and the amount of the Loan shall be reduced by the amount of such remainder. Notwithstanding any other provision in this Agreement, A.I.D.'s right to require a refund with respect to any disbursement under the Loan shall continue for five years following the date of such disbursement.

(b) In the event that A.I.D. receives a refund from any contractor, supplier, or banking institution, or from any other third party connected with the Loan, with respect to goods or services financed under the Loan, and such refund relates to an unreasonable price for goods or services, or to goods that did not conform to specifications, or to services that

were inadequate, A.I.D. shall first make such refund available for the cost of goods and services procured for the Project hereunder, to the extent justified, the remainder to be applied to the installments of Principal in the inverse order of their maturity and the amount of the Loan shall be reduced by the amount of such remainder.

SECTION 8.7. Non-waiver of Remedies. No delay in exercising or omission to exercise any right, power or remedy accruing to A.I.D. under this Loan Agreement shall be construed as a waiver of any such right, power or remedy.

SECTION 8.8. Expenses of Collection. All reasonable costs incurred by A.I.D. (other than salaries of its staff) after an Event of Default has occurred, in connection with the collection of amounts due under this Loan Agreement, may be charged to the Borrower and reimbursed as A.I.D. shall specify.

ARTICLE IX

Miscellaneous

SECTION 9.1. Designation of Representatives.

(a) All actions required or permitted to be performed or taken under this Loan Agreement by the Borrower or A.I.D. may be performed by their respective duly authorized representatives.

(b) The Borrower hereby designates the Minister, Economic Planning Board, as its respective representative with authority to designate in writing other representatives in their dealings with A.I.D. The representatives designated in or pursuant to the preceding sentence, unless

A.I.D. is given notice otherwise, shall have authority to agree, on behalf of the Borrower respectively, to any modification of this Loan Agreement. Until receipt by A.I.D. of written notice of revocation of the authority of any such representative, A.I.D. may accept the signature of such representative on any instrument as conclusive evidence that any action effected by such instrument is authorized by the party on whose behalf such representative purports to act.

SECTION 9.2. Implementation Letters. A.I.D. shall from time to time issue Implementation Letters that will prescribe the procedures applicable hereunder in connection with the implementation of this Loan Agreement.

SECTION 9.3. Communications. Any communication or document given, made or sent by the Borrower or A.I.D. pursuant to this Loan Agreement shall be in writing and shall be deemed to have been duly given, made or sent to the party to which it is addressed when it shall be delivered by hand or by mail, telegram, cable or radiogram to such party at its following address:

To the Borrower:

Mail Address: Minister of Economic Planning Board
Government of the Republic of Korea
Seoul, Korea

To A.I.D.:

Mail Address: Director
United States Agency for International Development
Seoul, Korea

Other addresses may be substituted for the above upon giving of notice as provided herein.

All communications and documents submitted to A.I.D. hereunder shall be in English, and all technical and engineering specifications therein shall be in English except as A.I.D. may otherwise agree in writing.

Executed at Seoul, Korea, on the date first above written.

UNITED STATES OF AMERICA

By: _____ Signed

Title: Director

THE REPUBLIC OF KOREA

By: _____ Signed

Title: Deputy Prime Minister

ANNEX I.

List of Sub-Projects

- | | | |
|------------------|--------------------|-----------------|
| 1. Ha-gi | 23. Cho-jeon | 45. Saeng-rim |
| 2. Yoon-nae | 24. Man-geong-gang | 46. Do-cho |
| 3. Chang-weon | 25. Gum-dong | 47. Go-p'ung |
| 4. Seong-su | 26. Do-gab | 48. Ji-san |
| 5. Cheol-weon | 27. O-yu | 49. Geo-jin |
| 6. Dae-cheon | 28. Mae-ho | 50. Ie-dong |
| 7. Pung-gang | 29. E-bug | 51. Keum-sa |
| 8. Go-deok | 30. Gu-man | 52. Seong-yeon |
| 9. Cho-gye | 31. Gi-gye | 53. San-nam |
| 10. Sin-gog | 32. Na-po | 54. Jung-bug |
| 11. Jang-yu | 33. An-deok | 55. O-weon |
| 12. Neung-seo | 34. Yang-hwa | 56. Yeo-cheon |
| 13. In-deok | 35. Hwa-chon | 57. Da-jeong |
| 14. Myeong-gwan | 36. Ma-dun | 58. Hwang-dun |
| 15. Pung-yang | 37. Do-bong | 59. Song-weol |
| 16. Im-jin | 38. Ha-nam | 60. Gong-seong |
| 17. Yang-seo | 39. Dong-cheon | 61. Gyo-dong |
| 18. Jang-ha | 40. Yong-am | 62. Mang-deog |
| 19. Se-do | 41. Ma-jin | 63. Cho-dae |
| 20. Cheong-young | 42. Gae-wun | 64. Ga-jo |
| 21. Gun-am | 43. Dong-song | 65. Go-yeon |
| 22. Jeong-an | 44. Jeom-gog | 66. Gung-pyeong |

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