

1. Project Profile and Japan's ODA Loan



Project site location map



Rice harvesting in the Komerling region

1.1. Background

Despite the achievement of self-sufficiency of rice in 1984, it was required to strengthen the basis of rice production in the context of subsequent high population growth rates and increases in per capita consumption of rice. In the national water resources development plan of 1995 (at appraisal), this project was given second priority among all the projects. Moreover, since the region covered by the project (South Sumatra and Lampung) were forced to import approximately 50 thousand tons of rice per year from Java, there was a pressing need for new irrigation in the two provinces. This Phase II Project followed the Komerling Irrigation Phase I Project (L/A: 1989), and its early implementation was anticipated in view of the need to expand irrigated area utilizing the headworks, etc. constructed in the precedent project.

1.2. Objectives

To construct secondary irrigation and drainage canals, to design in detail and develop a network of tertiary canals, and to procure operation and maintenance equipment for the two rivers covering the Komerling irrigation project area in the two provinces of South Sumatra and Lampung on the island of Sumatra (including 20,968ha covered in Phase I Project), with a view to contributing to increasing rice production and reducing the poverty of local farmers.

1.3. Outputs

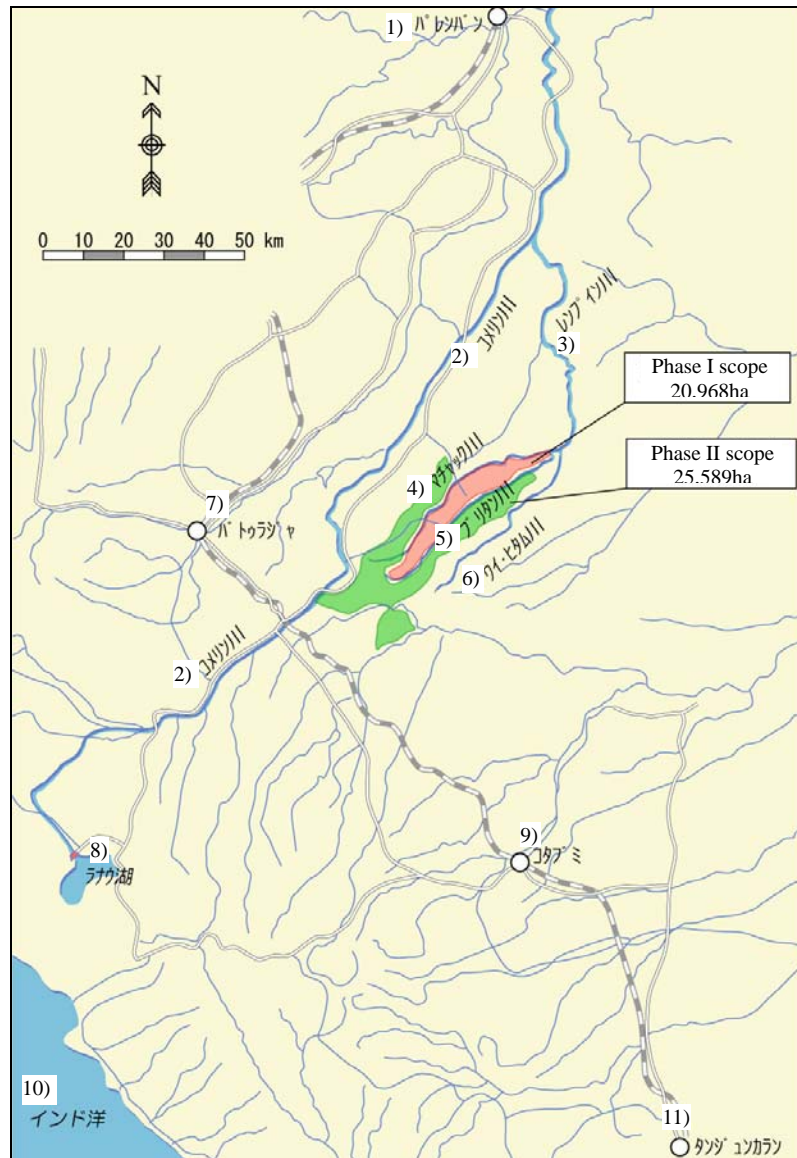
This project comprised the following civil engineering works, equipment procurement and consulting services.

- (1) Construction of secondary irrigation canals (including development of O&M access roads)

- (2) Development of a tertiary canal network (including the development of agricultural land)
- (3) Construction of settling basins (2 locations)
- (4) Procurement of operation and maintenance equipment
- (5) Consulting services (detailed design for tertiary canals, construction supervision, etc.)

Figure 1: Region covered by the project (Phase II)

*The area shown indicates project results



- 1) Palembang, 2) Komering River, 3) Lempuing River, 4) Macak River, 5) Belitang River, 6) Way Hitam River, 7) Baturaja, 8) Lake Ranau, 9) Kotabumi, 10) Indian Ocean, 11) Tanjung Karang

1.4. Borrower / Executing Agency

The Republic of Indonesia / Director General of Water Resources (DGWR), Ministry of Settlement and Regional Infrastructure

1.5. Outline of Loan Agreement

Loan Amount	6,544 million yen
Loan Disbursed Amount	5,335 million yen
Exchange of Notes	December 1995
Loan Agreement	December 1995
Terms & Conditions	
Interest Rate	2.5%
Repayment Date	30 years
(Grace Period)	(10 years)
Procurement	General untied
Final Disbursement Date	December 2001

2. Results and Evaluation

2.1. Relevance

The overall concept of the Komerling irrigation project was based on the master plan that was drawn up in 1982 with technical assistance from JICA (Japan International Cooperation Agency)¹. The Phase I Project that was implemented / completed ahead included the construction of basic infrastructure in the form of the Perjaya headworks, settling basins (3 locations), a primary canal (30.5km), secondary canals (rehabilitation of 67km of the old Belitang main canal), the Lake Ranau regulating dam, and the development of a network of tertiary canals, to irrigate 20,968ha using water sourced from Komerling River, which flows from Lake Ranau. The evaluated project was planned to follow the Phase I project. At appraisal, the goal of the Irrigation Development & Management and Swamp Land Development Program, outlined in Indonesia's sixth 5-year national development plan and launched in 1994, was "to achieve self-sufficiency of rice and increases in farmer income", which is consistent with the objectives of this project: namely, to raise rice yield and reduce the poverty of rural farmers. Moreover, the project objectives are coinciding with the goals of the current national development plan (PROPENAS: 2000-2004), which targets: "continuous improvements in rice production and reserves, and increases in farmer income", thus the plan of the project was relevant both at appraisal and at evaluation.

2.2. Efficiency

2.2.1. Outputs

The Phase II Project that was evaluated this time was implemented with the aim of creating a 17,186ha irrigated area (9,166ha in the North Komerling area and 8,020ha in the South Komerling area). The following adjustments to outputs were made during the implementation phase. In the

¹ Under the original master plan, the idea was to irrigate an area of approximately 100,000 hectares. This master plan comprised four developmental stages: Stage I (corresponding to the already completed project), Stage 2-1 (corresponding to the evaluated project), Stage 2-2 (not executed), and Stage 3 (not executed). Until now, irrigation coverage totals 46,557ha: 20,968ha under Phase I and 25,589ha under Phase II has been achieved. The project office has indicated its intention to proceed with irrigation development in line with the master plan.

North Komerling area, 8,911ha was added (including the 665ha pump-irrigated area mentioned hereunder), leading to the development of 18,077ha in total. On the other hand, difficulties in acquiring land along one section of sub-secondary canal at the Pisang Kiri (an unirrigated area of approximately 10ha) led to the cancellation of an area of approximately 500ha scheduled to be irrigated from the canal, with the development of 7,512ha in total. In addition, pump equipment was installed in the North Komerling area (covering an area of 665ha including the villages of Banten and Sawung Dadi, etc.) with the aim of supplying water to upland areas on the left bank of the primary irrigation canal. All the changes of outputs were intended to expand the irrigated area and increase in production, and thus were consistent with the objectives of the project. Consequently, the area of 25,589ha was developed under the Phase II Project, which is approximately 1.5 times as large as the initially planned,.

2.2.2. Project Period

Initially planned outputs were essentially completed within the project period. The project was initially scheduled for completion in July 2000, but the aforementioned additions to outputs resulted in the delay 17 months.

2.2.3. Project Costs

The construction work for this project comprised thirty packages in total, including eleven international competitive bid packages (ICB) and nineteen local competitive bid packages (LCB). The nine companies which made successful bid in ICB and the nineteen companies in LCB contracted in local currency. In consequence, inflation during the implementation and the addition of outputs increased local currency-denominated costs. However, since local currency depreciation exceeded both inflation and the output additions, the total project costs were within the originally planned amount (the planned figure was 7,870 million yen, while the actual was 6,953 million yen).

2.3. Effectiveness

(1) Increases in Agricultural Production

The secondary canals constructed under this project are in favorable condition. The district government introduced a planned cropping pattern i.e. rice-rice-grain, in the beneficiary area, and full-scale paddy rice cultivation commenced in late 2002². Since the rice cultivation was conducted just soon after the irrigation, the target yield were for 5.0 tons/ha (wet season) to 5.5 tons/ha (dry season), while the actual yield are currently 3.1 tons/ha (wet season) to 2.3 tons/ha (dry season) (a 42-62% achievement rate).

In the irrigation / agricultural industry, the period from the project completion to realizing target yield is known as the “Buildup Period”, which in general equates to 5 years for newly developed paddy and 3 years for existing paddy. In case of newly developed paddy, the soil becomes suitable for rice cultivation after several cycles of cultivation and harvesting. In addition, it requires time

² There was evidence of triple rice cropping in some areas and of localized breeding of edible fish.

for farmers to acquire the necessary techniques, such as water management, fertilizer application, pest control, and so on; the process normally takes around five years. In case of existing paddy, although there are few problems with soil, farmers must still learn cultivation techniques as the case of the newly developed paddy. When farmers switch from formerly cultivated varieties to high-yield varieties, it is necessary to learn new skills, which also requires considerable time. Given that full-scale cropping commenced in the previous fiscal year, the project area is still under the aforementioned “Buildup Period”.

Figure 2: Newly developed paddy fields (upland areas on the left bank of the Macak River) and farmers



A paddy field of around 0.5ha near the Macak River. Mr. Salam (45) acquired this land by this project and began cultivating rice in the latter half of 2002. The first harvest was 1.2t/ha and the second was 3.0t/ha (first crop of 2003). The productivity is increasing steadily and he is currently expecting the results from the third harvest.

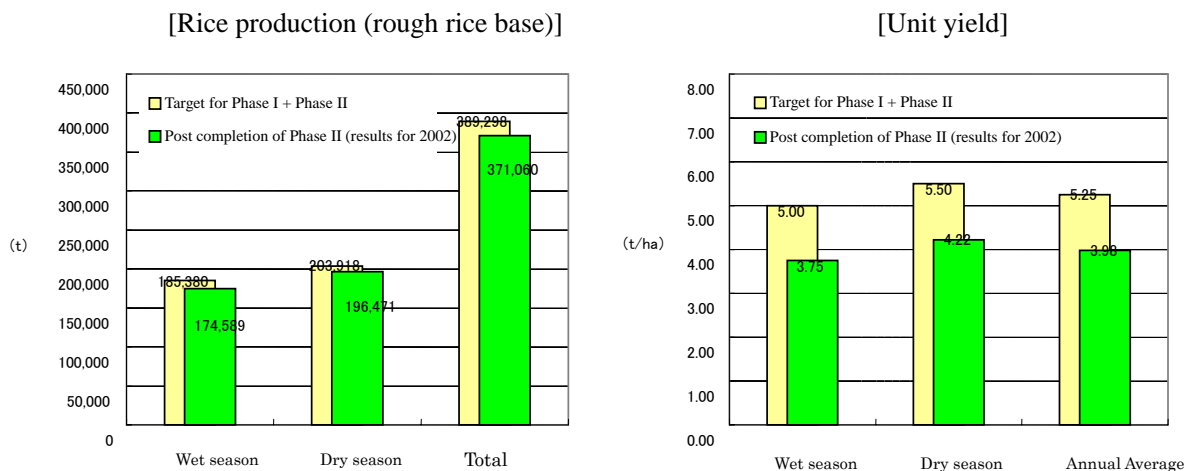
For the reasons mentioned above, it is presently a little difficult to compare the production results achieved in this project with the one targeted at the time of appraisal. However, based on the responses of farmers visited during the field survey, the farmers in the area are aware of the success that has been achieved in the area covered by the Phase I Project that was already completed. Thus, it is considered that the “Buildup Period” progresses smoothly and the productivity will increase in the future.

In passing, the combined data for Phase I (20,968ha) and Phase II (25,589ha) irrigated area that was obtained during the field survey revealed that the yields had reached 3.9t/ha (wet season) and 4.2t/ha (dry season) in 2002, while the target was 5.0t/ha (wet season) and 5.5t/ha (dry season) (a 76-78% achievement rate). Furthermore, the annual rice production (on a rough rice base) was 371,059 tons (wet season: 174,589 tons and dry season: 196,471 tons) against the planned figure of 389,298 tons³ (a 95% achievement rate), showing that the results are still satisfactory. It is predicted that rice production will rise to 488,489 tons⁴ with an increase in unit yield in the area covered by the Phase II Project.

³ This target was calculated by multiplying the planned areas of the Phase I and Phase II projects (Phase I: 19,890ha; Phase II: 20,968ha) by unit yield targets (5.0 tons/ha (wet season) – 5.5 tons/ha (dry season)).

⁴ This estimate was calculated by multiplying the actually developed areas of the Phase I and Phase II projects (Phase I: 20,968ha; Phase II: 25,589ha) by unit yield targets (5.0 tons/ha (wet season) – 5.5 tons/ha (dry season)).

Figure 3: Rice Cropping Performance in Irrigated Area of Komerling (Phase I & II)



Note: All data was obtained from the Komerling Irrigation Office. Data on the area under cultivation was not provided.

(2) Beneficiary Survey

The explanatory meeting held for the beneficiary survey provided an opportunity to talk with local residents. The regions covered Jaya Mulya village in Chempaka county (mid- to lower reaches) and Pahang Asri village in Buay Pemuka county (upper reaches) of the North Komerling area. The following represents the opinions obtained from the beneficiaries.

■ Jaya Mulya village, Chempaka county, Ogan-Komerling-Ulu (OKU) District

In the village, rainwater was formerly used in paddy fields, but residents are happy as they are now able to draw water systematically thanks to the irrigation canals that were developed in this project. Currently, they enter the first harvest season after irrigation facilities were completed, and whilst it is still unclear exactly how many tons of rice will be produced, according to the village headman, it is obvious that the production will increase, compared with the status of rice ears before the previous year.

Figure 4: Farmland in Jaya Mulya village



■ Pahang Asri village, Buay Pemuka county, OKU district

Irrigation water is supplied to this area through the pump station and accessory canals that were developed in this project. Since then, double-cropping has been the normal (rainwater in the past; irrigated water after the completion). Difficulties in drawing sufficient water have been encountered on downstream sections of some canals. It will be necessary to manage water

distribution appropriately with the support of district government.

Figure 5: Farmland in Pahang Asri village



(3) Recalculation of the Economic Internal Rate of Return (EIRR)

As mentioned above, completed in 2001, the project is currently in the Buildup Period and the performance of agricultural production has yet to reach the planned levels. Here, the economic evaluation, i.e. the EIRR is recalculated by establishing the outlook for the future, based on the current achievement status.

For project costs, the results for the Phase I and Phase II projects were used. The settings established for the Phase II “Implementation Program” were referenced for operation and maintenance, and reinvestment costs (gate replacement, etc.). In terms of Phase I benefits, the planned values were used based on the assumption that target production levels had been reached. Phase II benefits were based on the prediction that it will take five years to reach target production levels. Following these assumptions, the EIRR for both Phase I and Phase II (under evaluation) was recalculated at 12.9 percent, which is almost the same as the 13.1 percent calculated at the time of appraisal. This EIRR value is high for a normal irrigation project, and it is considered that the economic performance of the project can be classified as favorable.

2.4. Impact

(1) Economic Impact

As stated in the section on effectiveness, the project was completed at the end of 2001 and rice cultivation only commenced in the latter half of the fiscal 2002, thus rice production has not reached a stable level yet. It is therefore difficult to analyze / examine the impact on regional society as a whole.

However, based on the results of the beneficiary survey⁵ that was conducted during this field survey, many of the beneficiaries recognized socio-economic effects by the completion of the project, such as: “job opportunities have increased by engaging in agriculture (79/99 respondents: 80% response rate)” “The income has increased (home construction / renovation; purchase of household effects) (72/99 respondents: 73% response rate)”. Moreover, items such as “children are now able to receive secondary education (37/99 respondents: 37% response rate)” and “rural economy has been stimulated (40/99 respondents: 40% response rate)” were also highly evaluated.

⁵ This was compiled from the results (weighted averages) of interviews that were held with 100 farmer beneficiaries during the course of this survey. Four villages in the project area were covered: Bangsa Negara, Jaya Mulya, Buay Madan and Pahang Asri, with farmers being asked about pre- and post-project changes in production levels, the impact that the project had had on their lives, whether they were currently aware of any problems and if they had any additional requests.

Although the originally planned production levels have yet to be reached, some socio-economic effects have already started to appear and the project can be expected to have further impacts.

(2) Environmental Impact

The Komerang Irrigation Project Office is undertaking regular environmental monitoring, and until now has not found evidence of any negative impact on environment. Furthermore, none of the farmers interviewed for the beneficiary survey pointed to any environmental problems.

(3) Social Impact

Between 1995 and 2000, 824ha of land were acquired for this project without any notable problems. There have not been any reports of specific problems with resident relocation either.

Additionally, the water running through the project region is not just being used for irrigation but also for domestic use. It was partly seen that residents, who had used water from wells or rivers in the past, evaluated secondary effects such as “it has become easier to secure domestic water” and “it is possible to get clean water”⁶, by coming to use irrigation water.

2.5. Sustainability

2.5.1. Executing agency

(1) Technical Capacity

According to the project manager, staff numbers and technical capacity have generally been sufficient. It is hoped that the current system will be maintained henceforth.

(2) Operation and Maintenance (O&M) system

The following system is currently employed in the O&M of the Komerang irrigation project (Phase I and Phase II).

- 1) Since infrastructures such as headworks and primary canals benefit several provinces, the O&M is conducted using budget and personnel provided by the central government (under project office jurisdiction).
- 2) The O&M of secondary canals (including sub-secondary canals) is carried out by district governments, not the central government, i.e. by the local governments (OKU district in South Sumatra and Waikanan district in Lampung) in which the beneficiary areas are located. Although the heavy rain of January 2003 caused damage to the lining of the Belitang canal (improved during the Phase I Project) in dozens of places, with 200 million Rp. allocated from the OKU district government’s budget, the damaged lining was repaired under project office management.
- 3) O&M of tertiary canals is to be carried out by water use associations (WUA) set up by the

⁶ This is based on the results of the beneficiary survey. “It has become easier to secure domestic water” was cited by 69/99 respondents (70%) and “it is possible to get clean water” by 53/99 respondents (54%).

farmers. While the establishment of 42 WUA was planned, according to additional information provided after the field survey, all of 42 have been set up and district governments are extending technical and economic support to the WUA.

(3) Financial Status

Table 1 shows the status of O&M budget (allocated from the central government to the Komerling Irrigation Project Office) before and after the project implementation. The budgets prior to 2001 were allocated to the previously completed Phase I Project, but since 2002, the budget has included allocations for the Phase II Project. The amount for 2003 was exceptionally large because it includes the expenditure (the special measure executed by the district government) in order to repair the damage to secondary canals due to heavy rain of January 2003.

Table 1: Komerling Irrigation Project Office's O&M Budget

Fiscal year	Amount (Rp thousand)
2000	350,297
2001	374,760
2002	624,882
2003	1,184,906

Source: Komerling Irrigation Project Office

Until now, any unforeseen damage has been covered by special measures made by the district governments, and there are not believed to be any notable problems.

2.5.2. Operation and Maintenance (O&M) Status

Despite the occurrence of some bank slippage during the implementation phase, the damaged facility was appropriately repaired by the time of completion, and all irrigation facilities including the above are in favorable condition. Furthermore, the damaged secondary canals constructed in this project, which was caused by heavy rain of January 2003, has already been repaired using the budget provided by the district governments and the problem was handled appropriately.

Figure 6: Examples of Rehabilitated Secondary Water Canals



A canal section that was rehabilitated with district government funds

2.6. Points to be Considered in the Extension Plan

The Komerling Irrigation Project was conceived based on the original master plan with a view to creating an irrigated area of approximately 100,000ha. The headworks are currently capable of

irrigating an area of approximately 65,000ha. Until now, roughly 46,000ha (Phase I: 21,000ha; Phase II: 25,000ha) has been completed, which means that there is a remaining capacity of 19,000ha. Accordingly, the project office has expressed its intention to expand irrigated areas by approximately 16,500ha (Muncak Kabau area: approx. 5,600ha; Way Hitam area: approx. 10,900ha) utilizing this water, contributing to the development of the region's agricultural industry. At this time, there is no evidence of any problems such as conspicuous water shortages in terminal areas. If the further expansion plan is put into action, water use will be at its upper limit in terms of the water balance (according to recalculations undertaken in 2002, the irrigation capacity of the current headworks is approximately 63,000ha, reflecting actual water use). In consequence, if the expansions are to be made, it will be necessary to strengthen water distribution management.

3. Feedback

3.1. Lessons Learned

None

3.2. Recommendations

(To the executing agency)

Since this project is still in the Buildup Period, it is hoped that the executing agency will undertake to reconfirm the status of effects in a few years when the full effects have developed.

When this evaluation was undertaken (2 years after the project completion), although the project is still in the Buildup Period, the evaluation results were favorable, and it is anticipated that the project will generate its full effects in the future. In order to ensure the sustainability of these effects, it is hoped that the executing agency will strengthen its monitoring system so that it is capable of responding promptly in the event that any problems arise, and that it will undertake to reconfirm the status of effects until an appropriate time and report back on the results to JBIC.

Comparison of Original and Actual Scope

Item	Planned	Actual
1. Outputs <u>Construction works</u>		
1) North Komerling	9,166 ha - Construction of upper reaches of Macak secondary canal (19km), sub-secondary canals (18 canals: 55km), feeder canals (17 canals: 20km)	18,077 ha - Construction of Macak secondary canal (43km), sub-secondary canals (10 canals: 35km), lower reaches of Macak secondary canal (24km) and sub-secondary canals (23 canals: 105km) - Construction of secondary canals (7 canals: 48km), sub-secondary canals (13 canals: 22km), and sluice gates for taking water directly into the primary canal (inclusive of those at irrigation pump stations) - Construction and improvement of secondary drainage canals (28 canals: 139km)
2) South Komerling	8,020 ha - Reclamation / development of agricultural land (2,438ha) - Development of tertiary canals (9,166ha)	7,512 ha - Reclamation / development of agricultural land (6,099ha) - Development of tertiary canals (18,077ha)
3) Other works	8,020 ha - Construction of upper reaches of Bahuga secondary canal (30km), sub-secondary canals (10 canals: 44km) and feeder canals (10 canals: 12km) - Construction and improvement of secondary drainage canals (6 canals; 40km) - Reclamation / development of agricultural land (4,539ha) - Development of tertiary canals (8,020ha) - Construction of settling basins (2) attached to the Perjaya head works	As at left -Reclamation / development of agricultural land (3,932ha). - Development of tertiary canals (7,512ha) As at left - Establishment of irrigation pump houses (providing additional coverage for 605ha)
<u>Equipment procurement</u>	[Refer to separate table]	
<u>Consulting services</u>	- Construction supervision support for development of irrigated areas (17,186ha) - Detailed design for tertiary canals (17,186ha)	- Construction supervision support for development of irrigated areas (22,589ha) - Detailed design for tertiary canals (25,589ha) - Re-design of lower reaches of Bahuga secondary canal (service area: 10,931ha) and detailed design for Muncak Kabau secondary canal (8.0km)
2. Project Period		
L/A conclusion	December 1995	As at left
Consultant selection	July 1995 – June 1996	January 1996 – November 1996
Consulting services	June 1996 – July 2000	December 1996 – December 2001
Detailed design (tertiary water canals and agrarian development)	July 1996 – June 1997	May 1997 – April 1998 December 1998 – May 1999 (additional)
Civil engineering works		
1) North Komerling		

- Preliminary survey / evaluation	April 1996 – June 1996	April 1996 – July 1996 July 1999 – September 1999 (additional)
- Tender / evaluation	July 1996 – December 1997 April 1997 – December 1998	November 1996 – May 1997 February 1999 – July 1999 (additional) April 1998 – October 1998
- Construction work	January 1998 – December 1999 October 1998 – June 2000	December 1999 – April 2000 (add.) July 1997 – April 2001 August 1999 – September 2001 (add.) October 1998 – November 2000 June 2000 – September 2001 (add.)
2) South Komering		
- Preliminary survey / evaluation	April 1996 – June 1996	April 1996 – July 1996
- Tender / evaluation	July 1996 – December 1998 April 1997 – December 1998	November 1996 – October 1998 April 1998 – October 1998
- Construction work	October 1998 – June 2000	October 1998 – October 2000
3) Other (settling basin)		
- Preliminary survey / evaluation	April 1996 – June 1996	April 1996 – July 1996
- Tender / evaluation	June 1996 – December 1997	October 1996 – April 1997
- Construction work	January 1998 – December 1999	July 1997 – January 1999
O&M equipment		
- Tender / evaluation	April 1998 – September 1999	May 2001 – July 2001
- Procurement	October 1999 – May 2000	August 2001 – November 2001
Land acquisition	July 1995 – December 1997	As at left
3. Project costs		
Foreign currency	3,985 million yen	853 million yen
Local currency	3,885 million yen (86,327 million rupiah)	6,100 million yen (443,194 million rupiah)
Total	7,870 million yen	6,953 million yen
- ODA loan portion	6,544 million yen	5,335 million yen
Exchange rate	Rp1 = 0.045 yen (as of April 1995)	Rp1 = 0.013 yen (average during implementation phase)

Comparison of Original & Actual Equipment Procurement

Equipment type	Planned	Actual
O&M equipment		
Dump trucks	4 (4 ton)	2 (130-150 HP)
Loading trucks (4 ton)	2	--
Loading trucks (6 ton, with crane)	2	--
Loading trailer (20 ton)	1	--
Back hoes (threading machine: 0.5m ³)	2	--
Bulldozer (16 ton)	1	--
Wheel loaders (0.8m ³)	1	--
Motor grader (3.1m)	1	--
Road rollers (10 ton)	2	--
Soil compactors (80kg)	10	6
Compressor (65HP)	1	--
Engine welding machines (50kVA)	3	--
Sand pumps (diameter: 150mm)	5	--

Engine pumps	3 (diameter: 150mm)	6 (diameter: 50mm)
Generators	4 (20/25kVA)	2 (13.5kVA)
O&M tools	1 set	1 set
Concrete vibrators	--	4
Mowers	--	30
Flash lights	--	25
Vehicles, etc.		
4WD long body	5 (2,800cc class)	2 (2,800cc class)
4WD short body	4 (2,800cc class)	2 (2,800cc class)
2WD pickup	5 (1,500cc class)	3 (2,800cc class)
Minibus	2 (10-seater)	1
Motorbikes	30 (125cc class)	30 (100cc class)
Cars	--	50
Survey equipment		
Survey equipment (theodolite, automated spirit level, etc.)	1 set	--
Velocity meter	4	--
Measuring tapes	--	35
Automated spirit level + tripod	--	3
Aluminum boats	--	9
Wooden boats	--	6
Hammer test kits	--	4
Spare parts		
Water gates	--	31
Generators	--	11
CCTV receivers	--	9
Spare parts for mowers	--	24
Spare parts for minibus air conditioning	--	1
Tires	--	44
Office equipment		
Desks / chairs	50	30
Typing desks	--	6
Tables for meetings	5 (with chairs)	1
Chairs for meetings	--	24
Microphones for meetings	--	12
Reception room tables / chairs	--	4
Foldable chairs	--	100
Filing cabinets	--	20
Book shelves	--	20
White boards	--	4
Fans	--	10
Copy machines	4	2
Blueprint machines	4	--
Computers (40kMB)	10 (including printers)	10
Printers	--	12 (incl. 5 with scanners)
Manual typewriters	--	4
UPS (Uninterruptible Power System, 750kVA)	--	10
Rectifiers	--	8
Portable radios	--	10
Transceivers	--	20
Calculators	--	27
Televisions	2 (33-inch)	1 (29-inch)
Video cameras	2	--
Steel lockers	50	--
Fax machines	5	--
OHP	5	2 (incl. 1 with multimedia compatibility)
Cameras	5 (AF type)	2 (digital type)
Communications systems		
Communications equipment for Rauna station	1 set	--

Communications equipment for Muaradua relay station	1 set	--
Communications equipment for Kotabaru control station	1 set	--
Communications equipment for sub areas	6 sets	--

Source: Komerang Irrigation Project Office

Third Party Evaluator's Opinion on Komerling Irrigation Project (2)

Dr. Syafruddin Karimi
Director, Center for Economic Research and Institutional Development
CERID

Relevance, Impact

Rice remains the main source of food for Indonesia that is populated by 200 million inhabitants. A persisting growth of population requires a sustained growth of rice production. In a situation of production failure, Indonesia has to import a substantial amount of rice from the world market. Importing rice demands foreign exchange that leads to burden international balance of payments. The goal for increasing rice production is a dominant strategy to save foreign exchange, maintain food security, and reduce rural poverty. However, the strategy to increase rice production requires a stable supply of water that cannot depend upon rainy season. The presence of irrigation infrastructure becomes a necessary condition to stabilize required water supply. Therefore, the construction of Komerling Irrigation Project II plays a strategic role to increase rice production.

A beneficiary survey was conducted to observe the impact of the project completion on local community. The survey results show that the completion of Komerling Irrigation Project II has improved the socioeconomic condition of rice farmers in the region. The survey has interviewed 99 farmers from Jaya Mulya village, Chempaka county, Ogan-Komerling-Ulu (OKU) District and Pahang Asri village, Buay Pemuka county, OKU district. In Jaya Mulya village, rainwater was formerly used in paddy fields. Now local residents are able to draw water systematically. They have entered the first harvest season after the completion of irrigation facilities. Although, the volume of rice production is still unclear exactly, the village Headman certainly confirm for the increased rice production, particularly compared with the volume of rice production before the project completion. While in Pahang Asri village, the project completion has supplied water through pump station and accessory canals. The project completion has enabled the village farmers to materialize double-cropping.

It is important to note that the project completion has also increased the participation of local farmers. Almost 80% of local farmers interviewed have witnessed a higher farming participation. As a result, almost 73% of respondents have experienced an improved household welfare. Furthermore, the improved household welfare stimulated rural economic activities as well as raised secondary school participation. More than 40% of sampled farmers have noticed a positive stimulus created by the project completion on the rural economy. At the same time, more than 37% respondents have sent their children to secondary school after the project completion.

In addition to economic impact, the Komerling Irrigation Project II has also brought up a positive social impact. Local community has benefited from water running through the project region not just for irrigation but also for domestic use. Almost 70% of respondents have become easier to secure domestic water. Now almost 54% of respondents are able to get clean water. They no longer depend upon water from wells and rivers.

Although rice production has not reached a stable level yet, the Komerling Irrigation Project II has created some positive socio-economic effects on local community. A stable supply of water running from Komerling Irrigation will certainly contribute toward a stable rice production level. Therefore, Indonesia may expect to significantly reduce rice import dependence and rural poverty. At last, it may expect to save limited foreign exchange to pay back public debt and achieve food security simultaneously.