

PART 13

ENVIRONMENTAL ASPECTS

PART 13

TABLE OF CONTENT FOR PART 13

PART 13	ENVIRONMENTAL ASPECTS	
Chapter 1	IMPLEMENTATION OF ENVIRONMENTAL STUDY AND SCOPE OF WORKS -----	Page 13- 1
1.1	Implementation of Environmental Study -----	13- 1
1.2	Scope of Works -----	13- 5
Chapter 2	LAND ACQUISITION -----	13- 8
2.1	Procedures -----	13- 8
2.2	The Implementation Activity -----	13- 9
Chapter 3	PROGRAM OF REMOVAL AND CONSTRUCTION OF NEW RESETTLEMENT LOCATIONS -----	13-14
3.1	Nos. of the PAFs, Approval to be Removed and Destination of Removal by each PAFs -----	13-14
3.2	Removal Program -----	13-15
3.3	Land and Facilities to be Provided to each PAFs at the New Resettlement Locations -----	13-17
3.4	Resettlement Preparation -----	13-17
3.5	Progress of the Resettlement Construction -----	13-37
Chapter 4	ACTIVITIES IN THE NEW RESETTLEMENT LOCATIONS ----	13-38
4.1	Rubber Plantation -----	13-38
4.2	Living Support (Jadup = Jaminan Hidup) -----	13-41
4.3	Food crops and Houseyard -----	13-42
4.4	Additional Water Supply -----	13-42
4.5	Resettlement Roads and Bridges -----	13-43
4.6	Rural Electrification in the Resettlement Locations -----	13-44
Chapter 5	PROPER PROTECTION AND MONITORING OF PROTECTED WILDLIFE AND HISTORIC SPOT-----	13-46
5.1	Translocation of Elephants from the Reservoir Area -----	13-46
5.2	Monitoring of Protected Wildlife (Birds and Mammals) in the Reservoir Area -----	13-46
5.3	Conservation of Flora Endanger Species (Plasma Nutfah) -----	13-47
5.4	Protection of Muara Takus Historical Remains -----	13-47
5.5	Removal of Historical and Public Leaders Graves -----	13-48

	Page
Chapter 6	
CHANGED OF SOCIO-ECONOMIC AND SOCIO-CULTURE OF THE PAFS -----	13-48
6.1	13-48
6.2	13-48
Chapter 7	
IMPOUNDING OF THE RESERVOIR AND MONITORING ACTIVITY -----	13-49
7.1	13-49
7.2	13-49
7.3	13-50
7.4	13-51
7.5	13-51
Attachment :	13-55

LIST OF TABLE

Table No.	Title	Page
13.1	Progress of Land Acquisition Payment of the Impounding Area -----	13-59
13.2	Progress of Construction of Rubber and Palm Oil Plantations at the Resettlements Locations -----	13-60
13.3	Provided Facilities to the PAFs at the New Resettlement Locations -----	13-61
13.4	Progress of Construction of the New Resettlement Locations (On-going Activities and Problems & Countermeasures) -----	13-62
13.5	Progress of Providing Living Support (Jadup) to the PAFs at the New Resettlement Locations -----	13-63
13.6	Progress of Construction of Additional Water Supply at the New Resettlement Locations -----	13-64
13.7	Progress of Construction and Maintenance of Roads Bridges and Culvers at the New Resettlement Locations -----	13-65
13.8	Progress of Rural Electrification at the Resettlement Locations -----	13-66

LIST OF FIGURE

Fig. No.	Title	Page
13.1	Layout of Inundation Area and New Resettlement of Kotapanjang HEPP ----	13-54

Chapter 1 IMPLEMENTATION OF ENVIRONMENTAL STUDY AND SCOPE OF WORKS

Environmental aspects of the Project have been clarified and documented since the pre-appraisal mission conducted by the Fund on March 23, 1990.

1.1 Implementation of Environmental Study

The environmental study (AMDAL = Environmental Impacts Assessment) has been carried out by the Project Proponent since 1983 in the Feasibility Study in accordance with the following prevailing Government Law and Regulations on Environmental Aspects :

- a) The Government Law (UU No. 4/1982) concerning Principle Stipulations on Environmental Management,
- b) The Government Regulation (Peraturan Pemerintah No. 29/1986) concerning Analysis on Environmental Impacts,
- c) Implementation Guidance on PP No. 29/1986 concerning Analysis on Environmental Impacts,
- d) Technical Guidance on PIL (Preliminary Information on Environment) and, ANDAL (Environmental Impacts Analysis) by Ministry of Mines and Energy, 1988.

Another particular reference to be strongly considered by the Government of Indonesia for implementation of the AMDAL Study was the Letter of Appeal issued by the residents of XIII Koto Kampar Sub-District, represented by the Clan Leaders, Religious Leaders and Informal Leaders, on Monday, December 19, 1983, as shown in the ATTACHMENT 12-1 : Letter of Appeal by the Residents. Meanwhile, the general answered by the GOI concerning the statement was also shown in the ATTACHMENT 12-2 : Comments on the Main Point of the Letter of Appeal.

The main studies were implemented in order to fulfil conditions as required by such Law and Regulations are as follows :

- a) Andal Study (Study on Environmental Impacts Analysis); Conducted in 1983-1984 by PLN in cooperation with Andalas University, Padang, and presented to the AMDAL Central Committee of Ministry of Mines and Energy in Jakarta, August 1984.
- b) RKL and RPL Study (Study on Environmental Management Plan = RKL, and Environmental Monitoring Plan=RPL); Conducted in 1987-1988 by PLN in cooperation with Riau University, Pekanbaru.
- c) Presentation of RKL and RPL Study : i) Presented to Riau Province AMDAL Regional Committee Meeting at Bangkinang on March 17, 1988, ii) Presented to West Sumatera AMDAL Regional Committee Meeting at Payakumbuh on April 28, 1988, and iii) Presented to Central AMDAL Committee Meeting at Jakarta on June 16, 1988.
- d) Submission of Revision of AMDAL Study Data in August 1988 as required by conclusions made by the Central AMDAL Committee Meeting.

On March 28, 1989 the Minister of Mines and Energy approved the AMDAL Study of the Kotapanjang HEPP through letter No. 1103/008/SJ.R/1989 concerning Persetujuan RKL dan RPL PLTA Kotapanjang.

Negative Impacts

The results of the AMDAL study shown that there were no significant permanent negative impacts which caused an apprehension effects to the area both Riau and West Sumatera Provinces due to development activities of the Kotapanjang HEPP.

The predicted negative impacts which will be occurred among others are :

- Change of behaviour of the PAFs due to submergence of their village, loss of emotional relationship with their own nature, social properties, such as clan cemetery and other historical monuments, uncertainty future life in the new resettlement locations and land speculation.
- Loss of habitat (forest area) of protected wildlife, particularly elephants.
- Decrease of water quality after impounding.
- Etc.

The supporting studies and other suitable and acceptable efforts were required to be implemented in order to overcome any un-expected negative impacts.

Positive Impacts

- The provision of electricity of 114 MW which will be a large contribution to accelerate the growth of developments and the economy of Riau Province (mainland) and West Sumatera Province in the sectors of :
 - Changing living standard of the residents.
 - Development of downstream industries such as palm-oil processing plant, plywood, crumb rubber, etc.
 - Development of small scale industries and home industries.
 - Trading activities.
- Accelerating the economic growth of the area surrounding the project by development of potential nature sources such as aquatic fisheries, tourism and other new business opportunities.
- Development of new areas through construction of resettlement locations and construction of relocation of national road (45 km) and provincial road (22 km).
- Construction of relocation of national road will reduce travelling time of 45 minutes and increase the traffic safety.
- The existence of new resettlement locations where the residents living in the concentrate area will give the advantages to the PAFs in the fields of :
 - on-going and future economy developments such as animal husbandry, small scale industries and home industries, etc. by the Government of Indonesia.
 - on-going and future facility developments such as health center, Elementary and Junior High Schools, Market, Electricity, Roads, Water Supply etc. by the Government of Indonesia.

- During the project development activities, it will open new business opportunities to the residents and to the area in the fields of services, trading, job opportunities as well as to increase working skill of the residents.
- To mitigate the yearly flood impacts in the downstream area, which yearly caused loss of properties and victims.
- Through the development of such big scale and international project, it will give experiences to the Provincial and Regental Governments in facing the similar big scale project activities in the future.
- The translocation of elephants from the impounding area to Giam Siak Kecil Game Reserve as the proper solution in providing the suitable area for protection of the elephants.

Since then, a series of supporting studies of environmental aspects were also carried out, and the main supporting studies are as follows :

- a) Study on Feasible Resettlement and Agriculture Activities for Koto Ranah Resettlement Area by PLN in cooperation with Riau University, Pekanbaru, in 1989.
- b) Study on Feasible Resettlement and Agriculture Activities for Selatan Siberuang and Selatan Muara Takus Resettlement Areas by PLN in cooperation with Riau University, Pekanbaru, in 1990-1991.
- c) Study on Feasible Resettlement and Agriculture Activities for Rimbo Datar Resettlement Area by PLN in cooperation with Andalas University, Padang, in 1990-1991.
- d) Engineering Design for each Proposed Resettlement Area by Consultants to Ministry of Transmigration (for Riau and West Sumatera Provinces) in 1990-1994.
- e) Study on Translocation of Elephants from the Planned Reservoir Area by PLN in cooperation with Riau University and KSDA (Sub-Institute for Conservation of Nature Resources) of Riau Province, Ministry of Forestry in 1990-1991.
- f) Study on Proper Protection of Protected Wildlife (Birds and Mammals) by PLN in cooperation with KSDA (Sub-Institute for Conservation of Nature Resources) of Riau Province, Ministry of Forestry in 1991-1992.
- g) Study on Spatial Plan of the Planned Reservoir Area by PLN in cooperation with Gadjah Mada University, Yogyakarta, in 1993-1994.
- h) Study on Protection of Muara Takus Historical Remains by PLN in cooperation with Institute for Historical and Archaeological Remains for West Sumatera and Riau Provinces, Ministry of Education and Culture in 1994, 1995 and 1996.
- i) Study on Conservation of Plants Endanger Species (Plasma Nutfah) within the Planned Reservoir Area by PLN in cooperation with Riau University, Pekanbaru, in 1996 and presented to the National Committee of Plasma National and National Environmental Coordination Meeting held in Pekanbaru on September 25, 1996.
- j) Release of forest status of reservoir area and establishment of new forest status in other areas as substitute forest for Kampar and 50 Kota Regencies by PLN in cooperation with Riau and West Sumatera Forestry Regional Offices in 1995-1996.
- k) Study on Reservoir Zoning Area by PLN in cooperation with Padjadjaran University, Bandung in 1995-1996 and presented to the Provincial Governments of West Sumatera and Riau in April 1996.

Further to the approval of AMDAL study, during the Construction stage PLN, as the Project Proponent, yearly implemented Monitoring of RKL and RPL in cooperation with Padjadjaran University, Bandung, and Riau University, Pekanbaru, since 1993. Another reports concerning the on-going status of the environmental works were also prepared by PLN and the ENGINEER, as follows :

- a) Monthly Progress Report by the ENGINEER since 1992.
- b) Quarterly Environmental Progress Report by PLN to the Fund (OECF) since 1992.

The GOI Institutions for Monitoring and Handling of the Environmental Aspects

Considering the project working area which covered 2 Regencies within 2 Provinces, the GOI established institutions for management and controlling the countermeasure activities of the Environmental Aspects (Population and Environment), as follows :

- a) Provincial Level for formulation of strategy, preparing program and control function. Chaired by Vice Governor of each Province. Coordination Team for Monitoring and Handling Population and Environmental Problems of the Kotapanjang HEPP for :

- Riau Province : Established through Riau Governor Decree No. Kpts. 505/IX/1990, September 27, 1990.
- West Sumatera Province : Established through West Sumatera Governor Decree No. SK.671.21-513.A-1990, September 25, 1990.

- b) Regental Level for implementation of activities and settlement of the site matters. Chaired by Regent of each Regency. Coordinative Unit for Implementation (SATKORLAK) for :

- Kampar Regency : Established through Kampar Regent Decree No. KPTS.139/VII/PEM-UM/1992, July 18, 1992.
- 50 Kota Regency : Established through 50 Kota Regent Decree No. 730/BLK/1992, October 31, 1992.

- c) Land Acquisition Committee for :

- Kampar Regency : Established by Riau Governor Decree No. Kpts. 203/IV/1991, April 10, 1991.
- 50 Kota Regency : Established by West Sumatera Governor Decree No. SK.671.21-610-90, December 7, 1990.

- d) Team for Providing Guidance and Resettlement of the PAFs for :

- Kampar Regency : Established by Riau Governor Decree No. 538/X/1990, October 16, 1990.
- 50 Kota Regency : Established by 50 Kota Regent Decree No. 205/BLK/1991, March 27, 1991.

- e) Project Assistance Team (composed of district leaders and village leaders) in each Regency. This 2 Teams prepared monthly report to the Regents.

The Provincial Environmental Coordination Teams were held meeting at the latest in every 3 months, separately and or simultaneously. In National level, the Environmental Coordination Teams was coordinated by BAPPENAS, who held the meeting periodically based on requirement.

1.2 Scope of Works

- (1) Significant Impacts

As results of the Engineering Design, the Project development activities will influence to 4 (four) significant environmental components and it will cover 2 Regencies within 2 Provinces, namely Kampar Regency in Riau Province and 50 Kota Regency in West Sumatera Province. Referred to the highest elevation plan of reservoir water level of + 85.00 m. above msl, this will submerge and affect to : i) 12,450 hectares of land, consisted of +/- 10,000 ha. in Kampar Regency and +/- 2,450 ha. in 50 Kota Regency, ii) 10 (ten) villages of 4,886 Project Affected Families (PAFs), consisted of 8 (eight) villages of 4,152 families in Kampar Regency and 2 (two) villages of 734 families in 50 Kota Regency, and iii) Habitat of protected wildlife and endanger flora species (plasma nutfah). iv) Change of socio-economic and socio-culture of the PAFs.

The above mentioned 4 (four) significant impacts were confirmed by the pre-appraisal mission conducted by the OECF (the Fund) on March 19-23, 1990, and the Government of Indonesia (the Borrower) shall give first priority for mitigation of the negative impacts and to maximize the positive impacts, as follows :

- a) Compensation of land acquisition shall be implemented based on agreement between the GOI and the PAFs Representatives.
- b) Resettlement of the PAFs shall be implemented considering and adopting to the PAFs opinions concerning locations and activities for main income to be provided by the GOI.
- c) Protection and monitoring of wildlife shall be implemented prior to elephants safety program and monitoring of protected wildlife (birds and mammals) in every 3 months up to 7 years after completion of the Project.
- d) Socio-economic and socio-culture aspects of the PAFs shall be periodically monitored and providing guidance of the project impacts to the PAFs shall be periodically conducted.

Since then, the Fund has dispatched several times the official missions to the Government of Indonesia and exchanged the Minutes of Discussions and Memorandums, as follows:

- a) Minutes of Discussion on the Appraisal of the Project (April 12, 1990).
- b) Memorandum on the Implementation of the Project (August 28, 1990).
- c) Minutes of Discussion on Environmental Aspects of the Project (September 11, 1990).

d) Minutes of Discussion on the Appraisal of the Project, Phase II (April 13, 1991).

(2) Conditions of the Loan Agreements in relation with the Environmental Aspects

The Loan Agreement (IP-358) of the Project (Phase I) was reached between the Fund and the GOI on December 14, 1990 and there were 12 particular covenants stated in the Agreement to be fulfilled by the GOI as conditions for approval of Contract for Consultant and approval of Contract for Contractor of Civil Works, as follows :

a) Conditions of Contract for Consultant

- Agreement between each PAF (Project Affected Family) and the Local Government concerning resettlement. (Schedule 5, Item 2)
- Agreement between the PAFs and the Local Government concerning compensation criteria shall make satisfactory progress. (Schedule 6, Item 1.B)
- The resettlement area in Koto Ranah shall be ready for use by the PAFs of Pulau Gadang village. (Schedule 6, Item 2.B)

b) Conditions of Contract for Contractor of Civil Works

- Proper protection and monitoring plans for wildlife shall be prepared and furnished to the Fund. (Schedule 6, Item 2.A)
- The resettlement issue shall be satisfactorily resolved. (Schedule 6, Item 2.B)

The covenants also requested that the GOI shall cause the Executing Agency to furnish the Fund on a quarterly basis with progress reports on the points referred to compensation, resettlement and wildlife until the completion of the actions envisaged in each issue.

On the other hand, Approval Letter of the FUND No. IP-358/c-002 dated October 02, 1992, for Lot-I (Civil Works) Contract Documents stated the following Requirements and Confirmations to be considered :

a) Requirements

- The procedures of Resettlement and Compensation shall be taken according to the planned time schedule.
- Sincere consideration shall be given to the demand of the PAFs.
- The progress of Resettlement and Compensation shall be reported without delay.
- We would like you to submit to us an overall program and a detailed program covering the activities for the first 6 months mentioned in Part II of Conditions of Contract 14.1.(1), and a detailed program for each consecutive 6 month period mentioned in Conditions of Contract, 14.1.(4).
- We would like you to inform us without delay if you discover any fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archeological interest mentioned in Part 1 of Conditions of Contract, 27.1.

b) Confirmations

- OECF's concurrences to the future contracts for civil works and procurement of equipment shall be decided on after taking into consideration the situation of Resettlement and Compensation.
- If a serious problem should occur in the course of Resettlement and Compensation procedures, the disbursement of the Loan for this Project, even the disbursement under the contract already concurred by OECF, it can be delayed until the problem is resolved.

And also in Approval Letter of the FUND No. IP-374/C-005 dated August 20, 1993, for Lot IIIB Generator Contract Documents stated the following confirmations to be considered :

- a) As for the preparation of resettlement area, payment of compensation and transfer of the PAFs from original villages, necessary measures should be taken according to the planned time schedule, taking into consideration the demand of the PAFs. Especially for Batu Bersurat village, urgent and adequate measures should be taken in view of the fact that compensation has not yet been paid to the PAFs of the said villages although the target date for completion of payment is drawing in this September.
- b) The preparation of resettlement areas should be implemented as soon as possible so that the PAFs can move to resettlement areas soon after having received their compensation.

Approval Letter of the FUND No. IP-374/C-007 dated December 8, 1993, for Lot IIIA Turbine Contract Documents stated that following confirmations to be considered :

- a) At present, there remains two villages, Pongkai and Koto Tuo, where the payment of compensation for the reservoir areas has not been completed. The actual compensation for these two villages is behind the original planned schedule. In case further delay in payment of compensation occurs, it might be difficult for us to concur in the contracts for the remaining lots. It is, therefore, requested to carry out payment of compensation for the reservoir areas according to the present schedule and take adequate measures not to delay the schedule further, while taking the demand of the PAFs into consideration.
- b) With regard to the preparation of resettlement areas and the transfer from original villages, it is desirable to finish the removal of residents smoothly. Therefore, the preparation of resettlement areas should be implemented as soon as possible and adequate measures should be taken not to delay the present schedule.

For final Approval of contract documents, Approval Letter of the FUND No. IP-374/c-008 up to IP-374/c-012 dated March 21, 1994, for Associated Transmission Line Contract Documents stated the following confirmations to be considered :

- a) At present, there remains only Batu Bersurat village, where the payment of compensation for the reservoir areas has not been completed. The compensation schedule of the villages has been delayed from the original schedule. It is, therefore, requested to surely complete the payment of compensation for the reservoir areas as presently scheduled, while taking the demand of the PAFs into consideration.
- b) With regard to the villages where the preparation of resettlement areas and the transfer from original villages have not been completed, the preparation of resettlement areas should be implemented as soon as possible and adequate measures should be taken not to delay the present schedule.
- c) While these are the last concurrences among all the contracts of the project, the OECF intends to continuously monitor the progress of the resettlement. If any resettlement is delayed significantly without informing the OECF of the reason, the disbursement could be postponed until the problem is settled. It is, therefore, required to report to the OECF concerning the progress of the resettlement hereafter.

Chapter 2 LAND ACQUISITION

2.1 Procedures

Implementation of the land acquisition was based on PERMENDAGRI 1975 (Regulation of Ministry of Internal Affairs -1975). Adopting to the local conditions, socio-culture and in relation with the project activities, the implementation of compensation of land acquisition were also based on the followings :

- a) The areas to be compensated are limited to the planned reservoir area with the maximum elevation of + 85.00 m msl. Other areas closed to the reservoir boundaries will be considered to be compensated case by case.
- b) The objects and its criterias to be compensated shall be based on result of discussion (Musyawarah untuk Mufakat) between the GOI and the PAFs Representatives.
- c) The basic unit price of each object and its criteria shall be based on result of discussion (Musyawarah untuk Mufakat) between the GOI and the PAFs Representatives.
- d) The field inventory of each PAF properties shall be witnessed and approved by the Owner.
- e) The compensation payment for each PAF properties shall be paid in cash (in form of cheque) to the Owner.
- f) After compensation, the Owners still have rights to utilize their building materials, agriculture fields, plantations, fishpond, etc. up to a certain time that the properties destroyed for the purposes of the Project Activities.
- g) The main public facilities which will be submerged such as schools, offices, markets, etc. will be constructed at the new resettlement locations by the Regental Governments.

2.2 The Implementation Activity

a) Ground Survey of Reservoir Area

The ground survey is undertaken by P.T. Stadia (Contractor to PLN) and it was finalized in February, 1991.

b) Aerial Photogrammetry Mapping

The aerial Photogrammetry mapping is undertaken by P.T. Exsa International (Contractor to PLN) and it was finalized in December, 1990.

The main objectives of the surveys are as follows :

- Construction of the permanent bench-marks at the level of + 85.0 M above the MSL on the boundary of the reservoir area.
 - Confirmation of the area of the reservoir.
- c) Agreement on Objects and its criterias to be compensated. Between the GOI (represented by the Land Acquisition Committee of each Regency) and 10 villagers Representatives of each village :
 - For Kampar Regency was reached on December 20, 1990
 - For 50 Kota Regency was reached on January 18, 1991
 - d) Field Inventories of the PAFs Properties. Implemented by the Land Acquisition Committee of each Regency :
 - For Kampar Regency : February - March 1991
 - For 50 Kota Regency : February - March 1991
 - e) Agreement on Basic Unit Price for each Object to be compensated. Between the GOI (represented by the Land Acquisition Committee of each Regency) and 10-13 villagers Representatives of each village :
 - For Kampar Regency was reached on April 14, 1991
 - For 50 Kota Regency was reached on April 19, 1991

Comments on the Agreement on Basic Unit Price :

- Criteria of Objects to be compensated are same.
- Agreement on Basic Unit Price was signed between the Representatives of the PAFs (10 persons for each village, selected by the PAFs) and the Regental Governments.
- Basic Unit Price of the 50 Kota Regency is slightly higher than Kampar Regency Province.

After obtaining the Agreements on Basic Unit Price, there were some comments raised from the following parties :

- The Regent of Kampar requested to the Riau Governor to increase the Basic Unit Price of Riau Province as agreed for West Sumatera Province.
- The PAFs of the two Regencies requested to the Regential Governments to increase the agreed Basic Unit Price of each object to be compensated.
- The PAFs of the two Regencies requested to the Regential Governments to conduct the PAFs removal after completion of land compensation payment.
- On March 1992, the PAFs of Pulau Gadang village proposed to pay compensation of non-inundated area to the Land Compensation Committee.
- The PAFs of Batu Bersurat village requested the Kampar Regential Government for the following considerations :
 - Adjusting the land cost with present condition.
 - Payment of compensation should be made at once.
 - The result of measuring which written in the compensation form is not in conformity with the actual width of land.
 - Payment of compensation should be completed within December, 1993.

Answered by the GOI :

- The Basic Unit Price shall be same between Kampar and 50 Kota Regencies.
- The Land compensation payment will be conducted step by step and it is scheduled to finalize before schedule of the PAFs removal.
- The non-inundated area or land-block can be clarified into two category, i.e. :
 - Land block located in the fringe inundated area which part of it is inundated and the rest of it is not inundated. The Land Acquisition Committee determined to compensate the whole land-block eventhough only part of it is inundated.
 - Land block located in the non-inundated area. The Land Acquisition Committee will review on this matter soon after the completion of the whole payment which is schedule at the end of March 1993 with the following reasons :
 - In retaining the consistency pattern for both provinces as has been the case until now (for example : the similarity in unit price for compensation, payment schedule, etc), the handling of land-block category 2 should be treated similarly. Hence, the discussion on this matter should be held together with these two involved Provinces.
 - To this day, the Land Compensation Committee and the Project bear heavy burden on the completion of payment schedule and on the preparation of new settlement. Since the payment will be finished on at the end of March 1993, then the work on the land-block category 2 would likely be started on April 1993.

- Unit Price of Compensation Payment is based on the agreed unit price on April 1991, payment of compensation will be made by step and for Batu Bersurat village it was scheduled to be started in January 1994. Meanwhile, the Land Acquisition Committee will carry out the necessary field rechecking.
- f) Preparation of the Cadastral Maps and Payment Documents (nominative lists, release of rights, etc.) for :
- For Kampar Regency : April 1991 - March 1992 (extended up to April 1992)
 - For 50 Kota Regency : April 1991 - April 1992 (extended up to April 1992)
- g) Schedule of Land Compensation Payment

Schedule of payment for overall compensation has been planned to be completed at the latest in September 1993, as follows :

- Pulau Gadang	April - May 1992
- Tanjung Balit	May - June 1992
- Tanjung Pauh	May - June 1992
- Muara Mahat	July - August 1992
- Tanjung Alai	September - October 1992
- Pongkai	November - December 1992
- Koto Tuo	January - February 1993
- Muara Takus	March - April 1993
- Gunung Bungsu	June - July 1993
- Batu Bersurat	August - September 1993

The original payment was changed due to among others :

- Difficulties in preparation of the payment documents.
- Claims raised by the PAFs and detail field re-investigation was considered necessary to be implemented by the Committee (directly under controlled by Riau Governor) and then the results of field investigation checked by the BPKP (the Government Auditor), especially for Pongkai and Koto Tuo villages, the completion of land acquisition and compensation were delayed.

Comments on implementation of payment :

- On March 26, 1994, about 300 villagers of New Pulau Gadang village was claimed to PLN and the Kampar Regential Government for quick payment of remaining part of compensation.
- On March 28, 1994, villagers of New Pulau Gadang and the Kampar Regential Government has discussed about the comments of villagers and decided as follows:
 - all land blocks have been completed the documents will be paid by April 1994.

- all land blocks have not been completed the documents will be checked by the Committee as soon as possible, and will be paid by April 1994.
- all land blocks should be checked by provincial level of the Committee and consultation to the Governor of Riau, it will be paid by April 1994.

h) Based on the submitted payment document by the Committee, PLN has implemented the land compensation payment up to July 31, 1998 is as follows :

Village	Nos.of Total Block	Nos.of Paid Block	%	Total amount (in Mill.Rp)	Remaining Nos. of Amount Land-blocks (Mill. Rp)	
<u>KAMPAR</u>						
Pulau Gadang	3,742	3,742	100	10,907	-	-
Muara Mahat	1,345	1,343	99	3,963	2	5
Tanjung Alai	1,702	1,702	100	4,579	-	-
Batu Bersurat	5,286	5,282	99	15,031	4	9
Pongkai	3,264	3,244	99	8,005	20	103
Koto Tuo	4,010	4,007	99	9,680	3	3
Muara Takus	1,582	1,582	100	2,681	-	-
Gunung Bungsu	978	978	100	3,055	-	-
Govt. Properties	31	31	100	1,606	-	-
Total	21,940	21,911	99	59,508	29	121
<u>50 KOTA</u>						
Tanjung Pauh	1,423	1,421	99	4,402	2	3
Tanjung Balit	978	948	97	3,735	30	40
Total	2,401	2,369	98	8,137	32	43
Grand Total	24,381	24,280	99	67,645	61	164

Detail progress of land acquisition payment is shown in the attached TABLE 12-1 : Progress of Land Acquisition Payment.

i) Remaining Claims

Some claims still existed and rised-up by the PAFs to the Committee, and most of the claim matters concerned about unsubmerged and isolated areas, as follows :

Kampar Regency

- Tanjung village : isolated area
- Gunung Bungsu : isolated area

50 Kota Regency

- Tanjung Pauh : isolated and unsubmerged area
- Tanjung Balit : isolated area

j) Settlement of Claims

Unless the remaining unpaid of 61 submerged land-blocks, the Land Acquisition Committees of the 2 Regencies have proceed the inventory and payment for the submerged area (elevation up to + 85.00 m) in accordance with the prevailing regulations. Claims from the Owners concerning quality and quantity of the properties during the period of payment have been settled by the Land Acquisition Committee simultaneously during the payment period up to December 1996.

Meanwhile, claims from the Owners concerning payment for the isolated areas and other unsubmerged areas after implementation of impounding. These will be settled by the GOI through the national environmental coordination meeting.

k) Other Compensations to the PAFs

- The PAFs still have rights to utilize their paid properties, such as : land, plantation, food-crops, buildings, fishpond, etc. up to a certain time that the area will be used for the project purposes.
- All facilities in the Resettlement areas for Physical Infrastructures, Food Crops and Plantation will be provided by the GOI as free to the PAFs.
- During the Project site visit at the end of August, 1991, President Director of PLN stated in the meeting with Riau Governor and other Provincial and Regental Government Officers in Pekanbaru, that PLN agreed to provide electricity to all new settlement areas, and the program is being prepared.
- The GOI agreed to provide additional facilities in the resettlement locations, such as : pavement of main road and permanent bridges, ceiling and cement floor for transmigration houses, and water supply.

Chapter 3 PROGRAM OF REMOVAL AND CONSTRUCTION OF NEW RESETTLEMENT LOCATIONS

3.1 Nos. of the PAFs, Approval to be Removed and Destination of Removal by each PAFs

In December 1990 to January 1991, the Riau University in cooperation with the Regential Governments conducted census of the PAFs numbers, Approval to be removed and Destination of Removal by each PAF, and the results are as follows :

a) Nos. of the PAFs of 8 villages in Kampar Regency were 4,152 families and 100 % of them agreed to be removed :

- Pulau Gadang	:	592 families
- Muara Mahat	:	447 families
- Tanjung Alai	:	313 families
- Batu Bersurat	:	1,257 families
- Pongkai	:	459 families
- Koto Tuo	:	599 families
- Muara Takus	:	244 families
- Gunung Bungsu	:	241 families
Total (Kampar)	:	4,152 families

Nos. of the PAFs of 2 villages in 50 Kota Regency were 734 families and 100 % of them agreed to be removed :

- Tanjung Balit	:	421 families
- Tanjung Pauh	:	313 families
Total (50 Kota)	:	734 families

Total (Kampar and 50 Kota) : 4,886 families

b) Destination of Removal

3 (three) alternatives of removal pattern provided by the GOI to be selected by the PAFs, with the following results :

	Kampar (PAFs)	50 Kota (PAFs)
- Compensation and free	7	0
- Compensation and removed PIR-Palm Oil (Pongkai village : 259 PAFs)	259 *)	0
- Compensation and removed to UPP-Rubber (All remaining PAFs)	3,893 **)	734
Total	4,152	734

*) in September 1991, 447 PAFs of Muara Mahat village proposed to the GOI to be removed to Transmigration (PIR-Palm Oil) and this proposed approved by the GOI, and the total PAFs to be removed to Transmigration (UPP-Rubber) were 3,446. This final numbers (3,446) were used by the GOI to prepare the resettlement program.

***) in September 1994, 128 PAFs of Pongkai village rejected to be removed to Transmigration (UPP-Rubber) and they decided to resettle at the unsubmerged area, closed to their old village, namely Pongkai Istiqomah. The substitution of provided resettlement facilities for 128 PAFs were given to another local villagers surrounding new resettlement location of Selatan Siberuang Unit 2.

Detail results of removal pattern selection by the PAFs is shown in the attached TABLE 12-2 : Selection of Resettlement Pattern by the PAFs and Its Implementation.

3.2 Removal Program

Referred to the standard facilities for public transmigration by Ministry of Transmigration, removal of the PAFs will be implemented through the following procedures and activities:

- Reconfirmation of Nos. of the PAFs

At the latest one month before removal date, the Transmigration Office conducted reconfirmation of final numbers of the PAFs to be removed and the previous census (December 1990) was used as reference.

For example, the original numbers of the PAFs of Pulau Gadang are 592 and final reconfirmation numbers are 569. The different of 23 due to mortality, rejection of single status, etc.

- Lotting of Houses

Lotting of houses will be done by Transmigration Office in order to determine the house location for each PAFs.

For example, lotting conducted for Pulau Gadang village :

Date	Nos. of House Location
August 21, 1992	438
August 21, 1992	78
September 01, 1992	51
September 02, 1992	2
Total	569

The remaining 32 houses will be decided later based on agreement between Transmigration Office and the PAFs, and it were normally occupied by the extended families.

- Provided Facilities Ministry of Transmigration during Removal.

The standard removal period was 5 days, and during that time the Transmigration Office provided the following facilities :

- Transportation of the PAFs properties from the old village to the resettlement location.
- Foodstuff.
- Standard housing furniture.

For example, removal of PAFs of Pulau Gadang village :

Date	Nos. of the PAFs
August 30-31, 1992	516
September 01, 1992	51
September 02, 1992	2
Total	569
October, 1992	23
Grand Total	592

The progress of removal of the PAFs to new resettlement locations are as follows :

Kampar Regency

Village	Date	Nos. of Families
Pulau Gadang	August-October 1992	592
Gunung Bungsu	March 28-29, 1993	241
Muara Mahat	March 07-21, 1994	447
Koto Tuo	March 28, 1994	599
Muara Takus	January 08, 1994	244
Tanjung Alai	October 03, 1994	313
Batu Bersurat Seberang	June 02, 1995	557
Batu Bersurat Pasar	January 11, 1996	700
Pongkai	February 04, 1996	259
	February 04, 1996	200
Total		4,152

50 Kota Regency

Tanjung Balit	July 29, 1993	421
Tanjung Pauh	July 29, 1993	313
Total		734
Grand Total		4,886

3.3 Land and Facilities to be Provided to each PAFs at the New Resettlement Locations

At the new resettlement locations (PIR Palm Oil and UPP-Rubber), the GOI provided a certain land and facilities to each PAFs, include public facilities referred to:

- Facilities based on Standard Facilities for Public Transmigration of Ministry of Transmigration.
- Additional facilities (Non-Standard) in the form of :
 - Additional Measures in the form of Rural Electrification, Pavement of Main Road + Permanent bridges, Cement Floor for Housing, and Water Supply (Treatment Plant + Piping Installation + Plastic Water Tanks).
 - Additional living support (Jadup) for 2 years, instead of 1 year.
 - Maintenance of rubber plant for 6 years, instead of 1 year.
 - Elementary schools and Junior High School at Muara Mahat.
 - Traditional markets.
 - Home industries and small scale industries.

Detail description of provided facilities is shown in the attached TABLE 12-3 : Provided Facilities to the PAFs at the New Resettlement Locations.

3.4 Resettlement Preparation

At the beginning stage (before undertaken of census in December 1990), according to study conducted by the GOI there were 3 (three) resettlement locations were planned to resettle the PAFs, as follows:

- Koto Ranah in Kampar Regency for accommodating 592 PAFs of Pulau Gadang village.
- Southern Muara Takus and Selatan Siberuang Unit-1 in Kampar Regency for accommodating 3,560 PAFs.
- Rimbo Datar in 50 Kota Regency for accommodating 734 PAFs.

This original plan was changed adopting to :

- The lack suitable area available at Selatan Muara Takus and Selatan Siberuang Unit-1 (only 9,000 hectares of gross land available instead of required gross land of 11,000 hectares).
- Results of census in December 1990 - January 1991.
- Changed of removal destination of 447 PAFs of Muara Mahat village.
- Request of the PAFs to the Kampar Regent during providing guidance (September 6-20, 1991) that the PAFs proposed new resettlement locations for their own resettlement with the following reasons :
 - Close to the old village and within the existing Regency.
 - Close to new national and provincial relocation roads.
 - Close to the reservoir area.

- Remove at once (village by village at the same time).
- Keep the existing village administration in the new resettlement areas (Bedol Desa).
- Rubber will be as a main plant.

Considering the above mentioned site conditions and the PAFs requests, finally the GOI was reviewed the resettlement construction program to be 10 locations, as follows :

Kampar Regency - Riau Province

- Koto Ranah	UPP-Rubber	592 PAFs	Pulau Gadang
- Southern Muara Takus	UPP-Rubber	599 PAFs	Koto Tuo, and
	UPP-Rubber	244 PAFs	Muara Takus
- Southern Siberuang-Unit 1	UPP-Rubber	241 PAFs	Gunung Bungsu
- Southern Siberuang-Unit 2	UPP-Rubber	200 PAFs	Pongkai
- Ranah Sungkai	UPP-Rubber	557 PAFs	Batu Bersurat
- Southern Batu Bersurat	UPP-Rubber	700 PAFs	Batu Bersurat
- Ranah Koto Talago	UPP-Rubber	313 PAFs	Tanjung Alai
- PTP-V Sungai Pagar	PIR-Palm Oil	259 PAFs	Pongkai
- Bangkinang Block X/G	PIR-Palm Oil	447 PAFs	Muara Mahat

50 Kota Regency - West Sumatera Province

- Rimbo Datar	UPP-Rubber	421 PAFs	Tanjung Balit
	UPP-Rubber	313 PAFs	Tanjung Pauh

Based on the review program, the resettlements construction were implemented as follows :

1. Koto Ranah	: F/Y 1990/1991/1992
2. Southern Muara Takus	: F/Y 1991/1992/1993
3. Southern Siberuang Unit-1	: F/Y 1992/1993
4. Southern Siberuang Unit-2	: F/Y 1994/1995
5. Ranah Sungkai	: F/Y 1993/1994/1995
6. Sungai Pagar	: F/Y 1994/1995
7. Bangkinang X/G	: F/Y 1992/1993
8. Ranah Koto Talago	: F/Y 1993/1994
9. Southern Batu Bersurat	: F/Y 1993/1994//1995
10. Rimbo Datar	: F/Y 1991/1992/1993

Resettlement Preparation for Koto Ranah

Village of origin	:	Pulau Gadang
Original number of families	:	500
Revised number of families	:	592
Original transmigraton pattern	:	UPP-Rubber
Revised transmigraton pattern (Dec.1996)	:	PIR-Palm oil

Date of Removal : August 29, 1992

Study and Design

Study and design of the resettlement area has been finalized by the following institutions:

- Study on Suitable Area for Resettlement and Agriculture conducted by PLN in cooperation with Riau University (completed in October, 1989).
- Engineering Design of Spatial Plan for Resettlement Unit and Road for accommodating 500 families conducted by Consultant for Ministry of Transmigration (completed in Feb. 1991).

During the study period, modification of the detail resettlement programs in Koto Ranah was made due to several reasonable inputs from the PAFs to the related Government Agencies and the Kampar Regential Government.

Redesign

Redesign of Spatial Plan for Resettlement Unit and Road for accommodating 592 families conducted by Riau Regional Transmigration Office and it was completed on June 30, 1991.

Implementation of Construction

Implementation of construction for the resettlement preparation was completed in March, 1992.

The public infrastructures (21units) of Koto Ranah were completed by Riau Regional Transmigration Office and Kampar Regential Government.

June 1992	:	Rubber seeds (296,000 seeds) have been prepared by Riau Plantation Office.
June 1992	:	Rubber seeds have been cultivated about 379 ha. by Riau Plantation Office.
November 1993	:	Procurement of fertilizer and fertilizing for plantation was completed by Riau Regional Trans. Office.
August 1992	:	Procurement of package A, green fertilizer and agriculture limestone of Koto Ranah was completed by Riau Foodcrops Office.
August 1992	:	Preparation of Test Farm for Koto Ranah was completed by Riau Foodcrops Office.
August 29, 1992	:	The PAFs of Pulau Gadang village resettled the new resettlement location.
December 1992	:	Additional water supply system was completed, and it is necessary to rehabilitation.
December 1993	:	Rubber seeds have been cultivated 1,184 ha by Riau Plantation Office.

In F/Y 1993/9194 : The Kampar Regential Government have constructed new water treatment plant and supply system for Block B and C by Loan OECF V, but no progress during July to September 1994.

In September 1994 : By Loan OECF V, bridges improvement along the Main Road was completed.

Since June, 1994 : Due to maintenance of water supply system, operation of water supply system was stopped.

December 1997 : Construction of additional measures (rehabilitation of water supply) were completed.

Construction of the resettlement was conducted in F/Y 1990/1991/1992 and completed in March 1992, and detail implementation progress of the land preparation and public infrastructures of the Koto Ranah location as per July 31, 1998 is described as follows :

	Quantity (Original)	%	Quantity (up to July, 1998)	%
A. Land Clearing *)				
1. Housing and House yard	59.20 ha	100	59.20 ha	100
2. Food Crops	236.80 ha	100	236.80 ha	100
3. Public Infrastructures	75.00 ha	100	75.00 ha	100
Total	371.00 ha	100	371.00 ha	100
4. Plantation	1,184.00 ha	100	1,184.00 ha	100
B. Public Infrastructures by the GOI *)				
1. Main/Connection Road	13.00 km	100	13.00 km	100
2. Village Road	26.00 km	100	26.00 km	100
3. Concrete Culvert	63.00 m	100	754.00 m	120
4. Wooden Bridge	254.00 m	100	254.00 m	100
5. Public Buildings	13.00 unit	100	21.00 unit	162
6. Water Supply	8.00 unit	100	16.00 unit	200
C. Housing by the GOI *)				
1. Housing and Latrines	592 unit	100	592 unit	100
2. Well for Water Supply	148 unit	100	148 unit	100
D. Electrification by PLN				
1. Installation of pole	1 L.S	100	1 L.S	100
2. Distribution Line	1 L.S	100	1 L.S	100
3. Power Station	1 unit	100	1 unit	100
E. Additional Measures				
1. Housing	592 unit	100	592 unit	100
2. Water Supply	1 L.S	100	1 L.S	100
3. Pavement of Main Road	13 km	100	13 km	100
4. Bridge Improvement	3 unit	100	3 unit	100
F. Plantation *				
1. Preparation	1,184 ha	100	0 ha	0

2. Cultivating Cover Crops	1,184 ha	100	0 ha	0
3. Plantation seeds (Palm-oil)	159,840 seed	100	92,467 seed	57.85
4. Cultivating Palm-oil	1,184 ha	100	0 ha	0

G. Food Crops

1. Preparation of Package A	592 pack	100	592 pack	100
2. Preparation of Hand Sprayer	119 pes.	100	119 pes.	100
3. Preparation of Green Fertilizer	1,480 kg	100	1,480 kg	100
4. Test Farm	1 location	100	1 location	100
5. Preparation of Agr. Limestone	296 ton	100	296 ton	100
6. Land Preparation	296 ha	100	296 ha	100

*) Including quantities of F/Y 90/91 and F/Y 91/92

* Part of rubber plantation unsuccessfully growth, and change to palm-oil.

Resettlement Preparation for Southern Muara Takus

Village of origin	:	Muara Mahat, Tanjung Alai, Batu Bersurat, Pongkai, Koto Tuo, Muara Takus and Gunung Bungsu.
Revised village of origin	:	Koto Tuo and Muara Takus
Original number of families	:	3,560
Revised number of families	:	844
		Koto Tuo (599)
		Muara Takus (244)
Original transmigration pattern	:	UPP-Rubber
Revised transmigration pattern (Dec. 1996)	:	PIR-Palm oil
Date of removal	:	KotoTuo on March 28, 1994 Muara Takus on January 08, 1994.

Study and Design

Study of the resettlement area has been finalized by the following institutions :

- Study on Suitable Area for Resettlement and Agriculture conducted PLN in cooperation with Riau University (completed in March 1991).
- Engineering Design of Spatial Plan for Resettlement Unit and Road for accommodating 3,538 families was finalized by Consultant for Ministry of Transmigration (completed in September 1991).

Implementation of Construction

Implementation of construction for the resettlement preparation was started since August 1, 1991 for 844 families.

December, 1993 : Construction works of housing and latrines were completed, included cement floor and ceiling of houses.

March 28, 1994 : The PAFs of Koto Tuo village resettled the new resettlement location.

January 08, 1994 : The PAFs of Muara Takus village resettled the new resettlement location.

September, 1994 : Construction of additional measures (water supply, electricity pavement of main road and permanent bridges) were completed.

Cultivation of rubber plantation have been stopped in July 1994 due to dry season and continued from October 1994 up to December 1994. The remaining 110 ha., was completed in F/Y 1994/1995.

Construction of the resettlement was conducted in F/Y 1991/1992/1993 and completed in March 1993, and detail implementation progress of the land preparation and public infrastructures of the Southern Muara Takus location as per July 31, 1998 is described as follows :

	Quantity (Original)	%	Quantity (up to July.98)	%
A. Land Clearing *)				
1. Housing and House yard	84.40 ha	100	84.40 ha	100
2. Food Crops	337.60 ha	100	337.60 ha	100
3. Public Infrastructures	126.60 ha	100	126.60 ha	100
Total	548.60 ha	100	548.60 ha	100
4. Plantation	1,688.00 ha	100	1,688.00 ha	100
B. Public Infrastructures by the GOI *)				
1. Main/Connection Road	14.00 km	100	14.00 km	100
2. Village Road	32.00 km	100	32.00 km	100
3. Concrete Culvert	767.00 m	100	767.00 m	100
4. Wooden Bridge	153.00 m	100	153.00 m	100
5. Public Buildings	20.00 unit	100	20.00 unit	100
6. Water Supply	16.00 unit	100	16.00 unit	100
C. Housing by the GOI *)				
1. Housing and Latrines	844 unit	100	844 unit	100
2. Well for Water Supply	422 unit	100	422 unit	100
D. Electrification by PLN				
1. Installation of pole	1 L.S	100	1 L.S	100
2. Distribution Line	1 L.S	100	1 L.S	100
3. Power Station	1 unit	100	1 unit	100
E. Additional Measures				
1. Housing	844 unit	100	844 unit	100
2. Water Supply	1 L.S	100	1 L.S	100
3. Pavement of Main Road	14 km	100	14 km	100
4. Bridge Improvement	5 unit	100	5 unit	100

F. Plantation *

1. Preparation	1,688 ha	100	0 ha	0
2. Cultivating Cover Crops	1,688 ha	100	0 ha	0
3. Plantation seeds (Palm-oil)	227,880 seed	100	131,829 seed	57.85
4. Cultivating Palm-oil	1,688 ha	100	0 ha	0

G. Food Crops

1. Preparation of Package A	844 pack	100	844 pack	100
2. Preparation of Hand Sprayer	169 pcs.	100	0 pcs.	0
3. Preparation of Green Fertilizer	2,110 kg	100	2,110 kg	100
4. Test Farm	1 location	100	1 location	100
5. Preparation of Agr. Limestone	422 ton	100	422 ton	100
6. Land Preparation	422 ha	100	422 ha	100

*) Including quantities of F/Y 91/92

* Part of rubber plantation unsuccessfully growth, and change to palm-oil.

Resettlement Preparation for Southern Siberuang Unit-I

Village of origin : Muara Mahat, Tanjung Alai, Batu Bersurat, Pongkai, Koto Tuo, Muara Takus and Gunung Bungsu.

Revised village of origin : Gunung Bungsu

Original number of families : 3,560

Revised number of families : 241

Original transmigration pattern : UPP-Rubber

Revised transmigration pattern (Dec. 1996) : PIR-Palm oil

Date of removal : March 28, 1993

Study and Design

Study of the resettlement area has been finalized by the following institutions :

- Study on Suitable Area for Resettlement and Agriculture conducted PLN in cooperation with Riau University (March 6, 1991).
- Engineering Design of Spatial Plan for Resettlement Unit and Road for accommodating 3,538 families was finalized by Consultant for Ministry of Transmigration in September 1991.

Implementation of Construction

Since June, 1992 : The resettlement preparation for 241 PAFs was started.

March, 1993 : Construction of houses and latrines was completed, included cement floor and ceiling for houses.

March 28-29, 1993 : The PAFs of Gunung Bungsu village resettled the new resettlement location.

August, 1994

Construction of additional measures (water supply, electricity pavement of main road and permanent bridges) were completed.

Construction of the resettlement was conducted in F/Y 1992/1993 and completed in March 1993, and detail implementation progress of the land preparation and public infrastructures of the Southern Siberuang Unit-1 location as per July 31, 1998 is described as follows :

	Quantity (Original)	%	Quantity (up to July.98)	%
A. Land Clearing				
1. Housing and House yard	24.10 ha	100	24.10 ha	100
2. Food Crops	96.40 ha	100	96.40 ha	100
3. Public Infrastructures	30.50 ha	100	30.50 ha	100
Total	151.00 ha	100	151.00 ha	100
4. Plantation	482.00 ha	100	482.00 ha	100
B. Public Infrastructures by the GOI				
1. Main/Connection Road	4.00 km	100	4.00 km	100
2. Village Road	10.50 km	100	10.50 km	100
3. Concrete Culvert	206.00 m	100	206.00 m	100
4. Wooden Bridge	30.00 m	100	30.00 m	100
5. Public Buildings	7.00 unit	100	7.00 unit	100
6. Water Supply	5.00 unit	100	5.00 unit	100
C. Housing by the GOI				
1. Housing and Latrines	241 unit	100	241 unit	100
2. Well for Water Supply	121 unit	100	121 unit	100
D. Electrification by PLN				
1. Installation of pole	1 L.S	100	1 L.S	100
2. Distribution Line	1 L.S	100	1 L.S	100
3. Power Station	1 unit	100	1 unit	100
E. Additional Measures				
1. Housing	241 unit	100	241 unit	100
2. Water Supply	1 L.S	100	1 L.S	100
3. Pavement of Main Road	4 km	100	4 km	100
4. Bridge Improvement	2 unit	100	2 unit	100
F. Plantation *				
1. Preparation	482 ha	100	0 ha	0
2. Cultivating Cover Crops	482 ha	100	0 ha	0
3. Plantation seeds (Palm-oil)	65,070 seed	100	37,643 seed	57.85
4. Cultivating Palm-oil	482 ha	100	0 ha	0

G. Food Crops

1. Preparation of Package A	241 pack	100	241 pack	100
2. Preparation of Hand Sprayer	49 pcs.	100	49 pcs.	100
3. Preparation of Green Fertilizer	602.5 kg	100	602.5 kg	100
4. Test Farm	1 location	100	1 location	100
5. Preparation of Agr. Limestone	120.5 ton	100	120.5 ton	100
6. Land Preparation	120.5 ha	100	120.5 ha	100

* Part of rubber plantation unsuccessfully growth, and change to palm-oil.

Resettlement Preparation for PIR Bangkinang Block X/G

Village of origin	: None
Revised village of origin	: Muara Mahat
Original number of families	: 0
Revised number of families	: 447
Original transmigration pattern	: PIR-Palm oil
Date of removal	: March 21, 1994

Study and Design

- Feasibility study and design were conducted by P.T. Ramajaya Pramukti (PIR-Company) in cooperation with Ministry of Agriculture and Ministry of Transmigration.
- Review of study and design for Housing and Food Crops area, especially for the PAFs of Muara Mahat, was conducted by P.T. Ramajaya Pramukti (completed in March 1992).

Implementation of Construction

Implementation of construction for the resettlement preparation was started since April 1992 for 447 families.

December, 1993	:	Construction works of housing and public buildings was completed.
December, 1995	:	Construction of additional measures (cement floor and ceiling of house, water supply and electricity) were completed.
December, 1997	:	Construction of additional measures (pavement of main road and permanent bridges) were completed.
March 21, 1994	:	The PAF's of Muara Mahat village resettled the new resettlement location.

Construction of the resettlement was conducted in F/Y 1992/1993 and completed in March 1993, and detail implementation progress of the land preparation and public infrastructures of the Bangkinang Block X/G location as per July 31, 1998 is described as follows:

	Quantity (Original)	%	Quantity (up to July.98)		%
A. Land Clearing					
1. Housing and House yard	44.70 ha	100	44.70 ha	100	
2. Food Crops	178.80 ha	100	178.80 ha	100	
3. Public Infrastructures	26.00 ha	100	26.00 ha	100	
Total	249.50 ha	100	249.50 ha	100	
4. Plantation	894.00 ha	100	894.00 ha	100	
B. Public Infrastructures by the GOI					
1. Main/Connection Road	5.00 km	100	5.00 km	100	
2. Village Road	21.00 km	100	21.00 km	100	
3. Concrete Culvert	350.00 m	100	350.00 m	100	
4. Wooden Bridge	70.00 m	100	70.00 m	100	
5. Public Buildings	13.00 unit	100	13.00 unit	100	
6. Water Supply	8.00 unit	100	8.00 unit	100	
C. Housing by the GOI					
1. Housing and Latrines	447 unit	100	447 unit	100	
2. Well for Water Supply	224 unit	100	224 unit	100	
D. Electrification by PLN					
1. Installation of pole	1 L.S	100	1 L.S	100	
2. Distribution Line	1 L.S	100	1 L.S	100	
3. Power Station	1 unit	100	1 unit	100	
E. Additional Measures					
1. Housing	447 unit	100	447 unit	100	
2. Water Supply	1 L.S	100	1 L.S	100	
3. Pavement of Main Road	5,5 km	100	5,5 km	100	
4. Bridge Improvement	2 unit	100	2 unit	100	
F. Plantation					
1. Preparation	894 ha	100	894 ha	100	
2. Cultivating Cover Crops	894 ha	100	894 ha	100	
3. Plantation seeds (Palm-oil)	127,920 seed	100	127,920 seed	100	
4. Cultivating Palm-oil	894 ha	100	894 ha	100	
G. Food Crops					
1. Preparation of Package A	447 pack	100	447 pack	100	
2. Preparation of Hand Sprayer	90 pcs.	100	90 pcs.	100	
3. Preparation of Green Fertilizer	1,117.5 kg	100	1,117.5 kg	100	
4. Test Farm	1 location	100	0 location	0	
5. Preparation of Agr. Limestone	223.5 ton	100	223.5 ton	100	
6. Land Preparation	223.5 ha	100	223.5 ha	100	

Resettlement Preparation for Ranah Koto Talago

Village of origin : None
Revised village of origin : Tanjung Alai

Original number of families : 0
Revised number of families : 313
Original transmigration pattern : None
1st Revised transmigration pattern (in 1992) : UPP-Rubber
2nd Revised trans. pattern (Dec. 1996) : PIR-Palm oil
Date of removal : October 03, 1994

Study and Design

The study and design of Ranah Koto Talago conducted by Consultant for Ministry of Transmigration (completed in October 1992).

Implementation of Construction

Since April, 1993 : Construction for the resettlement preparation was started for 313 families.
September, 1994 : The construction of village road and public building. Burning of plantation area have been completed, and rubber plant was prepared at site for 313,000 seeds.
September, 1994 : Construction of additional measures (cement floor and ceiling of house, water supply, electricity, pavement of main road and permanent bridges) were completed.
October 03, 1994 : The PAFs of Tanjung Alai village resettled the new resettlement location.
Since October, 1994 : Additional water supply system is under operation by Riau Regional Transmigration Office.

Implementation of Construction

Construction of the resettlement was conducted in F/Y 1993/1994 and completed in March 1994, and detail implementation progress of the land preparation and public infrastructures of the Ranah Koto Talago location as per July 31, 1998 is described as follows :

	Quantity (Original)	%	Quantity (up to July.98)	%
A. Land Clearing				
1. Housing and House yard	31.30 ha	100	31.30 ha	100
2. Food Crops	125.20 ha	100	125.20 ha	100
3. Public Infrastructures	45.00 ha	100	45.00 ha	100
Total	201.50 ha	100	201.50 ha	100
4. Plantation	626.00 ha	100	626.00 ha	100
B. Public Infrastructures by the GOI				
1. Main/Connection Road	5.50 km	100	5.50 km	100
2. Village Road	11.00 km	100	11.00 km	100
3. Concrete Culvert	220.00 m	100	220.00 m	100
4. Wooden Bridge	32.50 m	100	32.50 m	100

5. Public Buildings	12.00 unit	100	12.00	unit	100
6. Water Supply	8.00 unit	100	8.00	unit	100

C. Housing by the GOI

1. Housing and Latrines	313 unit	100	313	unit	100
2. Well for Water Supply	157 unit	100	157	unit	100

D. Electrification by PLN

1. Installation of pole	1 L.S	100	1	L.S	100
2. Distribution Line	1 L.S	100	1	L.S	100
3. Power Station	1 unit	100	1	unit	100

E. Additional Measures

1. Housing	313 unit	100	313	unit	100
2. Water Supply	1 L.S	100	1	L.S	100
3. Pavement of Main Road	5.5 km	100	5.5	km	100
4. Bridge Improvement	2 unit	100	2	unit	100

F. Plantation *

1. Preparation	626 ha	100	0	ha	0
2. Cultivating Cover Crops	626 ha	100	0	ha	0
3. Plantation seeds (Palm-oil)	84,510 seed	100	48,889	seed	57.85
4. Cultivating Palm-oil	626 ha	100	0	ha	0

G. Food Crops

1. Preparation of Package A	313 pack	100	313	pack	100
2. Preparation of Hand Sprayer	63 pcs.	100	0	pcs.	0
3. Preparation of Green Fertilizer	782.5 kg	100	782.5	kg	100
4. Test Farm	1 location	100	0	location	0
5. Preparation of Agr. Limestone	156.5 ton	100	156.5	ton	100
6. Land Preparation	156.5 ha	100	156.5	ha	100

* Part of rubber plantation unsuccessfully growth, and change to palm-oil.

Resettlement Preparation for Ranah Sungkai

Village of origin	:	None
Revised village of origin	:	Batu Bersurat (Seberang) Lubuk Agung sub-village Koto Tengah sub-village
Original number of families	:	0
Revised number of families	:	557
Original transmigration pattern	:	None
1st Revised transmigration pattern (in 1992)	:	UPP-Rubber
2nd Revised trans. pattern (Dec.1996)	:	PIR-Palm oil
Date of removal	:	January 02, 1995

Study and Design

The study and design of Ranah Sungkai conducted by Consultant for Minsitry of Transmigration (completed in October 1992).

Implementation of Construction

Since April, 1993 : Implementation of construction for the resettlement preparation was started for 557 families.

December, 1994 : Construction of additional measures (cement floor and ceiling of house, water supply, electricity and pavement of main road and permanent bridges) were completed.

January 02, 1995 : The PAFs of Batu Bersurat Seberang village resettled the new resettlement location.

Construction of the resettlement was conducted in F/Y 1993/1994/1995 and completed in March 1995, and detail implementation progress of the land preparation and public infrastructures of the Ranah Sungkai location as per July 31, 1998 is described as follows:

	Quantity	%	Quantity	%	
		(Original)		(up to July.98)	
A. Land Clearing					
1. Housing and House yard	55.70 ha	100	55.70 ha	100	100
2. Food Crops	222.80 ha	100	222.80 ha	100	100
3. Public Infrastructures	52.00 ha	100	52.00 ha	100	100
Total	330.50 ha	100	330.50 ha	100	100
4. Plantation	1,114.00 ha	100	1,144.00 ha	100	100
B. Public Infrastructures by the GOI					
1. Main/Connection Road	10.00 km	100	10.00 km	100	100
2. Village Road	20.00 km	100	20.00 km	100	100
3. Concrete Culvert	400.00 m	100	400.00 m	100	100
4. Wooden Bridge	80.00 m	100	80.00 m	100	100
5. Public Buildings	15.00 unit	100	15.00 unit	100	100
6. Water Supply	8.00 unit	100	8.00 unit	100	100
C. Housing by the GOI					
1. Housing and Latrines	557 unit	100	557 unit	100	100
2. Well for Water Supply	279 unit	100	279 unit	100	100
D. Electrification by PLN					
1. Installation of pole	1 L.S	100	1 L.S	100	100
2. Distribution Line	1 L.S	100	1 L.S	100	100
3. Power Station	1 unit	100	1 unit	100	100

E. Additional Measures

1. Housing	557 unit	100	557	unit	100
2. Water Supply	1 L.S	100	1	L.S	100
3. Pavement of Main Road	10 km	100	10	km	100
4. Bridge Improvement	4 unit	100	4	unit	100

F. Plantation *

1. Preparation	1,114 ha	100	0	ha	0
2. Cultivating Cover Crops	1,114 ha	100	0	ha	0
3. Plantation seeds (Palm-oil)	150,390 seed	100	87,001	seed	57.85
4. Cultivating Palm-oil	1,114 ha	100	0	ha	0

G. Food Crop.

1. Preparation of Package A	557 pack	100	557	pack	100
2. Preparation of Hand Sprayer	112 pcs.	100	0	pcs.	0
3. Preparation of Green Fertilizer	1,392.5 kg	100	1,392.5	kg	100
4. Test Farm	1 location	100	0	location	0
5. Preparation of Agr. Limestone	278.5 ton	100	278.5	ton	100
6. Land Preparation	278.5 ha	100	278.5	ha	100

* Part of rubber plantation unsuccessfully growth, and change to palm-oil.

Resettlement Preparation for Southern Batu Bersurat

Village of origin	:	None
Revised village of origin	:	Batu Bersurat Pasar
Original number of families	:	0
Revised number of families	:	700
Original transmigration pattern	:	None
1st Revised transmigration pattern (in 1992)	:	UPP-Project Implementation Unit
2nd Revised trans. pattern (Dec. 1996)	:	PIR-Palm oil
Date of removal	:	January 11, 1996

Study and Design

The study and design of Southern Batu Bersurat conducted by Consultant for Ministry of Transmigration (completed in October 1992).

Implementation of Construction

July, 1994	:	The construction of Southern Batu Bersurat was started due to reviewed of resettlement plan and delay of payment of land acquisition.
July, 1995	:	Delay of housing construction due to the PAF's of Batu Bersurat village was requested to change the roof materials of Southern Batu Bersurat houses, and finally the Kampar Regential government agreed.

December, 1995	:	Construction of additional measures (cement floor and ceiling of house, electricity and pavement of main road and permanent bridges) were completed.
January 11, 1996	:	The PAFs of Batu Bersurat Pasar resettled the new resettlement location.
December, 1997	:	Construction of additional measure (water supply) was completed.

Construction of the resettlement was conducted in F/Y 1993/1994/1995 and completed in March 1995, and detail implementation progress of the land preparation and public infrastructures of the Southern Batu Bersurat location as per July 31, 1998 is described as follows :

	Quantity (Original)	%	Quantity (up to July.98)	%
A. Land Clearing				
1. Housing and House yard	70.00 ha	100	70.00 ha	100
2. Food Crops	280.00 ha	100	280.00 ha	100
3. Public Infrastructures	153.68 ha	100	153.68 ha	100
Total	503.70 ha	100	503.70 ha	100
4. Plantation	1,400.00 ha	100	1,400.00 ha	100
B. Public Infrastructures by the GOI				
1. Main/Connection Road	8.87 km	100	8.87 km	100
2. Village Road	14.76 km	100	14.76 km	100
3. Concrete Culvert	426.00 m	100	426.00 m	100
4. Wooden Bridge	45.00 m	100	45.00 m	100
5. Public Buildings	23.00 unit	100	23.00 unit	100
6. Water Supply	16.00 unit	100	16.00 unit	100
C. Housing by the GOI				
1. Housing and Latrines	700 unit	100	700 unit	100
2. Well for Water Supply	350 unit	100	350 unit	100
D. Electrification by PLN				
1. Installation of pole	1 L.S	100	1 L.S	100
2. Distribution Line	1 L.S	100	1 L.S	100
3. Power Station	1 unit	100	1 unit	100
E. Additional Measures				
1. Housing	700 unit	100	700 unit	100
2. Water Supply	1 L.S	100	1 L.S	100
3. Pavement of Main Road	8.87 km	100	8.87 km	100
4. Bridge Improvement	7 unit	100	7 unit	100

F. Plantation

1. Preparation	1,400	ha	100	0	ha	0
2. Cultivating Cover Crops	1,400	ha	100	0	ha	0
3. Plantation seeds (Palm-oil)	189,000	seed	100	109,337	seed	57.85
4. Cultivating Palm-oil	1,400	ha	100	0	ha	0

G. Food Crops

1. Preparation of Package A	700	pack	100	700	pack	100
2. Preparation of Hand Sprayer	175	pcs.	100	0	pcs.	0
3. Preparation of Green Fertilizer	1,750	kg	100	1,750	kg	100
4. Test Farm	1	location	100	0	location	0
5. Preparation of Agr. Limestone	350	ton	100	350	ton	100
6. Land Preparation	350	ha	100	350	ha	100

Resettlement Preparation for PIR Sungai Pagar

Village of origin	:	None
Revised village of origin	:	Pongkai
Original number of families	:	0
Revised number of families	:	259
Original transmigration pattern	:	None
Revised transmigration pattern (in 1992)	:	PIR-Palm oil
Date of removal	:	February 04, 1996

Study and Design

- Feasibility study and design were conducted by P.T.P Nusantara-V(PIR-Company) in cooperation with Ministry of Agriculture and Ministry of Transmigration in 1991.
- Review of study and design for Housing and Food Crops area, especially for the PAFs of Pongkai, was conducted by P.T.P Nusantara-V (completed in December 1993).

Implementation of Construction

Implementation of construction for the resettlement preparation was started since April 1994 for 259 families.

December, 1995	:	Construction works of housing and public buildings was completed.
December, 1995	:	Construction of additional measures (cement floor and ceiling of house, water supply and electricity) were completed.
December, 1997	:	Construction of additional measures (pavement of main road and permanent bridges) were completed.
February 04, 1996	:	The PAF's of Pongkai village resettled the new resettlement location.

Construction of the resettlement was conducted in F/Y 1994/1995 and completed in March 1995, and detail implementation progress of the land preparation and public infrastructures of the Sungai Pagar location as per July 31, 1998 is described as follows:

	Quantity (Original)	%	Quantity (up to July.98)	%
A. Land Clearing				
1. Housing and House yard	25.90 ha	100	25.90 ha	100
2. Food Crops	103.60 ha	100	103.60 ha	100
3. Public Infrastructures	30.00 ha	100	30.00 ha	100
Total	159.50 ha	100	159.50 ha	100
4. Plantation	518.00 ha	100	518.00 ha	100
B. Public Infrastructures by the GOI				
1. Main/Connection Road	6.50 km	100	6.50 km	100
2. Village Road	13.00 km	100	13.00 km	100
3. Concrete Culvert	310.00 m	100	310.00 m	100
4. Wooden Bridge	30.00 m	100	30.00 m	100
5. Public Buildings	12.00 unit	100	12.00 unit	100
6. Water Supply	8.00 unit	100	8.00 unit	100
C. Housing by the GOI				
1. Housing and Latrines	259 unit	100	259 unit	100
2. Well for Water Supply	130 unit	100	130 unit	100
D. Electrification by PLN				
1. Installation of pole	1 L.S	100	1 L.S	100
2. Distribution Line	1 L.S	100	1 L.S	100
3. Power Station	1 unit	100	1 unit	100
E. Additional Measures				
1. Housing	259 unit	100	259 unit	100
2. Water Supply	1 L.S	100	1 L.S	100
3. Pavement of Main Road	6.5 km	100	6.5 km	100
4. Bridge Improvement	5 unit	100	5 unit	100
F. Plantation				
1. Preparation	518 ha	100	518 ha	100
2. Cultivating Cover Crops	518 ha	100	518 ha	100
3. Plantation seeds (Palm-oil)	67,340 seed	100	67,340 seed	100
4. Cultivating Palm-oil	518 ha	100	518 ha	100
G. Food Crops				
1. Preparation of Package A	259 pack	100	447 pack	100
2. Preparation of Hand Sprayer	65 pcs.	100	90 pcs.	100
3. Preparation of Green Fertilizer	647.5 kg	100	1,117.5 kg	100
4. Test Farm	1 location	100	0 location	0
5. Preparation of Agr. Limestone	129.5 ton	100	223.5 ton	100
6. Land Preparation	129.5 ha	100	223.5 ha	100

Resettlement Preparation for Southern Siberuang Unit-II

Village of origin	:	None
Revised village of origin	:	Pongkai
Original number of families	:	0
Revised number of families	:	200
Original transmigration pattern	:	None
1st Revised transmigration pattern (in 1992)	:	UPP-Rubber
2nd Revised trans. pattern (Dec. 1996)	:	PIR-Palm oil
Date of removal	:	February 04, 1996

Study and Design

The study and design of Southern Siberuang Unit-II conducted by Consultant for Ministry of Transmigration (completed in December 1993).

Implementation of Construction

July, 1994	:	The construction of Southern Siberuang Unit-II was started.
December, 1995	:	Construction of additional measures (cement floor and ceiling of house, water supply, pavement of main road and permanent bridges) were completed.
February 04, 1996	:	The PAFs of Pongkai resettled the new resettlement location.
December, 1997	:	Construction of additional measure (electricity) was completed.

Construction of the resettlement was conducted in F/Y 1994/1995 and completed in March 1995, and detail implementation progress of the land preparation and public infrastructures of the Southern Siberuang Unit-II location as per July 31, 1998 is described as follows:

	Quantity (Original)	%	Quantity (up to July.98)	%
A. Land Clearing				
1. Housing and House yard	20.00 ha	100	20.00 ha	100
2. Food Crops	80.00 ha	100	80.00 ha	100
3. Public Infrastructures	71.30 ha	100	71.30 ha	100
Total	171.30 ha	100	171.30 ha	100
4. Plantation	400.00 ha	100	400.00 ha	100
B. Public Infrastructures by the GOI				
1. Main/Connection Road	6.50 km	100	6.50 km	100
2. Village Road	9.00 km	100	9.00 km	100
3. Concrete Culvert	179.00 m	100	179.00 m	100
4. Wooden Bridge	37.00 m	100	37.00 m	100
5. Public Buildings	12.00 unit	100	12.00 unit	100

6. Water Supply	8.00 unit	100	8.00 unit	100
C. Housing by the GOI				
1. Housing and Latrines	200 unit	100	200 unit	100
2. Well for Water Supply	100 unit	100	100 unit	100
D. Electrification by PLN				
1. Installation of pole	1 L.S	100	1 L.S	100
2. Distribution Line	1 L.S	100	1 L.S	100
3. Power Station	1 unit	100	1 unit	100
E. Additional Measures				
1. Housing	200 unit	100	200 unit	100
2. Water Supply	1 L.S	100	1 L.S	100
3. Pavement of Main Road	6.5 km	100	6.5 km	100
4. Bridge Improvement	6 unit	100	6 unit	100
F. Plantation				
1. Preparation	400 ha	100	0 ha	0
2. Cultivating Cover Crops	400 ha	100	0 ha	0
3. Plantation seeds (Palm-oil)	54,000 seed	100	31,239 seed	57.85
4. Cultivating Palm-oil	400 ha	100	0 ha	0
G. Food Crops				
1. Preparation of Package A	200 pack	100	200 pack	100
2. Preparation of Hand Sprayer	50 pcs.	100	0 pcs.	0
3. Preparation of Green Fertilizer	500 kg	100	500 kg	100
4. Test Farm	1 location	100	0 location	0
5. Preparation of Agr. Limestone	100 ton	100	100 ton	100
6. Land Preparation	100 ha	100	100 ha	100

Resettlement Preparation for Rimbo Datar

Village of origin	:	Tanjung Balit and Tanjung Pauh
Original number of families	:	734
		Tanjung Balit (421), and Tanjung Pauh (313)
Original transmigration pattern	:	UPP-Rubber
Date of removal	:	July 29, 1993

Study and Design

Study of the resettlement area has been finalized by the following institutions :

- Study on Suitable Area for Resettlement and Agriculture conducted PLN in cooperation with Andalas University (March 6, 1991).
- Engineering Design of Spatial Plan for Resettlement Unit and Road for accommodating 734 families was finalized by Consultant for Ministry of Transmigration in March 1991.

Implementation of Construction

Since June, 1992	:	The resettlement preparation for 734 PAFs was started.
March, 1993	:	Construction of houses and latrines was completed, included cement floor and ceiling for houses.
July 28-29, 1993	:	The PAFs of Tanjung Pauh and Tanjung Balit villages resettled the new resettlement location.
August, 1994	:	Construction of additional measures (water supply, electricity pavement of main road and permanent bridges) were completed.
December, 1993	:	Construction of additional measure (rehabilitation of water supply) was completed.

Construction of the resettlement was conducted in F/Y 1991/1992/1993 and completed in March 1993, and detail implementation progress of the land preparation and public infrastructures of the Rimbo Datar location as per July 31, 1998 is described as follows:

	Quantity (Original)	%	Quantity (up to July.98)	%
A. Land Clearing				
1. Housing and House yard	80.00 ha	100	80.00 ha	100
2. Food Crops	320.00 ha	100	320.00 ha	100
3. Public Infrastructures	190.00 ha	100	190.00 ha	100
Total	590.00 ha	100	590.00 ha	100
4. Plantation	1,600.00 ha	100	1,600.00 ha	100
B. Public Infrastructures by the GOI				
1. Main/Connection Road	7.00 km	100	7.00 km	100
2. Village Road	32.50 km	100	32.50 km	100
3. Concrete Culvert	595.00 m	100	595.00 m	100
4. Wooden Bridge	120.00 m	100	120.00 m	100
5. Public Buildings	24.00 unit	100	24.00 unit	100
6. Water Supply	16.00 unit	100	16.00 unit	100
C. Housing by the GOI				
1. Housing and Latrines	800 unit	100	800 unit	100
2. Well for Water Supply	400 unit	100	400 unit	100
D. Electrification by PLN				
1. Installation of pole	1 L.S	100	1 L.S	100
2. Distribution Line	1 L.S	100	1 L.S	100
3. Power Station	1 unit	100	1 unit	100
E. Additional Measures				
1. Housing	800 unit	100	800 unit	100
2. Water Supply	1 L.S	100	1 L.S	100
3. Pavement of Main Road	7 km	100	7.00 km	100
4. Bridge Improvement	6 unit	100	6.00 unit	100

F. Plantation *)

1. Preparation	1,600 ha	100	1,508 ha	94,25
2. Cultivating LCC	1,600 ha	100	1,508 ha	94,25
3. Plantation seeds (Rubber)	800,000 seed	100	754,000 seed	94,25
4. Cultivating rubber	1,600 ha	100	1,508 ha	94,25

G. Food Crops

1. Preparation of Package A	800 pack	100	800 pack	100
2. Preparation of Hand Sprayer	160 pcs.	100	160 pcs.	100
3. Preparation of Green Fertilizer	2,000 kg	100	2,000 kg	100
4. Test Farm	1 location	100	1 location	100
5. Preparation of Agr. Limestone	400 ton	100	400 ton	100
6. Land Preparation	400 ha	100	400 ha	100

*) Unsuccessfully growth

3.5 Progress of the Resettlement Construction

The construction of the resettlement locations were started since October 1990 from Koto Ranah for the PAFs of Pulau Gadang village (the first village to be submerged due to construction of diversion tunnel) and continued up to Sungai Pagar for Pongkai village. Meanwhile, removal of the PAFs was completely undertaken, started on August 29, 1992 for Pulau Gadang village up to February 04, 1996 for Batu Bersurat village, as follows:

	Construction period	Village	Removal of the PAFs
- Koto Ranah	F/Y 1990/1991/1992	Pulau Gadang	August 29, 1992
- Selatan Muara Takus	F/Y 1991/1992/1993	Muara Takus	January 8, 1994
		Koto Tuo	March 28, 1994
- Southern Siberuang-Unit 1	F/Y 1992/1993	Gn. Bungsu	March 28, 1993
- Southern Siberuang-Unit 2	F/Y 1995/1996	Pongkai	February 04, 1996
- Ranah Sungkai	F/Y 1993/1994/1995	Bt. Bersurat	January 2, 1995
- Southern Batu Bersurat	F/Y 1994/1995/1996	Bt. Bersurat	January 11, 1996
- Ranah Koto Talago	F/Y 1993/1994	Tj. Alai	October 3, 1994
- PTP-V Sungai Pagar	F/Y 1995/1996	Pongkai	February 4, 1996
- Bangkinang Block X/G	F/Y 1993/1994	Muara Mahat	March 21, 1994

50 Kota Regency - West Sumatera Province

- Rimbo Datar	F/Y 1991/1992/1993	Tj. Balit	July 29, 1993
		Tj. Pauh	July 29, 1993

Detail progress of construction of the new resettlement locations is shown in the attached TABLE 12-4 : Progress of Construction of the New Resettlement Locations.

The reservoir and the new resettlement locations is shown in the attached FIGURE 12-1 : Layout of Inundation Area and New Resettlement Locations of the Kotapanjang HEPP.

Chapter 4 ACTIVITIES IN THE NEW RESETTLEMENT LOCATIONS

4.1 Rubber Plantation

a) Construction of Rubber Plantation

Kampar Regency - Riau Province

Construction of rubber plantation for 3,446 PAFs (2.00 ha. for each PAF) in Kampar Regency was started since January 1992 for Koto Ranah and closed in F/Y 1995/1996. During the construction activities, several numbers of field obstructions and problems were identified as follows :

- Due to budget limitation, the maintenance period could be done only for the first 3 months, instead as the planned 1 year.
- Due to delay of resettlement construction, most of seed planting could not be done as scheduled at the beginning stage of rainy seasons.
- Due to delay of land certification for some areas, handing over of the rubber plant to each PAFs could not be done 3 months after seed planting.
- On the other hand, the certified lands could not be handing over to the PAFs due to internal PAFs difficulties for land distribution, and most of the PAFs still requested to the GOI to provide maintenance cost up to harvesting time.

50 Kota Regency - Riau Province

Construction of rubber plantation for 734 PAFs (2.00 ha. for each PAF) in 50 Kota Regency was started since April 1994 and closed in F/Y 1997/1998. During the construction activities, a similar numbers of field obstructions and problems as occurred in Kampar Regency were also founded.

As results of this matters, it was concluded in the National Environmental Coordination Meeting on September 25, 1996 held in Pekanbaru that only 15-20 % of the rubber plantation were successfully growth both Kampar and 50 Kota Regencies.

b) Action for Countermeasures of Unsuccessful Rubber Plantation.

Kampar Regency - Riau Province

The Kampar Regential Government decided to change the unsuccessful rubber plantations to be PIR Palm Oil as requested and agreed by the PAFs through the following program:

- The existing rubber plantation areas will be used for PIR-Palm Oil.
- Management of PIR-Palm Oil will be done by PIR Company as Father Company (Bapak Angkat).

- Investment for construction of plantation will be applied to Bank of Indonesia through KKPA (Kredit Koperasi Primer untuk Anggota = Credit for Members of Primary Cooperative).
- Other required procedures and approval in relation with Ministry of Forestry and Plantation will be applied by Riau Governor, such as release of forest rights, establishment of forest area as a substitute forest, etc.

Study, site investigations and other necessary actions were conducted in October 1996 and in January 1997 by the Kampar Regential Government, Riau Forestry and Plantation Offices and Sinar Mas Group as PIR Company, as follows :

- October, 1996 : Field survey for land feasibility and land availability of the proposed area for palm-oil plantation (plasm and nucleus) conducted by Riau Provincial Government, Kampar Regential Government, Other related Agencies and P.T. Ramajaya Pramukti (PIR Company). The 2nd field survey was conducted in January, 1997.
- Dec. 03, 1996 : Signing of agreement between P.T. Ramajaya Pramukti and KUD (Village cooperative unit) Aneka Karya Usaha representing the PAFs and witness by each village head at Bangkinang.
- Jan. 1997 : The 2nd field survey was conducted.

The results of study and site investigation are as follows :

- The net feasible area required for PIR-Palm Oil was about 9,000 ha. (2,00 ha as plasm area for each PAFs and 2,000 ha. as nucleus area for PIR Company), or about 11,000 ha. total gross area.
- The required substitute forest was about 6,000 ha. located near Mahato village.
- Necessary procedures and application shall be done by Riau Governor to the related Ministries in Jakarta in order to obtain approval for forest matters and KKPA.

Further to the results, starting from February 1997 Riau Provincial Government and P.T. Ramajaya Pramukti (Sinarmas Group) agreed to implement the PIR-Palm Oil Program for the resettlement area, meanwhile the necessary procedures, permit and approval are being processed, and the following activities were undertaken :

- March-June 1997 : Seedling activities by P.T. Ramajaya Pramukti, and it was reached 800,000 seeds. It was stopped since June 1997 due to waiting official approval from Riau Governor and Minister of Forestry concerning release of forest rights status to be used for PIR Plantation.

Due to limited seedling times (maximum 9 months), then

the allocated seeds were used by the Company to their another plantation location.

- April, 1997 (plan) : Site construction (land clearing and blocking).

It was temporarily postponed due to waiting official approval from Riau Governor and Minister of Forestry concerning release of forest rights status to be used for PIR Plantation.

- Since April 1997 to October 1997, Riau Governor have submitted application with required supporting documents to Minister of Forestry and Plantation, as follows:
 - Letter No. 522/EK/2131, dated August 04, 1997 concerning Recommendation for release of rights of forest status for the purpose of plantation area for the PAFs of Kampar Regency.
 - Letter No. 548/X/1997, dated October 15, 1997 concerning Land Reservation of 4,100 hectares (2,100 hectares at Selatan Muara Takus-Unit 2; 2,100 hectares at Tanjung village; 1,500 hectares at Ranah village).
 - Letter No. 547/X/1997, dated October 15, 1997 concerning appointing converted forest of 6,000 hectares at Sungai Mahato as replaced forest area for palm-oil plantation.
 - Letter No. 525/EK/3024, dated 15 October 1997 concerning appointing P.T. Ramajaya Pramukti as PIR Company and approval of land reservation for Palm-oil plantation.

Since then, further procedures for obtaining approval from Minister of Forestry are being processed.

Based on the results of Riau Provincial Environmental Coordination Meeting held in Pekanbaru on July 13, 1998 it was stated that the approval was issued by the Minister and further program and activities to be taken are under prepared by the Task Force (Ministry of Forestry and Plantation, Riau Provincial Government, Kampar Regental Government, Other Related Government Agencies in Riau Province and Sinar Mas Group).

50 Kota Regency - West Sumatera Province

Referred to West Sumatera Provincial Environmental Coordination Meeting held in Pangkalan Kotobaru on September 23, 1997 (Chaired by West Sumatera Vice Governor) and Site Inspection to Rimbo Datar held in the same day, it was concluded:

- Rubber rehabilitation program for remaining 175 ha. will be done in F/Y 1997/1998.
- The possibility to change the unsuccessful rubber plantation to be PIR-Palm Oil will be considered and discussed by the Provincial Government and related Ministries in Jakarta.

Based on West Sumatera Provincial Environmental Coordinated Meeting held in Payakumbuh on June 27, 1996 and Site Inspection conducted on July 07-10, 1998, it was concluded that the rehabilitation of the existing rubber plantation will be made with the following programs :

- Rubber rehabilitation program for 175 ha. was completed in March 1998.
- Rehabilitation works will be continued with planting of 360,000 seeds in F/Y 1998/1999.
- Resurvey of rubber plantation area for land certification will be completed in Dec. 1998.

c) Construction of PIR Palm Oil

For the PAFs who selected to resettle at PIR-Palm Oil Resettlement Locations, the GOI allocated 447 PAFs of Muara Mahat village at PIR-Bangkinang Block X/G and 259 PAFs of Pongkai village at PTP-V Sungai Pagar. The construction of resettlement locations were implemented in F/Y 1993/1994 for Bangkinang Block X/G and in F/Y 1995/1996 for PTP-V Sungai Pagar. The Muara Mahat villagers removed on March 21, 1994 and on February 04, 1996 for Pongkai villagers. Since then, there was no difficulties and problems occurred to the PAFs, meanwhile transfer of the plasm area (2.00 ha. for each PAF) was done by PIR Company to the PAFs in April 1997 for Bangkinang Block X/G and in January 1998 for PTP-Nusantara V Sungai Pagar.

Detail progress of rubber plantation and palm-oil plantation is shown in the attached TABLE 12-5 : Progress of Rubber Plantation at the New Resettlement Locations.

4.2 Living Support (Jadup = Jaminan Hidup)

In accordance with Standard Facilities for Public Transmigration of Ministry of Transmigration, the GOI provided living support for each PAF for 12 months implemented in the first after removal to the new resettlement location consisted of 9 (nine) items of foodstuff (Rice, Sugar, Kerosene, Cooking oil, Washing soap, Salty fish, Salt, etc.)

Due to unsuccessful growth of rubber plantation, based on the PAFs request the GOI provided an additional living support for the 2 Regencies (F/Y 1997/1998 for Kampar Regencies and F/Y 1998/1999 for 50 Kota Regency), as follows :

Kampar Regency

An additional living support is provided for F/Y 1997/1998 by GOI to the PAFs whose resettled at the UPP-Resettlement area, excluding the PAFs at the PIR-Transmigration such as Sungai Pagar and Bangkinang X/G, in the form of 50 kg rice/PAF/month for a period of 12 months, and distribution to the PAFs was started from April 1997.

50 Kota Regency

Procurement of an additional living support for F/Y 1997/1998 to the PAFs who resettled at the UPP-Resettlement area (Rimbo Datar), in the form 50 kg rice/PAF/month for a period of 6 months, and distribution to the PAFs was started from February 1998.

At present, with the same reasons the PAFs submitted another request for extension of living support, and there was still no reply by the GOI.

Detail progress of providing living support is shown in the attached TABLE 12-6 : Progress of Providing Living Support (Jadup) to the PAFs at the New Resettlement Locations.

4.3 Foodcrops and Houseyard

The GOI provided seeds, fertilizer, etc. for activity of the PAFs in the foodcrops and houseyard areas (0.50 ha. for each PAF) in accordance with Standard Facilities for Public Transmigration of Ministry of Transmigration (Package A, B and C) and it was provided for a period of 3 (three) consecutive years after removal.

4.4 Additional Water Supply

In accordance with the Standard Facilities for Public Transmigration of Ministry of Transmigration, for water supply 1 dig-well for every 2 houses was provided instead of the original 1 dig-well for every 4 houses. This facility was considered not enough especially during the dry season, the GOI constructed the additional water supply in each resettlement location in the form of Public Hydrant (Water Treatment Plant, Piping Installation, and Plastic Water Tank 1 unit for every 30 houses). This activity was financed by OECF Loan SPL-V/VI through Ministry of Transmigration since F/Y 1993/1994.

In 1995, it was founded numbers of site problems that most of the Public Hydrant were out of works due to lack of maintenance and lack of water sources, and in F/Y 1995/1996/1997 the rehabilitation and completion works were implemented in each resettlement location. Especially for Rimbo Datar, due to lack of the existing water sources further activities is being undertaken in F/Y 1998/1999 in order to reach the feasible water sources in another place.

The countermeasures action for rehabilitation, improvement and completion works on water supply facilities at the new resettlement area have been started, and the on-going progress are as follows :

Kampar Regency

- a) Koto Ranah : Site rehabilitation was completed on September 30, 1997
- b) Bangkinang Block X/G : Properly running
- c) Ranah Koto Talago : Properly running
Site improvement was completed on September 30, 1997

- d) Ranah Sungkai : Site rehabilitation was completed on September 30, 1997
- e) Selatan Batu Bersurat : Site rehabilitation was completed on September 30, 1997
- f) PIR-Sungai Pagar : Properly running
- g) Selatan Siberuang-Unit 2 : Properly running
- h) Selatan Muara Takus (1) : Properly running
- i) Selatan Muara Takus (2) : Properly running
Site improvement was completed on September 30, 1997
- j) Selatan Siberuang-Unit 1 : Properly running

50 Kota Regency

- a) Rimbo Datar-Unit 1 : Site rehabilitation was completed on September 30, 1997
- b) Rimbo Datar-Unit 2 : Site rehabilitation was completed on September 30, 1997

Detail progress of additional water supply is shown in the attached TABLE 12-7 : Progress of Construction of Additional Water Supply at the New Resettlement Locations.

4.5 Resettlement Roads and Bridges

The existing main roads included bridges, culverts in the resettlement locations which were constructed in accordance with Standard Facilities for Public Transmigration of Ministry of Transmigration, have been improved by the GOI in F/Y 1996/1997 as follows:

- a) Repavement of the main road.
- b) Construction of permanent concrete bridges along the main road, instead the existing wooden bridges.
- c) Improvement of culverts.
- d) Maintenance of roads and bridges.

In order to speed-up the economical growth of the PAFs at the resettlement area in transportation point of view, the required rehabilitation and improvement works for road and bridges within the resettlement area will be implemented in F/Y 1997/1998, as follows:

- Pavement of main road of 5.5 km at PIR-Bangkinang Block X/G.
Completed by December 31, 1997.
- Pavement of main road of 6.5 km at PIR-Sungai Pagar.
Completed by December 31, 1997.
- Pavement of Lot-VIB (relocation of provincial road) of 19.0 km.
Completed by March 31, 1998.
- Bridge improvement of 68 m at Selatan Siberuang-Unit 2.
Completed by March 31, 1998.
- Maintenance, rehabilitation and improvement of road (8.7 km), bridge (10 m and 12 m) and concrete culvert of 94 m) at Selatan Muara Takus-Unit 1 & 2.
Completed by March 31, 1998.

Detail progress of roads, bridges and culverts is shown in the attached TABLE 12-8 : Progress of Construction of Roads, Bridges and Culverts at the New Resettlement Locations.

4.6 Rural Electrification in the Resettlement Locations

The rural electrification was implemented by PLN in each resettlement location since 1992, as additional measures to the PAFs. In providing the electrical facilities PLN constructed new Diesel Power Plants, Electrical Poles, Distribution lines and connecting the PAFs houses and other Public facilities. The connecting cost to the PAFs houses are described as follows :

- a) Connecting fee (BP = Biaya Penyambungan) provided by PLN as free to the PAFs.
- b) In-house Installation cost (IR = Instalasi Rumah) paid by the PAFs.
- c) Customer Guarantee fee (UJL = Uang Jaminan Langganan) paid by the PAFs.

The construction of rural electrification for resettlement area are being continued with connection to the PAFs houses.

Through intensive discussions between the Provincial Governments and the PAFs, the informal understanding concerning contribution of connection costs was reached by and between the parties. Only the PAFs houses provided by the Ministry of Transmigration will be electrified under the following conditions :

- Customer insurance cost of Rp. 20,250/house by the PAF.
- In-house installation will provide by the PAF.
- Connection cost Rp. 67,500/house by P.T. PLN as free to the PAFs.

The on-going progress on rural resettlement electrification was reached 3,672 houses (75,15 %), as the following details :

Kampar Regency

- Koto Ranah : Power supply and 20 kV distribution line and connection to the PAFs houses were completed (592 houses).
- Bangkinang Block X/G : Power supply and 20 kV distribution line were completed, and connection to the PAFs houses reached 418 houses.
- Ranah Koto Talago : Power supply and 20 kV distribution line were completed, and connection to the PAFs houses was reached 245 houses.
- Ranah Sungkai : Power supply and 20 kV distribution line were completed, and connection to the PAFs houses was reached 335 houses.
- Selatan Batu Bersurat : Power supply and 20 kV distribution line were completed, and connection to the

- PIR-Sungai Pagar : PAFs houses reached 444 houses. Power supply and 20 kV distribution line and connection to the PAFs houses were completed (259 houses).
- Selatan Siberuang-Unit 2 : Power supply and 20 kV distribution line were completed, and connection to the PAFs houses will be started in F/Y 1998/1999.
- Selatan Muara Takus (1) : Power supply and 20 kV distribution line were completed, and connection to the PAFs houses reached 207 houses.
- Selatan Muara Takus (2) : Power supply and 20 kV distribution line were completed, and connection to the PAFs houses reached 360 houses.
- Selatan Siberuang-Unit 1 : Power supply and 20 kV distribution line and connection to the PAFs houses were completed (241 houses).

50 Kota Regency

- Rimbo Datar-Unit 1 : Power supply and 20 kV distribution line were completed, and connection to the PAFs houses reached 240 houses.
- Rimbo Datar-Unit 2 : Power supply and 20 kV distribution line were completed, and connection to the PAFs houses reached 280 houses.

Detail progress of rural electrification is shown in the attached TABLE 12-9 : Progress of Rural Electrification at the New Resettlement Locations.

Chapter 5 PROPER PROTECTION AND MONITORING OF PROTECTED WILDLIFE AND HISTORIC SPOT

5.1 Translocation of Elephants from the Reservoir Area

In year 1987, the Sub Institute for Conservation of Natural Resources of Riau Province (KSDA Riau) have conducted the field survey in the planned impounding area of the project, and it was identified that 56 species of protected wildlife were founded.

The survey results also concluded that particularly elephants was needed special treatment due to critical population, low mobile, and required the large suitable area for living, meanwhile for another species were necessary to be periodically monitored.

Referred to recommendation stated in the previous study conducted by Riau University in cooperation with KSDA Riau in F/Y 1990/1991, PLN as the Project Proponent conducted the translocation of elephants from the reservoir area to Giam Siak Kecil Game Reserve in Duri, in cooperation with KSDA of Riau Province since F/Y 1992/1993.

It was originally planned that the translocation of elephants from the reservoir area will be undertaken within year 1993. Due consideration of the present situation at the project site that the elephants were oftenly disturbed the human activities (Villages, Plantation, etc.), it is decided to translocated the elephants at the beginning of December 1991 in order to protect the construction and development of the resettlement areas (Koto Ranah, Southern Muara Takus, Southern Siberuang and Rimbo Datar).

The present progress up to 36 elephants caught and dispatched to Giam Siak Kecil Game Reserve. 1 to 2 heads of uncaught elephants still exist around Koto Ranah resettlement area and they some time disturbed the human being and the rubber plants and food crops.

The Coordination Team of Riau Province through Sub Institute for Conservation of Natural Resources (KSDA) of Riau is being continued catching the elephants, if any.

5.2 Monitoring of Protected Wildlife (Birds and Mammals) in the Reservoir Area

Referred to recommendation stated in the previous study conducted by PLN in cooperation with Sub-Institute for Conservation of Natural Resources in F/Y 1991/1992, and the works have been done the monitoring works in every 3 months since F/Y 1992/1993 up to 7 years after completion of the Project.

The preparation of monitoring plans of wildlife has been started on May 1, 1992. The office study and basic plan was completed by May 1992.

The 1st and 2nd meeting with PLN and KSDA Riau to finalize the proper protection and monitoring of wildlife has been held on June 25 and 30, 1992. The final report was completed on July, 1992.

The 2nd monitoring at the Project area was completed on March 1993, and monitoring results has been prepared by KSDA Riau, and English version of this report was submitted by the Engineer to PLN on July 29, 1993.

The 3rd monitoring was completed on June 1993, and English version of monitoring report has been submitted by the Engineer on January 1994. The 4th monitoring was completed on September 1993, and English version of monitoring report has been submitted by the Engineer on January 1994. It was continued in every 3 months.

5.3 Conservation of Flora Endanger Species (Plasma Nutfah)

In November 1995, the State Minister of Environment issued decree concerning conservation of flora endanger species (Plasma Nutfah) in Indonesia. In order to fulfil conditions stated in the decree, PLN in cooperation with Riau University conducted study in F/Y 1995/1996 and results of the study presented to National Committee on Plasma Nutfah and National Environmental Coordination Meeting held in Pekanbaru, September 25, 1996 with the conclusion of the Plasma Nutfah was not found in the reservoir area.

5.4 Protection of Muara Takus Historical Remains

Referred to recommendation of studies concerning protection of Muara Takus Archaeological Remains conducted by SPSP of West Sumatera and Riau Provinces (Institute for Management of Historical and Archaeological Remains of Ministry of Education and Culture), it was concluded that :

- a) the total area of Muara Takus site was 94.70 hectares, and at the maximum reservoir water level of + 85.00 msl, 51.50 hectares of the area will be submerged.
- b) the lowest ground elevation of the unsubmerged area of 43.20 hectares was + 86.75 m msl and it was consisted of Muara Takus Temple Complex, archaeological dykes and other archaeological remains.
- c) the unsubmerged area was also free from other reservoir water influenced, such as : infiltration, land-sliding, etc.
- d) the archaeological data within the submerged area was recorded.
- e) the following activities are necessary to be conducted by PLN to improve the site conditions were as follows :
 - improvement of road condition (+/- 400 m) from junction with the provincial road to the Muara Takus Temple Complex.
 - site clearance along the archaeological dikes and areas surrounding the Temple Complex and provided 2 units of grass-cutting machines.
 - improvement of drainage facilities surrounding the Temple Complex.
 - construction of 2 monitoring wells inside the Temple Complex for observation of effect of increasement of reservoir water level.

PLN under supervised by SPSP implemented the required works in F/Y 1996/1997, and the completion agreement between PLN and SPSP was reached on February 26, 1997.

5.5 Removal of Historical and Public Leaders Graves

PLN in cooperation with the villagers have removed 4 (four) historical and religion leader graves from the planned reservoir area to the new resettlement areas, as follows :

- | | |
|---------------------------------------|-----------------|
| a) Syekh H. Abdul Ghani | (Batu Bersurat) |
| b) Syekh H. Jaafar | (Pulau Gadang) |
| c) Syekh H. Abdul Ghani (Angku Lunak) | (Pulau Gadang) |
| d) Syekh H. Abdurrahman | (Tanjung Alai) |

Chapter 6 CHANGED OF SOCIO-ECONOMIC AND SOCIO-CULTURE OF THE PAFS

6.1 Monitoring of Socio-Economic and Socio-Culture of the PAFs

As stated in the Minutes of Discussions between the OECF and the GOI in year 1990, the GOI shall monitor conditions of socio-economic and socio-culture of the PAFs due to the project development activities. The GOI through PLN in cooperation with Riau University and Padjadjaran University have implemented yearly monitoring of RKL and RPL since F/Y 1992/1993, included monitoring of changed of socio-economic and socio-culture of the PAFs. In July 1996, the OECF mission in cooperation with Andalas University were also conducted similar activities in the new resettlement locations, and the results are as follows :

- Conditions of the PAFs income become drastically decreased (unless PIR-Bangkinang Block X/G and PIR-Sungai Pagar). The present PAFs income mostly depend on harvesting rubber plant in the old villages, but it will be stopped when the impounding activities will be done at the beginning of year 1997.
- Most of rubber plantation in the new resettlement areas were unsuccessfully growth, meanwhile handing-over of rubber plant and foodcrops areas to the PAFs have not implemented yet due to delay of land certification.
- It was identified also the land compensation amount received by the PAFs were not effectively used, part of the amount were used for consumptive goods instead of deposit in Bank and or invested in agriculture activities in the new resettlement area.
- It was also founded that the PAFs socio-culture was not change, they still kept the custom and tradition as in the old villages. Meanwhile, in PIR-Bangkinang Block X/G and PIR-Sungai Pagar the PAFs shall adopted some new custom and culture from other villagers who also resettled at the same PIR-Palm Oil Location.

6.2 Impact Mitigation Efforts by the GOI

- Providing additional living support.
- Prepared the PIR-Palm Oil program (Kampar Regency) and proposed to related Ministries in Jakarta, and prepared rehabilitation program of the existing rubber plantation (50 Kota Regency).

- Conducted rehabilitation and maintenance of public facilities, such as : roads and bridges, water supply, etc.
- Conducted the study of zoning area by PLN in cooperation with Padjadjaran University in F/Y 1995/1996 and presented the study recommendation to both Provincial Governments and Regental Governments for further development in order to provide job-opportunity to the PAFs, such as : fisheries, tourism, etc.

Chapter 7 IMPOUNDING OF THE RESERVOIR AND MONITORING ACTIVITY

7.1 Significant Reservoir Water Level

- | | |
|------------------------------------------------------|-----------------|
| a) Spillway crest level | : + 67.50 m msl |
| b) The lowest water level | : + 73.50 m msl |
| c) The normal water level | : + 80.60 m msl |
| d) The maximum water level for operation of turbines | : + 83.00 m msl |
| e) The maximum water level for land-compensation | : + 85.00 m msl |

7.2 Impounding Activity

The official date of impounding was on March 1, 1997. Meanwhile, the declaration of impounding was done through impounding ceremony on February 28, 1997 by both Provincial Governments and PLN, based on Decree of Riau Governor No. KPTS 89/II/1997, February 22, 1997 and Decree of West Sumatera Governor No. 69 Tahun 1997, February 22, 1997.

In fact, the impounding was actually started on March 12, 1997 at 09:44 a.m., with the initial water level of + 40.60 msl. and officially closed on December 31, 1997, and the monthly increase of water level are as follows :

No.	Date (at 08.00 a.m.)	Water level (above msl)	Surface area (km ²)	% of planned reservoir surface area
a)	March 31, 1997	+ 67.67	29.664	23.92
b)	April 30, 1997	+ 74.61	63.350	51.09
c)	May 31, 1997	+ 79.32	92.700	74.76
d)	June 30, 1997	+ 80.43	99.360	80.13
e)	September 26, 1997	+ 82.48	110.540	88.81
f)	September 30, 1997	+ 82.09	108.520	86.94
g)	December 31, 1997	+ 81.41	105.390	84.67

For impacts mitigation during the impounding, 2 (two) teams were established, namely : Control Team for Impounding (Provincial Level) and Executing Team for Impounding (Regental Level). Under the 2 teams, the field operational posts were also established as follows :

- Post for Safety of Water Accident.
- Post for Safety of Wildlife.

- c) Post for Health Monitoring.
- d) Post for Impact Mitigation at the Downstream Area of the Dam.

7.3 Temporary Stop of Impounding

Based on Site Visit conducted by the OECF Mission, discussion in the National Coordination Meeting (May 07, 1997) and other formal communication letters between the OECF and the GOI, the OECF requested to the GOI to firstly solve resettlement issues in accordance with the Loan Agreement before continuing the impounding activity over then elevation of spillway gates (+ 67.50 msl). The main resettlement issues to be finalized by the GOI are described as follows :

- a) Land acquisition
 - Payment of remaining inundated land-blocks for Pongkai (87 landblocks, 106 hectares and Rp. 319 million).
 - Settlement of 1,320 land-blocks for Pongkai and Koto Tuo villages which is being investigated by the Land Acquisition Committee.
- b) Unsuccessful rubber plantation

Countermeasures by the GOI

- a) Settlement of remaining unpaid land-blocks will be finalized in December 1997.
- b) As reported in the National Coordination Meeting on May 07, 1997.

Kampar Regency

The PIR-Palm oil will be implemented instead of the unsuccessful rubber plantation. About 3,300 hectares of additional gross land still required for PIR-Palm oil with the following details :

Items	Required land (ha)	Available land (ha)
- Existing PAFs (3,446)	6,892	6,050
- Desa Ranah (200 families)	400	0
- Nucleus for PIR Company	2,000	0
Total	9,292	6,050

The additional required land will be appointed around Desa Ranah (1,300 ha.) and around Selatan Muara Takus (2,000 ha). In order to further process the construction of PIR-Palm oil, the OECF requested to the GOI to submit the approval letter from Minister of Forestry concerning release of the forest rights to be used for PIR-Palm oil activity.

50 Kota Regency

The West Sumatera Provincial Government implemented the rehabilitation on completion of rubber plantation at Rimbo Datar resettlement area (212 hectares were completed in March, 1998), and the changed of rubber to palm oil based on result of coordination meeting at Pangkalan Kotobaru on September 23, 1997 is being proposed and proceed to related Ministries.

- c) Additional living support (Jadup) for the PAFs

Additional living support will be provided for Kampar Regency and 50 Kota Regency for 12 months period.

- d) Public infrastructures in the resettlement areas

Rehabilitation, maintenance, completion and improvement of public infrastructures within the resettlement areas, such as road pavement and maintenance, bridges, culverts and water supply were implemented since July 01, 1997 and it will be overall completed in March 1998.

7.4 Zero Accident of Impounding Impacts

It was reported by the Impounding Executing Team of Kampar Regency and 50 Kota Regency that since March 12, 1997 (starting date of impounding) to December 31, 1997, there were no serious and un-expected accidents occurred due to impounding, such as : water accident, attacking of wildlife to human being, epidemic diseases, demonstration and riot, and claimed due lack of river water at the downstream area, etc.

7.5 Mitigation of Flood Impacts at Pangkalan Kotobaru (After impounding stage)

The flood occurred at Pangkalan Kotobaru, around 7 km upstream of reservoir boundary at Mahat River, on January 06, 1998 and on February 02, 1998 were considered necessary to be investigated in order prepare a proper effort for mitigation.

- a) Flood Records

Flood No. 1
 Date : January 06, 1998
 The peak discharge : 3,456 m³/s
 Estimated return period : 40 years
 The highest water elevation at Pangkalan Kotobaru : + 91.73 m msl
 Reservoir water level an Damsite : + 82.75 m msl
 Flood duration : 10 hours

Flood No. 2
 Date : February 02, 1998
 The peak discharge : 3,576 m³/s

Estimated return period	: 40 years
The highest water elevation at Pangkalan Kotobaru	: + 92,40 m
Reservoir water level an Damsite	: + 82.50 m msl
Flood duration	: 12 hours

b) Flood Impacts

7 of 12 villages at Pangkalan Kotobaru sub-district of 100 hectares were submerged, 426 families of 3,726 population were evacuated and estimated lost of properties of Rp. 5 billion during 2 times flood occurred. The national road link between Pekanbaru and Bukittinggi were submerged at several points and traffic were suspended for 10 to 12 hours.

c) Engineering Prediction of Flood Sources

- i) Uncommon river shape (river narrow) along 1.5 km at the downstream of Pangkalan Kotobaru bridge.
- ii) Decrease of quality of catchment area.
- iii) River obstruction at several points downstream area of Pangkalan Kotobaru bridge, such as boulders, erosive materials, etc.

d) Proposed Plan for Flood Countermeasures

Referred to the meeting results by and between PLN, the West Sumatera Regional Public Works Office, the West Sumatera Provincial Government, the 50 Kota Regential Government, and Related West Sumatera Government Agencies held in Padang on March 26, 1998 and on March 30, 1998, it was concluded that the flood will be occurred every year, and the peak discharge will be also increased due to deceased quality of the catchment area.

Based on the letter from Governor of West Sumatera No. 610/180/GSB-98 dated February 13, 1998, the Provincial Government of West Sumatera, the Regential Government of 50 Kota and PLN will conduct the comprehensive study for mitigation the impacts.

PLN in cooperation with related Provincial/Regential Government Agencies will prepare a technical and cost proposals for the study. It was planned that the study will be conducted from May 1998 for a period of 6 months, and the study cost will be proposed for approval to OECF and BAPPENAS by using the remaining OECF Loan for the Construction of the Kotapanjang HEPP.

In order to avoid from mis-understanding and mis-communication due to the existence of the Kotapanjang reservoir and to mitigate further serious impacts to the residents, the following countermeasures will be undertaken :

- i) Short-term countermeasures (1998-1999)

- ii) Construction of Radio Communication and Warning System and Telemetering System of PLN (LOT-V Works), which part of the works will be done within Pangkalan Kotobaru catchment area for earlier monitoring and prediction of flood occurrences such as :

- 1 unit Rainfall Station and 1 unit Gauging Station at Gunung Melintang.
- 1 unit Warning Station at Pangkalan Kotobaru.
- 1 unit Gauging Station at Tanjung Balit.

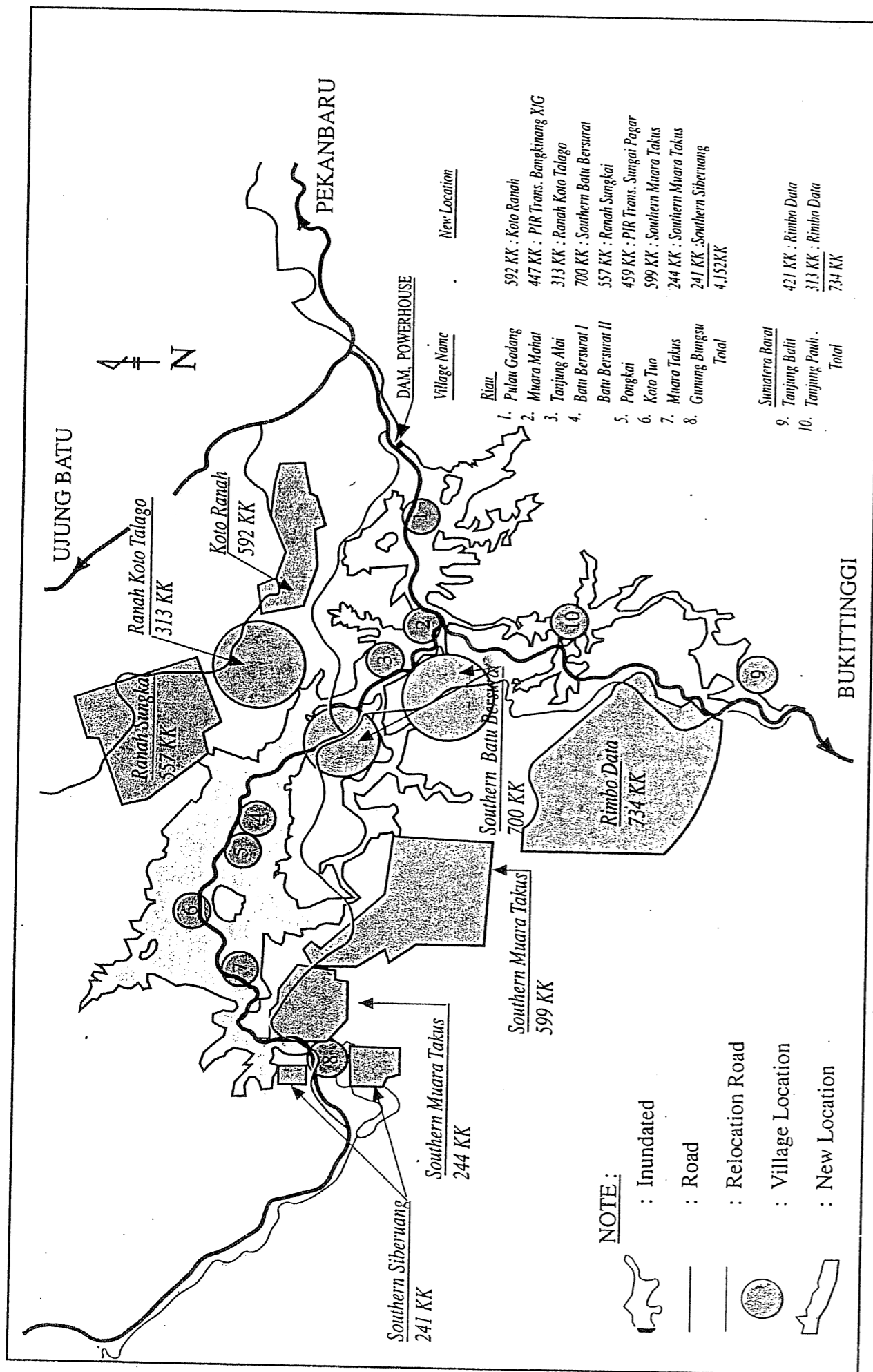
- iii) Providing guidance to the residents and establishment of Government Organization concerning information system and action to be taken for flood countermeasures.

- iv) Forest rehabilitation by rubber plantation in the critical areas.

- v) A comprehensive study for mitigation of flood impacts. The study will be done by PLN in cooperation with related West Sumatera Government Agencies for a period of 6 months and the study cost will be proposed for approval to OECF and BAPPENAS by using the remaining OECF Loan for the Construction Supervision of the Kotapanjang HEPP.

- vi) Mid-term and Long-term countermeasures (after 1998) : Construction of river improvement as recommended by the study, and improvement of catchment area quality as recommended by the study.

Fig. 13.1 Layout of Inundation Area and New Resettlement of Kotapanjang HEPP



ATTACHMENT 13-1 : LETTER OF APPEAL

We, the residents of 8 villages of Kecamatan XIII Koto Kampar consisting and representing by Clan Leaders, Religion Leaders and Intellectual Leaders held a meeting at Batu Bersurat on Monday, December 18, 1983. We, unanimously, would like to appeal the followings :

The first : We fully supported the Government's program concerning development of the Kotapanjang HEPP in Kecamatan XIII Koto Kampar, Kampar Regency, Riau Province.

The second : Appeal to the Government the followings :

1. We the residents of Kecamatan XIII Koto Kampar appeal to the Government that the new resettlement locations shall be located in the surrounding area of the lake/reservoir and adjacent to the new relocated roads which will be built. Thus, the administrative status of the villages and district will not be altered.
2. Prior to the removal from the old villages to the new ones, the site shall be prepared 3 (three) years earlier during which time the house should have been constructed.
3. Prior to the resettlement, each family shall be provided with 2.00 hectares of mature palm oil and rubber plantation.
4. In the resettlement locations, each house to be constructed shall be referred to the PERUMNAS type with a house-yard of 0.50 hectares and other prepared cultivated land of 2.00 hectares.
5. The Government shall provide living support (Jadup=Tunjangan Hidup) for 3 (three) consecutive years.
6. The entire residents properties shall be evaluated and included in compensation. In particularly, the mature corps shall be counted at least equal with 5 years harvesting value.
7. In the resettlement location, the Government shall provide public facilities such as : mosques/religion buildings, markets, electricity and water supply.
8. The Government shall pay the compensation amount to the residents before removal to the resettlement locations.
9. The compensation amount shall be given directly to each family, without through the third party, in order to avoid from any unexpected incidents.
10. Before payment of the compensation amount, the Government is appeal to establish the bank's branch (BRI) at the capital of Kampar Regency.

11. The Government shall responsible for removal expenses of each family.
12.
 - a. The plantation area will be provided to each village which will be removed.
 - b. The additional land shall be provided to encounter the future population growth.
 - c. Cattle grazing area shall be provided.
13. The historical graves shall be removed to the new resettlement locations. Among others of the graves are as follows :
 - a. Syekh H. Abdul Ghani at Batu Bersurat village.
 - b. Syekh H. Jaafar at Pulau Gadang village.
 - c. Syekh H. Abdurrahman at Tanjung Alai village.
 - d. Etc.
14. The Government shall establish the High Schools, General Schools and Vocational Schools in the new resettlement locations such as : Senior High School (SMA), Agriculture School (Sekolah Pertanian), Fishery School (Sekolah Perikanan), etc.
15. The Government shall responsible for any administrative expenses of compensation procedures (including agency tax).
16. During the physical construction of the project, the executing agency shall give priority of job opportunity to the local labourers in accordance with their skill, experiences and educational background.
17. The Government shall allow the residents to hold the ownership of the unsubmerged land and keep the land status as traditional land belong to the residents.

Thus, this statement is made based on the consensus of the residents to be considered by the Government.

On behalf of the Community

ATTACHMENT 13-2 : COMMENTS ON MAIN POINT OF THE LETTER OF APPEAL

1. The new resettlement locations will be constructed within the same Kecamatan and Regency and adjacent to the new relocated national and provincial roads, and close to the reservoir area. Thus, the administrative status of the villages and district will not be altered.
2. The selection of the new resettlement locations was started since 1988 through implementation of the Study on Feasible Area for Resettlement and Agriculture Activities (in 1988 for Koto Ranah and in 1990/1991 for Southern Muara Takus and Southern Siberuang Unit-1).

The construction of the new resettlement locations will be carried out from 1990 to 1993, and removal of the residents will be implemented from 1992 to 1994. Meanwhile, the reservoir impounding will be schedule from May 1996 to October 1996.
3. The residents will be provided with 2.00 hectares of rubber plantation and 0.50 hectares of houseyard and foodcrops area as free of charge. Land preparation, seedlings and cultivation, fertilizer, pesticides for the first year will be provided by the Government.
4. The Government cannot construct the houses adopting to standard of PERUMNAS housing since compensations are provided for their existing houses and other properties which will left behind, allowing residents to extend and or renovate their houses in accordance with their wishes and capability using the compensation amount. In addition, the residents will be provided with 2.00 hectares of plantation land plus 0.50 hectares of houseyard and foodcrops area as free of charge.
5. In line with the Government's standard package for transmigration, the PAFs will be provided with 1 (one) year living support (Jadup=Tunjangan Hidup) in the form of 9 (nine) staple foodstuff. Meanwhile, income of the residents for years after removal will come from other activities such as : foodcrops, intercross, plantation, animal husbandry, bank interest, etc.
6. All valuable properties of the residents will be calculated and compensated based on the agreed basic unit price on April 19, 1991 between the Government and the residents representatives (10 representatives from each village which selected by the residents). Calculation of plants will be based on 2 (two) categories namely : productive plants and young plants. The final amount of compensation will be informed to the each family and input to a nominative list which necessary to be agreed by both sides.
7. The Government will construct the public facilities as requested by the residents in the resettlement location Koto Ranah. The similar facilities will also be constructed in the other resettlement locations, such as : Southern Muara Takus and Southern Siberuang in Rial Province, and Rimbo Datar in West Sumatera Province.
8. The compensation payment will be started in 1992 before the area is submerged in 1996.

This will give opportunity to the residents for better preparation of living in the new houses, while they still able to utilize their present properties in the old villages.

9. The compensation amount will be transferred directly to their respective bank accounts after the residents signing their nominative lists.
10. This request will be carefully considered, at least compensation amount has already planned to be paid through a Bank.
11. The Government will provide among others : free transportation including their belongings with a maximal weight of 300 kg/family, and meals will be also provided for the first 5 (five) days.
12. The Government agreed to provide these residents's requested lands in the resettlement locations.
13. The historical graves will be removed to the new resettlement locations and the Government will provide the necessary removal budget.
14. The same numbers and same types of existing schools in the old villages will be built in the new resettlement locations, while establishment of other schools will be coordinated within the Regional Education Program.
15. All administrative costs and taxes incurred in the compensation payment will be the responsibility of the Government.
16. The executing agency will give priority to local workers based on the need of the project implementation.
17. Only in exceptional cases will be compensated for lands which will not be submerged. On the other hand, all compensated lands, whether submerged or not will belong to the Government.

TABLE 13-1
PROGRESS OF LAND ACQUISITION PAYMENT OF THE IMPOUNDING AREA
THE KOTAPANJANG HEPP

NO.	VILLAGE	SUBMITTED PLAN BY THE COMMITTEE			PAYMENT PROGRESS BY PLN			REMAINING UNPAID		
		NOS. OF LANDBLOCKS (EACH)	AREA (HA)	AMOUNT (in MILL. Rp)	NOS. OF LANDBLOCKS (EACH)	AREA (HA)	AMOUNT (in MILL. Rp)	NOS. OF LANDBLOCKS (EACH)	AREA (HA)	AMOUNT (in MILL. Rp)
I.	KAMPAR REGENCY									
1.	PULAU GADANG	3,742	6,440	10,907	3,742	6,440	10,907	-	-	-
2.	MUARA MAHAT	1,345	1,436	3,968	1,343	1,434	3,963	2	2.00	5.07
3.	TANJUNG ALAI	1,702	2,032	4,579	1,702	2,032	4,579	-	-	-
4.	BATU BERSURAT	5,286	4,791	15,040	5,282	4,789	15,032	4	2.34	9.19
5.	PONGKAI	3,264	3,109	8,108	3,244	3,052	8,005	20	57.55	103.04
6.	KOTO TUO	4,010	3,569	9,684	4,007	3,566	9,680	3	2.61	3.33
7.	MUARA TAKUS	1,582	1,863	2,681	1,582	1,863	2,681	-	-	-
8.	GUNUNG BUNGSU	978	419	3,055	978	419	3,055	-	-	-
	THE GOVT PROPERTIES	31	18	1,606	31	18	1,606	-	-	-
	SUB-TOTAL (I)	21,940	23,677	59,628	21,911	23,613	59,508	29	64.50	120.63
II.	50 KOTA REGENCY									
1.	TANJUNG PAUH	1,423	1,523	4,405	1,421	1,521	4,402	2	2.00	3.00
2.	TANJUNG BALIT	978	551	3,775	948	531	3,735	30	20.00	40.00
	SUB-TOTAL (II)	2,401	2,074	8,180	2,369	2,052	8,137	32	22.00	43
	TOTAL (I + II)	24,341	25,751	67,808	24,280	25,665	67,645	61	86.50	163.63

Description of remaining unpaid land-blocks :

- 1) Muara Mahat
 - 2) Batu Bersurat
 - 3) Pongkai
 - 4) Koto Tuo
 - 5) Tanjung Pauh
 - 6) Tanjung Balit
- 2 land-blocks, compensation amount have not yet taken by the Owner since October 1997.
3 land-blocks of clan cemetery area still unpaid due to the representative person(s) who will receive the amount under selecting by the clan members.
1 land-block, under waiting revision of inventory by the Committee.
8 land-blocks, compensation amount have not yet taken by the Owner since January 1998.
12 land-blocks, under reinvestigated by ITWILPROP Riau
3 land-blocks, compensation amount have not yet taken by the Owner since January 1998.
2 land-blocks, implementation of inventory was rejected by the land owner, awaiting settlement of claim for isolated area matter.
30 land-blocks, under preparation of payment documents by the Committee.

TABLE 13-2
PROGRESS OF CONSTRUCTION OF RUBBER AND PALM-OIL PLANTATIONS
AT THE RESETTLEMENT LOCATIONS
THE KOTAPANJANG HEPP

NO.	RESETTLEMENT LOCATIONS	VILLAGE OF ORIGIN	NOS. OF PAF's	PLANTATION PROGRESS					REMARKS
				TYPE	PLAN (HA)	CULTIVATED (HA)	SUCCESSFUL (HA)	UNSUCCESSFUL (HA)	
I.	KAMPAR REGENCY RUBBER PLANTATION								
A.									
1.	KOTO RANAH	KOTO RANAH	592	UPP-Rubber	1,184	98	232	930	80
2.	RANAH KOTO TALAGO	TANJUNG ALAI	313	UPP-Rubber	626	100	125	501	80
3.	SELATAN BATU BERSURAT	BATU BERSURAT (PASAR)	700	UPP-Rubber	1,400	-	-	-	-
4.	RANAH SUNGKAI	BATU BERSURAT (SEBERANG)	557	UPP-Rubber	1,114	-	-	-	-
5.	SOUTHERN SIBERUANG UNIT-2	PONGKAI	200	UPP-Rubber	400	-	-	-	-
6.	SOUTHERN MUARA TAKUS UNIT-2	KOTO TUO	599	UPP-Rubber	1,198	95	228	910	80
7.	SOUTHERN MUARA TAKUS UNIT-1	MUARA TAKUS	244	UPP-Rubber	488	100	98	390	80
8.	SOUTHERN SIBERUANG UNIT-1	GUNUNG BUNGSU	241	UPP-Rubber	482	50	48	193	80
	SUB-TOTAL (I.A)		3,446		6,892	53	731	2,924	80
B.	PIR-PALM OIL								
1.	BANGKINANG BLOCK X/G	MUARA MAHAT	447	PIR-Palm Oil	894	100	894	-	-
2.	SUNGAI PAGAR	PONGKAI	259	PIR-Palm Oil	518	100	518	-	-
	SUB-TOTAL (I.B)		706		1,412	100	1,412	-	-
	SUB-TOTAL (I.A + I.B)								
II.	50 KOTA REGENCY RUBBER PLANTATION								
A.									
1.	RIMBO DATAR UNIT-1	TANJUNG PAUH	313	UPP-Rubber	700	100	140	560	80
2.	RIMBO DATAR UNIT-2	TANJUNG BALIT	421	UPP-Rubber	900	90	162	646	80
	SUB-TOTAL (II)		734		1,600	94	302	1,206	80
	TOTAL (I + II)		4,886		9,904	66	2,445	4,130	63

KAMPAR REGENCY :
The unsuccessful rubber plantation will be changed to PIR-Palm Oil starting from FY 1998/1999.

50 KOTA REGENCY :
The unsuccessful rubber plantation will be improved and rehabilitated in FY 1998/1999.

TABLE 13-3
PROVIDED FACILITIES TO THE PAFS
AT THE NEW RESETTLEMENT LOCATIONS
THE KOTAPANJANG HEPP

STATUS : JULY 31, 1998

NO.	STANDARD FACILITIES FOR PUBLIC TRANSMIGRATION *)			NON STANDARD FACILITIES	
	PROVIDED ITEMS	QUANTITY	BUDGET	ITEMS AND QUANTITIES	BUDGET
I.	LAND CLEARING AND LAND PREPARATION		GOI		GOI
1.	Housing and House-yard	0.15 Ha. per family		0.10 Ha. per family	
2.	Foodcrops	0.25 Ha. per family		0.40 Ha. per family	
3.	Plantation	1.75 Ha. per family		2.50 Ha. per family	
II.	HOUSINGS AND FACILITIES		GOI		
1.	Wooden House (36 m2), without cement floor and ceiling.	each family		Cement floor and ceiling for each house and electrification.	OECF PLN
2.	Outdoor wooden latrine.	each house		Not changed	
3.	Dig-well and accessories.	1 unit for 4 houses		1 unit for 2 houses	GOI
4.	Simple furniture and kitchen sink.	1 package for each house		Not changed	
III.	PUBLIC INFRASTRUCTURES		GOI		
1.	Unpaving main access road, village road and farm road.	1 package		Pavement of main road	OECF
2.	Wooden bridges, concrete culverts and ditches	1 package		Permanent concrete bridges along the main road	OECF
3.	Offices and storages.	2 units		Not changed	
4.	Housings for transmigrator staff.	3 units		Not changed	
5.	Mosque.	2 units		Not changed	
6.	Village hall.	1 unit		Not changed	
7.	Sub-health center.	1 unit		Not changed	
8.	Dig-well and accessories.	8 units		Additional public hydrant	OECF
9.	Cattle graze field.	1 unit		Not changed	
10.	Public Cemetery.	1 unit		Not changed	
11.	Field sports.	1 unit		Not changed	
IV.	FOODCROPS ACTIVITIES		GOI		
1.	Package A, B, C (Seeds, fertilizer, tools)	1 package		Not changed	
2.	Test farm.	1 unit		Not changed	
V.	PLANTATION ACTIVITIES		GOI		
1.	Rubber seeds, fertilizer, agriculture tools.	1 package		Seeds planting	GOI
2.	Maintenance.	3 months		1 year	GOI
VI.	OTHERS		GOI		
1.	Living support (Jadup).	1 year		2 years	GOI
2.	Providing technical guidance.	1 package		Not changed	
3.	Cost of Removal.	1 package		Not changed	
4.	Incentives for Government's Employee (19 persons)	1 package		Not changed	
5.	Education and religion books.	1 package		Not changed	
6.	Medicines and medical tools.	1 package		Not changed	

NOTE :

*) STANDARD PACKAGE FOR 1 (ONE) RESETTLEMENT UNIT OF PUBLIC TRANSMIGRATION UP TO 600 FAMILIES

TABLE 13-4

PROGRESS OF CONSTRUCTION OF THE NEW RESETTLEMENT LOCATIONS
On-going activities and Problems & Countermeasures
THE KOTAPANJANG HEPP

Status: JULY 31, 1998

NO.	VILLAGE OF ORIGIN	NOS. OF PAFs	ESTIMATION OF REMOVA	DATE OF REMOVAL	ON-GOING ACTIVITY	PROBLEMS & COUNTERMEASURES
A. Kampar Regency-Riau Province						
1.	Pulau Gadang	592	Koto Ranah	August 29, 1992	1. Food crops 2. Rubber plantation	1. Out of works of water supply system. Rehabilitation work completed in September 1997. 2. Unsuccessful rubber plantation. In FY 1977/1978 : change to PIR-palm oil.
2.	Muara Mahat	447	Bangkinang Blok X/G	March 21, 1994	1. Food crops 2. Palm oil plantation	1. Unpaving of main access road. Completed pavement work for 6.5 km.
3.	Tanjung Alai	313	Ranah Koto Talago	October 3, 1994	1. Food crops 2. Rubber plantation 3. Construction of electrification	1. Unsuccessful rubber plantation. In FY 1977/1978 : change to PIR-palm oil.
4.	a. Batu Bersurat I (Pasar)	700	Southern Batu Bersurat	January 11, 1996	1. Food crops 2. Construction of additional water supply	1. Lack of water supply. Rehabilitation work completed in September 1997. 2. Rubber plantation (not started yet). In FY 1977/1978 : change to PIR-palm oil.
4.	b. Batu Bersurat II (Seberang)	557	Ranah Sungkai	January 2, 1995	1. Food crops 2. Rubber plantation 3. Construction of electrification	1. Rubber plantation (not started yet). In FY 1977/1978 : change to PIR-palm oil. 2. Incompleted water supply system. Rehabilitation work completed in September 1997.
5.	a. Pongkai	200	Southern Siberuang (Unit II)	February 04, 1996	1. Food crops 2. Site preparation for rubber plantation 3. Construction of additional water supply and electrification	1. Rubber plantation (not yet started). In FY 1977/1978 : change to PIR-palm oil.
5.	b. Pongkai	259	PIR (Palm Oil) Sungai Pagar	February 04, 1996	1. Food crops 2. Construction of additional water supply 3. Palm-oil plantation	1. Unpaving of main access road. Completed pavement work for 6.5 km.
6.	Koto Tuo	699	Southern Muara Takus (Unit II)	March 28, 1994	1. Food crops 2. Rubber plantation	1. Unsuccessful rubber plantation. In FY 1977/1978 : change to PIR-palm oil.
7.	Muara Takus	244	Southern Muara Takus (Unit I)	January 8, 1994	1. Food crops 2. Rubber plantation	1. Unsuccessful rubber plantation. In FY 1977/1978 : change to PIR-palm oil.
8.	Gunung Bungsu	241	Southern Siberuang (Unit I)	March 28, 1993	1. Food crops 2. Rubber plantation	1. Unsuccessful rubber plantation. In FY 1977/1978 : change to PIR-palm oil.
B. 50 Kota Regency-West Sumatera Province						
1.	Tanjung Balit	421	Rimbo Datar (Unit I)	July 29, 1993	1. Food crops 2. Rubber plantation	1. Incompleted water supply system. Rehabilitation work completed in September 1997. 2. Rubber plantation (unsuccessfully growth). for 175 ha.
2.	Tanjung Pauh	313	Rimbo Datar (Unit II)	July 29, 1993	1. Food crops 2. Rubber plantation	1. Incompleted water supply system. Rehabilitation work completed in September 1997. 2. Rubber plantation (unsuccessfully growth). for 175 ha.
TOTAL (A + B)		4,886				

TABLE 13-5

PROGRESS OF PROVIDING LIVING SUPPORT (JADUP) TO THE PAFs
AT THE NEW RESETTLEMENT LOCATIONS
THE KOTAPANJANG HEPP

NO.	VILLAGE OF ORIGIN	NEW RESETTLEMENT AREA	NOS. OF PAFs	YEARS OF REMOVAL = FISCAL YEARS OF PROVIDING JADUP						REMARKS		
				F/Y 92/93	F/Y 93/94	F/Y 94/95	F/Y 95/96	F/Y 96/97	F/Y 97/98		F/Y 98/99	
I. KAMPAR REGENCY												
1.	PULAU GADANG	KOTO RANAH	592									
2.	MUARA MAHAT	PIR-BANGKINANG BLOK X/G	447									
3.	TANJUNG ALAI	RANAH KOTO TALAGO	313									
4.a	BATU BERSURAT - I	SELATAN BATU BERSURAT	700									
4.b	BATU BERSURAT - II	RANAH SUNGKAI	557									
5.a	PONGKAI - I	PIR-SUNGAI PAGAR	259									
5.b	PONGKAI - II	SELATAN SIBERUANG - S.P 2	200									
6.	KOTO TUO	SELATAN MUARA TAKUS - S.P 2	599									
7.	MUARA TAKUS	SELATAN MUARA TAKUS - S.P 1	244									
8.	GUNUNG BUNGSU	SELATAN SIBERUANG - S.P 1	241									
SUB TOTAL (I)			4,152									
II. 50 KOTA REGENCY												
1.	TANJUNG BALIT	RIMBO DATAR - S.P 1	421									
2.	TANJUNG PAUH	RIMBO DATAR - S.P 2	313									
SUB TOTAL (II)			734									
TOTAL (I + II)			4,886									
<p>Another additional living support were requested by the PAFs due to unsuccessfully growth of rubber plantation.</p>												
<p>Another additional living support were requested by the PAFs due to unsuccessfully growth of rubber plantation.</p>												

TABLE 13-6
PROGRESS OF CONSTRUCTION OF ADDITIONAL WATER SUPPLY
AT THE NEW RESETTLEMENT LOCATIONS
THE KOTAPANJANG HEPP

Status : JULY 31, 1998

NO.	VILLAGE OF ORIGIN	RESETTLEMENT AREA	NOS. OF PAFS	PREVIOUS STATUS OF WATER SUPPLY	DESCRIPTION OF COUNTERMEASURES		REMARKS
					ACTIVITY IN FY 1996/1997	ACTIVITY IN FY 1997/1998	
I	KAMPAR REGENCY						
1	PULAU GADANG	KOTO RANAH	592	Out of work	-	Rehabilitation works	Completed on September 30, 1997
2	MUARA MAHAT	PIR-BANGKINANG BLOK X/G	447	Running	Rehabilitation works	-	Completed in FY 1996/1997
3	TANJUNG ALAI	RANAH KOTO TALAGO	313	Running	-	Rehabilitation works	Completed on September 30, 1997
4.a	BATU BERSURAT - I	SELATAN BATU BERSURAT	700	Not yet operated	-	Completion of intake	Completed on September 30, 1997
4.b	BATU BERSURAT - II	RANAH SUNGKAI	557	Not yet operated	-	Completion works	Completed on September 30, 1997
5.a	PONGKAI - I	PIR-SUNGGAI PAGAR	259	Running	-	-	Completed in FY 1995/1996
5.b	PONGKAI - II	SELATAN SIBERUANG - UNIT 2	200	Running	-	-	Completed in FY 1996/1997
6	KOTO TUO	SELATAN MUARA TAKUS - UNIT 2	599	Running	-	Construction works	Includes Selatan Siberuang-Unit 1 Completed on September 30, 1997
7	MUARA TAKUS	SELATAN MUARA TAKUS - UNIT 1	244	Running	Rehabilitation works	-	Completed on September 30, 1997
8	GUNUNG BUNGSU	SELATAN SIBERUANG - UNIT 1	241	Running	Rehabilitation works	-	Completed in FY 1996/1997
		SUB TOTAL (I)	4,152				
II	50 KOTA REGENCY						
1	TANJUNG BALIT	RIMBO DATAR - UNIT 1	421	Not yet operated	-	Completion works	Completed on September 30, 1997
2	TANJUNG PAUH	RIMBO DATAR - UNIT 2	313	Not yet operated	-	Completion works	Includes Rimbo Datar-Unit 2. Completed on September 30, 1997
		SUB TOTAL (II)	734				
		TOTAL (I + II)	4,886				

TABLE 13-7
PROGRESS OF CONSTRUCTION AND MAINTENANCE OF ROADS BRIDGES AND CULVERTS
AT THE NEW RESETTLEMENT LOCATIONS
THE KOTAPANJANG H.E.P.P.

Status : JULY 31, 1998

NO.	VILLAGE OF ORIGIN	RE SETTLEMENT AREA	NO. OF PAF	DESCRIPTION OF COUNTERMEASURES		REMARKS
				(PREVIOUS CONDITION OF MAIN ROAD AND BRIDGE	ACTIVITY IN FY 1997/1998	
I.	KAMPAR REGENCY					
1.	PULAU GADANG	KOTO RANAH	592	Good	None	
2.	MUARA MAHAT	PIR-BANGKINANG BLOK X/G	447	Unpaved	Pavement of 5.5 Km	Includes Sungai Pagar and LOT-VIB Progress : 5.5 km (completed)
3.	TANJUNG ALAI	RANAH KOTO TALAGO	313	Good	None	
4.a	BATU BERSURAT - I	SELATAN BATU BERSURAT	700	Good	None	
4.b	BATU BERSURAT - II	RANAH SUNGKAI	557	Good	None	
5.a	PONGKAI - I	PIR-SUNGGAI PAGAR	259	Unpaved	Pavement of 6.5 Km	Progress : 6.5 km (completed)
5.b	PONGKAI - II	SELATAN SIBERUANG - UNIT 2	200	Need bridge improvement	Bridge improvement of 68 M	Progress : Completed.
6.	KOTO TUO	SELATAN MUARA TAKUS - UNIT 2	599	Need maintenance of road and bridges	- Maintenance of existing main road (8.7 Km), bridges (10 M) and concrete culverts (94 M)	Progress : Completed.
7.	MUARA TAKUS	SELATAN MUARA TAKUS - UNIT 1	244	Need maintenance of road and bridges	- Maintenance of existing main road (8.7 Km), bridges (10 M) and concrete culverts (94 M)	Progress : Completed.
8.	GUNUNG BUNGSU	SELATAN SIBERUANG - UNIT 1	241	Good	None	
9.	LOT-VIB (PROV. ROAD)	SELATAN BATU BERSURAT SELATAN MUARA TAKUS - 1 & 2		Unpaved	Pavement of 18 km.	Progress : 18 km (completed).
		UB TOTAL (I)	4,152			
II.	50 KOTA REGENCY					
1.	TANJUNG BALIT	RIMBO DATAR - UNIT 1	421	Good	None	
2.	TANJUNG PAUH	RIMBO DATAR - UNIT 2	313	Good	None	
		UB TOTAL (II)	734			
		TOTAL (I + II)	4,886			

TABLE 13-8

PROGRESS OF RURAL ELECTRIFICATION AT THE RESETTLEMENT LOCATIONS
THE KOTAPANJANG HEPP

NO.	VILLAGE OF ORIGIN	NEW RESETTLEMENT AREA	POWER GENERATION & DISTRIBUTION LINE			ELECTRIFICATION PROGRESS			REMARKS
			TYPE	STATUS	SOURCE OF FINANCE	NOS. OF PAFs HOUSES TO BE ELECTRIFIED	NOS. OF ELECTRIFIED HOUSES	NOS. OF UNELECTRIFIED HOUSES	
I	KAMPAR REGENCY								
1	PULAU GADANG	KOTO RANAH	1 x 100 KW New DPP (Diesel Power Plant)	Operated since Sep. 1992	GOI / PLN	592	592	0	
2	MUARA MAHAT	PIR-BANGKINANG BLOK X/G	Extension from DPP at Bangkinang	Operated since Jan. 1996	GOI / PLN	447	418	29	
3	TANJUNG ALAI	RAMAH KOTO TALAGO	Extension from DPP at Bangkinang	Completed erection of 20 KV distribution line	GOI / PLN	313	0	313	
4.a	BATU BERSURAT - I	SELATAN BATU BERSURAT	1 x 220 KW New DPP	Operated since Jan. 1996	GOI / PLN	700	444	256	
4.b	BATU BERSURAT - II	RAMAH SUNGKAI	Extension from DPP at Bangkinang	Completed erection of 20 KV distribution line	GOI / PLN	557	0	557	
5.a	PONGKAI - I	PIR-SUNGAI PAGAR	1 x 100 KW New DPP	Operated since Feb. 1997	GOI / PLN	259	259	0	
5.b	PONGKAI - II	SELATAN SIBERUANG - S.P.2	Extension from New DPP at S. Siberuang SP.1	Completed erection of 20 KV distribution line	GOI / PLN	200	0	200	
6	KOTO TUO	SELATAN MUARA TAKUS - S.P.2	Extension from New DPP at S.M. Takus SP.1	Operated since Jan. 1996	GOI / PLN	599	360	239	
7	MUARA TAKUS	SELATAN MUARA TAKUS - S.P.1	1 x 100 KW New DPP	Operated since Jan. 1996	GOI / PLN	244	207	37	
8	GUNUNG BUNGSU	SELATAN SIBERUANG - S.P.1	1 x 100 KW New DPP	Operated since Jan. 1996	GOI / PLN	241	241	0	
		SUB TOTAL (I)				4,152	2,521	1,631	Average progress : 60.72 %
II	50 KOTA REGENCY								
1	TANJUNG BALIT	RIMBO DATAR - S.P.1	1 x 100 KW New DPP	Operated since Jan. 1996	GOI / PLN	421	240	181	
2	TANJUNG PAUH	RIMBO DATAR - S.P.2	Extension from New DPP at Rimbo Datar SP.1	Operated since Jan. 1996	GOI / PLN	313	280	33	
		SUB TOTAL (II)				734	520	214	Average progress : 70.84 %
		TOTAL (I + II)				4,886	3,041	1,845	Total aver. progress : 62.24 %