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PD-ANW-456

1981 52457

RURAL WORKS II (497-0285)
PADAT KARYA GAYA BARU PROJECT
PROJECT ASSISTANCE COMPLETION REPORT
A SUMMARY

The major objective of the project was to provide employment for the rural under/unemployed in the poor subdistricts in Indonesia through the construction of small and simple productive infrastructures such as, rural roads, irrigation canals, fish-ponds, flood control works, terracing and reforestation, and to improve the capability of Government of Indonesia, Department of Manpower's staff to manage the Padat Karya Gaya Baru program. The project was managed by staff of the Local Institutions Division of the Office of Agricultural and Rural Development.

The project was initiated in 1979 and is a continuation of the Rural Works I project. USAID has provided loan funds in the amount of \$25.0 million and Grant funds in the amount of \$3.0 million. Due to the rupiah devaluation in 1983 there were excess loan funds to complete the project and thereby \$4.5 million loan funds were deobligated. About 90% of the loan funds were used for subproject construction costs; 2.5% for training; and the remainder went for the construction of the research and training center, equipment procurement and other costs. Almost all grant funds were used for the project, primarily for short and long term technical assistance.

In achieving the primary objective of the project, creating rural employment, assistance was directed to construction of small-scale rural infrastructure, training and human resource development. Implementation was done by the district Department of Manpower in collaboration with local governments, community groups and other line government agencies. The outputs of this project were: a) 2,885 subprojects constructed; b) more than 1.1 million workers employed of whom 46,000 were women; c) about 9.6 million persons directly benefited from the project and another 7.2 million were indirect beneficiaries of the project; and d) approximately 6,000 persons were trained in project management, selection, design, implementation, monitoring and evaluation.

The greatest achievement of the project, aside from the direct benefits to rural poor, was the development of a selection and evaluation system for small scale rural infrastructure labor intensive projects in Indonesia. The selection system was designed to insure that projects will provide significant employment, that they can be successfully implemented using labor intensive methods and that socio-economic benefits will accrue. The evaluation system was developed with the purpose of increasing the long and short-term benefits of projects through providing feedback for the improvements of systems which had been established earlier for project selection, design and implementation.

In spite of the above achievements there was one element of the project that was not completed as planned. The Labor Intensive Technology Research and Training Center was not operational prior to the PACD. This was caused by the late delivery of the equipment amounting to \$169,000. Curriculum and training materials were also not completely developed by the GOI before the consultants departed. However, in August 1985 the first training program has been conducted and we understand that it was successful.

Lessons Learned

Rural Works programs can be a very effective and a direct means of addressing the problems of rural poverty and seasonal or chronic unemployment by providing short term benefits to the underemployed. The short term employment aspect of the program is easily managed. Insuring that the works conducted will provide long-term economic benefits is more difficult, and it is a function of both site selection and subproject design and construction. Coordination and decentralizing decision making concerning locations and type of subprojects while providing overall guidance and policy seems to make the program responsive to local needs. This is particularly important in implementing this type of program in a country of diverse geographic conditions such as Indonesia.

Project Implementation Problems and Recommendations

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| <p>1. Host country lacks understanding of AID rules and regulations pertaining to planning, implementations and evaluations. Also, AID lacks understanding of Host Country rules.</p> | <p>1. Conduct in-country pre-project implementation seminars for Host Country officials and Mission employees on AID rules and regulations. These seminars should focus on critical steps in the process that effect project implementation. Time should be planned for learning each other's procedures prior to work with a Host Country department.</p> |
| <p>2. Sometimes contractors do not understand AID and Host Country regulations, e.g., procurement.</p> | <p>2. Provide an orientation to contractors on AID and local procedures at Mission.</p> |
| <p>3. Contractors (usually short-term) lack cultural sensitivity, e.g., U.S. vs Host Country work ethics.</p> | <p>3. Criteria for evaluation of proposed staff should require relevant overseas experience and language capability. Project managers should provide cross-cultural orientation program in-country.</p> |

RURAL WORKS II (497-0285)
PADAT KARYA GAYA BARU PROJECT
PROJECT ASSISTANCE COMPLETION REPORT

I. Project Objectives: 1) To assist the Government of Indonesia (GOI) in generating short and long-term employment and income in rural poor areas in Indonesia through labor-intensive construction, rehabilitation and maintenance of small, useful infrastructure such as irrigation/flood control canals, village roads, water ponds, fish-farming etc.; and 2) to improve the capability of government of Indonesia, Department of Manpower's staff to manage the Padat Karya Gaya Baru program.

II. Basic Data:

		<u>Amendments</u>		
A. <u>AID Loan</u>		#1	#2	#3
Authorized	: 497-T-056	-	-	-
Amount	: January 23, '79	\$19,000,000	\$25,000,000	\$20,000,000
Signed	: \$8,000,000	Aug' 15, '79	July 2, '80	July 26, '84
Initial CPs met:	: April 19, '79			
Implementation	: July 13, '79			
Letter No.1	: April 19, '79			
PACD	: April 19, '84	-	-	Dec. 31, '84
TDD	: January 19, '85	-	-	Sept.30, '85
Committed	: \$25,000,000	-	-	\$20,500,000
Disbursed	: -	-	-	\$18,067,259
Accrued	: -	-	-	\$1,067,330
Unexpended	: -	-	-	\$1,365,411*

* Per PII #40 this amount has been deobligated in September 1985 therefore the total committed amount will be \$20,500,000 less \$1,365,411 equals \$19,134,589.

Amendments

B. <u>Grant</u>	: 497-0285	#1	#2
Authorized	: February 9, '79	-	-
Amount	: \$1,000,000	\$1,500,000	\$3,000,000
Signed	: April 19, '79	Aug' 14, '79	Dec. 15, '80
Committed	: \$3,000,000	-	\$3,000,000
Disbursed	: -	-	\$2,993,463
Accrued	: -	-	-
Unexpended	: -	-	\$6,532*

C. <u>Technical Consultants</u>	: New TransCentury Foundation
RFP	: September 12, 1978
CBD Notice	: September 15, 1978
Advertised in CBD	: October 24, 1978
Technical Proposal	: December 7, 1978
Final Selection	: January 30, 1979
AID Concurrence	: February 7, 1979

	<u>Amount (\$)</u>	<u>Signed</u>
Original Contract	2,100,000	April 19, 1979
Amendment No. 1	2,270,000	July 21, 1980
Amendment No. 2	2,768,000	March 13, 1981
Amendment No. 4	3,232,500	March 5, 1983
Amendment No. 6	3,406,590	March 31, 1984

Note: Amendment No. 3 and 5 are adjustments on indirect costs with no increase in the contract amount.

* Per P.L. # 41, this amount has been deobligated in October 1985.

D. Equipment PSA : TransCentury Corporation
Informal Solicitation : August 16, 1983
(Fee Quotation)
PSA Selected : August 27, 1983
Fee Amount : \$12,000
Procurement Cost : \$168,751
(Including Fee)
Advertized in CBD :
Bank L/Com Issued : American Security Bank, July 9, 1984
L/Com Amount : \$156,751

III. The Project

A. Project Description: The Padat Karya Gaya Baru (PKGB) project is a nationwide program designed to provide off-season employment for the poorest of Indonesia's rural people, while at the same time improving basic rural infrastructure and facilities. USAID has provided technical and financial assistance to the PKGB project since Indonesian Fiscal Year (IFY) 1975/76 under the Rural Works I project (497-0240). The \$6.8 million Rural Works I loan evolved from a successful Food-for-Work program (PL-480 Title II) which was limited to food deficit areas. Rural Works I project focused on providing a cash-wage/labor-intensive project in rural poor areas where under/unemployment and poverty were most severe. Rural Works II, while continuing with the labor-intensive approach of Rural Works I, emphasized to a much greater degree the creation of durable, productive infrastructure. Rural Works II was in effect from April 1979 through december 1984 and provided a technical assistance grant of \$3.0 million and a loan totalling \$20.5 million*) to assist with the financing of PKGB subproject

*) This amount has been further reduced by \$1,365,411, see page 4 of this report.

construction (\$18,425,000), training of staff both in-country and overseas (\$1,456,200), and construction and equipping of a new Labor Intensive Technology Research and Training Center (\$618,800). The Government of the Netherlands (GON) has also provided technical and financial assistance to the PKGB project amounting to \$13.6 million and will continue to assist the PKGB project until the loan is exhausted.

- B. Project Management: The Department of Manpower (DMP) - Directorate of Development of Intensive Labor and Self-Employment (DDILSE) has the overall responsibility for general guidance and implementation of the PKGB program. The DMP offices at provincial (Kanwil) and district (Kandep) level are directly responsible for selecting, planning and carrying out the PKGB subprojects, and they work closely with District/Kabupaten technical agencies including Public Works and sub-district/kecamatan officials. The DMP "Kanwil" and "Kandep" offices, typically have two to five professional level positions assigned to PKGB project activities. Each of the 27 provinces has a "Kanwil" office and currently there are 172 "Kandeps" covering a total of 247 kabupatens.
- C. Project Financing: The Government of Indonesia (GOI), through the DMP, pre-financed all activities of the Rural Works II project. The principle agencies at the central level involved in the funding and implementing process for rural works are the National Development Planning Board (BAPPENAS), Department of Finance (DOF) and DMP. BAPPENAS has the primary responsibility for developing national planning policy, approving planning activities of DMP and other agencies and measuring that the rural works project is in concert with national goals.

The GOI's support of PKGB project is significant. Their initial inputs have been increased in order to achieve the project objectives. A summary of the planned and actual inputs made by the GOI, AID and GON are illustrated in the following Tables 1 and 2.

Table 1: RURAL WORKS II
SUMMARY COST ESTIMATE AND FINANCIAL PLAN
(US \$000)

I N P U T S	A I D *				G O N (1)	G O I (2)	T O T A L
	L O A N		G R A N T				
	FX	LC	FX	LC			
1. FAR-Subprojects Construction		18,425.00			2,200.00	27,800.00	48,425.00
2. Technical Assist. (3)	432.06		2,550.00	400.00		300.00	3,682.06
3. Training							
a. In-Country		870.54				900.00	1,770.54
b. Overseas	53.51						53.51
4. FAR-Res/Irrig. Center							
a. Land Development						1,200.00	1,200.00
b. Construction		290.80				1,100.00	1,390.00
c. Equipment/Furnishings	279.00					250.00	529.00
5. PKGB Operation						10,500.00	10,500.00
Rural Works Evaluation		49.00					49.00
Contingency	34.43	64.66	50.00			4,290.00	4,440.09
T O T A L	800.00	19,700.00	2,600.00	400.00	2,200.00	46,340.00	72,640.00

- (1) Government of the Netherland.
 (2) Inflation factor (10%) has been included in each line item.
 (3) Foreign Exchange costs includes salaries, allowances, overhead and international travel. GOI is to provide vehicles, in-country transportation and per diem (in-country).

FX = Foreign Exchange
 LC = Local Currency

* The total Loan has been reduced by \$1,365,411 (see PIL # 40 of september 1985) and the total Grant has been reduced by \$6,532 (see PIL # 41 of October 1985).

Table 2: RURAL WORKS II
ACTUAL FUNDING (\$000)
PERIOD IFY 1979/80 - 1983/84

I N P U T S	AID Reimbursement				GON Reimbursement	GOI Contribution	TOTAL Project Funding
	LOAN *)		GRANT				
	FX	LC	FX	LC			
1. FAR-Subprojects Construction	-	17,447.00			11,578.00	85,227.00	114,252.00
2. Technical Assist.	191.95	-	2,550.00	400.00	2,022.00	- **)	5,320.77
3. Training							
a. In-Country	-	140.31				1,258.60	1,820.15
b. Overseas	52.96	-					51.10
4. FAR-Res/Trng. Center							
a. Land Development	-	-				1,200.00	1,200.00
b. Construction	-	-				801.11	1,034.63
c. Equipment/Furnishings	167.55	-				85.00	247.23
5. FKGB Operation						- **)	
Rural Works Evaluation	-	49.00					49.00
Contingency	-	18.64	43.47				65.81
T O T A L	412.46	17,654.95	2,593.47	400.00	13,600.00	88,571.71	124,040.69

*) Data as per August 1985.

***) Included in line-item No. 1 of GOI contributions.

IV. Project Accomplishment:

A. Institutional Improvement to the Department of Manpower:

The institutional objective of the project was the improvement of the effectiveness of the department of Manpower, to manage the PKGB project, through:

1. Training;
2. Preparation of organizational and procedural manuals;
3. Development and implementation of a management information system.

The training aspect of the project was successful. The operational and procedural manuals were prepared by the U.S. and GOI technical advisory team, and at present they are being used country-wide. The management information system is in place and is self-sustaining. Training throughout the project involved classroom instruction and on-site training on all phases of PKGB subproject operation such as surveying, selection, planning, design, construction, quality control, financing, reporting, monitoring and evaluation.

The DMP does not hire engineers or use contractors to execute their subprojects. In order to improve their capability to manage the program, training was given to temporary employees referred to as construction supervisors (PLP-Petugas Lapangan Proyek), many of whom have been recruited from the ranks of Badan Urusan Tenaga Sukarela Indonesia (BUTSI-the Indonesian domestic "Peace Corps"); DMP officials of the central, provincial and district offices; and technicians. Technicians are recruited from the ranks of former FLPs who have shown outstanding performance, and have been provided with special training in order to assist the PKGB staff at all management levels with the more technical aspects of subproject selection, design, construction, monitoring and evaluation. The role of

the US and GON technical advisors for improving the management of the PKGB program has now been taken over by the technicians. The total cost for training during the life of the project is approximately Rp1,323,618,477 or about Rp224,115 per participant trained. AID reimburses 50% of all legitimate training costs, totalling \$552,135.

The total actual outputs of persons trained over the life of the project exceeds the planned outputs and are summarized in the following table:

Table 3: Planned versus Actual Outputs of Persons-Trained

<u>Person Trained</u>	<u>Planned *)</u>	<u>Actual</u>
1. PLPs (Construction supervisors)	1,000	3,993
2. DMP staff/central & Field Offices	1,550	1,582
3. Technicians	-	152
4. Training Instructors	-	87
5. Project Evaluators	-	90
6. Evaluation Analysts	-	2 **)
Total	2,550	5,906

*) The planned outputs of person trained is fully described in USAID Project Paper, AID-DLC/P-2294.

**) The trained evaluation analysts became trainers and will train several project evaluators to become analysts.

The PKGB field offices (Kanwil and Kandeps) are now fully equipped with trained personnel. As shown in the table above, a total of 152 technicians, 87 training instructors and 90 project evaluators are currently active at field offices, and they all have been appointed as permanent public servants. A total of 1,582 government officials, including DMP, Public Works, District government Technical Agencies personnel, have been trained to effectively manage the PKGB program. In short, the skill building within the PKGB project organization to carry out the program is fully institutionalized.

A number of "system/instruments" were established to trained PKGB project personnel in appropriate technical and managerial skills. Short-term training was conducted throughout the provinces, by the US and GON technical assistants team and later by the technicians. The system/instruments were found beneficial and are currently used nation-wide. These are:

1. Subproject Selection System: This is a comprehensive system for annual selection of PKGB subprojects based on technical feasibility and potential socio-economic benefits. Instruments include separate sets of questionnaires concerning technical feasibility and socio-economic benefits for each of the six most common kinds of subprojects, as well as preliminary layouts maps. Various possible answers to the questions on the socio-economic forms are weighted based on potential benefits, and the responses are used to determine a composite score for each subject. The system is designed to select appropriate subprojects having greater potential benefits from a group of subprojects already determined to be technically feasible. The system has been properly implemented and has proven highly beneficial.

2. Project Proposals (DURP) Format and Productivity Standard: The DURP used by PKGB project is a proposal and budget for a single subproject, based on construction quantities from a completed design. Detailed calculations for the costs of labor and materials are provided as well as supporting certificates concerning the subproject such as environmental, maintenance and maintenance plan statements. The productivity standard consists of a listing of productivity rates for the most common labor activities occurring on PKGB subprojects. The standard is used to guide designers in the project proposal/DURP preparation.

A detailed instruction manual for completing project proposals/DURPs and the use of the productivity standard was prepared and was found beneficial, and is currently used country-wide.

The productivity standard has probably had a greater impact because no such national standard previously existed. The new DURP format and the productivity standard have reduced the time spent for project proposal evaluation by higher authorities at the provincial and central levels.

3. PKGB Construction Management Information System: This system was designed to improve the efficiency of construction of PKGB subprojects through improved monitoring and control. The system includes the following:
 - a. Construction Progress Report: A series of nine report forms (four weekly, four monthly, and one occasional) concerning employment generation, expenditures and physical progress was established. Reports covering individual subprojects were submitted by PLPs to Kandepa, where they were summarized and reported to Kanwila. Kanwila then

summarize all reports from their Kandeps and report to central office in Jakarta. Detailed instructions in the use of the form, a 73 page guidebook, were distributed to all the 27 provinces in mid-1981 and the forms were adopted for country-wide use beginning with 1981/82 subprojects construction.

- b. Construction Inspection Report: This is used by managers, technicians, Public Works staff and district government technical agencies staff and technical consultants to record conditions noted during visits to active construction sites. The report form emphasizes physical progress and technical quality, and includes extensive checklists for five different kinds of subprojects. This report was first adopted country-wide in 1981/82.
- c. Construction Change Order Form: This form provides a systematic method for processing departures from original subproject designs in a rational and controlled manner. It is part of the documentation for each subproject.
- d. The Internal Evaluation System: This system is an ongoing process for assessing socio-economic benefits and technical quality of PKGB subprojects in order to improve the processes of subproject selection, design and construction. Evaluation of subprojects involves many of the PKGB managerial and technical staff, thus encouraging continued attention to issues concerning subproject quality. Socio-economic evaluation data for a sampling of subprojects is gathered in three stages over a one and one-half to two year period: 1) immediately prior to the start of construction; 2) at the completion of construction; and 3) one year after completion. Data for determining technical quality is obtained at completion

time. The primary instruments of the system are standard forms for socio-economic surveys, worker interviews, traffic-surveys, reports of subproject physical outcome, computer programs for analysis and a standard format for reporting evaluation results.

The system has enormous potential for improving the quality of subprojects and for measuring the benefit of the project. This system was adopted in 1982/83 and a complete evaluation report was made on the 1982/83 subprojects on August 20, 1984.

Training programs concerning the above system/instruments were established and the training materials have been completed, together with all these system/instruments, in one manual, entitled "Manual PKGB". A total of 2000 copies was distributed to field offices, local government Public Works and technical agencies to assist them in subproject selection, preparing project proposals, design and construction, reporting, monitoring and evaluation and training.

In addition to this "Manual PKGB", a PKGB Field Implementation Guide Book for PLPs and several standards such as field survey standard, road and irrigation design standard, and road geometric standard were established and well used by project implementors.

- B. Subproject Construction: One objective of the Rural Works II project was to provide job opportunities to the under and unemployed in rural poor areas and increase their income through the creation of small physical infrastructures such as village roads, irrigation canals, flood control systems, water ponds, fish farming, etc.

The largest input (\$18,524,000) under the Rural Works II loan was for subproject construction. The rationale for concentrating reimbursement on the PKGB subprojects was to assist DMP to upgrade this core element of the program so that better selected/constructed subprojects will result in greater benefit for the rural poor. The FAR disbursement process continued to function adequately throughout the life of the project, and USAID reimbursed GOI at the rate of 35% of the total construction cost including survey and design of each accepted subproject. The following is a summary of inputs.

Table 4: PKGB Funding for Subprojects
(US\$)

<u>IFY</u>	<u>GOI-Prefinanced</u>	<u>AID</u>	<u>Reimbursement</u>	<u>GON</u>
1979/80	13,162,227	2,512,063.83		1,794,331
1980/81	15,553,607	3,354,973.22		2,396,410
1981/82	23,018,543	4,468,995.46		3,192,140
1982/83	34,406,938	5,873,492.78		4,195,352
1983/84	28,110,548	1,048,407.02 *)		"
Total	114,251,863 ***)	17,257,832.31 **)		11,578,233 ****)

*) AID participated only with 150 of the total 1084 subprojects constructed in 1983/84.

***) In addition to this total, an estimated of \$441,000 has not been reimbursed because the required certification for more than a hundred subprojects has not been submitted to USAID.

****) This includes construction and project operational costs.

*****) GON reimburses 25% of USAID accepted subprojects.

The number of subprojects planned for construction, the actual number involved and the number of subprojects that have been accepted by USAID for reimbursement is as follows:

Table 5: PKGB Subprojects

<u>IFY</u>	<u>Planned</u>	<u>Actual</u>	<u>Accepted</u>	<u>Acceptance Rate (%)</u>
1979/80	502	499	333	66.73
1980/81	601	599	432	72.12
1981/82	743	742	567	76.42
1982/83	895	895	708	79.22
1983/84	1,085	1,084 *)	150	100.00
Total	3,826	3,819	2,190 **)	75.94 ***)

As shown in the table above, from the 3,819 subprojects constructed by DMP, AID was only involved with 2,885 subprojects over the life of the project and has accepted 2,190 subprojects which is approximately 76%.

The following table summarizes the total number of types of subprojects and the number of subprojects that have been accepted by AID.

* AID only involved with 150 subprojects and has accepted all the 150 subprojects for reimbursement.

** This total of 2190 accepted subprojects is not final because there are 115 subprojects certificates that have not been submitted to USAID as a requirement for acceptance.

*** The overall acceptance rate is calculated as follows:
 $2,190 : (3,819 - 1,084 + 150) \times 100\% = 75.94\%$

Table 6: Total Number of Types of Subprojects Accepted by USAID (FY 1979/80 - 1983/84)

<u>Type of Subprojects</u>	<u>Constructed</u>	<u>Accepted</u>	<u>%</u>
1. Rural Roads	2,208	1,653	75.00
2. Irrigation Canal	360	295	82.00
3. Flood Central System	230	183	79.60
4. Waterponds	24	19	83.30
5. Terracing	14	9	64.29
6. Fish-farming	13	10	76.92
7. Drinking water supply system	12	6	58.30
8. Others	24	15	62.50
Total	2,885	2,190	75.94 (overall)

Subprojects were carefully inspected to determine quality from a technical and socio-economic standpoint before they can be accepted by USAID. The quality ranking is summarized below:

Table 7: Subproject Construction Quality

Type of Subproject	No. of Subprojects Receiving Construction - Quality - Ranking			Total Number Ranked
	Good	Fair	Poor	
1. Rural Roads	205	1,448	451	2,104
2. Irrigation canals	40	255	58	353
3. Flood Central Systems	20	163	47	230
4. Waterponds	2	17	4	23
5. Terracing	1	8	4	13
6. Fish-farming	3	7	3	13
7. Drinking water supply system	-	6	4	10
8. Others	1	14	8	23
Total	272	1,918	579	2,769

As shown above, 2,190 subprojects received ranking of fair or good, and they are fully functional subprojects. The poor ranking subprojects, which are subprojects that are not fully operational due to construction deficiencies and did not meet the intended purpose, were rejected for USAID reimbursement.

The outputs under the project are the total number of workers employed by the project, their dependent families and the total number of indirect beneficiaries and the long-term benefit received from the completed subprojects. The following charts summarize these outputs and analysis is based on data collected from AID's subproject inspection reports and they are limited to the accepted subprojects only.

Table 8: PKGB Subproject Beneficiaries

IFY	Total Accepted Subprojects	Total Number of Workers Employed	Beneficiaries	
			Direct *	Indirect **
1979/80	333	192,858	1,972,640	1,149,660
1980/81	432	216,987	2,077,780	2,732,586
1981/82	567	292,275	2,213,520	1,703,072
1982/83	708	349,994	2,761,798	1,247,665
1983/84	150	76,571	641,463	323,881
Total	2,190	1,128,685 ***	9,667,201	7,161,864

* Direct beneficiaries are villagers who live within the project area including the total number of workers employed and their dependent families.

** Indirect beneficiaries are other villagers who live nearby the project area and are benefiting from the project.

*** Of this total, 45,584 workers employed are women.

**Table 9: Average Additional Income Received
per PKGB Subproject Workers ***

IFY	Total Labor Cost (Rp)	No of Workers Employed	Average Additional Income Received Per Workers (Rp)	(\$)
1979/80	2,926,403,610	192,858	15,174	24.30
1978/81	3,936,506,856	216,987	18,142	25.90
1981/82	6,309,711,619	292,275	21,588	29.80
1982/83	10,673,026,200	349,994	30,495	39.60
1983/84	2,373,701,000	76,571	31,000	32.00 **
Total	26,219,349,285	1,128,685	-	-

*) It should be noted that one worker would have received more than another, depending on how long he worked on the subproject but whatever the sum was, it would have helped rural households through periods of seasonal unemployment and underemployment and given the marginal farmer an edge on survival. An unskilled laborer who worked for only two weeks on a subproject in Kalimantan in 1983/84 would have received 12 days times Rp1,150 equal to Rp13,800 for which he could buy rice for a month (21 kg rice per person a month @ Rp400/kg) and other items.

***) The decrease in dollars received by the worker is due to the rupiah devaluation in March 1983 for which the dollar value increases from Rp770 to Rp970.

Table 10: PKGB Subproject - Benefit *
FYI 1979/80 - 1983/84

Type of Subprojects	Constructed (Km)	Land Served (Ha)	Remarks
Rural Roads	8,144	N/A	The road connects either the farmgate and market, village and subdistrict center or farmgate and a rural arterial road. Most are all weather roads (non-asphalt), a driveway width of 4.00 m complete with shoulders and drainage systems.
Irrigation Canals	1,520	64,890	Prior to construction of the 1,520 km tertiary canals, only 52,643 Ha were adequately irrigated. After construction, another 12,247 Ha can be irrigated and production of wet rice has increased by 141,125 tons or almost 48%. The total of direct beneficiaries is 735,605 farmers.
Flood Control Canals on systems	720	56,848	Although there were no accurate data on production of the 56,848 Ha land that have been protected from flood, most of the land is now being cultivated by farmers in planting rice or secondary crops. The direct beneficiaries are about 435,628 farmers or job opportunities are provided for approximately 8 persons per Ha.
Water Ponds	9	2,496	A total of 9,000 km water inlet canals were constructed to fill 35 water ponds, a total capacity of 236,265 cu. meters, to serve 2,496 Ha of land. Approximately 11,160 family heads have directly benefited from this irrigatable land.

* Source: AID inspection reports.

(continued)
 Table 10: PKGB Subproject - Benefit *)
FYI 1979/80 - 1983/84

Type of Subprojects	Constructed (Km)	Land Served (Ha)	Remarks
Terracing	N/A	236	Terraces were constructed with better retaining walls and drainage systems and the areas were planted with most types of upland secondary crops. The direct beneficiaries are about 10,003 farmers including 475 family heads who own the land and another 7628 farm laborers.
Fish Farming	2.5	274.40	Most of the fish farms are located in the coastal areas where food crops cultivation is limited. About 8,041 farmers are the direct beneficiaries. No accurate data on production were available since inspections on the 13 subprojects were conducted shortly after each subprojects was completed.
Drinking Water Supply	50.50	-	Approximately 50.50 km of drinking water pipe line were installed and 16 wells constructed in order to supply clean water for 4108 households or 24,648 persons.
Others	-	-	Included are: construction of small check dams that have improved the irrigation of 80 ha land; rehabilitation of small bridges that improve access between farmgates and markets; and the development of 295 Ha previously uncultivated land into fruit or secondary crop plantation.

* Source: AID inspection reports.

C. Labor Intensive Technology Research and Training Center: The main activity conducted in this center is the ongoing managerial and technical training for PKGB field staff, technicians and PLPs, which is needed for continuation of the present PKGB program. Other activities will include:

1. Research and development of labor-intensive construction methods and tools which are applicable and useful in Indonesia.
2. Maintenance of a national information center for labor-intensive construction technology obtained from international and domestic sources.
3. Dissemination of labor-intensive technology through publication and training.
4. Research of labor-intensive Village Industry Technology.
 - a. The testing and adaptation of appropriate technology obtained from abroad and from Indonesian villages, emphasizing small industry technology which is likely to create direct employment.
 - b. Feasibility studies and market analysis required to support the introduction and expansion of village industries.

1. Construction: Construction of this center was started on 28 February 1983 and was completed on May 1, 1984. Included are classrooms, library, laboratories, shops, dormitories and staff housing, dining and recreational facilities and an office building totaling some 5200 sq. meters on a 5.5 hectare plot in southeastern Jakarta. The total construction cost for this center is Rp635.40 million and USAID share will be Rp255.23 million. During the construction phase, periodic inspections were conducted among others by USAID engineers, Robert Davies, David Warner, Boby Eriatjawan, Sebastianus, Jan Saworuntu, Franciscus Subanto, and Wouter Sahasaya and later by Desmond O'Riordan to determine if construction of the center meets all technical requirements, the design and

technical specifications for AID (FAR) reimbursement. The final site inspection was conducted on April 24, 1984 by Mr. Robert Dakan, Wouter Sahanaya and the TransCentury consultant team and found that the construction of all of the units was reasonable and meets the design and technical standards. USAID recommended reimbursement for the total amount committed in Project Implementation Letter No. 10 of January 20, 1983 which was rp255.23 million or the dollar equivalent.

At present the Research and Training Center is in full operation; training were done regularly. In August 1985 the first training program has been conducted successfully.

1. Equipment Procurement: AID loan funds totaling \$168,751 were used to procure equipment primarily for research and training in all aspects of labor-intensive technology. Major units of equipment procured under the loan are: wood/metal working shop equipment, soils laboratory equipment, concrete laboratory equipment, bituminous laboratory equipment, electronic/audio visual equipment and computers. This equipment was very carefully selected by the TransCentury consultant team and the department of Manpower so that the training could be conducted immediately according to the training plans that have already been developed.

The equipment was purchased from the US through a procurement service agent, the TransCentury corporation, and the first shipment of equipment arrived at port of entry on September 19, 1984 and the final on September 24, 1984. Due to the Government of Indonesia's bureaucratic procedures the equipment was released from customs in February 21, 1985 by the Department of Manpower and delivered to the center. The equipment is in good condition and has been installed at the center.

V. Evaluation of Rural Works II (PKGB) Loan

In addition to the PKGB evaluation program - "The Internal Evaluation" - that has been established and carried out since IFY 1981/82, an evaluation on the overall impact of the PKGB project was conducted on June 27, 1983 by an Indonesian local firm - Lembaga Studi Pembangunan (Institute for development Studies). A total of 21 subprojects of various types (13 roads, 2 irrigation canals, 3 flood control systems, and one each for fish farming, terracing and water reservoirs) were taken for the evaluation. The number of the various types of subprojects is proportional to the total number of each type of subproject that was implemented under the Rural Works II project and although the numbers were small compared with the total 2735 subprojects that have been implemented throughout the life of project, at a minimum, they represent the whole project because most subprojects were implemented in locations with similar agricultural, economic, and social and cultural conditions. The impact on the socio-cultural, agricultural and economic aspects was carefully evaluated and the findings are summarized in Table 11.

The Evaluation Team has concluded that:

1. The PKGB road subprojects are the most successful projects implemented by the Department of Manpower. This PKGB road construction could compete with other rural road programs such as the INPRES (Presidential instruction) road program which utilizes contractors to build the roads. Once a PKGB road is constructed, the road brings additional important social and economic benefits. Most notably these include increased agricultural production and income resulting from sharply reduced transportation costs and access to urban areas. The quality of life improved dramatically in all PKGB road subproject areas because of the increased commercial activities, motorized access to and from towns, increased social activities and access to services.

2. Although irrigation canal subprojects have increased the agricultural production and income to farmers, it was found that two main factors are lacking - the establishment of water users association and access to agricultural credit. Without the existence of a water users association usually the project will have problems with maintenance, water distribution schemes and lack of information agricultural intensification. No access to agricultural credit will slow down farmer's efforts to increase production. This conclusion applied also to the PKGB flood control and water reservoirs subprojects.
3. Each type of subproject to be implemented has its own subproject selection procedures. Inadequate subproject selection procedures will create negative impact on the environmental aspects of the project and furthermore reduce the likelihood of farmers participation in the implementation of future rural development projects. This happened with the PKGB terracing and fish farming projects.
4. Although the PKGB subprojects were constructed through the labor-intensive method, the construction quality is reasonable. However, the construction quality could be raised to an even higher standard by increasing the construction standard and the cost amount for construction. Furthermore, cash-incentives for labor should be increased until the wage rate for the PKGB workers should be just slightly lower than the local agricultural prevailing wage rate. (At present the PKGB wage rate is approximately 70% of the local agricultural prevailing wage rate.)
5. The PKGB project experience underscores the importance of addressing maintenance problems systematically. Although the communities can and do maintain the PKGB subprojects under the traditional "gotong royong" system to some extent, the responsibility and funding for major maintenance that exceeds the communities resources has not been defined.

As elsewhere stated in this report the DMP has established their Internal Evaluation System for the PKGB project. In August 1984 the DMP and TransCentury Consultant team gathered evaluation data for the IFY 1984/83 PKGB subprojects. Their findings and conclusions are similar to the above evaluations made by the Institute for Development Studies, therefore they will not be repeated here.

Table 11: Summary on the Socio-cultural, Agricultural and Economic Impacts
Rural Works II Project Evaluation
By Institute for Development Studies

<u>Type of Subproject</u>	<u>Socio-Cultural Impact</u>	<u>Agricultural Impact</u>	<u>Economic Impact</u>
1. Rural Roads (13 subprojects)	<ul style="list-style-type: none"> • Farmers' participation in the implementation of the PKGB subprojects which led to an improved economic condition in the subproject influence area did not change the cultural or traditional mutual self-help or the gotong-royong system, because the improved economic condition has not reached a level where it could change the way of life of the rural poor people. • With the presence of the project that led to positive changes in the economic sector, the social life of the individuals in the community have been affected. A large number of people are competing to raise their social status within the society which means that farmers are competing to become wealthier by means of increasing agricultural production and at the same time their income. • To become richer and to send children to school will in fact raise their social status in the society. 	<ul style="list-style-type: none"> • Better access to markets have changed dramatically the farming practices which have increased agricultural produce. • New land was cultivated and with double yield from the farms have open new job opportunities to rural unemployed. • The drop in transportation cost and time of travel and the increase of number of vehicles that operate in the subproject influence area have resulted in more cash savings which means an increase in per capita income. • Agricultural inputs e.g. fertilizer could easily be obtained and purchased and agricultural credit programs could adequately function. 	<ul style="list-style-type: none"> • Due to the increases of agricultural production and number of vehicles operating in the subproject area other activities grew faster. • Most of farmers' daily needs can now be found in the subproject influence area because new shops, retailers and entrepreneurs are available in the project area. This has provide long-term off-farm employment. • With the increase of traffic between villages and markets, modern ideas and practices have entered the formerly isolated areas which will change the farmer's traditional economic practices.

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Table 11: Summary on the Socio-cultural, Agricultural and Economic Impacts
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<u>Type of Subproject</u>	<u>Socio-Cultural Impact</u>	<u>Agricultural Impact</u>	<u>Economic Impact</u>
2. Irrigation Canals (2 subprojects)	<ul style="list-style-type: none"> <li data-bbox="510 409 1052 766">▶ The type of subproject in its relationship to agriculture encouraged farmers to participate in the project and this condition did not lead to any changes in their basic cultural systems of the traditional gotong royong, but strengthened the system for the improvement of their economic condition. <li data-bbox="510 799 1052 1156">▶ When farmers obtained more income from their agricultural production they tended to shift to a higher status in the community through purchasing more land or through competition to get a certain position, social or political, in the community. 	<ul style="list-style-type: none"> <li data-bbox="1145 422 1583 647">▶ The improved irrigation system has increased both agricultural hectareage and its yields and has resulted in the increase of farmer's incomes. <li data-bbox="1145 680 1583 1163">▶ The increase in hectareage is due to the improved agricultural development in the area and to the information on agricultural extensification and intensification given during their labor intensive work in the project. The project has stimulated the farmers to increase production of other crops. 	<ul style="list-style-type: none"> <li data-bbox="1676 429 2121 911">▶ Irrigation canal subprojects have stimulated the beneficiaries to improve feeder roads to transport surplus agricultural production to town markets. The benefit-cost ratio was high for these two subprojects and there was also an increase in gross domestic product per capita of the farmers. <li data-bbox="1676 944 2121 1399">▶ The irrigation project affected other economic activities since entrepreneurship was growing rapidly in the project influence area which has increased the amount of long-term employment. (i.e. excluding the increase of transportation, the opening of new shops has been increased by 280%).

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Table 11: Summary on the Socio-cultural, Agricultural and Economic Impacts
Rural Works II Project Evaluation
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<u>Type of Subproject</u>	<u>Socio-Cultural Impact</u>	<u>Agricultural Impact</u>	<u>Economic Impact</u>
3. Rice Terracing (one project)	<ul style="list-style-type: none"> - The change resulting from the subproject did not effect the socio-cultural condition in the area due to the fact that the subproject did not make a <u>dramatic</u> change in economic conditions, especially farmers' incomes. The subproject only benefited a small number of farmers who own the terraced land. 	<ul style="list-style-type: none"> - Although the cultivated land was expanded, the agricultural impact remains low. The project failed to provide information on farming practices on land of greater slopes and what have been planted are inappropriate crops. - Agriculture extension workers should be involved in the planning stage so that better agricultural information can be provided before the project is selected. 	<ul style="list-style-type: none"> - Even though the agricultural impact is small there was an increase in agricultural production which has resulted in the increase of new activities in the subproject influence area. - The increase of agricultural production will <u>not</u> last because farmers left to their traditional farm practices without the support of the agricultural extension workers will not work their land as effectively as possible and this will decrease the economic impact.

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Table 11: Summary on the Socio-cultural, Agricultural and Economic Impacts
Rural Works II Project Evaluation
By Institute for Development Studies

<u>Type of Subproject</u>	<u>Socio-Cultural Impact</u>	<u>Agricultural Impact</u>	<u>Economic Impact</u>
4. Flood Control canals/system (3 subprojects)	<ul style="list-style-type: none"> - The subproject did in fact protect farmers' land from flood and this improved economic condition has strengthened their cultural or traditional gotong royong system and the project has effected their social life in a positive way. - Farmers tend to participate in more social activities and furthermore increase their solidarity in solving their own problems. There is no effect what so ever regarding the social structure in terms of class; people still respect each other, of different classes, because they are all in the same economic condition. 	<ul style="list-style-type: none"> - These three subprojects have increased rice production by more than 13% and have created farm employment and increased numbers of entrepreneurs. - The subproject also increased the efficiency of the farming system which has increased the benefit cost ratio of the project. 	<ul style="list-style-type: none"> - The increase or income generated from the improved agricultural production has given a positive impact to trade and transport businesses. - Communication and transportation of the agricultural products from the subproject influence area to market or consumers has been improved since the access road in the subproject area has not been destroyed by flood.

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Table 11: Summary on the Socio-cultural, Agricultural and Economic Impacts
Rural Works II Project Evaluation
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<u>Type of Subproject</u>	<u>Socio-Cultural Impact</u>	<u>Agricultural Impact</u>	<u>Economic Impact</u>
5. Fish Farming (one subproject)	<ul style="list-style-type: none"> - Since fish farms were developed in food-crop farm areas, the project did not change the socio-cultural system of the area because the fish farms were owned by outsiders and the people who live in the subproject area only participated in the project during subproject implementation. 	<ul style="list-style-type: none"> - Fish production has been increased but the beneficiaries were not the people who live in the area but outsiders. Food crop cultivated land owned by the inhabitants was destroyed by the intrusion of sea water because the project was located in coastal areas. 	<ul style="list-style-type: none"> - There is only little impact on the economic sector on the area. - Access roads were improved but the benefit will be absorbed by outsiders. - In most cases the PKGB fish farming project did not bring direct economic benefit to the area, but, was detrimental to the agriculturalists in the area.

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Table 11: Summary on the Socio-cultural, Agricultural and Economic Impacts
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<u>Type of Subproject</u>	<u>Socio-Cultural Impact</u>	<u>Agricultural Impact</u>	<u>Economic Impact</u>
6. Water Ponds/ Reservoirs (one subproject)	<ul style="list-style-type: none">- Project area is poor and religion is strong. Although the rehabilitated water reservoir has improved various socio-economic aspects in the subproject influence area and some farmers have become richer than others, the condition did not change the socio-cultural values of the community.- Because the farmers are poor the traditional culture of gotong royong still exists and because farmers have strong religious traditions, they will respect each other and will not act contrary to the existing system.	<ul style="list-style-type: none">- The project could not be implemented using labor based method since some important engineering factors had to be considered in the design and in its implementation. This type of project will not last for two years.- The project did not change the efficiency of the farming system. In short, it is not an effective project.	<ul style="list-style-type: none">- The subproject did not bring any change to the economic condition of the area.

VI. Unplanned Effects

The major unanticipated effect of the project was the degree to which it was accepted at both the local and central levels. This led to the expansion of the program being given a high priority. As a result, both the number of subprojects constructed and the kind of subprojects involved expanded much more rapidly than was originally expected. Beginning with IFY 1983/84, the Government of Indonesia paid more attention to all project activities which could use more labor in order to reduce the unemployment rate. The PKGB program will go towards those type of projects which will create long-term off-farm employment.

VIII. Lessons Learned

Rural Works programs can be a very effective and a direct means of addressing the problems of rural poverty and seasonal or chronic unemployment by providing short term benefits to the under and unemployed. The short term employment aspect of th program is relatively easily managed. Insuring that the works conducted will provide long-term economic benefits is more difficult, and it is a function of both site selection and subproject design and construction. Coordination and decentralizing decision making concerning locations and type of subprojects while providing overall guidance and policy seems to make the program responsive to local needs. This is particularly important in implementing this type of program in a country of diverse geographic conditions such as Indonesia.

VII. Project Implementation Problem and Recommendations

<u>Problems</u>	<u>Recommendations</u>
1. Host country lacks understanding of AID rules and regulations pertaining to planning, implementations and evaluations. Also, AID lacks understanding of Host Country rules.	1. Conduct in-country seminars for Host Country officials and Mission employees on AID rules and regulations. These seminars should focus on critical steps in the process that effect project implementation. Time should be planned for learning each other's procedures prior to work with a Host Country department.
2. Sometimes contractors do not understand AID and Host Country regulations, e.g., procurement.	2. Provide an orientation to contractors on AID and local procedures at Mission.
3. Contractors (usually short-term) lack cultural sensitivity, e.g., U.S. vs Host-Country work ethics.	3. Criteria for evaluation of proposed staff should require relevant overseas experience and language capability. Provide cross-cultural orientation program in-country.

Clearance:

ARD:MBrown (in draft)
ARD:RDakan (in draft)
AKD:RCobb (in draft)
PRO:RRedman (in draft)
FIN:RMcClure (in draft)
DD:JAnderson (in draft)

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