

Appendix 3

*Result of Village Assessment
Made by NGO*

Appendix 3.1 Pulau Gadang Village

Among the village which were affected by PLTA Reservoir Project, Pulau Gadang was the first to relocate on August 31, 1992. After getting approval from the community, the date August 31, 1992 was determined to become their historical date of Pulau Gadang establishment when they celebrate anniversary.

The village was once appointed as pioneer. When they migrated to this new village, the community consisted of 572 households. In 1999, a part of the village named Koto Masjid became administratively independent from Pulau Gadang. The population in Pulau Gadang was 400 household, which consisted of 1347 people. These number were based on the report on March 2002.

Pulau Gadang was located within the following borders: north was Desa Merangin, South PLTA Reservoir, west was Desa Kuala Jaya and east was Desa Merangin. It took 13 kilometers or about 20 minutes to get the municipal district of Batu Bersurat. The distance from Pulau Gadang to Bangkinang was 43 kms or it took around 35-40 minutes and the distance from Pulau Gadang to Pakan Baru was around 93 kms or 1.5 to 2 hours trip. The available means of transportation was called 'oplet' or 'superban'. The problem related to transportation was due to the limited frequency of both 'oplet' and 'superban'.

A. Resettlement

1. Relocation process

Despite of the fact that Pulau Gadang was promoted to become the pioneer, the condition when they were relocated was severe. It took 2 days to migrate. A member of the community said that to search and determine his house, they had to throw a stone towards underbrush just to make sure it was there. During migration until one week after, they were accompanied by military that sometimes shot their gun. They felt as if SOB. Each family was given one opportunity to move their belonging while they had to be responsible for the rest. Usually each family had to carry out their belonging 2 or 3 times afterwards. The first thing to do during migrate was to clear away underbrush from their houses. No light available, the village was completely dark. It was only three days after that they could enjoy the light from PLTD. Seven days after they lived in the new village, some people directly opened the field and planted rubber tree by spending their savings or a portion of the compensation they received. They bought seed, fertilizer, and planted over the field belonged to them. Such groups had enjoyed the results of their hard work at the meantime.

During the process of relocation and sometime after living in this new village, they felt neglected. Some residents said that they had no chance to check their future village. The relocation committee seemed to force them to leave the old village as soon as possible. In the other part, military tight escort had made the completely scared. The community really suffered from mental stress during the period.

2. Compensation

a) Horticultural land

The compensation given by the committee of relocation really hurt and inflicted financial loss. Several resident were ill to receive only Rp.30,-/m² compensation by which the price of 3 cigarette smoke = Rp.100,-). Other fact to be submitted by residents was that the expense to re-measure (overwerg) was Rp.25,000,- per field based on the price when they were in their previous village. Some residents reported that they had to pay Rp.400,000,- per field to BPN (National Land Body) and Rp.300,000,- after they received the compensation.

During the meeting, a resident reported angrily and desperately that his 2 hectares field was only paid by Rp.83,000,- instead of the fact that the land was located next by the main road to municipal. The community dared to say that the committee of compensation certainly enjoyed so much benefit during the planning and execution period. However, they

aware that they were so afraid and unable to fight over the right. Some members asked us, "Is there any possibility to review the compensation case which is injustice and based on one party decision so that we can get the compensation loss back?"

There was a written data we got from the community related to this compensation case, i.e.: Resolution of the Meeting between Pulau Gadang Community and Regional Government II Kampar in terms of Right Compensation of the Community of Pulau Gadang at Bangkinan dated Monday 28 March 1994 at 12.00 WIB. The meeting resolved the following:

PLTA Koto Panjang agreed to pay land compensation of 47 persil (letter of land ownership) of which the payment had been ready to deliver to the right owners through their Village Chief. Land compensation towards 220 persil which were included in the project (see map) would be paid in the middle of April 1994.

1. Land compensation towards 514 persil which were not in map would be paid in May 1994.
2. Land compensation towards 343 persil of isolated land at the south of Pulau Gadang was temporary halted until the end of April 1994 due to the absence of Bapak Bupati H Saleh Djasit, SH, Head of Regional Government who was in time to finish his education.
3. Land compensation towards 50 persil, whose holder names were overlapped or with the same owners should be urgently followed up by the committee of compensation.

The above mentioned resolution ought to be signed by 7 Regional Government II Officers but only 4 officers signed it. Meanwhile 17 representatives of Pulau Galang Committee signed for approval. It was certain that some of the resolution had been executed however there were members to report that compensation over around 300 – 400 persil were not paid yet.

We learned that the unsettled facts which people expected to review was difficult to realize due to unavailable written data owned by the people of the community. In the other hand, the committee did not anticipate the potential claim afterwards like what had happened this time.

The big problem occurred since the committee was not cooperative. Regional Government I and II should have anticipated the possible in the future since it was related to right and justice. Regional Government currently faced the mine trap they had planted earlier.

In relation to the status of land ownership, member of discussion from Village III dated 6 April 2002 stated that Land II (0.8 ha) was not certified yet.

To settle the above case, present government ought not to easily wash their hand by saying that responsibilities should be charged to previous government. Right and previous injustice had deeply hurt the community. It was therefore an officer from the village suggested that Village Budget should be transparent and fair at the level of village and district II Kampar. In composing the development policy, people expected government to consider that relocation victim from PLTA Koto Panjang were people that were forced to sacrifice for the sake of 2 provinces (West Sumatra and Riau).

During the discussion with this community, we also stressed that to review previous injustice would be complicated and even very difficult since they did not have sufficient written data. Finally they realized that it was very important to possess written fact in relation to their privilege.

Some of the community members admitted their fault as they were unable (at that moment) to submit written fact for early stage of claim. Data over the unsettled compensation over land and persil could be reached through data recollection even the case had occurred in the last 8 years. As long as the resident possess a lawful data, village officer shall try to consult with Regional Government II and BPN shall make the issuance of certificate over Land II become priority.

This will cure past disappointment towards the institution, which was in charge of the compensation.

b) Rubber plantation

Most of the community was deeply hurt by the compensation of their rubber plant. They stated that the criteria to compensate the rubber plant were not clearly defined. There was no agreement between the Committee of Compensation and the plant owners in the definition of productive tree (TM) and non productive tree (TBM). The community were disappointed so much to receive only Rp.1,500,- for most of their rubber trees as most of the productive trees (TM) were classified to non productive trees (TBM). They should have received Rp.4,700 as stated in the chart of compensation. When they entered the new land, they found out that only part of the land, which were planted with a new growing rubber tree by the contractor. Many rubber trees were left just beside the road and even some others were found to be piled up in a swamp.

In the period of deciding and then paying the compensation, community felt unsatisfied but could not do anything. When the discussion was hold, a question was raised up to ask the amount to be paid by Japan side.

The community now faced a problem due to the broken condition of road that restrained the transportation of the rubber commodity for sale. They expect government to fix the road, which connected the village to the city.

Other issue found that there were around 100 households who did not posses any field for living and most of the had only skill to become (rubber) farmers. They expect the government to be responsible and allocate fund to maintain the rubber trees, which were not productive yet. They admitted that government had once given them rubber seed but many of them were dead. They also gave fund periodically. The problem would not have occurred if government give directly the fund to the residents so that they could have managed the plant by themselves instead of giving the fund to irresponsible contractors. The residents admitted that rubber planting had made many contractors fight for the profit.

For new family, they expected government to make a policy to open new field and to build their houses. This expectation came up based on the existing 10,000 ha of "ulayat" land in Bigan. Should the decision makers, i.e. Regional Government II Kampar agree to consider it, there should be a scheme composed by government and local community especially local (village) apparatus, traditional leaders and the new households.

c) Housing

Complaints over bad condition of the houses when they received were a general complaint we heard at any meeting in several villages. The complaint also emerged in the discussion at Pulau Gadang. The residents complaint that there houses had no foundation for groundwork. A resident said that his previous house of 8.5 x 15 M2 was paid Rp.16 Million for compensation and other resident said that he got Rp.8 Million for his 8 x 10 M2 house. We observed that some houses had been renovated beautifully but for those with limited earnings still keep the original construction.

Upon the above case, they suggested to allocate social rehabilitation fund. For some residents, they can use the fund for house renovation.

d) Money

Some residents considered that the compensation fund they got was a big amount. But when we compare it to economic ratio, some residents considered it too small. It was true that some residents directly used the compensation fund for managing a business sector they understand and had done i.e. agriculture. Unfortunately, there were some residents who were surprised to see that amount and spend the money unproductively, the behavior changed, they were ready to allocate Rp.2,000,- just for transportation to buy food to Kuok.

3. Public Facility

a) Ulama grave

According to them, the government had promised that every burial plot would get Rp.75,000 for compensation. The

fact was found differently. Some residents had just left the burial plot without compensation, which psychologically hurt them very much.

They expect that such case will not happen again as family funerals contain emotional value, which never been forgotten. On the occasion of Ramadhan and Idul Fitri, they always spare the time to visit and clean the burial plot and place flowers on the grave. This activity was considered as a unity in their ritual religious celebration and tradition.

b) Balai Adat

The building was in good condition and enough for traditional celebration. The building was located in the main road to municipal so that it is very strategic to become the center of community activities in regard with their regular celebration of tradition.

c) Facility for Education

The following table is the comparison of existing facility for education comparing to their previous facility available in previous village.

OLD VILLAGE	NEW VILLAGE
3 MDAs for 2 villages	1 MDA
1 MTs built in 1999	1 MTs
1 Junior High School	1 State Junior High School
1 Senior High School	1 Private Senior High School
1 kinder garden	1 kinder garden

From the development of education infra-structure, we learnt a satisfying increase. Furthermore, the increase of more qualified human resources were significant due to the increase of university graduates. This condition was better than when they were in previous village. They did not have any graduate before while now they had 16 alumni, 4 lecturers (1 lecturer at Academic of Nursery, 1 of Moslem University - Riau and 2 STIE lecturers). At the time, ten students were studying in universities (1 in Mesir, 2 in Jakarta, 1 in Bandung Institute of Technology (ITB) and the others were in Pakan Baru and Bangkinang).

However, the community still expected that related institution would take a good care towards the facility and the welfare of education for this village. Attention should be given especially for private senior high school (SMUS) that was still lack of teaching and learning facilities such as books, literatures, and library. At the time, SMUS still used MDA building for education activity. They were proud to report that most teachers came from the same village i.e. Pulau Gadang.

MTs had reserved their own building with 11 teachers. MTs still found difficulties in terms of the salary and welfare for teachers. The teachers were paid at around Rp.15.000,- - Rp.45.000,- per month. This honorarium came from students' monthly fee Rp.8.500,-/ month per student. MTs had 2 classes for first year, 1 class for second year and 1 class for third year.

To improve the quality of human resources especially in Pulau Gadang, the related technical institution should commit to subsidize for the education development. It was expected that the institution could provide standard education facilities. When a teacher submit request in regard with the proposal to change the private status to state governed status for the school, we advised that it was not simple the matter and should be related to the result of credit evaluation toward the school itself.

c) Electricity

The installation of electricity in this village is free of charge. They had enjoyed electricity light of diesel energy (PLTD)

only after 3 days after their arrival to the village i.e. 3 September 1992. At that time, electricity was on during night time while off during day time. Electricity using PLTA or water energy was effective since 1997.

They claimed that during the use of PLTD energy, the electricity was rarely down, but since the use of water energy (PLTA), they often found it shut down. Once government promise to provide this community affected by PLTA project to enjoy 5 MW.

There was strong relation that electricity had made the increase demand of electronics such as: refrigerator, Rice Cooker, water pump, iron, VCD, TV and electric fan. With such equipment, it was clear that capacity of 450 Watt was not enough for the household.

We notice that average lamp to be used in household was between (25 watt – 40 Watt). It is necessary to provide the community with instruction on how to use electricity efficiently and properly so that they use cable connection safely and not upset when the electricity bill increasing drastically.

B. Income Generation

1. Rubber

Rubber field in Pulau Gadang village was divided into two area. Land I was planted by government (Agriculture Body) through its contractor. Land I was 333 ha for 333 households. Land II was 333 hectares for 333 households. Government promised to plant the rubber tree in October 2000.

According to government's promise, each household would receive 2 hectares, but it had not been realized until the time. Since the community population had developed for 67 new households and the farming land was limited, the community found it difficult to find new field for living.

In general, based on the meeting and discussion with them, the community faced several dilemmas in regard with the land availability for the existing household and new field for the new 67 households. Other problem was that they had not been given the full 2 hectares since some parts of the area were rocky and swamps which were impossible for farming. Furthermore, Land Ownership Certificate for Land II had not been issued yet.

To solve the problem, Head of the village had submitted written request to related institution to provide additional land to complete the amount of 2 ha/ household and for the new 67 household and to issue certificate of Land II. Until the time of report, the institution had not give any response.

Government should replace the rocky land with the new field as such land could not be managed for farming. For swamp area, government had to provide drainage control such as canal or irrigation route.

2. Tree Trunk Planting

Pulau Gadang was the pioneer for the project of PLTA Koto Panjang. Before relocated, the committee had promised to provide 2 hectares of rubber field each household. They promise to give the field filled with 2 years old rubber plant. In fact, the community found only some part of the field was planted so that when 3 years maintenance living fund "jadup" stopped, community found it difficult to survive due to the unready field to produce rubber yield. Main source of living ie. Rubber plant was not satisfying and the rubber trees were planted only in Land I (1 ha / household).

Community informed that during the first planting session, they found the tree trunks and fertilizer were spread over the edge of the road or in the swamps, or even in valley. It was therefore, the first session was considered unsuccessful planting.

Planting bad condition had forced the farmers to use their own fund to take care independently by seed embroider or replanting in their land. Usually, community whose land had been productive with the average of 15-25 kg/ha and Rp.1.800,-/kg can cover the basic daily living.

In October 2000 rubber weeding in land II (0,8 ha /house hold was fully managed by farmers. According to the

resolution, government should fully cover the farming management for 3 years since the planting session. First aid was given as follow:

1.

a. In Cash, they were given Rp. 1.060.000,- for the following job:

- Field Preparation Rp. 500.000,-
- Land heaping Rp. 100.000,-
- Plotting Rp. 135.000,-
- Planting Rp. 125.000,-
- Fertilizer/weed Rp. 150.000,-
- Transport for tree trunk Rp. 50.000,-

b. in form of equipment and material:

- Hand Sprayer 2 units/group
- Tree trunk 476 stems/ha (Poly bag)
- Fertilizer SP 36 50 kg
- Fertilizer 1 carton @ 20 kg
- Polaris 2 liter
- Round Up 1 liter
- Touch down 3,5 Liter
- Curator 1 kg
- Bayfolan 2 kg

2. Second year fund was given in the forms of:

a. Cash Rp. 530.000,-/ha for:

- Terrace maintenance Rp. 150.000,-
- Weed Clearance Rp. 100.000,-
- Fertilizer Rp. 100.000,-
- Weed Control Rp. 50.000,-
- Pruning Rp. 50.000,-
- HPT Control Rp. 50.000,-
- Embroider Rp. 30.000,-

b. Equipment and raw material

- OMT tree-trunk 50 stumps
- Fertilizer 5 cartons @ 20 kg
- Basmilang 2 liters
- Touch down 2,8 liter added by 2,5 liter
- Pig Poison 2 kg/group
- Pig trap/net 2 kg/group
- LCC (CM,CP,PJ) 2,5 kg/ha (plant expense Rp. 7500,-)

3. As the age of the plant had not been 2 years, government still kept the fund for the third year.

Mmanagement

Pursuant to the resolution between government and the community, the management of rubber field was under community supervision. To make the coordination easier, it was divided into 19 group of farmers. All the groups were associated under 'Gabungan Kelompok Tani (GAPOKTAN)', while each group consisted 24-43 households.

Group activity occurred only when subsidy was distributed. Once we asked a member which group he belong to, he did not know. This reflected the knowledge of the members. They might not know the benefit in agriculture business to join in the group. Considering such condition, it seemed that the groups were forcefully established without awareness from the members. It was therefore necessary to give training and guidance activities in order to enable them to be independent.

Maintenance

The farm condition was not well maintained due to insufficient fund, fertilizer, insecticide, inability to demolish termites and fungi. Such condition was found in the low income community.

Insufficient maintenance had slowed down the yield period, greater possibility of unsuccessful farming, and uninteresting field to visit.

Government shall take urgent action to anticipate this problem by keeping the promise to provide living support and field maintenance support until the rubber tree produce yield.

2. Cropland (Land Of 0,4 Hectares)

Not similar to the other villages, cropland in Pulau Gadang was jointly distributed together with 0,5 ha/household.

In general, the land was planted with various plants such as coconut, areca nut and rubber), fruit such as durian, rambutan, manggo, banana, orange and fish farming.

In general, cropland farming did not find any problem except for the orange plantation, most trees were already unproductive and insufficient maintenance. A solution was to rehabilitate the plan with high economic value crops.

3. Fishery and Livestocks

a) Fishery

For fishery business, they manage pond fish. Most of the residents had fishpond near their houses. The total coverage of fishpond was 17 hectares. Due to their weak capital and limited water supply, most of the ponds were not in good care and not productive. Only 14 % of them were carefully managed and productive fishery.

During wet season where river water was overflow, the water would fill the fishpond, however, in dry season, it was hard to find water supply.

To settle the problem, government provided circulated fund for the development of district (PPK). Only little of the received the benefit due to very the limited supply. The community expected for capital support.

To survive from natural condition, it was essential to normalize the function of the river and water supply.

Beside being good for farming pond fish, PLTA reservoir of Koto Panjang was also potential for catching fish. During the discussion, the residents who used to catch fish in the reservoir said that there were many kinds of fish available there with high economic value. Limited net facility had made the fishing not satisfying. Working capital for fishery and catching fish was expected so much to earn better living.

b) Livestocks

Livestocks business in Pulau Gadang was not potential especially for cattle farming and buffaloes farming as pasture grass was not available. The community said however that it was good for goat, chicken and duck.

4. Other Potency

In Pulau Gadang, there was a test farm of 5 hectares with 3 units of permanent building, and fence around the area. The land belonged to Department of Agriculture administratively. The land was left without taken care.

Based on field observation and report from the community, it would be better if the related institution, especially Dinas Perkebunan Tingkat I Riau, gave the right to use the land and building managed by the village. It could be used for secretary of cooperative and association of farmer groups (GAPOKTAN). The community expected the land and building to become source of income for the village such as productive activities from the youth that many of them still unemployed.

C. Water Supply

1. Water Supply

Water supply for Pulau Gadang came from two sources i.e. Silam River and natural water resource, spring. Silam was located in east of the village. In this place, there was a water pump that could not function anymore. The spring was located in Village I, north area in rubber field. This water had been managed to supply the daily need of water for the community.

As the project wells could not function since the project delivery, the community of Village I use Silam river to take a bath and washing.

Beside the above mentioned, there were 2 small springs. Village I used individually by installing PVC. Water flow was directed to 6 containers of 120x80x100 cm size. The six containers belonged to individual and group. All were placed in Village I and II. Each container could supply 5-8 houses. This system was more useful comparing to other water supply alternatives.

Village III and IV had to dig well of 9 meters depth to fulfill their need for pure water. Another way was by collecting water from containers (PPK).

Similar to village I and II, Village IV had managed spring water to be directed to containers using PPK fund. Unfortunately, due to long distance, water could flow to containers that were in higher position than the spring.

Since the potency of water spring is promising, dam should be developed for reservoir upon the two mentioned springs. It was urgent to improve water flow system including infra-structure, planning and monitoring and to develop water pump for the sake of long term supply and lack of water supply during dry season.

2. Pure Water Supply

Based on field observation, wells that were developed by the project contractor could not be used since the beginning in 1992. Each well was expected to supply 4 households. The wells were dig with the following condition. (i) only 2 meters depth, (ii) irregular location, (iii) the color of the water in village I and II was not safe to drink / consume (iv) village III and village IV which were located in hillside could not produce water with 2 meters depth. And (v) too far to reach (> 150 meter).

Water Pump (brand Dongteng, model 3110, weight: 695 kgs, serial 9200183, rating 45 PS, and speed 1500 RPM) had been badly damage. House pump in Silam River (front of PLTD) was still in good condition. The construction of water container with the volume of (4x4x2,5 meter) was still in good condition but did not have any function due to high operational expense (solar), and difficulties to find spare-parts when it was broken. Other problem was the weak water debit. The condition of the river was shallow and flood occurred when raining. Flood made loss for fish farmer.

Storage Reservoir was built in 2001, structured with cement of 3x3x2 m size. There were 2 units in Village I and IV. Fund came from PPK and PAB program. They were still in good condition but practically could not be used since (i) water could not flow to the storage, (ii) no pipe to connect the water source and storage and (iii) no service pipe (outlet/inlet pipes).

Pipe Network: main pipe (2 inches diameter, brand vinilon) from water pump to storage and distribution network to public hydrant could not function and nobody could track the real position.

In spite of the available distribution network in village I, water could not flow due to the higher position that the resource. Water was then to be directed to container, which flow to the side of the road.

Public Hydran, was build by project contractor that one unit could serve 6 households. They were built in 1993/94. All were not in the expected position, even some of them were used to cover well.

Dam, was located in the north of the village I which still function well even though, there were some linkage that need serious attention from the village apparatus. Heavy rain might cause it collapse.

3. Satitation

In general, sanitation in Pulau Gadang was not good since they still use river flow for bathing, washing and latrine (MCK) especially for the community living in village I.

Local apparatus need to take serious attention to this sanitation problem by providing healthy MCK that are close to water supply.

A. Resettlement

1. Process of Moving

Basically the process of people's moving is just the same as the people in Pulau Gadang. The distance of the old village and the new one is around 6 km the moving is done on August 29, 1992 and at that time it was still called Desa Pulau Godong (Pulau Godong Village). Consisting of 3 hamlets, that is Koto Mesjid, Kampung Baru and Koto Panjang. After the moving the names of the hamlets were block A, block B and block C. As many as 259 KK (family heads) of block A separated into desa Koto Mesjid (Koto Mesjid Village).

Consisting of 2 hamlets, that is Kampung Baru and Pancuran Gading blok B and block C still belong to desa Pulau Gadang (Pulau Gadang Village). If developed into Koto Mesjid and started in 1998. The background of the development was due to the less attention of the village government to the condition and the hamlet people's needs. Desa Koto Mesjid initially moved because it became the center of development of DAM PLTA located at Koto Panjang hamlet. A large part of the people at the beginning had objection to moving to the new location because until now. Pulau Gadang has become residence of their ancestors to be maintained. But since it becomes the sake of state, the people are willing to leave their beloved village.

There are a number of considerations that is the people are very varied. It is due to some promise where they would be given a better life in the future; some compensation was provided by the government adequately and some are compelled because they had no other good/better option. If they did not move, their residence would still be inundated and they would not get any compensation for their future life.

Some people who experienced worse condition expected assistance such as a position of life, house and road renovation, cost of keeping the rubber plants to be ready for harvest (for 5 – 6 year ahead), fulfillment of clean water for daily needs. And also the government should provide employment opportunity for the people.

2. Compensation

Compensation for the construction of Koto Panjang PLTA project, includes among other : house building, land availability, provision of life position

a) House building / construction

All houses are compensated and made of board and zinc roof. The people having capital can repair their houses in stages. The fund of the renovation / repair is derived from compensation revenues, the income of fishpond business and other business. In the general, the houses in Koto Mesjid village are relatively more permanent compared to those of other villages. For houses as the relatively high location, the shallow well does not provide water. So that for drinking needs, they just ask the neighbor having clean water source. While for bathing, washing and toilet, they use a river located at 500 meters for the resettlement.

b) Land

The land area to be compensated is around 518 ha. It involves house land and yard (0,1 ha), land of crops (0,4 ha) and land of plasma rubber garden (2 ha). In general, the position of crops land and the housing becomes one, so the people would averagely have a house (yard) of around 0,5 ha. In this way, the yard and or the farm may be potential to develop productive business such as raising cattle (those having cattle), to construct fish pond, crops plant and so on. But the condition of the yard is (still) not yet utilized by the people optimally. In general, they plant / grow fruit in their yard to be any time consumed.

c) Money

The property of the people to get compensation includes house land (garden, rice field, pond, yard) and plants. In their views, the value of compensation is still below the standard. However, the people realize that there is no a written evidence as it should be only several things to be reconsidered by the government is that the plantation is still 2 years. In their views, the rubber plantation of stage I in 1992 should have been successful if it is done according to the rule. Many plants become unsuccessful because of fund manipulation by the project management.

To date the people live from varied works. Any kind of job they do for money is just to survive. Such as rubber worker, to dig pond, brick man, construction worker, etc. People still cope with several problems on average that is they have difficulty getting clean water, difficulty with economy and job / employment opportunity.

2. Living Allowance

The living allowance is provided to the whole people in the list. To the new HH (family heads), the living allowance is integrated into their origin of family (parents). Living allowance is provided fro 2 years. Living allowance will comprise such as rice, salted fish, kerosene, frying oil, green peanuts, cooking pot, dugout canoe, kettle, spoon, sugar, salt. Until now some families still need living allowance.

Based on the discussion of hamlet IV, the living allowance should be reconsidered in the forthcoming years. But the allocation of living allowance is not allotted to whole people, but especially to the poor families such “the poor” totally depends on the agreed criteria of the people. The consideration to be given is that number of people get religious tax and or those who are categorized as the poor.

Meanwhile, the desirable rubber garden which may help daily needs is still not ready for harvest. While the “patin” fish culture of the pond needs a substantial fund and a larger part of the people very much need capital to develop the business of “patin” fish.

3. Electricity

At the beginning of moving to the new village, the people got electricity from the diesel power after a few months (6 months). The change of PLTA diesel was done without the knowledge of the people, the electrical installation was without charge. The people still cope with several problems that is the electrically goes off in turn. Efforts have been made include applying for complaints as coordination meetings on the going off of the electricity, but it has till now not given any result. Electrical disturbance (some going – off) still happens. Efforts to do is under the responsibility of PLN to repair and, overcome this problem. It is important in order that the people who are one day late in their payment be not fired while PLN does not assume his obligations and just is not given any sanction.

4. Public Facility and Other Potency

A number of public facility to construct include, mosque, village offices, system of water supply and road construction. A number of facilities are still in good function such as offices and ring roads in hamlet III. However a number of public facilities which are of less good function such as clean water facility has been pulled down. It was done when Koto Masjid still belongs to Pulau Gadang village. When the pulling down took place, the people actually did not agree, but they could not do much more against such pulling down. At the moment a number of needs / facilities still in need, among others for clean water re supply to meet drinking needs and MCK in hamlet II and IV. It has been proposed in DUP to RAPBD at the kabupaten level but still under discussion.

The road facility to hamlets is still under wondering process / condition. But when it rains, it (the roads) becomes muddy and difficult to pass by. So that for the location of a relatively high hamlet, the transportation is hampered. Efforts have been made that is to repair road through PPK project, but the it did not give good result. Even otherwise, the road becomes slippery and muddy when it rains. The road repair was made / done by the contractor of village people but the results are different from the spend budget.

A number of potentials to study together with the village people include water source, pond, gross, large / vast land, plasma (nucleus) rubber, reservoir, thanksgiving tradition, etc. Based on the results of discussed, a number of business alternatives have been identified to develop by the people that is fish pond, rubber development, cattle breeding, opening stalls. The main problem to develop business is lack of capital.

Efforts already made to solve (cope with) the modal include to apply for loan to BUKOPIN bank, BRI capital holders. But the results have not been satisfactory, even the process of capital loan for "patin" business to the bank has not been settled totally. No efforts have been made. In the people's view, it is because the bank does not fulfill such business among others, lack of fund allocation and the people's assurance is not sufficient compared to the extent of loans. It may still be expected that some parties could facilitate the needs of loan fund and or any partner who want to collaborate / cooperate with the people in the business development.

B. Income Generating

The income generating of the people is mostly varied, and at random termed as "ramas" or mixed. The people's work being very conditional depends on the season. But a larger part that is 80% of them are workers and the rest are pond owners, traders / sellers or government employee.

1. Rubber Garden / Plantation

The area of plasma rubber plantation in Koto Mssjid village is 518 ha with 259 HH as owners, being with each of 2 ha area. The plasma plantation is not located at one area and some of them are mossy area unable to plant / grow. This is because the division of garden has been done in 2 stages. The stage I is done together with the planting year I that is in 1992 and stage II is done in 2000 in different location. The distance between the plasma plantation and the resettlement is 50 m – 6 km. The stage I get 1 ha and the stage II 8000 m. if a family already has an area of I ha relatively close to the house, so they will get an area 8000 m² with a father distance. The condition of land topography is wavy but tends to be even. The mossy land has until now been left without any plants and the people hope a particular planting may be done.

In order that there will no envy, the people agree to distribute the land in reconciliation. In addition, because the working of the first land is deemed, failed, some rubber has grow therein. The failure in the rubber plantation of stage I is mainly due to elephant disease and the working has been done by the contractor not in accordance with the technique. The number of rubber stand in the first stage may remain and may be tapped for 15%.

In addition to plasma rubber, there is also rubber plantation in the old village to be afforded because it is not enundate. It amounts to around 255 HH. The business of rubber tapping may be divided into two namely : to top rubber of our own and to top rubber of other people or rubber worker with sharing product 1:3. The tapped product is sold through collecting seller coming to the village and sell it directly to the factory.

Land processing. It is done undertaken by the people through 8 groups of around 21 to 40 members and managed by the group management. The planting of stage I in 1992, has ever been done in "tumpang sari" (agro-forestry) method by planting corn and rice. The wage aid given to the farmer each hectare initially to ... Rp. 1.050.000,- with the breakdown of Rp. 500.000,- for cutting ... , burning collecting Rp. 100.000,-, digging hole Rp. 150.000,-, fertilizing Rp. 40.000,-launching manure (seed) Rp. 50.000, planting Rp. 125.000,- and "ajir" Rp. 50.000,-.

- **Maintenance.** The fund aid for maintenance is Rp. 450.000, manure / fertilizer and pesticide. The fertilizer would be SP-36 manure, 2 sacks (100 kg) dan 2 boxes of PMLT. Beside that, pesticide assistance is also provided (Bayfidon and fluid fertilizer) and "alsinton". Around 15% of farmers do not take care of it, though the maintenance fund has been channeled. It was because they worked at other place. The people think in such as difficult situation they find / have difficult getting livelihood due to their distant and dispersed / isolated location. In order to maintain it intensively, the

maintenance assistance of plasma rubber should be increased till the sixth year. For this purpose, the village government has its program one as one development proposal for the village to the kabupaten (government).

- **To control disease pest.** The pest and disease of plasma plantation will cover elephant, pig, termite and mushroom. Great efforts have been made by the people to send away the elephants by mutually sending away the elephants using a torch. However within the last two years the elephants did not come up. The efforts were by approaching related institution including KSDA, but it seems to be complicated. The KSDA coming / arrival just did not solve the problem because they were late. The rubber trees have disappeared. Additionally, with existing Government Regulation Number 8 year 1982 stating that elephant is one of the protected animals, the people dare not kill them. The people were worried that some day the elephants will come again and destroy the plasma plantation. The efforts ever made in sending away the elephants include using a loop, inviting a group of pig workers and using toxin / poison. To annihilate mushroom and termites. The pesticide given by the government will be used.

- **Increased skill.** Before planting plasma rubber, a planting technical training was made and followed participated in by villagers. In its implementation the villagers did not follow the program because they worked too. Additionally, a training has ever been conducted for beggars and some members. Apart from training, PPL gave some counselling in particular moments. According to the information of the group leader, the people who participated in the training were relatively in a small number. So that it is not surprising that some members are not able to use the medical assistance given / provided by the government. Some of them sell them.

4. Food plant

The kind of food plant includes among others, rambutan, orange, banana, areca nut, edible but malodorous fruit and mango. The use area is the crops area to compensate the moving its location is joined with (by) houses and land yards of 0,5 ha (0,1 ha + 0,4 ha). The other commodities comprise among others rice and corn which are planted in monoculture way or in "Tumpanghari" with rubber. But because there was no habit and less suitable land condition, both commodities were useless. The land is less suitable because only hard crop can grow well. The people assume that if they plant rice or corn it should be together with the fertilizing. In addition, there is also pig disease and pest on orange (plant). A loop and poison on used for pig pest and invite a group of pig workers. Meanwhile no efforts have been made for mushroom disease on orange to date until now and tends to be left. This is because a larger part of people do not understand how to keep it.

5. Fishery

A larger part of fishery is done by making / constructing a pond of patin fish and only a small part of them fish in the reservoir. The afforded pond may be sail to become a livelihood that is most helpful for the people of Koto Mesjid. The fish forage for the first three months use the factory forage. After that to use the forage made by themselves in bran ingredients and the fish was put directly into the pond. The different capital needed covers the forage and made forage totaling Rp. 25.000,- to Rp. 35.000,-. While fishing in the reservoir relatively does not produce any fish in big quantity. The product is only for daily consumption. The pond fish is sold to the collecting sellers coming to the pond owner, who has much money and then distributed to Pekanbaru or other areas (Jambi, Medan, and west Sumatera).

The product of each lawn is around 3 – 4 tons every six months with the fish death rate around 10%. As a whole the fish production in Koto Mesjid is estimated to reach 3 tons per day. The total production may be increased if all the ponds may function, besides that there are ponds not in use due to limited fund / capital. The purchase of fish seed at the moment may be obtained in Koto Mesjid village, because there has been fish seed "penangkar" that is able to produce fish seed in good deal. Fishery technical training has also been conducted by the Fishery Service / Agency. The product processing is still limited, but the business of patin fish jam has been made by a small group people.

The problem faced by the people in making efforts for fish pond includes limited capital. Because the capital in need to afford / purchase patin fish comes to Rp. 2.500 to Rp. 3.000 per piece. While the minimum need of one pond will be around 5 pieces per M2 for 5000 fish. The needed capital is around Rp. 12.500.000,- . Efforts have ever been made to do for such capital and include applying for a loan to Bank Bukopin through two ways, that is by group and cooperatives. The group consist of 40 persons by guaranteeing a land certificate. Meanwhile, 100 persons do it through and until now there has been no realization. The loan procedure has been met and they have opened a bank account on the other hand, some persons / people (individual and the haves) have successfully got the loan from the bank using a particular guarantee. For that point, the people expect an alternative capital aid. In addition to capital matter, water supply will also affect the pond needs. In hamlet III, the water availability will become urgent problem. The pond owners (30 ponds) have made their efforts, among others to prolong the harvest period. They hope that they could find another water source that may supply water needs.

5. Cattle Breeding

The kind of cattle in Koto Mesjid village covers cows and chicken. The percentage of people as breeders is still limited and generally for fulfilling their family needs (not for sale). A member of the people has been attempted / tried to develop duck breeding in a limited quantity. Their knowledge of duck breeding is also limited.

6. Forestry

In forestry sector, the people make efforts in looking for / searching wood. They spend their night in the forest for 10 days carrying sufficient supplies. The product of wood will only be got six months later with the products of 10 cubic / person. Around 30 persons look for the wood, consisting of 6 groups. The problem until now is the dependency of wood seekers on the collecting sellers where finally the wood has been sold at low price. For that reason, the wood seeker should reduce their dependency on the collecting sellers by finding out foster father. "Ulayat" forest which is reliable will he made efforts to have changed its status by the government into protection forest. The people hope that such a forest may be utilized for (in) the future to meet the land needs of new HH (Family Heads).

7. Other Business

Other income generating afforded by the people includes doing trade either on daily basis or outdoor. Kinds of business with developing opportunity are among others to open stalls, crops, rubber products. The main constraint here is the limited capital.

C. Water Supply

1. Water Source

The spring located at the forest has a distance of around 2 KM. It is a potential water source for the residents / people of Koto Mesjid village. The spring has substantial water debit, of clean color and available throughout the year. The spring is estimated to serve a larger part of people of Koto Mesjid village. The constraint is substantial fund is required to channel water from the spring to houses. For that purpose, the village government continually makes efforts of PAB to become the program of sub district budget each / every year.

To people who live in low areas, they may use dug well for clean water needs, it serves around 70%. The well water is clean and has no odour. The constraint is that it is dry season the water level is lowered and in mossy areas the water is turbid and has odour. In order to meet water supply / needs, the people take from the neighbor well which is still clean or from the river.

The river crossing Koto Mesjid village has sufficiently clean water (especially upstream) and has no odour. Those people whose dug wells do not function due to hilly areas (especially hamlet II and people of hamlet IV adjacent to river) or in dry season, they use the river to have clear water apart for bathing, washing and defecating. The problem

arising out here is among other : waste / garbage that spoils the river and hampers the water flow, dirt spoiling the water to be unhealthy. In addition, when dry season comes the river floods and the water changes into becomes turbid. To cope with such a problem, some people defecate in the yard by making a hole and then closed by soil. The other efforts already made covers mutual work to clean the river side on Friday although it is not regularly done. In the future, the people hope that MCK is constructed in each hamlet and the river bed should be scraped.

2. Clean Water Facility

In koto Mesjid village, public hydrant remnants were encountered and there were 6 units which were generally in the form of "seats" or tank "foot". This public hydrant is part of clean water installation provided by the government (Deptrans) for Pulau Gadang village (dusun/hamlet Koto Masjid separated itself (from) around 1998).

Water facility construction takes the form of piping with machine pump (electricity comes from PLTD) which is channeled to each hamlet and accommodated in water tank. This clean water facility installation cost around 1,2 billion. In 1999 the existing pipe network has been "stolen" by the head of LKMD and village chief of Pulau Gadang village. At that time (Koto Masjid was still under the leadership of in charge village chief). When stolen, the clean water facility has not functioned any longer, while to meet the water need, the people use the river water and or shallow well. In June 2001, by using the fund aid of PPK, a dam and reservoir have been constructed in hamlet I. The reservoir serves as public hydrant. Because the public hydrant has not met a larger part of the people. They proposed a construction of 4 public hydrant units spread over in hamlet I. Meanwhile, the people of hamlet II feel more in need of clean water facility and expect the village head to build a similar construction as found in their hamlet. The village chief does not propose the clean water facility for hamlets II and IV to PPK and it has actually been approved for 2002. In April 2002, the fund has been issued and the clean water facility is planned to be realized in mid-April. The people of hamlet II to give alternative to purchase the water reservoir as follows : (1) to make new lines (connecting directly from the dam to the reservoir to be constructed in the house yard of Bapak Amir); (2) to continue the lines (connecting) of pipe at a high point so that water may flow to the hamlet II. After that, the water schedule should be made in order that the distribution to both hamlets will be good.

Around 65 shallow wells units have been constructed by the project in Koto Masjid village, each unit is allowed for 4 – 5 houses / HH. The distance of shallow well from the house is 15 – 30 m with a depth of 4 – 12 m. the well wall should have a ring / cast, the height of ring is 1 m and diameter is around 125 cm. Shallow well in the hilly area cannot be used the water does not flow. In general this is experienced by the people of hamlet II (70%) and hamlet I (40%). To add the ring or move the well location to lower place has been afforded by the people, and even some houses have wells inside. The people hope that shallow well which are not in function should be replaced by reservoir adjacent to their house. For that reason, they are willing to help to purchase sand, personnel, and area / location.

2. Sanitation

A larger part of people in Koto Masjid village have no toilet, family toilet or public toilet. Even though it exists, the MCK does not function any longer (MCK in hamlet II, it was provided by government aid / assistance). The toilet when moved, was not available / provided, has been damaged (out of order) for a long time due to the falling down of septic tank wall and difficult of water. While the construction of MCK handed over to the people (hamlet II) has an in appropriate position and has difficulty with water. The people use again the river and the yard as a place of defecating. The rich people construct toilet and bathroom inside the house. The people hope that each hamlet has 4 – 5 MCK units and is willing to provide / purchase sand, wood, personnel and land / place of MCK.

Appendix 3.3 Ranah Sungkai Village

This village is administratively located at Kecamatan (Sub-district) XIII Koto Kampar, Kabupaten (District) Kampar, Riau Province. Before being resettled to the new village, Ranah Sungkai Village was a separation of Kelurahan Batu Bersurat. Previously, Ranah Sungkai Village consisted of 2 (two) dusun (village cluster) at Batu Bersurat, namely Dusun Koto Tengah and Tembulun. This village was relocated from the previous village on 2 January 1995.

Ranah Sungkai village has the following borders, north is Koto Ranah Village (Kabupaten Rokon Hulu), south Sp.2 UPT 1 Ranah Sungkai, east is Hutan (HPH) and west is Kebun Masyarakat Desa Kualan (Community's Field of Kualan village). The distance of Ranah Sungkai from the centre of Kecamatan (Sub-district) is more or less 35 Km, while to reach the centre of Kabupaten (District) or municipality is around 37 Km, and to the centre of Province is 97 Km. The transportation is relatively easy to find since public transportation is available 2-3 times a day.

A. Description of Process

1. Village Transect

B. Result of Appraisal

1. Resettlement Process

The resettlement process was quite quick. One (1) family only got only a chance for transportation to the new location, while they should shoulder transportation costs needed to bring their belongings that could not be carried at once (parts of buildings, livestock, etc.) Each family needed it for three 3 (three) times delivery of their belongings. In the resettlement process, the community were supported by ABRI (Indonesian Army) and kept during 7 (seven) days when they stayed in the new location. During 3 (three) days they got food subsidy provided by Satkorlak Pemandahan (Resettlement Coordinating Team). The community at Ranah Sungkai Village was a community of Batu Bersurat who were relocated on 2 January 1995.

The above description indicated that the community were not prepared well to let them see their new residence or location. It distressed them when they saw that their new houses were full of underbrush, most of them cried out to see the condition.

The above problem should not have been occurred if government through Satkorlak gave opportunity to the community (households) long before the resettlement took place to clean up their houses. It would not have minimized traumatic conditions of the community towards the case. Traumatic attitude was one of accumulated disappointments of the community.

a) Compensation

Land. Based on agreement, the community got compensation of land as wide as 0,1 ha, 0,4 ha and 2 ha. The system of land contribution was for those whose lands were as wide as 0,4 ha close to their residence would get 2 ha of lands that were quite far from their residence, vice versa. However, for land compensation, that became their recent residence, the compensation disregarded plants in their land. In fact, most of plants were their source of income (rubber plants). The value of compensation was similar, i.e., Rp.200.000,-/ ha (they called compensation as: *Sago Hati*). It was assumed that the width of land compensation /Sago Hati was about 680 ha (the owners at that time was around 100 households, residents of dusun (village cluster) Kota Tengah). The value of Sago Hati showed that 10% of the total width of land (680 ha) was not the right of the community or it was assumed as forest. There were about 14 households (KK) confused of the compensation value they received. They expressed that for example if they owned 6,5 ha land, they would get compensation as wide as 3 ha only, while they did not know the rest.

When we discussed further about the fact in more detail to some residents, they realized their limitation concerning

unavailability of written evidence.

Some of the community had been hopeless to get land compensation as they should have received. To the Team, they expressed it in Bahasa Ocu/ their local language: "*Untung sabuik takapung untung batu tabonam*".

In the case of compensation, although it had occurred case about last 10 - 11, government should be able to review and clear the information to the residents. It might not be smooth and easy to do but accumulated anxiety and unfair treatments in the past to community would be transparent. However, it needs to be undertaken in this new era, of which local government should try to develop and empower the community, especially those who are impacted by PLTA (Water Power Generator) Koto Panjang. It can be conducted through varied programs for the recovery of community's economy and providing social and public facilities that are really needed at village level.

b) Rubber Field

The government's promise to provide 2-years-old rubber plants when they were resettled was not fulfilled. The government just conducted rubber plantation in June 2000. The community did not find rubber fields as the promise, meanwhile rubber incision was one of the communities' main source of income besides fishing. Another fact was that they did not get suitable compensation. It was expressed by some participants in the discussion that when they were resettled to the new location, their plants were productive but the government classified them as unproductive lands.

The above condition raised problem for most of the community, i.e., decreasing income. We found that some of them had low income when we stayed with them some days (26 March - 1 April 2002), while basic needs were expensive (e.g. Rp.3.500,-/ kg) so that they could hardly afford.

Encountering such difficult economic conditions, some of them tried to fish in the reservoir, doing rubber incision to get sap in their previous lands and other agricultural production activities. Despite of having economic problems at village level, especially Ranah Sungkai Village, their efforts to survive represented good value. To get income from rubber incision (from rubber field) as a main source should be enhanced since an effort to improve productivity of rubber until its production that need government subsidies. However, the subsidy should be distributed wisely at an appropriate time and to appropriate target groups.

c) Residence

Most of the communities' houses in which they stayed in their former village were classified as Semi-Permanent 4 (SP 4). The value of the compensation for SP4 houses was Rp.52.000,-/ m2. However, there were residents whose houses were as wide as 5 X 7,5 mt classified as permanent type of building only got compensation as much as Rp.2.465.000,-. Meanwhile, their "new" houses at Ranah Sungkai were in very bad condition. There were many defective houses inhabited by the community but they could not renovate them, unless some residents who were wealthy enough to renovate them into more permanent houses. The types of houses as promised by the government should have met the criteria such as: Type 36 (Perumnas), Zinc roofs.

The residents, however, did not get appropriate houses as the conditions of walls and floors were arranged just so and so while the roofs were not zinc, but asbestos. To date there are still many residents demand houses rehabilitation. There were some houses' roofs broken in the rainy season

d) Daily Life Subsidy (Jadup)

Almost all villages we visited experienced inappropriate subsidy for their life. Some communities expressed that what they received for their daily life was not fitting with the promise. They said that government promised to give daily life subsidy for 3 years but it only provided for 2 years.

e) Social/Public Facilities

Graveyard/ Cemetery for Ulama. Compensation for holy building of cemetery of Syech Yusuf Az'zahidi (16 m2)

was valued only as temporary building as much as Rp.48.800,-/ mt. The community, however, informed that the building was a permanent one before (a cemented house, zinc roof, and equipped with cube). Despite of promise of government to the community that they would get compensation on cemetery, each was valued Rp.75.000,- they had never get it, when they were resettled, most of their families' cemeteries (community of Ranah Sungkai Village) were sink in the previous village.

This problem was related with ethnic and close inner relationship of families (the living families to the late families). They used to clean up and put flowers on the cemetery once a year but they could not do it any longer.

The community had tried to build the cemetery of Syech by themselves taking the fund of the project, yet the cemetery building was still very simple. They were trying to send proposal to communities of Ranah Sungkai staying in Java island (Jakarta). When we were there, the community asked us to assist them make the proposal. We think that their effort should get attention from related parties. They had attempted not to be too dependent on the government subsidy and self-help activities conducted by the residents were considered an achievement in economic aspect.

Balai Adat (Ceremonial Hall). There was no compensation for Balai Adat (Ceremonial Hall)

MDA. No compensation.

Electricity. To install electricity, the community had to pay Rp.180.000,- to Rp.350.000,-

f) Other Potentials

Craft. There was no compensation for crafts of the community to fish.

2. Income Generating

a) Rubber

Rubber cultivation in the fields of Ranah Sungkai village started from July 2000, in which it was the first phase of cultivation as wide as 674 hectares for 337 households (KK). Since the resettlement, the number of population and households had been growing. There were new 63 households (KK), who did not get land since the resettlement process did not consider the increasing number of community, so that there was not reserved land could be managed by the community.

To solve the above problem, related parties should open new area/land for the future development.

Plantation/ Cultivation. In the previous village, most of the community's income was derived from rubber plantation. Before resettlement process, the community were promised to get 2 hectares of 2-year-old rubber plantation. However, they found that rubber had not been planted yet.

With the unproductive rubber condition, most of the community's income decreased drastically and their income was ceased before they could take sap from the rubber plantation. It was worsened with the discontinuing life subsidy. We were concerned that we found them take sap of the rubber plants before time of producing. Seen from this aspect, it will reduce productivity level in the future, while the community had not realized it.

To answer the problem, government should try to do some helpful activities, such as giving subsidy to replant rubber as planted in June 2000. Besides, seeds of rubber plants should be subsidized phase by phase as follows:

Phase I :

In kind of money in sum of Rp. 1.930.000,- for:

- | | |
|-------------------------------------|-----------------|
| • Clearing away the weeds in fields | Rp. 1.000.000,- |
| • Merun | Rp. 200.000,- |
| • Marker and holes of plant | Rp. 80.000,- |
| • Cultivation | Rp. 250.000,- |
| • Fertilizer/clearing away (weeds) | Rp. 300.000,- |

- Transport of seeds to the fields Rp. 100.000,-

In kind of tools and materials:

- Hand Sprayer 1 unit/KK
- Okulas seeds 476 stem/ha (Polybag)
- SP 36 fertilizer 50 kg
- Suburin fertilizer 1 box @ 20 kg
- Polaris 2 liter
- Round Up 1 liter
- Currater 2 kg
- Bayfidan 2 kg

Phase II :

In kind of money in sum of Rp. 530.000,-/ha for:

- Terrace treatment Rp. 150.000,-
- clearing away (weeds) Rp. 100.000,-
- Fertilizer Rp. 100.000,-
- Wiping out weeds Rp. 50.000,-
- Pruning Rp. 50.000,-
- HPT controller Rp. 50.000,-
- Replacing dying seeds Rp. 30.000,-

In kind of tools and materials:

- Hand Sprayer 2 unit/group
- OMT seeds 25 stem
- Seedling 5 stem
- Suburin fertilizer 3 cartoon @ 20 kg
- Round up 1 liter
- Basmilang 2,5 liter plus 2,5 liter (addition)
- Touch down 2,8 liter plus 2,5 liter (addition)

Management of rubber fields. At Ranah Sungkai Village 13 groups of rubber farmers with total members 20 - 25 persons/ Group had been developed. However, the groups only worked for subsidy distribution. The benefits and roles of the groups had not been significant as they had not understood about the principles and how to operate yet. It was something new for them.

In the future, to maximize the roles of groups in managing the groups' activities should be taken into account through sustainable training and facilitation activities.

Treatment. The condition of rubber fields was not treated well while subsidy was insufficient, such as inadequate fertilizer and pest resistance so that many rubber plants died. It was worsen with economic condition of the community that had low income. Since the treatment was inadequate, impacting failure in cultivating rubber plants, lessening productivity, and time-consuming of harvesting.

To solve the above problem and avoid rubber plantation failure that will impact the community's economic condition, life subsidy should be the priority and fund for treatment of rubber plantation should be extended until the rubber plants can be producing. The fund should be suited with the needs and problems encountered in the fields so that it will reach

the right target/beneficiaries.

a) Palawija (Crops planted as 2nd crop in dry season)

Most of the fields of palawija were planted with farming plants like rubber and areca nut, and lemon.

Farming plants cultivated by the community had not been productive and walang sangit (a kind of insect that releases pungent smell caused the rotten and falling fruits. As a result, the plants' productivity was decreasing. Re-plantation is needed and pest should be integrally. Controlled to solve this problem.

b) Fishery and Animal Husbandry

Fishery. In fishery sector, fishponds could be a source of the community's income. Some of them had fishponds in their yard but many of them were not managed well. The less productive fishponds was due to the community's limited level of understanding and capital.

Besides fishponds, PLTA Koto Panjang reservoir was also potential for fishing (farmers). Based on discussion with some people fishing there, there were some kinds of precious fish but since they had limited tools to catch them. Therefore, capital is needed to develop fishery sector (e.g. fishpond) and the fishermen need also fund to improve their tolls needed to get better income from fishing.

Animal Husbandry. Ranah Sungkai Village is not potential for animal husbandry or livestock, especially buffalo and cows since natural grass for their foods are not available. However, in discussion with the community, it was still potential to raise animals such as broiler, duck, and goats.

3. Water Supply

a) Water resources

The land surface of Ranah Sungkai village is range of hills, with the slope of 0 - 45 % so that pure water supply is the main problem, water supply in the land and surface water, as well as well water. For residents in range of hills, the depth of well should reach 9,0 meter to get good source of water, while for low territory it should be about 6,0 meter.

Two kinds of water used by the community are water resources of the rivers of Gemuruh, Pinang Mancung, and Tebat Hantu and water from Kenari river.

The river widely used for bathing, washing, and toilet (MCK) is Sungai Kenari separating the village from South to North. The river is emptied by 2 rivers, i.e., Durian river from west (Dusun/village cluster II) and Gemuruh river from east (Lubuk Agung village). The land around Kenari river is for agriculture and resettlement, so, the water quality is not good to consume.

Water resources can be consumed (drink) are from the rivers of Pinang Mancung and Tebat Hantu (north of Dusun/village cluster I), and Gemuruh river, north is Dusun (village cluster) III (west of Lubuk Agung village).

Based on observation, Gemuruh river and Pinang Mancung have enough water debit even in the dry season. Since its location is in the range of hills Dam could be streaming to villages by gravitation system. It takes about 45 minutes from the village to Gemuruh river about 1,0 Km distant.

Limited pure water supply caused most of the community store rain water for their daily needs, using drum with volume of 300 litre, provided by pemma (government at district level). Some of them also consume stored rainwater.

b) Pure water facilities

To meet pure water needs, Pemerintah Daerah (local government at district level) has built facilities of pure water like pumped water, public hydrant, pipe network, shallow well, and water tank. However, the facilities were not able to be used by the community.

Pumped waters at dusun (village cluster) II (close to the bridge) were not functioning and badly broken (Yanmar brand - 2 units), operated only in 2 weeks when they were tried out (Project submission in 1998). The problems

encountered were (i) Shallow condition of river, about 1,0 - 1,5 meter so that in the dry season water debit decreases, (ii) high maintenance and operational costs, (iii) Location of rivers (water pumps) lower than their residence. Use of water pumps in rural areas is less suitable, due to technical factor. Therefore, applied technology using available potentials such as water resource using gravitation system should be developed.

Public hydrants (1 unit for 10 houses) were not functioning and there was also a hydrant that was moved to a resident's kitchen to store rainwater. The disoperation of public hydrants (HU) was due to inability of water to flow up the residence (in the range of hills) so that pipe network that was not functioning (rusty and disconnected) was dig up by the community.

Reservoir tanks at dusun (village cluster) III were unusable, since the main pipe (dia. 6) was no longer available. The tank got water supply from Lubuk Agung village.

Shallow wells (1 well for 2 houses) were provided by local government were also out of order. It was due to the following cases: (i) narrow diameter of wells, about 1,0 meter, (ii) the depth of wells were only 2,0 meter, so that they could not reach water resource, and (iii) locations of wells were far from houses and disordered.

In the year 1999, Pemerintah daerah (local government at district level) repaired facilities for pure water, such as public hydrants, pipes, and water pumps. Yet, it did not yield satisfying results, due to range of hills surface of land and there were not many suitable locations of pumps.

In the year 2001, funded by PPK (Program Pengembangan Kecamatan/Sub-district Development Program), public wells were built as much as 15 units (5 units for 1 dusun/village cluster). The depth of well was about 9 meter, the height of water surface was 6-7 meter in rainy season and 4 meter in dry season. The wells' diameter was 2,0 meter. Limited distribution of wells, even to get good water resource in the hill steep slope made women difficult to get pure water.

The closest distance of residence to the public wells was 100-200 meter, usually it took 20 minutes on foot, using hand basin with volume 20 litre.

Considering that the level of difficulty to get pure water supply, making Dam at Gemuruh river and its installation should be the priority. To ease water distribution, in each dusun (village cluster) there should be storage reservoir and network to serve the community.

c) Sanitation

Sanitation condition of the community of Ranah Sungkai village was very destitute, since for MCK (bathing, washing, and toilet) they should go to Kenari river, used by 90% of the community of dusun II and dusun III, so that the water was polluted with human waste. This condition was not contributable to the community's health. Sanitation facilities (closets) developed by Pemda (government at district level) could not be utilized at all since the construction was very appropriate.

To improve the community's sanitation, proper public facilities for MCK (bathing, washing, and toilet) should be build by considering other pure water facilities.

A. Resettlement

1. Process of moving

The people of Lubuk Agung who moved from the old village to the new one started on January 2, 1995. But a part of Lubuk Agung people, who know that there will be a construction of PLTA project, immediately moved and opened up a land/area at the location of Kualan Jaya. They live their living by printing rice, rubber and second crops. However because of the difficult life, a part of them returned to their old village to prepare the supplies to Kualan Jaya. The data of Lubuk Agung have been made since 1989-1999. Around 220 KK have been put into the data. The implemented resettlement was conducted in 1995 and within a period of 5 years there has been the increased KK, as follows: 40 KK are not put into the data while the new ones total to 67.

The distance between the old village and the new one is around 9 km. The resettlement is located at SP II by planting rubber. When the moving took place, the data used was the initial data and around 107 KK did not receive any compensation rights and lands (compensation) in the new village. The KK consist of the new non-data family; after compensation of the data and the process of moving has not been done (period of time is 5 years).

Due to the moving from SP II location to Kualan Jaya, then almost all of the constructions are not used and some houses of social public and government facilities are not in function anymore. Now the families who live at/in SP II are said to be almost none; some moved to the main road crossing the village. 35 KK still live around the moving location . The existing public facilities have good condition, but are not used anymore, as it should be. As a larger part of the people and the village apparatuses are in Dusun Kualan Jaya . The people at Lubuk Agung at SP II hope that in the future this location will become busy/lively again to live in, as it should be. Because they feel optimistic that the merles rubber plantation construction may produce well within the forthcoming 3-4 years. One of the efforts to draw attention again the people is that the government should pay attention to the redevelopment of SP II resettlement properly.

2. Houses

The compensated houses of moving are located at on area of 0.1 Ha (20m x 50m). The conditions of houses are generally the same with the same type. The number of constructed houses is equal to the identified KK in 1998-1999. While the change in KK during the pending period of (1991-1995) is not put into the compensation. This certainly causes envy among the villages. According to the people, the government should consider the initial data results with the population growth for about 5 years.

All the house conditions are made of board. According to the people, the promise for composition by the government (never in writing) will be adjusted to the previous house condition. This is exposed when the process of team socialization of the government (PLN, Dinas Kimpraswil, PLTA, BPN and other institution) to the people. According to the people, promise means debt and it should be put into realization, and we (according to the people) will still remember such promises.

Almost a larger part of the people moves to their land in Kualan Jaya. The built houses there with their compensation (money). Around 287 KK move from SP II location to Kualan Jaya and constructed hamlet there (Dusun Kualan Jaya/Dusun II).

2. Land

The compensated land of moving received by the people is relatively the same. The compensated land consist of a house yard of 0,1 ha; land of second crop garden of 0,4 ha and land of nucleus rubber plantation of 2 ha. In addition part of the people have their own rubber land, built as long as they are not dogged by PLTA. The compensated land

given (especially nucleus rubber) has a condition has not has been promised. The plantation /garden ever promise is ready for tapping (it should be planted in 1993) has not any tree at all. It has been just realize in 2000.

The house compensation given in the form of board house with a type of 6 x 6m and asbestos roof. The dug wells beside the houses are only 4 meters in deep, while the topographic condition is slope and its position is high. The wells are never watery. This is not conforming to the promise by the government.

On the other hand, compensation in the form of compensation, of irrigated rice field will be Rp 500,00,-/m², garden Rp 30,00,-/m², rain-fed rice field Rp 300,00,-/m², rubber plant Rp 2.800,00,-/bar and coconut tree Rp 4.800,00,-/bar. According to the people B plots are not to be compensated lot. It is hope that the government may give the compensation for those 3 plots.

3. Portion of Life

A part of the people sells the yard land and the garden and uses the sales revenues to build houses at Dusun Kualan Jaya. This is done because the economy of the people is very hard. They are provided with portion of life for 15 years. And after the portion of life has been provided no land produces (no rubber plant is in existence).

The portion of life ever given to the people include among others, 50 kg of rice per year/KK, 5 kg of salted fish per year/KK, 3 kg of coconut oil/month, 5 liters of karosene/month, 3 kg of sugar, 3 kg of small green pea, 1 kg salt, 2 peace of soap and 2 bottles of soybean (salted and sweet). In order to meet the living condition in the new area, it is very hard and very different from the skill the people have as ever (rubber tapping) A number of activities to earn money proves that no land has produce no rubber plant is in existence)

The portion of life ever given to the people includes among others, 50 kg of rice per year/KK, 5 kg salted fish per year/KK, 3 kg of coconut oil/month, 5 liters of karosene/month, 3 kg of sugar, 3 kg of small green pea, 1 kg of salt, 2 peace of salt and 2 bottles of soy bean (salted and sweet). In order to meet the living condition in the new area, it is very hard and different from the skills the people have ever (rubber tapping). A number of activities to earn money have been done, such as carpenters (tapping workers, carpenters, and brakemen). However, the other part of them still take care of the rubber as by product, because the have no income source anymore when they cultivate the garden/plantation in an intensive manner.

4. Electricity

There was electrical installation in 1999/2000; to have such electricity, they should pay the installation cost as described in the prevailing price list. The electrical installation of stage I is Rp 350.000,- with the power of 450 watts. The stage II, Rp 750.000,0,- for the power of 900 watts, and if cemented houses are charged with additional fee of Rp 50.000,-. Meanwhile, at the socialization stage, the government states in full implication that the government (free of charge) would manage the electrical network installation to houses. The people just press the button and the light will be on. However the promise remains a promise (is never come to reality). Even the people should wait for uncomfortable condition, where the light is often off.

The people hope that is the promise is fulfilled, the government (PLN) should pay back the installation costs/fees.

5. Other Potential of the village

A part from nucleus rubs, the other potential as Lubuk Agung may support the living condition of the people. The land is fertile enough to develop second crop plants. A number of second crop plants already developed by the people comprise; pepper; string bean; turmeric; scales; string bean, etc. The type of such plants is still planted in a small scale. The people have the skills of weaving and the basic material of weaving is sufficiently available around the resettlement area. This weaving production is only used for the family needs and has not developed for sale.

B. Income Generation

a) Rubber Plantation

The area of nucleus rubber plantation at Desa Lubuk Agung is 440 hectares owned by 220 KK and each KK has 2 hectares. The land was previously the "Ulayat" land owned in traditional way. The process of compensation the rubber plant before moving is not common with the standard. There are farmers having a rubber plantation of 2 hectares with a number of rubber stands of around 800 bars and only get compensation for Rp 1.800,00,-. The nucleus plantation maybe realize around the beginning of 2000, whereas it has ever been promised that after living in the near resettlement the rubber is already three years of age with the hope that after obtaining the two year's portion of life, the rubber plant may be already tapped. When the moving takes place, there is no rubber to plant, although there has been a land clearing. In addition the nucleus rubber plant, a part of the people already have public rubber plantation already planted for after years (around 1986) before moving to the other location which later has become the public resettlement.

- **Rubber Processing.** The farmers do it themselves by 11 groups consisting of 20 member on the land area of to hectares per group. The grouping is based on the land area. The members select the management on negotiation. The group management coordinates the by production including to cultivate the land and as liaison officer to forestry agency. The management also processes the simple administrative matters, including financial administration. The operational fund including the incentives of group management is devided from part of land cultivation funds as determined by the group negotiation.

- **Land Processing.** A larger part of the nucleus rubber plantation is planted in monoculture manners. Water need/facility has been fulfilled by a stream around the garden/plantation, but may only be accessible to the plantation located at the side. The land topography condition is relatively wavy with a range of 30 % in slope, but the larger part is a slant hill land. The land fertility is also relatively good with a high rain precipitation. The government only continues the processing. The wage grant given to the farmers is initially Rp 500.000,00,- but minus Rp 50.000,00,- for administrative matters/needs, including incentives of the group management. To prepare ajir and holes costs Rp 100.000,00,-; panting Rp 150.000,00,-; terrace construction Rp 150.000,00,-; initial fertilizing of SP-36 Rp 100.000,00,- and PMIT, Rp 100.000,00,-; embroidery Rp 300.000,00,-

- **Maintenance.** It is assisted by the wages and production facilities of maintenance. Based on the information of the group leader of nucleus farmers, the maintenance covers the construction and repair of terrace with the wage of Rp 150.000,00,-; weeding Rp 100.000,00,-; fertilizing Rp 100.000,00,-; branch maintenance Rp 500.000,00,-; pest and disease annihilation Rp 50.000,00,-; the fell9ng of grasshill weeds Rp 50.000,00,- and weaving Rp 30.000,00,-. To this moment, (year 2000), the third maintenance fund has been given. Apart from the grant in the form of fund, fertilizer aid has also been provided, consisting of two types, namely basic monure (PMLT); pesticide aid, alsinton and seeds for slipping. For the time being 2 boxes of PMLT manure have been provided. Based on the direct observation on the field/site, a part of rubber plants do not grow and set the impression of not taken care of. Average death rate is 15 % although some has reached 50 %. This is because that life demand is not fulfilled if reliable on the given maintenance wage. The seed given by the government with a total of 75 bars inserts the death plants and 25 bars of them are local seeds. The problem is that the maintenance fund and the inserting seed aid is must adequate and not punctual. In the meantime the people are unable to afford themselves. The people have efforts including confirming the relevant institution, especially the Plantation Agency and the inserting is using the local seed. The road facility especially the connecting/joining road between the broken/damaged lawn is also broken. Due to the rain, causing erosion and landslide especially on the land with a slope of high position. The repair error made was not proper and no much change because it was not mixed with sand and stones.

- Disease Pest Control. The pest found on the nucleus plants as among others, pig, deer and termites. Efforts already made in sending away the pig pest and the deer (pest) include using a loop, although it is still done like this. The loop aid ever provided amounts to 2 units or around 20 meters, but they are not sufficient. The other hope to anticipate such pest is by mobilize the hunting troops. The ternate pest is treated by pesticide aid, namely bayfidan. Each KK receives around 2 kg. This is felt not sufficient because it should be 2 kg used for 1 hectare, or 4 kg per KK. Nevertheless a number of farmers have tried to treat and control in a natural manner, namely by pulling out the plant attached by termites and burn them.

- Increased skill. Training from the Plantation Agency is conducted a few moments before planting is done and participated in by the whole people who do the nucleus plantation. Not all the people may participate in the training because they work. The training is only conducted three days and increasingly goes down for the next group. Some members of the people think that the training is not followed up by field practice. There is not exemplary pilot for farmer's reference in the land and monitoring.

b) Food Plant

The type of people's food plant before the nucleus rubber to be tapped is among others rice, area nut, and fruit such as rambutan and orange. Rice is planted on the farm, which is regularly opened every year. This tradition started when the people have started to clear up the rubber land of the people. The rice produced is only for consumption by themselves and not for sale. Meanwhile, the area nut is only planted around the house yard; part of the products sold to market and the other is taken by the collecting seller. Fruit especially rambutan is planted around the house as yard plant. Beside in the house yard, the food plant is also afforded in the cropland or a land of 0,4 hectare. The problem is the disturbance of pig pest and the price is relatively high as well as the marketing especially in big harvest season is difficult.

c) Fishery

Fishery business is to fish in the reservoir and try to construct a pond of 10 %. The distance between the settlement and the reservoir is around 9 km, either from Hamlet I or Hamlet II. The pond fish is sold to the collecting sellers.

d) People's Plantation

Apart of nucleus rubber plant the plantation business also includes among others public rubber, which is made in the form of "Tumpang Sari" in rice and started since after years before the moving is done on the initiative of traditional prominent figures. Previously, this location was on "Ulayat" which was not cultivated. The area of rubber plantation owned by the people depends on the intensity to clear up the lands. When the land is increasingly wider than the owned rubber plantation will be larger. This rubber plantation also becomes one factor leading to the people is movement from the moving location apart from the difficult job opportunity. Apart of the people also plant second cropland provided by the government by the help of rubber and palm oil with an area of 0,4 hectare.

e) Castle Breeding

The castle type bred by the people includes goats and cows. A larger part of the goats are left free and will just be put into the cage as night. The government assists a larger part of the cows, the treatment is done by tying only. When they are set free, they will destroy other people's plants. Meanwhile there is no land especially usable for shepherd lands. Apart of the castle (cows) cannot give to birth. While the caged castle suffer from ringworm on their body to the mouth and it is difficult to treat. A special action to cope with such a thing is never done/affordable.

f) Forestry

Forestry business includes seeking wood and larger parties done by the people having no rubber plantation. The pattern/method is by entering the forest in the vicinity for 15 days bringing along adequate supplies and is done in a group of 3-4 persons. After the felling, it was then carried using a vessel to transport in truck of the collecting sellers.

g) Other Business

Other business to develop includes weaving made of "Pond" and dangling. This has not been commercialized and still used by them, because almost all the families are able to make such weaving. However this business maybe developed if there is an access to marketing due to the adequate raw material availability.

2. Water Supply

a) Water Source

Dusun I-SP II

The river water is main source of clean water for people. The water quality is good, clean and not odorous or change in cur and available throughout the year. The distance of the river from the house is ranging from 10 - 300 m. The problem is that there is waste in the form wood bar (log), palm-oil "Pelepah" or coconut and human fasses, because a larger part of the people use the river as toilet too. Efforts already made by the people are among others to put way/lift the waste from the river. While to cope with the toilet fasses. In the future the people will have the plan to construct a kind of public toilet to assist the larger part of the people.

Dusun II - Kualan Jaya

The other water source will be 7 units of SGL with the coverage of around 35 KK. Such as the river water, the well quality is good, clean, not odorous or changes in taste. The distance of well and the houses is 2 - 10 m. In general, the well water used for drinking and cooking. There comes out the problem if rain comes, especially SGL located in the riverside, the water will be come morbid as to be cleaned up first before use. To construct new SGL a substantial cost/fee is required. There for the people think it is not necessary because the river water is always available throughout the year. As the beginning 2002, with the assistance of PPK, the checkdam and reservoir have been constructed. The produce of water debit is substantial enough with a good water quality. The dam construction is just at the stage I so that the water has not been distributed to houses or emergency "Public Hydrant". The people use the flowing water by dragging the hose to 2 points as " Public Hydrant" and may serve around 20 -30 KK. The people for washing, drinking, and cooking use the "HU" water. To continue this dam construction, the people still expect the government grant/aid, but the people are self-reliant to construct the "HU".

b) Clean Water Facilities

Hamlet I - SPII

The clean water facilities available by self-reliance manner take the form of PAM and SGL. The PAM installation consists of sucking pump, reservoir, pump and distribution pipe and 20 units of public hydrant. The installation was transferred in 1997 and was in operation for around I month. Nevertheless, not all KK were served especially those who live in the uphill. In addition, the diesel to pump needs a substantial BBM of around 15 liters per night and the people will not bear the charges/costs because they think it is still borne by the project. The people keep the tank of HU water even to the Dusun Kualan Jaya. Efforts already made by the people include maintaining the diesel machine and distribution pump not to be lost because in the future it may be refused while the sucking pump has been lost. The water facility of SGL constructed by project totaled 110 units. The depth was 4 meters (5 rings) and a part of SGL (generally in high area) the well bed is closed by cement is cemented and the people call it "SGL" rain field. The distance of SGL from the houses is ranging 7 - 25 m. The constructed SGL in the lower area has appears water quality due to the mossy areas. When it is rainy season, the water becomes turbid and odorous. For clean water the people are compelled to use the river water around the resettlement with a distance of 20 - 300 m with a hilly road. In 2001, with assistance of PPK TA fund of 1999/2000, a checkdam and reservoir have been constructed. The pipe to flow water from and to the reservoir utilizes the former pipe of PAM. This installation may operate for around 1 month. This is

because the dam is leaking as the bottom and also the right and left sides of the dam are not walled, only wood like was constructed which was piled by soil. Then when the river water is high enough, the water may penetrate the dike as to inundate the people's platy around the dam. At the moment, the dam water is turbid (red) and has a bit water debits. The people still ask the maintenance fund of the dam for the village apparatuses. To operate the dam takes a lot of costs. Therefore the people had better chose to deepen the SGL and the undertaking is done when it is sunny day season. To utilize the flowing water may be available throughout the year. The people era willing to prepare personal and materials at the Hamlet such as in therefrom of sound and graveness.

Hamlet II – Kualan Jaya

The facility of clean water at Dusun Kualan Jaya is largely constructed in self-reliance by the people. The facility of clean water takes the form of 7 dug wells (one of them for the mosque). The facility of clean water constructed by the PPK fund, government grant takes the form of checkdam and a reservoir; as the moment it is at the stage I (constructed in 2002). The checkdam water is flowed through the pipe to reservoir and then flowed/distributed to "Public Hydrant" (not yet constructed). As the moment "Public Hydrant" is still the form of uncovered hose so that the water may go on flowing outside. There are 2 units of "Public Hydrant" and are capable to serve 1/3 (one third) of the Hamlet people. For bathing and washing, the people of Hamlet II utilize the stream around the people's resettlement. When it rains, the river water becomes turbid but the people still utilize it. While the water used for drinking and cooking, they utilize the SGL water. "Public Hydrant" and river water, around 1 km of the forest resettlement of rubber plantation. To complete the construction of water network/installation to the "Public Hydrant" needs to substantial fund. Efforts already make by the people include to propose the related institution. While in the future the people who agree to it, will utilize "Public Hydrant" in a self-reliant manner to construct "HU" while waiting for the government aid/grant.

c) Sanitation

Hamlet I – SP II

The government through Deprtrans has provided toilet for each house. The distance of the toilet for each house is around 10 m and the distance from the well is varied around 10 – 15 m. The constructed toilet consists of rest room and the septic tank. On the rest room a wooden "House" is constructed and has a roof of sink of 1 piece. While the walls of septic tank are made of wood and the top is cast by a thin cement. The toilet only function for a few months. This is because the water to clean the faces is used so that the rest room becomes solid and gives the unpleasant odorous and dirty. At the moment, the condition of the toilet has been surrendered by shrub and the septic tank walls have been rotten. For BAB needs, the people utilize the river flow, which is also used for bathing, washing and kitchen necessities. While those who alive far from the river, use the empty land behind the houses. The people already realize that their BAB habit is not good/not healthy and spoil their drinking water and have the plan to construct MCK or public toilet when there is aid in the form of material from the government or donators.

Hamlet II – Kualan Jaya

The existing resettlement at Dusun II Kualan Jaya is not part of PLTA compensated project of Koto Panjang but it was constructed on self-reliant efforts of the people. This is shown from the layout of lens structured resettlement in a good manner. The sanitation facility owned by each hose mostly depends on the level of resident's economy. Only a number of houses and 1 (one) mosque have the toilet. The septic tank walls are made of brick and the top (hole cover) is cast. The people, who do not have toilet for faces, utilize the river (the same for bathing and washing) or garden behind the houses. Generally before defecating the people will make a hole on the ground using a shovel and after that they pile it by the ground. In the future, the people do not have any plan to construct public toilet or MCK because they pay more attention to job and clean water.

Batu Bersurat Village is geographically bordered with Tanjung Alai Village in the east, Binamang Village in the west, dam in the north, and West Sumatra area in the south. This village is the capital of Koto Kampar XIII Sub-district, located about 50 kms from the district capital and 15 kms distance from the province border. It is situated in the middle of the dam which is not inundated. The number of population is Male Female.

The people is presently earning life primarily from catching fish in the lake. Being rubber farmer as the livelihood source can not yet generate sufficient income because the rubber trees are only at the age of 1.5 – 2 years old. The rubber plant of the community is located behind the dam, so that it makes difficult for them to take care of their rubber plant. The impacts of the limited life earning source is among others their inability to send children to school. The people highly expect to gain the success of the rubber harvest and they strongly believe if the rubber plant can be successful, all social economic problems in the society will be automatically settled in the good result.

A. Description of PRA Process

1. Village History Flow

The history flow of Batu Bersurat is traced with discovering information from the people gradually. The first phase is undertaken by collecting information from a community leader (formerly secretary of the village). The next phase is to clarify and furnish the first step of the village history through the meeting with the community in the three groups (I, II, III) existing at Batu Bersurat. The time span of the events to be used as the basis to reconstruct the village history is the memories which can be remembered by the people, related to what happened before and after they moved the new resettlement, due to the PLTA (Water Hydraulic Power Electric Plant) dam

The process of data collection for the first phase was conducted on March 26, at the house of former village secretary. The next phase was during the Focus Group Discussion (FGD) at the group, namely :

- Group III, March 28, 2002 at the house of Group Head III, attended by 21 participants consisting community leaders and members of community both 16 men and 5 women.
- Group I, March 29, 2002 at Darussalam Musholla (small mosque), attended by 22 persons (18 men and 4 women). They represent community leaders and villagers, including youth.
- Group II, March 30, 2002, at the house of former village secretary, attended by 9 persons (4 women and 5 men).

2. Transek (Situational Description)

The village *transek* describing the potential and various problems encountered by the whole society concerning the aspects of income, settlement, garden (plasma & second crops), public facility, and others is compiled through the long phasing process. The first phase is conducted through location observation by the team ranging from the settlement location to the rim of the lake. The observation was organized by involving the community i.e former village secretary as the resource person and the guide. The second phase is to draw up the sketch of village transek by the team based on the result of the field observation. The sketch is an initial description which should be still clarified by the community. The third phase is to bring the rough sketch of the village transek to the meeting at each group to further discuss and review collectively.

The result of meeting at every group is specific things felt by the community at the group, so that there would be a problem and expectation from the community at different group. Therefore, the next phase is undertaken in the form of village meeting attended by the representatives of the three groups in order to integrate the respective expectation into the collective expectation of Batu Bersurat Village.

The field observation and making the rough sketch of village transek was carried out on March 27, 2002. While the

information collection from the community was undertaken through the FGD meeting on the date and the participants as above mentioned.

3. Matrix Ranking

The selection for scale of activity priority in the frame of materializing the community expectation as being revealed in the village transek was undertaken by making making the matrix ranking through the following steps :

- Each group makes assessment on potential, opportunity, and capacity of human resources in realizing every expectation as being stated by the community, whether it is not conducive, less conducive, and very conducive. Then, the grade or value is determined. The grading range is the result of collective agreement such as in group III used the grade value 1 – 4, group I the range 1 – 10, and group II the range 1 – 10.
- Then, the result of matrix ranking from each group is further discussed collectively with the whole groups through the joint FGD meeting. So, it is resulted into the matrix ranking of Batu Bersurat Village, describing the list of activity priority to be necessarily achieved according to the potential, opportunity, and capacity of community at Batu Bersurat Village in general.

The undertaking for drafting the matrix ranking was also conducted at the occasion of FGD meeting as being above mentioned, because the matrix rank was the series of final participatory assessment process by the community through group/village meeting.

4. Village Mapping

The general description of Batu Bersurat Village Mapping is obtained through the discussion process with the community. The process begins with showing the result of transek, then they are requested to move the transek picture into the village map. In the process of interaction to make the village map, the participants have shared inputs each other on the locations they recognized, among others public facility, housing, river, garden, lake, and others. The process of making the village map took place more or less 30 minutes.

The discussion of making village map was held at the house of Mr. Marwan where the post of the team is based and attended by 9 persons (4 women and 5 men). The discussion was held on March 30, 2002.

B. Result of Appraisal

1. Settlement

a) The Process of Relocation and People's Opinion on PLTA

The process of relocation for the people of Batu Bersurat Village to the new location is very closely related to the process of the construction of Koto Panjang Dam. The long and saddening process started when the instruction letter by "Bupati" Head of District to "Camat" Head of Sub-district in 1982 was issued concerning the master plan to construct Koto Panjang Dam. The people represented by their leaders (locally called Ninik Mamak, religious leaders, village head, sub-district head, and "adat" traditional figures) held a consultation meeting in the light of preparing to receive the project. This activity took place at Pondok Pesantren (Islamic boarding school) Darussalam, Batu Bersurat Village and attended by approximately 100 persons. With the presence of "Bupati" and "Bappeda" (Regional Development Planning Board), the meeting resulted 17 proposal items to the government and the response of "Bupati" basically approved them. Hence, the overall decision was in the hand of central government, including the compensation. The proposals of the people are as follows :

- Community is provided with the permanent house of type 36
- Installment for electricity free of charge, and the monthly bill paid by the community.
- Relocating community by moving the whole village.
- Community is granted with the rubber farm in 2 hectares of land per head of household and within 2 years before

the community is relocated to the new location, it should be handed over to them in ready harvest condition.

- The compensation is submitted in full with the fair price.
- Community is provided with the public facilities such as school, integrated health center (*Puskesmas*), mosque, sport square, grazing ground, public cemetery, and others.
- Life allowance for 4 years.
- Community is not treated like the general transmigrating people.
- Employees at the PLTA Project should prioritize the local people based on the skill and expertise.
- All cemeteries considered to be holy and historical should be removed in full form by the government and the monuments should be built in the formerly inundated holy cemeteries.
- Community is provided with digging well or clean water from regional government owned water supply company (PAM).
- Every household is provided with MCK (bathing, washing, and latrine facility)
- Every household is provided with the home yard in the size 50 x 100 m and farming land in the size 100 x 100 m.
- For those inundated by the water is given with the guidance to make use of the lake (especially fishery).
- Every household is granted cow cattle.
- Village road is hardened by asphalt.
- Religion teachers must be added.

Afterwards, starting from 1987 to 1991, several activities concerning the process of data collection on social economic of the community and the process of preparing compensation have been carried out. Some agencies implementing the activities were among others regional government, Agrarian Office, National Land Agency, UNRI University, Plantation Agency, and Andalas University. The activities were among others lain collecting data on traditional norms "*adat istiadat*", data on people's wealth, people's opinion on dam construction, setting up the amount of compensation, measuring the people's land, etc. In this period, the construction of the dam started in 1990.

In 1992 the payment process of compensation for the people based on the correct data was realized. In this period, Minister Ginanjar Kartasasmita and "Bupati" promised that the people would enjoy the electricity free of charge. In addition, they were also promised to receive rubber plants ready to harvest as soon as they moved out. In 1993 the construction for people resettlement started at Batu Bersurat and at the same time the opening of plasma land covering 1,400 hectares for 70 Head of Households (KK) was carried out by the contractor. The land was cultivated with the beans for soil fertilizer. In the same year, the process of building the dam construction was completed. IN 1994 the people inspected the new location and they responded that it was not suitable.

In 1995 the people moved out to the new location by using 100 trucks from Department of Transmigration. Upon arrival in the new location, they found out that the house in the size 6 x 6 m was fully covered by the grass, using zinc roof tile, plywood wall, thin cement floor, water tank in the size 1 x 1 m, simple WC, and other public facilities. In addition, the living allowance in the forms of rice, sugar, frying oil, kerosene, bathing soap, green bean, salt, soybean sauce (ketchup), and salty fish was handed over to the people. In 1996 the clean water PAM and public hydrant HU were constructed and operated only within 4 months. In this year, the people attempted to catch fish in the lake. In 1997, the living allowance by the government completed.

The government made a realization of the proposals resulted from the consultation of people at Koto Kampar XIII as follows :

- House Type 36 with not very feasible condition.
- Electricity entered the village, but people should pay the installment

- There was a village relocated not in the whole village system. This was due to the condition of the location which was judged not feasible to live.
- The rubber land was granted 2 hectares per family, but it was only built in 4 years after the people moved and the condition was not ready to harvest.
- Compensation was not fair and beneficial for community.
- Musholla could not be utilized, mosque was built by people's self-fund. No grazing group, the land for public cemetery not appropriate, etc.
- Living allowance only 2 years.
- Man power from the people affected by the inundating had difficulty to apply for the job at PLTA Project.
- The historical cemetery to be relocated was only 2 units (there is totally around 16 cemeteries) at Batu Bersurat and Pulau Gadang
- Ground well was not built and they were only given with rain water tank, the clean water from PAM only run in 4 months.
- MCK was not constructed, only WC with the very simple quality.
- The home yard was granted in the size 20 x 50 m and farming land 40 x 100 m.
- Cow cattle was only delivered to Binamang Village, Ranah Sungkai, Lubuk Agung and the beneficiaries were only some persons.
- Village road was not asphalt.
- Cost for cemetery relocation was not realized.

The people's perception on the realization of the above proposals were that the government did not appreciate the programs proposed by the people through the tight screening from the many proposals. In addition, the government has only made the decision on his own interest in realizing the proposals without firstly consulting the people to reach the agreement. This raised dissatisfaction, problems and complicated continuing impacts among the people.

b) Compensation for House and Land (0,1 – 0,4 – 2 ha)

The house compensation received by the people is not suited with the 17 proposal items resulted from the consultation with the community leaders and then submitted to the government. The size of house is suited with the proposal, i.e type 36, but in term of quality, the people's proposal to have a permanent house is contradiction. The house received by the community is in the very simple condition and almost damaged. The house is made from the plywood wall, zinc roof tile and thin cement floor. When people received the house, it was already 2 years old (constructed in 1993 and people moved out in 1995).

At present, the condition of people housing is very varied, some renovated and others are still in original form. For those who are financially rich, they can renovate the house construction. But for the poor people, they would let the house in the original type.

The house with the bad construction has been felt inconvenience for those who reside since the early relocation. They were worried with the health condition due to the improper quality of the house.

The efforts to improve the present house condition is to renovate partly and totally the house for those who have sufficient fund. While the necessary efforts to repair the house condition which its quality is worsening from day to day is to improve the house from the government for those who are not yet able to renovate it.

Concerning the issue on land compensation, people received the home yard land for the house in the size 20 x 50 meters, farming land 40 x 100 meters, and rubber land in 2 hectares. For the received rubber land, the size is only 1.8 hectares. The land compensation earned by the people is not suited to the people proposal to the government. The land

condition, according to the people, is very bad and not fertile, especially for the home yard land and farming land. This is due to the top fertile soil is only 10 – 15 cm.

In the view of people, such bad land condition can not be cultivated with the crops and even if they can grow, they can not produce anything. In addition, the other problem presently encountered is the overlapping of land ownership. The cases in the society show that the people claim to possess land certificate, hence, when it is checked into the field, the land does not exist. At Batu Bersurat Village, there are around 250 cases related about land ownership.

Some efforts to overcome the problems of soil fertility are to supply fertilizer and lime, but it does not bring any concrete result. In addition, the community have tried to grow second crops and agriculture commodity. Unfortunately, the result does not meet the expectation. Concerning the problems of overlapping land ownership and discrepancy in land certificate with the location, the community brought the cases to BPN (National Land Agency) and PLTA. But they did not give any reaction.

The efforts to tackle the problems of soil fertility, the community expects that it must be tested in the laboratory. The laboratory result will prove the level of soil fertility and the suitable crop to cultivate. In addition, the community will try to grow the local crop called “gambir”, if they can find a partner to assist the capital for the planting and the management. Concerning the problem of ownership overlapping, the people greatly expect that the government is available to settle out the arising problems.

c) Money Compensation for Loss of Land, Garden, Farming Land, and Home Yard.

For the compensation of money, the people earns cash for the compensation of plants, rice field, garden land, home yard, and house. In more detail, the proposal and the compensation realization can be described in the below table:

No	Type of Items	Proposal (Rp)	Realization (Rp)
1.	Coconut (productive tree / TM)	35,000/unit	4,800/unit
2.	Coconut (not yet productive / TBM)	15,000/unit	1,000/unit
3.	Rubber TM	10,000/unit	2,400/unit
4.	Rubber TBM	5,000/unit	1,500/unit
5.	Irrigation rice field	15,000/m ²	600/m ²
6.	Non-irrigation rice field	10,000/m ²	400/m ²
7.	Other crops	10,00/unit	5,000/unit
8.	Garden land (far from village)	1,000/m ²	30/m ²
9.	Garden land (closed to village)	3,000/m ²	400/m ²
10.	Home yard (closed to road)	5,000/m ²	600/m ²
11.	Home yard (far from road)	3,000/m ²	400/m ²
12.	Permanent house	200,000/m ²	92,000/m ²
13.	Semi permanent house	150,000/m ²	68,000/m ²
14.	Temporary house (wood, plywood)	100,000/m ²	48,000/m ²
15.	Removing cemetery	75,000	None

The realization for compensation received by the community was implemented in force and without any consultation or discussion to reach agreement for the money of compensation. They were forced to receive the price of compensation paid by the government. If they did not accept it, they were intimidated and forced to remove by implementation of team (Satkorlak) Team functioning to be the security instrument of the government. According to the community, the Satkorlak Team comprises of various units from the military forces.

Due to the forceful situation, they have been not feeling satisfactory until today, not voluntarily willing, and betrayed as well as very hatred. Their dignity is disrespected and humiliated and not compare with the sacrifices they have paid

for the construction of Koto Panjang Dam. The arising problem is that the community is very sensitive against anything related with the compensation and very curious with this issue. Presently, there is a rumor spreading out in the community that Japan as the donor agency for the dam construction has an official price list for compensation.

The effort to be taken is to demand the government to be transparent for the official price of compensation or the rate table offered by Japan. They also still ask for the government to cover the cost of removal for public cemetery.

d) Public/Social Facility

The public facility provided by the government to the community of Batu Bersurat Village are among others "musholla" (small mosque), village road, cemetery, school, village office and meeting hall, mosque, etc. Some are good condition and some not appropriate.

The public facility with improper condition is the village road which is not hardened by asphalt, causing erosion on the top soil. The soil erosion will enter into the ditch or drainage in the community surrounding. So, it inundates the home yard when it is raining. In addition, the village road is not furnished with the lamps, causing the darkness in the night. This situation heavily disturbs the community in social activity.

The "musholla" is received in the bad condition, so that the people feel disturbed in performing the religious activity. In addition, the government did not build the mosque when the people moved out.

The effort which has been taken is to improve the musholla by self-reliance funding using the local materials so that it can be functioning. In addition, the community also built the mosque by self-reliance capacity. "Gotong Royong" (voluntarily collective work for common purpose) was also undertaken to improve the village road infrastructure. However, the condition did not much change.

The necessary effort to overcome the problem is to improve the physical condition of the musholla and village road by "gotong royong" voluntarily collective work and installing the village lamps.

e) Electricity

As being formerly promised by the government, the community would enjoy electricity without being charged for the installment. In fact, the facility came in the village, but they should pay the cost of installment so that their houses can be supplied by electric power. The cost amount was charged around Rp. 150,000,- up to Rp. 1,000,000 depending on the time of installment. In addition, the electricity bill was sharply hiking up, causing that they felt very high burden to pay.

The present problems in the community related to the electricity is that some do not yet get electricity power because they do not have sufficient money to cover the installment cost. In addition, the billing cost hiking up suddenly and very expensive is felt high burden by the community. Moreover, the present condition to earn income is unpredictable. Therefore, many people do not pay the electricity bill for the last 2 or 3 months.

The effort which has been and will be taken up is to keep waiting for the realization of the government to meet the promise in installing the electricity at the houses. This is particularly demonstrated by the low income groups of people that are not able to install it in self-financing. While for the people that have been already supplied by electricity, they are demanding the government to reduce the electricity tariff.

2. Income Generation

a) Rubber

The land of rubber plant at Batu Bersurat Village is not a rehabilitation land, because it is only planted once time in the location. The rubber planting which has been managed by the community did not run as being expected.

The people entrusts the management to the head of the group, hence the result is zero (land not cultivated by rubber). Eventually, they grow it on their own way and only few are successful. The number of plasma group at the village is 21

groups consisting members of 24-25 KK (Head of Households) per group.

From the total wide land of rubber plasma, 1,044 hectares, at Batu Bersurat Village, only around 35% area is successful. While the rest 65% returns to be jungle and grass areas. This plantation condition causes to raise other problems such as fire in the dry season and animal attacks such as pig, deer, tapir, wild buffalo.

The effort to overcome the animal disturbances, especially pig, is to set up a steel net trap with poisoned food. But the result is not satisfied. Meanwhile, in minimizing the plantation fire due to the dried grasses, the bushes are cleaned up by using round-up. Hence, the cleaning could not be done intensively by the community due to the following considerations :

The location of rubber plant is situated around 7 – 8 kms away from the settlement. The trip to the rubber plant takes about 3 – 4 hours on foot from home to the lip of the lake in 1 hour, crossing the lake by wooden canoe in 1 – 2 hours and then walking from the lip of lake to the rubber garden in 1 hour. If working in the garden, it means they have to stay in average around one week in the garden so that they can do some maintenance activities. Consequently, they can not perform other works which quickly generate money to fulfill their family needs, such as fishing.

The existing maintenance fund can not be used for this need accordingly because it should be allocated to meet the daily needs of the family whom they leave at home and also logistic to stay at the garden.

Given such condition, it is necessary to undertake several efforts to overcome the arising problems, among others :

1. Constructing a hanging bridge over the lake to ease the access of the community and expedite the trip duration from and to the garden.
2. Constructing road to the garden
3. Increasing fund for maintenance as the compensation of long distance location from the settlement
4. Management of rubber plant by adopting the system of “Bapak Angkat” (nucleus partner). There is still a different perception on definition and the purpose of “Bapak Angkat” in the rubber management. Therefore, it is still necessary to continue discussion on this issue.

b) Horticulture land

The horticulture land by the community is usually called “seasonal land”. The land condition is not well maintained and densely grown with bushes. Some people cultivate hard crops such as hairy fruit, jack fruit, and rubber. The land has been cultivated with one season crop such as “gogo” rain-fed paddy, soybean, green bean, corn, and chili with the seeds from Agriculture Office. Hence, those crops can not grow in fertile because the soil condition is not conducive. The soil fertility is lacking (humus, swallow, sandy, and containing rocky into the depth around 1 – 1.5 meter, although the farmers have scattered fertilizer and liming. Anyhow, the result is not satisfied. To increase the soil productivity of second crops, the soil laboratory test is needed so that it can be identified with what types of suitable crops to grow for such soil condition and what kind of treatments to be taken in supporting the optimal growth of the crops and maximum production for the people.

c) Garden (Home yard land and community owned land)

The garden land is generally managed by community properly in the sense that it is not wasting to be empty, but cultivated with various crops (generally fruits such as coconut, cashew nut, guava., banana, mango, jack fruit, pineapple. Some crops grow well and produce harvest. Hence, some can not bear the fruits, although they have been planted since some years, among others mango and orange.

The non-garden land appears to be not well maintained and grown with more bushes such as hairy fruit (“rambutan”). The community do not take care of the land due to the infertile. Even, the rubber cultivated by the community do not grow in fertile, so that it does not produce the latex. Other constraint is the pig attack,

The community interest to develop the land productivity is still high. For this purpose, it is necessary to undertake various alternative for the solution among others :

1. Improving the land fertility on the barren land by intensifying organic fertilizer
2. If possible, utilizing the land for cattle ground by adopting the management system to secure the plot (by fence).
3. Developing rice field to meet the community needs of rice.
4. Repairing and extending the foot paths in the garden.
5. Re-greening the community land by planting "gambier" considering the potential market (the processing factory has been operated at Batu Bersurat).
6. Assistance of other fruits such as "salak" snake fruit, "duku", durian, and mango with the condition that they have been tested to meet the land condition.

c) Fishery and Animal Husbandry

The fishery sector is the primary product for the community to earn income considering the rubber as the important source for the community can not yet be productive. This community is to catch fish in the lake by using a net and keeping the fish in the "keramba" (floating pond made of net and bamboo) assisted by the government's annual budget plan APBD of Kampar District). Anyhow, the income from this sector is felt decreasing due to the several following factors :

- The fish seed is slowly going down because it is not balance between the amount of fish to catch and the seed to be planted. The imbalance is also caused by the improper way of catching the fish such as using electric shock and fish poison.
- The limited means to catch fish and also skill of community about the alternative method in breeding fish by "keramba".

The effort to overcome the above problem is to draw up the proposal about the aid for fish catching tools and support for increasing the fish seeds to Fishery District Office. Hence, it is not yet realized till today.

To cope with the various problems, it is necessary to undertake the following activities :

1. Purchasing the means for catching fish (boat, net, etc.) and increasing the fish seeds.
2. Promoting "keramba" fish pond by increasing the number to be managed by the community.
3. Purchasing the fish fumigation processing house.
4. Training on fish processing
5. Marketing assistance via KUD (Village Cooperative Unit).

3. Water Supply

Water Resource

a) Ground Well

Ground well is the water resource most primarily consumed by the community every day. Batu Bersurat Village has around 300 digging wells which have been constructed to meet the daily water. While other water resource is used as an alternative supply. These wells are constructed on self-financing by the community, because when they moved out, the housing was not furnished by the wells. They were only provided with the rain water tanks in the size 1 x 1 meter. The tanks will be filled with water when it is raining, while the community need for water is abundance. Therefore, the tanks are not sufficient to meet their daily water needs. For this purpose, the effort by the community to get the water supply does not run smoothly, because the location of the settlement is situated on the elevation 170 meters above sea level and the sloping topography. The soil layer is not easily dig out, only more or less some meters. In the bottom, the stone could be found with the hard form. To break through the soil needs chisel and hammer. Mattock does not work. In

addition, the cost to make it is quite expensive, 1 meter is paid Rp. 300,000. Some wells have only depth 2 – 3 meters. Besides, some have dig out to reach several meters until 7 meters, but the water is only little.

With such soil condition, the community can only build the wells as much as they can. If they already find sufficient water and meet their daily needs, they stop the digging, regardless whether it is usable or not.

Based on the survey and field interview, some water have not good quality, brown color when raining and red when dry season, bad smell, and not nice. Some have good quality, drinkable as the clean water. This water is much consumed by the community for cooking, washing, drinking, and bathing. The average depth of the well is more or less 4 – 5 meters, average high level from the soil surface 1.5 – 2 meters.

The available wells are generally rain-fed wells, much water if raining and drying during the dry season. In this situation, some people are bathing and washing at the small river surrounding their house. For drinking and cooking, they ask for their neighborhood, although they should often carry the water from the river. The water problem is getting more complicated in line with the population growth at Batu Bersurat Village. The increasing population brings some impacts on health environment and more slummy settlement. This is due to the MCK which is not orderly regulated. Some people defecate at the home yard by digging hole and then covered by the land.

Among the above much problems, only some efforts for the solutions have been taken up. To overcome the water difficulty, the community should dig out deeper so that the clean water comes up. Some flow the water river to their house by pipe, although they are not many.

The effort to overcome the problem is to build a drilling well at Batu Bersurat Village and it is planted in the highest location with 3 points. This urgent needs seems unavoidable because it is a vital need for the community. The drilling well becomes the final alternative because some solutions to meet the community clean water e.g from PDAM failed.

b) Drinking Water Project

Batu Bersurat Village has been the site for Drinking Water Project (PAM – *Proyek Air Minum*), but the project could not meet the water need. The reason was that the water did not flow to Public Hydrant (HU). The PAM water could only benefit the community for more or less four months and not every family enjoyed it.

The PAM water is derived from the lake, pumping up by 2 units of machine. One is installed in the lake to pump the water from the lake to “intek” tanks and another one is set up on the reservoir to pump out water from intek to reservoir. The pipe line installed from the lake to the reservoir is 1,500 meters with the diameter pipe 4 inches. The water reservoir is constructed from cement in the size 7 x 6 meters with the height 3 meters.

The PAM water is planned to irrigate 2 villages nearby, namely Batu Bersurat and Binamang. In the realization, the PAM is not implemented or fails by spending the fund approximately worth Rp. 1 billion.

The PAM present condition is already very damaged. The pipes disappeared and broken down. The engine has gone and the public hydrant was no longer at its place, damaged and moved out to the house of the community to catch rain water.

The failure of PAM water is caused by not involving the community in the planning, although they have tried to remind the concerned agencies by proposing the construction of well at every house as the alternative for the PAM construction. They are aware of the difficulty to operate PAM. But this feedback is not appreciated.

To restore the function and not waste the pipe water lines, it is necessary to build drilling well at the location of the water reservoir. The water from the drilling well is put into the water reservoir so that it can be distributed through the pipes. This is possible undertaken because the position of the reservoir is located higher place.

c) River Water

The river at Batu Bersurat is quite plenty and often utilized by the community as the alternative of water resource. In

the surrounding there are 8 small rivers which can be utilized. In the dry season, the community make much water from the rivers for their daily needs. For those who have not ground well at their house, the river water becomes the most important resource for fulfilling their needs. They have to reach the location around 200 – 500 meters.

The river water is also sometimes dried in the dry season, so those who is get used to use for daily needs feel worried. It does so for those wells are getting dried. Besides the above problems, the quality is not very good. This is because many communities use the river as the place to waste shits and being polluted by the other garbage.

The effort to overcome this water scarcity is that the community seeks for other water resources, although they have walk some hundred meters. But this remains not able to meet their daily needs.

As the solution to overcome the water scarcity and maintain the water resources running continuously, it is necessary to protect the conservation around the water catchment.

d) Rain Water

The rain water is still much used by the community to meet their daily needs: washing, cooking, bathing, and latrine. When they moved out at the first time, every family was provided with the reservoir for rain water catchment (PAH). The present condition is still working, although some have been broken out. The water in PAH is not sufficient if it is used as the main resource for daily water. It is only serving as the back up

d) Drilling Well

The drilling well is an alternative water resource for the community at Batu Bersurat Village. They have a very great expectation for the drilling well. This is stated clearly in the FGD at every group. In general, they want to have a drilling well as the water resource considering the potential is possibly realized.

e) Clean Water Means

The clean water means at Batu Bersurat Village are among others digging well by using the water-pumping machine SANYO. There used to be a water pumping machine operated for PAM water, water reservoir, pipe lines and presently they are still in good condition But they are not well maintained, although they can be operated.

While the PAH means are still exist, although they have been destroyed but many are still in good condition. Meanwhile the mean to distribute the river water is the pipeline.

f) Sanitation

The effort to keep clean environment is the main requirement to realize the community health. One of the methods is to supply clean water for MCK. If the water were not enough, it would bring a negative impact on the environment and the public health. At Batu Bersurat Village, the water supply is lacking so that the environment is neither maintained. In addition, some persons use the MCK from the same water resource of the river. They also build MCK at the house in the very simple condition.

C. Conclusion

Based on the participatory appraisal resulted from 3 groups by applying the tools of sketching village map, “transect”, and matrix ranking, the conclusion can be drawn that the scale of priority for every group differs. This is due to the difference characteristic of the environment for every group and point of view to look at the possible potential sources to be developed in every group. The following is the result of matrix ranking based on the scale of priority from every group.

Group I (Dusun I)

- Managing “keramba” fish pond by adopting nucleus sponsor pattern
- Building drilling well for clean water
- Increasing land production of the community by planting “gambir”

- Settlement for land certification of “palawija” second crops (rechecking the number of certification)
- Improving the quality of settlement (MCK facility, renovating old house, renovating worship places, and drainage)
- Increasing public facilities (road, transportation, communication)
- Increasing fund budget for maintenance of plasma garden (due to far location)
- Developing lake potentiality as the tourist place
- Breeding duck cattle
- Enhancing fish seeds
- Purchasing electric pumps for clean water.

Group II (Dusun II)

- Increasing fund for maintenance of plasma garden
- Expanding fishery means
- Providing living allowance of 50 kgs rice per Head of Household/month
- Providing a permanent doctor
- Renovating religious worships
- Building educational facilities
- Training and providing “keramba” fish pond
- Planting *gambir*
- Constructing hanging bridge to plasma garden
- Procuring drilling well
- Building MCK
- Reducing electric bill
- Constructing road to lake
- Terminating school contribution BP3
- Adjusting number of certificate and land
- Constructing road to and at plasma garden
- Building kiosks at the market

Group III (Dusun III)

- Development for breeding cow
- Repairing public and road infrastructures
- Returning the money of electric installation and installing electricity for those who have not received.
- Development in fishery
- Increasing clean water (through drilling wells)
- Building MCK (Bathing, Washing, and Latrine)
- Increasing rubber production
- Payment for the rest of compensation money
- Reviewing the table of compensation price

Binamang Village is bordered with Batu Bersurat in east, community land in west, dam in north, and garden/plasma garden in south. The distance to the capital of sub-district is 1 km, to capital of district 43 kms, and to capital of province 103 kms. It is located on the central area of the dam which is not inundated. The number of population is 2,554 persons (300 KK – Head of Households) comprising 1,290 male and 1,264 female.

The main life earning of the community is currently 90% to seek for fishes in the lake. Their work as the rubber farmer can not yet generate income because the age of rubber plant is just 1.5 years. The rubber is located just next to the dam, so that it makes difficult for them to take care of their plant. The impacts of the limited life earning source is among others their inability to send children to school. Binamang was an extended village of Batu Bersurat in 1998, therefore, most of the problems have almost similarities.

A. Description of PRA Process

1. Flow Village History

Binamang Village was formerly integrated into one with Batu Bersurat and separated in autonomous status in 1998. Therefore, to reconstruct the historical flow of Binamang Village is using the similar method as the foundation to be further clarified or completed by Binamang community, especially since the separation in 1998.

The process of clarification and completing the information at Binamang Village is planned to be conducted in every hamlet (3 hamlets). Hence, at the first chance at hamlet II, there is no additional information or in other words, what has been collected at Batu Bersurat is similar to the Binamang community, the village historical flow at Batu Bersurat is also the similar one at Binamang Village.

Taking into this consideration, the village historical flow was only presented in the meeting at Hamlet II. While the presentation in other two hamlets (II and III) was not further clarified. The reason was also due to the consideration that the village history only contained a general event. Therefore, the clarification from the community at Hamlet II can be considered that it is already represented what have been felt by the community at Hamlet I & III. In addition, not repeat the reconstruction of village history at all hamlets of Binamang, the use of other PRA media such as “transek” and matrix ranking can be made into more optimal because of concerning the available time allocation.

The discussion on village history at Hamlet II was conducted at the house of head of hamlet II on Wednesday, April 3, 2002 in approximately 30 minutes, attended by

12 persons (9 male and 3 female) representing community leaders and the members.

2. Transect

The field observation as the base of drawing up the “transek” was conducted by the team on April 2, 2002 walking through the village from the lake, community land, settlement, “palawija” second crops land to the plasma garden. The description on the location and land allocation at every area is then translated into the transek picture. In the observatory trip tracing the village area, the team met with some people who were working on the field and lake, had a dialog with them in order to directly immerse what they were doing and how the result they obtained from this work.

The design describing Binamang area as being represented in the transek picture was then presented in the meeting with the community ranging from hamlet II, hamlet III, and hamlet I. The meeting sequence was decided by the concerned villagers at their convenience available time to attend it. As the hamlet II turned to have the first opportunity for a dialog and discussion with the team, the filled in format on resources, ownership, encountered problems and the solutions which have been and will be necessarily tackled took a long time, more than 2 hours. The result of transek at Hamlet II was subsequently presented again in the meeting at Hamlet III to get further clarification and additional

other information which were not yet revealed. In this process, there were some inputs to be added and clarified concerning the aspect of lake and settlement. Regarding the second crops land, plasma land and others, they were basically almost similar. The discussion process with Hamlet 3 on transek run more quickly, around 1.5 hour, because of only completing the information. While the appraisal on transek at Hamlet I took around 1 hour.

Collecting the information from the community by transek technique was undertaken at the occasion of FGD (Focus Group Discussion) meeting at respective hamlet with the following schedule :

- Hamlet II, April 3, 2002 at house of Hamlet Chief II, starting at 14.30 – 18:00 WIB, attended by 12 persons consisting of hamlet officers (chief, head of neighborhood association/RT, and members of BPD/Village Representatives Body) and community.
- Hamlet III, April 4, 2002 at house of Hamlet Chief III, starting from 20:00 – 23:00 WIB, attended by 14 persons representing Hamlet Chief, village officers, “nirik mamak” adat leaders, and community, including youth.
- Hamlet I, April 5, 2002 at Musholla Nurul Iman, starting from 20.00 – 23.00 WIB, attended by 18 persons.

3. Matrix Ranking

The process of drawing up matrix ranking to identify the priority of community needs to be necessarily taken up was conducted for the first series at Hamlet II. The real process which was the continuation of the transek could not be undertaken on the same day (April 3, 2002) , because the community had a program at the “musholla” (small mosque) in the night. Therefore, the discussion with the community to present the matrix ranking was conducted on the next day, April 4, 2002, attended by 10 persons representing chief hamlet, members of BPD (Village Representatives Body), Head of RT (Neighborhood Association) and community.

The determination of priority for community needs in the efforts to realize immediately by taking into account the potential, opportunity and capacity (HRD) is appraised by applying the agreed criteria as follows :

- Not support : 1 - 5
- Less support : 6 - 7
- Support : 8 - 9
- Very support : 10

While at Hamlet III, the assessment criteria to be used (based on the agreement with the attending participants) is 1 (not support), 2 (less support), 3 (support), and 4 (very support). The process was conducted at the occasion of FGD at Hamlet 3, April 4, 2002 in 1.hours, involving 14 participants.

At Hamlet 1, the range of the approved grade is 1 – 10 with the composition as being used by Hamlet II.

4. Village Mapping

The general description of Binamang map is obtained through the discussion process with the community at Hamlet 2. The making of village map is undertaken by relating to the location of clean water means or MCK existing at thecommunity. The process begins with asking the community to show the position of rivers and village roads, water resources, and MCK at the settlement. At the same time they are also requested to point out the public facilities at the village. It goes on till the general description of Binamang Village can be identified.

B. Appraisal Result

1. Settlement

a) The Process of Relocation and Community’s Opinion on PLTA

The process of relocation for community of Binamang to the new village location is not far different from the process of Batu Bersurat Village. This is due to the status that the two villages were united before 1998 and Binamang is an extended village of Batu Bersurat and separated to be autonomous village in 1998.

The community relocation to the new location is a long process and felt very tiring for community. While the result of relocation to the new location is very disappointed because it is not suitable with the community perception and the government promise. The relocation process began when the letter of Kampar's Head of District ("Bupati") was delivered to Head of Koto Kampar XIII Sub-district ("Camat") in 1982 informing the plan to construct Koto Panjang Dam. The community through their leaders ("Ninik Mamak", religious figures, village head, "camat", and traditional "adat" leaders) held a consultation in the light of preparing to accept the project. This meeting took place at "Pondok Pesantren" (Islamic Boarding School) Darussalam, Batu Bersurat Village and attended by almost 100 persons. Being presence by "Bupati" and Bappeda (Regional Development Planning Board), it resulted 17 proposal points to the government and the response of "Bupati" basically approved them. But the final decision was in the hand of central government, including about the compensation. The 17 proposals by the community are as follows :

- Community is provided with the permanent house of type 36
- Installment for electricity free of charge, and the monthly bill paid by the community.
- Relocating community by moving the whole village.
- Community is granted with the rubber farm in 2 hectares of land per head of household and within 2 years before the community is relocated to the new location, it should be handed over to them in ready harvest condition.
- The compensation is submitted in full with the fair price.
- Community is provided with the public facilities such as school, integrated health center (*Puskesmas*), mosque, sport square, grazing ground, public cemetery, and others.
- Life allowance for 4 years.
- Community is not treated like the general transmigrating people.
- Employees at the PLTA Project should prioritize the local people based on the skill and expertise.
- All cemeteries considered to be holy and historical should be removed in full form by the government and the monuments should be built in the formerly inundated holy cemeteries.
- Community is provided with digging well or clean water from regional government owned water supply company (PAM).
- Every household is provided with MCK (bathing, washing, and latrine facility)
- Every household is provided with the home yard in the size 50 x 100 m and farming land in the size 100 x 100 m.
- For those inundated by the water is given with the guidance to make use of the lake (especially fishery).
- Every household is granted cow cattle.
- Village road is hardened by asphalt.
- Religion teachers must be added.

Afterwards, starting from 1987 to 1991, several activities concerning the process of data collection on social economic of the community and the process of preparing compensation have been carried out. Some agencies implementing the activities were among others regional government, Agrarian Office, National Land Agency, UNRI University, Plantation Agency, and Andalas University. The activities were among others lain collecting data on traditional norms "*adat istiadat*", data on people's wealth, people's opinion on dam construction, setting up the amount of compensation, measuring the people's land, etc. In this period, the construction of the dam started in 1990.

In 1992 the payment process of compensation for the people based on the correct data was realized. In this period, Minister Ginanjar Kartasmita and "Bupati" promised that the people would enjoy the electricity free of charge. In addition, they were also promised to receive rubber plants ready to harvest as soon as they moved out. In 1993 the construction for people resettlement started at Batu Bersurat and at the same time the opening of plasma land covering

1,400 hectares for 70 Head of Households (KK) was carried out by the contractor. The land was cultivated with the beans for soil fertilizer. In the same year, the process of building the dam construction was completed. IN 1994 the people inspected the new location and they responded that it was not suitable.

In 1995 the people moved out to the new location by using 100 trucks from Department of Transmigration. Upon arrival in the new location, they found out that the house in the size 6 x 6 m was fully covered by the grass, using zinc roof tile, plywood wall, thin cement floor, water tank in the size 1 x 1 m, simple WC, and other public facilities. In addition, the living allowance in the forms of rice, sugar, frying oil, kerosene, bathing soap, green bean, salt, soybean sauce (ketchup), and salty fish was handed over to the people. In 1996 the clean water PAM and public hydrant HU were constructed and operated only within 4 months. In this year, the people attempted to catch fish in the lake. In 1997, the living allowance by the government terminated.

Although being disappointed by the community, the government made a realization of the proposals resulted from the consultation of people and the leaders at Koto Kampar XIII as follows :

- House Type 36 with not very feasible condition.
- Electricity entered the village, but people should pay the installment
- There was a village relocated not in the whole village system. This was due to the condition of the location which was judged not feasible to live.
- The rubber land was granted 2 hectares per family, but it was only built in 4 years after the people moved and the condition was not ready to harvest.
- Compensation was not fair and beneficial for community.
- Musholla could not be utilized, mosque was built by people's self-fund. No grazing group, the land for public cemetery not appropriate, etc.
- Living allowance only 2 years.
- Man power from the people affected by the inundating had difficulty to apply for the job at PLTA Project.
- The historical cemetery to be relocated was only 2 units (there is totally around 16 cemeteries) at Batu Bersurat and Pulau Gadang
- Ground well was not built and they were only given with rain water tank, the clean water from PAM only run in 4 months.
- MCK was not constructed, only WC with the very simple quality.
- The home yard was granted in the size 20 x 50 m and farming land 40 x 100 m.
- Cow cattle was only delivered to Binamang Village, Ranah Sungkai, Lubuk Agung and the beneficiaries were only some persons.
- Village road was not asphalt.
- Cost for cemetery relocation was not realized.

The people's perception on the realization of the above proposals were that the government did not appreciate the programs proposed by the people through the tight screening from the many proposals. In addition, the government has only made the decision on his own interest in realizing the proposals without firstly consulting the people to reach the agreement. This raised dissatisfaction, problems and complicated continuing impacts among the people.

Until today, the community still always remember the promises stated by the government officers involved in managing the project of the construction for Koto Panjang Dam. It is still closed in the mind of community about the high promise of the government to persuade them to move out. Until now, they continue to strongly demand the government to realize the government's promises which are not yet realized.

From the discussion resulted with the community, it is revealed that the government always avoids with the various reasons such as no budget, former officers replaced, and other arguments causing the community hatred. In the present condition, they can not imagine what will happen if it goes to continue in such way.

b) Compensation for House and Land

The house compensation received by the people is not suited with the 17 proposal items resulted from the consultation with the community leaders and then submitted to the government. This includes the quality of the house granted by the government to the community. The size of house is suited with the proposal, i.e type 36, but in term of quality, the people's proposal to have a permanent house is contradiction. The house received by the community is in the very simple condition and almost damaged. The house is made from the plywood wall, zinc roof tile and thin cement floor. When people received the house, it was already 2 years old (constructed in 1993 and people moved out in 1995).

At present, the condition of people housing is very varied, some renovated and others are still in original form. For those who are financially rich, they can renovate the house construction. But for the poor people, they would let the house in the original type.

The house with the bad construction has been felt inconvenience for those who reside since the early relocation. They judged the house unfeasible for the quality and the standard of residence.

The efforts to improve the present house condition is to renovate partly and totally the house for those who have sufficient fund. While the necessary efforts to repair the house condition which its quality is worsening from day to day is to improve the house from the government for those who are not yet able to renovate it.

Concerning the issue on land compensation, people received the home yard land for the house in the size 20 x 50 meters, farming land 40 x 100 meters, and rubber land in 2 hectares. For the received rubber land, the size is only 1.8 hectares. The land condition, according to the people, is quite fertile and suitable to grow rubber fertile. The arising problem is the distance from house to the rubber garden located far away across the lake. So, the community thinks very reasonable if the rubber condition is presently neglected because of the far distance and also the importance to seek for life earning first for their family.

The land compensation received by people is not suitable with the proposal of the community to the government. The land compensation earned by the people is not suited to the people proposal to the government. The land condition, according to the people, is very bad and not fertile, especially for the home yard land and farming land. This is due to the top fertile soil is only 10 – 15 cm.

In the view of people, such bad land condition can not be cultivated with the crops and even if they can grow, they can not produce anything. In addition, the other problem presently encountered is the overlapping of land ownership. The cases in the society show that the people claim to possess land certificate, hence, when it is checked into the field, the land does not exist.

Some efforts to overcome the problems of soil fertility are to supply fertilizer and lime, but it does not bring any concrete result. In addition, the community have tried to grow second crops and agriculture commodity. Unfortunately, the result does not meet the expectation. Concerning the problems of overlapping land ownership and discrepancy in land certificate with the location, the community brought the cases to BPN (National Land Agency) and PLTA. But they did not give any reaction.

For the problems of soil fertility, the efforts to be taken is that the community will try to grow the local crop called "gambir", if they can find a partner to assist the capital for the planting and the management. Concerning the problem of ownership overlapping, the people greatly expect that the government is available to settle out the arising problems.

c) Money Compensation for Loss of Land, Garden, Farming Land, and Home Yard.

For the compensation of money, the people earn cash for the compensation of plants, rice field, garden land, home yard, and house. In more detail, the proposal and the compensation realization can be described in the below table:

No	Type of Items	Proposal (Rp)	Realization (Rp)
	Coconut (productive tree / TM)	35,000/unit	4,800/unit
	Coconut (not yet productive / TBM)	15,000/unit	1,000/unit
	Rubber TM	10,000/unit	2,400/unit
	Rubber TBM	5,000/unit	1,500/unit
	Irrigation rice field	15,000/m ²	600/m ²
	Non-irrigation rice field	10,000/m ²	400/m ²
	Other crops	10,00/unit	5,000/unit
	Garden land (far from village)	1,000/m ²	30/m ²
	Garden land (closed to village)	3,000/m ²	400/m ²
	Home yard (closed to road)	5,000/m ²	600/m ²
	Home yard (far from road)	3,000/m ²	400/m ²
	Permanent house	200,000/m ²	92,000/m ²
	Semi permanent house	150,000/m ²	68,000/m ²
	Temporary house (wood, plywood)	100,000/m ²	48,000/m ²
	Removing cemetery	75,000	None

The realization for compensation received by the community was implemented in force and without any consultation or discussion to reach agreement for the money of compensation. They were forced to receive the price of compensation paid by the government. If they did not accept it, they were intimidated and forced to remove by Satkorlak Team functioning to be the security instrument of the government. According to the community, the Satkorlak Team comprises of various units from the military forces.

Due to the forceful situation, they have been not feeling satisfactory until today, not voluntarily willing, and betrayed as well as very hatred. Their dignity is disrespected and humiliated and not compare with the sacrifices they have paid for the construction of Koto Panjang Dam. The arising problem is that the community is very sensitive against anything related with the compensation and very curious with this issue. Presently, there is a rumor spreading out in the community that Japan as the donor agency for the dam construction has an official price list for compensation.

In the discussion with the community, some do not want to discuss the compensation (Hamlet III). They feel this would be useless if it is discussed. So, it is better to talk about the future to find out the solutions for the problems of the income generation for the community. But for Hamlet II, some strongly demand the compensation to be the priority solution. Right now, there is still a problem of compensation which is not yet paid to 20 persons.

The effort to be taken is to demand the government to be transparent for the official price of compensation or the rate table offered by Japan. They also still ask for the government to cover the cost of removal for public cemetery. While concerning the problem of the unpaid compensation, they still expect the government to settle the arising cases.

d) Public/Social Facility

The public facility provided by the government to the community of Binamang Village are among others "musholla" (small mosque), village road, cemetery, school, village office and meeting hall, mosque, etc. Some are good condition and some not appropriate.

The public facility with improper condition is the village road which is not hardened by asphalt, causing erosion on the top soil. The soil erosion will enter into the ditch or drainage in the community surrounding. So, it inundates the home yard when it is raining.

The "musholla" which is received is considered by the community not strategic location, so that the people feel

disturbed in performing the religious activity. In addition, the government did not build the mosque when the people moved out.

In addition, the other public facility which is not provided by the government is the MDA (Islamic elementary school) and kindergarten (TK). Presently, the students of kindergarten and MDA occupy at the building of public elementary school of Binamang Village.

The public facility of sport square is considered to be an important for the Binamang community. The non-existence of this facility for the young generation is felt disturbing due to the interest and enthusiastic of young generation on the foot ball sport is quite high.

The effort which has been taken is to improve the musholla by self-reliance funding using the local materials so that it can be functioning. In addition, the community also built the mosque by self-reliance capacity. "Gotong Royong" (voluntarily collective work for common purpose) was also undertaken to improve the village road infrastructure. However, the condition did not much change. Concerning the non-existence buildings for TK and MDA is tackled by sharing at SD public elementary school building. For the foot ball square, the young groups play the sport at other village.

The necessary effort to overcome the problem is that the government help finance the construction of mosque for the community of Binamang Village until the completion, constructing building of TK and MDA, repairing and improving village roads and "gotong royong" constructing the foot ball square.

e) Electricity

As being formerly promised by the government, the community would enjoy electricity without being charged for the installment. In fact, the facility came in the village, but they should pay the cost of installment so that their houses can be supplied by electric power. The cost amount was charged around Rp. 150,000,- up to Rp. 1,000,000 depending on the time of installment. In addition, the electricity bill was sharply hiking up, causing that they felt very high burden to pay.

The present problems in the community related to the electricity is that some do not yet get electricity power because they do not have sufficient money to cover the installment cost. In addition, the billing cost hiking up suddenly and very expensive is felt high burden by the community. Moreover, the present condition to earn income is unpredictable. Therefore, many people do not pay the electricity bill for the last 2 or 3 months.

The effort which has been and will be taken up is to keep waiting for the realization of the government to meet the promise in installing the electricity at the houses. This is particularly demonstrated by the low income groups of people that are not able to install it in self-financing. While for the people that have been already supplied by electricity, they are demanding the government to reduce the electricity tariff.

f) Living Allowance

The issue of living allowance retains attention of the community because they face the real difficulty to earn a reasonable income. In the discussion, it is revealed, if the government wants to make the rubber program successful, the basic need of the community in food should be fulfilled first. The community of Binamang village relates this problem to the far distance to the rubber plant location crossing the lake. It is explained by the community if they go to the rubber location, they have to leave their family within 2 weeks and therefore, they must allocate a sufficient fund for their family at home, while they don't have any other source of income except earning fish from the lake. They have a dilemma fruit and in the hard position between family and generating successful rubber plant. In addition, the maintenance fund is also felt insufficient for this present condition.

In the community's opinion, the effort to be taken by the government, if the rubber plant succeeds, is to provide living

allowance for community in 2 years. This proposal is felt by the community very concrete and reasonable. If this is realized, they can guarantee that the community-based rubber plant will be implemented properly and if the rubber plant is successful, all problems can be overcome.

2. Income Generation

a) Rubber

The wide of rubber plant area at Binamang Village with 177 KK (Head of Household) supposed to 356 hectares, but the portion received by per KK is not 2 ha, only 1.8 ha, so that the total wide of the land is only 320.4 ha. The rubber plant at this location is owned by 7 groups in which they respectively have members of 25 KK. The garden position is not all located far from the settlement. Around half area is closed to the villager houses. Precisely, 4 groups have plasma land nearby the settlement and the other 3 groups are far away from the residence.

The age of rubber plant is in average 20 months and only around 60% of the total wide of the rubber land is successful. The condition of plant is quite good due to the soil fertility is conducive to grow rubber (suitable), but from the maintenance aspect is not conducive. The lacking maintenance is caused by the following reasons :

- The distance of plasma garden from the settlement is far away, so the plant maintenance could not be carried out intensively. In addition, if they come to the garden, they have to stay for 3 days and they could not do catching fish so that they don't earn income for their family.
- Lack of fund for maintenance. The community work at the garden or do the maintenance according to the available fund. While some fund has been already used to cover the daily life needs.
- The maintenance fund do not drop in cash according to the schedule (delayed) and not full payment (3 terms). This condition causes the plant into bushes.
- Pig attack, deer, "tapir/cipan" and "anai-anai" wild animals.
- Land condition is hilly to make it difficult for community in doing the grass cleaning and watering.

The other supporting factors which cause the lack of land maintenance is the unavailability of place for group meeting as being promised by the Plantation Office, namely 1 unit per group.

Various efforts by the community to overcome the problems are among others to build boat and bamboo raft in self-reliance way to cross the lake. Some do swimming, especially to reach the location of the plasma nearby the settlement.

To replace the dead plant, they buy local seed for replanting at the price Rp. 300,-/piece.

For the future, some efforts to be necessarily taken in overcoming the existing problems are among others :

1. Building a permanent bridge in 2 units located on the lake of Osang Besar River and Osang Kecil River.
2. Increasing fund of maintenance (proposal Rp. 5 millions/year)
3. Planting "gambir" as the intercrop at the plasma as the land and the sloping hilly environment suit to grow "gambir" and easy maintenance.
4. Aid of rubber seed for those who fail.

b) Second Crops

Most of the "palawija" second crops land is only grown by bushes and a small part is planted by hard crops such as rubber, "jengkol", orange, mango, jack fruit, "petai", which the seeds are provided through self-reliance by taking from the former village. The result of crops can still meet the family consumption. Not most of the second crops land is cultivated due to the following factors :

- The effort to plant "gogo" rain-fed rice by Agriculture Office does not succeed (seed over age).
- Seasonal crops such as chili and beans (long beans and green beans) can not grow due to the land condition is not conducive (land can not keep water).

- Infertile land is still improved, but people do not have money.
- Animals attack by pig, mouse, and “anai-anai”.

The effort to overcome the problems are among others :

- Fertilizing and liming the land by Transmigration Department after the land is drawn by turn to decide the location.
- Cleaning the land area by mattock.
- Hunting wild pigs by Wild Pigs Hunter Association (PORBI)
- Setting up a trap and using “temik” poison

The above efforts have not overcome the problems till today. Therefore, extra efforts should be undertaken through the following :

1. Increasing soil fertility
2. Assistance for second crops, hard crops, fertilizer and pesticide
3. Fund aid for processing “palawija” second crops land
4. Agriculture/plantation vocational training (starting from land cultivation, planting and marketing)
5. Planting “gambir” on “palawija” land

c) Garden (Home yard and community-owned land)

The garden and community-owned are cultivated with various crops generally fruits such as coconut, cashew nut, guava, “jengkol”, banana, mango, jack fruit, durian, pineapple. The problems in this farming is similar to the “palawija” second crops land, namely not fertile soil and only suit to grow hard crops. The problem faced by the community to cultivate the lands is funding. Especially the costs to purchase fertilizer and medicines for the plants, while their daily life is still insufficient. Therefore, it is necessary to improve the land productivity and the fertility of the community-owned land through providing seed, financial aid, and land processing.

d) Fishery

Binamang Village has potential of lake and geographically it is divided into two parts : lake nearby the settlement called Gadang Lake and lake nearby the plasma land called Sungai Osang Lake.

Gadang Lake has around 20 fishes species. The location has a potential as tourist object and site to breed fish pond. The present problem encountered in the lake is among others the dirty environment with the garbage of wood stalks. The lake potential as the source of life earning is not yet supported by the means and facility to catch fish. Other problem is the uncertainty of fish price due to the fluctuating water of the lake. When it is tiding up with plenty of fishes, the price is low.

In the frame of increasing income from catching the fish on Gadang lake, the community has attempted to get a loan (for economic production) from PPK (Sub-district Development Program). The number of family receiving this aid is 32 KK. Considering the huge potential of the lake, it is necessary to undertake the future following efforts :

1. Cleaning the lake from wood stalks
2. Aid for fish equipment (net, boat, carriage, and “robin” machine)
3. Building a fish market
4. Training on fish processing
5. Promoting “keramba” fish pond by using bamboo and net, including training
6. Aid for fish seeds
7. Promoting lake as tourist place of interest

Sungai Osang Lake has a fewer fish species, around 15 species. The problems arising around the lake are among others : far distance from the settlement around 3 – 4 km or taking around 2 hours on foot; no transportation; number of

fish decreasing, and many trees stalks floating on the lake.

The efforts to overcome the problems are to build foot path, spreading the fish seeds (20 fishes) from Gadang Lake to Sungai Osang Lake to diversify the fish species, cleaning the lip of lake (already reaching 4 meters from the lip) from the trees stalks which will be then used for fire wood in smoking the fish ("Salai" fish).

Efforts to overcome the problems are:

1. Building new road from the settlement to the lip of lake (new road or repairing/improving the foot paths)
 2. Increasing fish seeds
 3. Cleaning the lake
 4. Building 2 units permanent bridge for Osang Besar River and Osang Kecil River
3. Water Supply
 - a) Water Resource

Ground Well

Binamang Village is an extended Batu Bersurat Village in which during the first relocation the houses are not furnished with ground well. The community is only provided with rain-fed reservoir in the size 1 x 1 meter. This reservoir will be filled in when it is raining, while the people need a lot of water. Certainly, it is not enough to meet their daily needs. To fulfill the water needs, some dig out the ground well in self-reliance. Out of 178 KK, there are only 4 family to build ground wells. The reason is due to the high cost for digging out the well at the cost Rp. 350,000,-/meter. The high cost to dig out the well is caused by the soil surface containing the hard "napal" stone. To break through this soil should be carved by hammer and the digging is done in manual. No expert technician to dig out the well at lower cost.

The existing well has a quite good quality, but it can be only used for drinking and cooking. This limitation is due to anticipate the decreasing water volume if it is also used for bathing and washing. The water can be kept till dry season, but it is lacking when the long dry season comes. The depth of well is between 7 – 12 meters with the water average height from the soil surface around 3 – 4 meters. If it is dig out deeper, it may be more water, because it is located on the elevation 120 – 180 above sea level.

Beside the above well, there are also well with the depth 2 – 3 meters. These wells do not help much. They are only used as reservoir for rain water and it is dried in the dry season. In the raining season, the water is plenty and can be used for bathing and washing several times.

The well with the depth more than 12 meters have difficulty to get the water. To overcome this problem needs a water pump machine to pump out the water.

The effort to overcome the problem is undertaken through various attempts by deepening and making the well in self-reliance. Hence, they can not yet still meet the water needs for Binamang Villagers. They expect to get assistance in building well 1 unit per KK.

Drinking Water Project

Binamang Village has been the site for Drinking Water Project (PAM – *Proyek Air Minum*), but the project could not meet the water need. The reason was that the water did not flow to Public Hydrant (HU). The PAM water could only benefit the community for more or less four months and not every family enjoyed it.

The PAM water is derived from the lake, pumping up by 2 units of machine. One is installed in the lake to pump the water from the lake to "intek" tanks and another one is set up on the reservoir to pump out water from intek to reservoir. From here, the water is irrigated to public hydrant through the pipe lines which are installed from the lake to the reservoir is 1,500 meters with the diameter pipe 2 - 4 inches. The water reservoir is constructed from cement in the size 7 x 6 meters with the height 3 meters.

The PAM water is planned to irrigate 2 villages nearby, namely Batu Bersurat and Binamang. In the realization, the PAM is not implemented or fails. The failure is caused by not involving the community in planning, although they have warned the concerned agencies by offering the well construction at every house as the alternative for building PAM clean water worth Rp. 1 million. It is not approved by Transmigration Department and finally they reduce the rate into Rp. 500,000,-. But the agency did not want it because the project has been in the bidding. Finally, they follow it and not participate at all. When the PAM project was completed, official transfer or handing over was done from the project to the community.

The PAM condition is now in very bad. Many pipes are damaged and cut out. The machine disappears and the public hydrant is no longer at the place, broken and moved out to the house of community to reserve water.

To restore the function and not waste the pipe water lines, it is necessary to build drilling well at the location of the water reservoir. The water from the drilling well is put into the water reservoir so that it can be distributed through the pipes. This is possible undertaken because the position of the reservoir is located higher place.

River Water

The river at Binamang Village has a very big benefit for supplying daily water, most of the community (98%) use river water to meet their daily needs. There are 4 rivers in this location which are often utilized. Makam River serves more or less 48 KK, Ukam River 10 KK, and Langkuik Ami River 50 KK, and Ulek River 70 KK.

There are two dams at Makam River in serving the water needs for Binamang Community. They were constructed in two phases, firstly through the funding of PPK 2000 and PPK 2001. The water supply from the river is quite plenty. Although the water is enough during the dry season, so that many people take the water from the reservoir on the river. Even, the community at Batu Bersurat takes water from the reservoir during the dry season. The river is situated nearby the cemetery of Syech Alkholidi and also the settlement. So, some can not have the access of water from the river. This is due to the location of Dam which was constructed on the elevation 150 m asl and 120 m asl. While the settlement has the elevation on 180 m asl, so they can not be served from the water reservoir.

For those who do have the water access, they use Ukam River, Langkuik Ami and Ulek. However, they can not be fully served either, because their location is higher than the river water sources. They have to walk in the distance 10 meter – 1,000 meters to get the water.

Since most of the community use river water for their daily needs, sometime they have to be queue and wait for moment. Apart from the above problems, other is related to the quality of water. This is because many people use the river for wasting sheets and being polluted by other garbages.

The effort to overcome the problem of water shortage is that the people seek for other water resource, although they have to walk some meters. However, this can not meet the daily water needs of the community.

The effort to overcome the water scarcity and keep the continuing water supply is to necessarily conserve the environment and the water catchment area and to build a drilling well.

Rain Water

The rain water is still much used by the community to meet their daily needs. Not only for cooking, but also bathing, washing and latrine. In the beginning of the relocation, every family is provided with 3 rain-fed water reservoirs (PAH). The PAH condition is presently still good and some have been destroyed. The water on PAH is not enough if it is mainly utilized as the daily water resource. The PAH water can be only served as the reserve.

In order to catch rain water as much as possible, the necessary efforts to be taken is to add the number of PAH and use the greater size of water reservoir.

Drilling Well

The drilling well is an alternative water resource for Binamang Village. Presently, they greatly expect to have a drilling well. This is stated when FGD was conducted in several hamlets. In average, they want to use drilling well as the water resources. This is related to the potential of the environment has a very high possibility to be realized. This need seems to be unavoidable because it is a vital need for the community. The drilling well becomes apparently the final alternative because several efforts which have been undertaken to settle out the problems got failure such as PAM clean water.

b) Clean Water Supply

The clean water supply at Binamang has different sources. On Makam River there are two dams constructed through PPK fund and PAB (clean water supply budget) of local government. The dam is used to locate water reservoir below. For the upper dam, the construction uses fund of PAB 2001 from the local government and it is also used for water reservoir located nearby the mosque of Binamang Village.

The means for clean water of Ukam River have been furnished with the water reservoir using the PPK fund 2001. It did so for Langkuik Ami and Ulek Rivers. At Ukam River, there is 1 water reservoir with good condition and functional. At Langkuik Ami River, there are three water reservoirs with good condition and they can be utilized by the community. At Ulek River, there is also three clean water reservoirs with good condition.

The PAH (clean water means) is still existing, although some are already destroyed, but many are in good condition. The equipment to distribute or flow the river water uses a fiber plastic (*paralon*) piper. Formerly, there used to be a water pump machine for PAM. Presently, it disappeared. The water reservoir and its pipe net is in good condition, but not well maintained because of being covered by bushes, although functional. Some pipes are broken.

c) Sanitation

To keep clean environment is the main condition to realize the health of the community. One of The method is to supply clean water for MCK. If the water is not enough, it would bring a negative impact on the environment and the public health. At Binamang Village, the use of water is also going up. There must be impacts on environment health and slummy settlement. This is due to the MCK is not regulated in order. At present some people defecate at their home yard by digging hole and covered again with the land.

Binamang Village does not have a sufficient clean water supply so that the environment is not well maintained. In addition, some person use MCK from the similar water source of river. Some build MCK at their house with the simple condition.

C. Conclusion

Based on the participatory appraisal resulted from 3 hamlets by applying the tools of sketching village map, "transek", and matrix ranking, the conclusion can be drawn that the scale of priority for every hamlet is not much different.. The following is the result of matrix ranking based on the scale of priority from every hamlet.

Hamlet I

Managing "keramba" fish pond by adopting nucleus sponsor pattern

Building drilling well for clean water

- Increasing land production of the community by planting "gambir"
- Settlement for land certification of "palawija" second crops (rechecking the number of certification with the location)
- Improving the quality of settlement (MCK facility, renovating old house, renovating worship places, and drainage)
- Increasing public facilities (road, transportation, communication)

- Increasing fund budget for maintenance of plasma garden (due to far location)
- Developing lake potentiality as the tourist place
- Breeding duck cattle
- Enhancing fish seeds
- Purchasing electric pumps for clean water.

Hamlet II

- Extending Life Allowance till the plasma plant success
- Expanding fishery means
- Providing living allowance of 50 kgs rice per Head of Household/month
- Aid for fishery catching equipment
- Providing a permanent doctor
- Cleaning the lake
- Aid for fish seeds
- Assistance for fish marketing
- Improving production of plasma land
- Increasing fund of maintenance
- Constructing 2 units of permanent bridge (Osang Besar River and Osang Kecil River)
- Planting “gambir” as intercrop
- Assistance for rubber seed for those who fail
- Providing public facility
- Providing foot ball square
- Financial Assistance for building mosque
- Improving and expanding village road and drainage
- Building new road from settlement to the lake
- Reviewing and payment for compensation
- Upgrading educational means
- Building school facility for TK,MDA, and musholla
- Promotion for teachers to be state employers
- Enhancing production of “palawija” second crops land
- Assistance for seed of palawija, hard crops, fertilizer, and pesticide
- Training on agriculture
- Planting ‘ gambir
- Assistance for maintenance fund
- Providing clean water
- Building digging well 1 unit/KK
- Providing 2 units of pumping machine
- Building MCK
- Water distribution
- Expanding water reservoir
- Repayment for electricity installment cost and installing electricity for those who have not got the access.
- Building fish processing factory

Hamlet III

- Supporting life allowance for 2 years
- Planting “gambir” at second crops land
- Training on agriculture and plantation
- Building floating fish pond “keramba”
- Increasing maintenance fund
- Building digging well 1 unit/KK
- Improving road to plasma land
- Constructing 2 units of permanent bridge
- Repairing public facility (road and drainage)
- Building and repairing educational means (TK, MDA, SD)
- Improving religious facilities (musholla and mosque)
- Enhancing MCK 1 unit/ KK
- Reviewing electricity tariff
- Renovation for houses
- Expanding fish seeds
- Training on fish horticulture and processing
- Purchasing Sanyo pumping machine

A. Result of Appraisal

1. Resettlement

a) The Relocation Process

The relocation process and the location decision are only taken by the project team without paying attention on community aspiration. At first, community wanted to be moved in the south of Muara Takus, however, community was given three option of the relocation pattern i.e. move in the area of Sungai Pagar with the facility of house and its yard, the palawija land and the cultivated area of oil palm of PIR pattern, or move in the south of Siberuang with the facility of house and its yard, the palawija land and the plasma rubber estate, or move freely without any facilities.

Beside the above information, it was also obtained information of the village history with this process starting from the name of the village of Pongkai in the old village that meaning the indigenous land or the soil taking location for the construction of candi Muara Takus. After the compensation process was done in 1992, community was moved in the village of Pongkai Baru (South of Siberuang) in January 1996 with such condition of the bushes housing since the houses have finished 5 – 6 months before it is occupied. In 1999, the electric entered into the village and this year is conducted, either. In 2001, the village's market that was built with the fund assistance from the Program Pengembangan Kecamatan (PPK) was opened, and there was developed the fattening cow (30 tails) with using this fund assistance.

b) Compensation

The estimation of the compensation problem is inappropriate with the fact. Most community suffered a financial loss with the compensation process. The price estimation and type of the things that will be compensated never involved community.

c) Housing

Most allocation house (timber wall, cement floor and asbestos roof) is damaged and not cared since his owner leaves it. There are only 90 of the 200 houses that are occupied. About 30 houses are flooded when the rain comes.

d) Road

The main road of the village has been blacktopped. However, the housing's and the field's road are uncovered with asphalt and many bridges are damaged.

- The environment change from the old village to the new one make some important livelihood means loss, as make field and go fishing. Meanwhile, community cannot utilize optimally the available resource. Community works in other village.
- Communities hope to develop capital assistance that would be used for the business opening such as the orange and palawija field, and for life insurance during they meet no success in their business.

For consideration based on the sense of humanitarian to help community in any field for developing the village of Pongkai Baru, it will need to take into account any assistance that will be given through the tool of the village, sub-district and kabupaten.

Communities in Pongkai Baru feel such a different life when they still live in the old village in comparison with the present life. Their daily activities were said to make money although it was enough for one day only, but they felt enough. It is different with this present condition, do no any activities with no agriculture inputs such as the seed and fertilizer.

The resettlement is since 1996 – March 2002, if the complete assistance is thoroughly received by community, *such*

condition is never happened, following is the instance description:

1. The fund aid for opening the palawija land is only obtained half, while the other rest go into the pocket of a person in an office (with negative connotation).
2. Agriculture supply such as the seed is not thorough received by community.
3. Animal husbandry assistance for community as cows can be revolved its owner for 18 months, however, there should be paid for administrative cost in amount of Rp. 30.000,- before they become the owner. Without paying its cost, community will never own the cow though they are already registered as the owner. On the contrary, if there is one who could pay more than Rp. 30.000,- for administrative cost, they will get the cow ownership. The cow is ± 3 months years old and still breast-fed (is it possible with the following time of 18 months, the cow price is reasonable with the returning rules?)
4. The fertilizer, which should be received by community during resettlement, only received one time allocation. The other is maybe sold to the market through the village's tool that have close relation with the leader village)
5. When the fund is released, the leader village told community that it is not released yet.
6. One of communities gave information that in one place of the village of Pongkai Baru, there is some sacks of agriculture fertilizer (tens) and some carton boxes of the corn seed (tens) and those are ready to be sold, and not to be distributed to community.
7. There are so many truths that are unable to be revealed one by one at this report.

Under this such circumstance, any assistance that will be distributed to community in the village of Pongkai Baru, should be directly conducted under controls and should be ensured to be received by community without passing through those mentioned tools of the village in order to avoid the above mentioned occurrence.

2. Income generating
 - a) The Rubber plantation

The width of the rubber estate for each household (KK): 2 ha and feel free to choose the distribution. Total width of the rubber estate in this village is 400 ha, 10% is not good its growing since the owner do not live at the village and the uncared rubber plantation is about 100 ha. At this time, 30 KK (farmer) are newcomer and they stay in the house in which the owner left the house in the village of Pongkai Baru. The new and old owner made agreement to distribute the field production with the landowner. The pattern of the rubber cultivation is monoculture. The rubber plant was cultivated in 1999 (2 years old) and so, it cannot be tapped yet.

When community moved in this location in 1996, the field condition is not ready to be planted (not as its promise) and therefore, community asked for the seed assistance and its inputs to the government to cultivate rubber (1999). In relation to the need for this rubber plasma planting, the plasma farmer group is established. At first, there are 8 farmer groups with 25 members, however, there are 4 active groups only. The seed provide for the rubber estate from the government is 976 trunks for two hectares and come from the grafting in a good condition, while for replacing the dead seed is a removed seeds. Fertilizing for the beginning planting from government is also Rp 180.000/KK but it excluded the cost to fertilize. There was a cost of Rp. 1.000.000/KK for the planting process starting from marking with a stake, making a hole and planting but the farmer only received Rp 550.000/KK, reduced by the officer.

The clearing of the field is conducted in the morning (at 08.00-14.00), and the care cost is Rp 250.000/4 months/KK. However, this cost is not released yet for the last six months, community did not know the reason since PPL (field worker) who used to manage it never visit to the village any longer. Other problem in the rubber estate is the hog infestation that damaged the rubber trees. Community conducted such effort to make netting in the field. According to community, it has to be conducted the mass hunting of the hogs with the net.

b) Horticultural land (palawija)

The width land of palawija is 0,4 ha/KK, and only about 10% of the total available land (80 ha) is cultivated. There is no pattern of the planting rolling in its cultivation. Types of the cultivated plants are:

- Corn. The production is not good if it is not fertilized, used to plant corn when there is seed supply (C7) and fertilizer distributed by PPL. The sale price of one corn is Rp 500.
- Peanut and Green Bean have good result (the price of Rp 4.000/kg)
- Cassava have a good result (the price is 1000/kg), while the cassava leaves is Rp 500/bound
- The selling of the palawija production is in the market around sub-district of XIII Koto Kampar at the market days.

The palawija field is infrequently planted with chilly and rice since the care cost is big, particular to buy pesticide to eliminate the disease. There is also the transferred palawija field to be the rubber or orange field. The house's garden is commonly planted by orange/limau, coconut, banana and other fruit plants. Irrigation for the palawija and rubber estate is depended on the rainfall. The soil is not fertile especially for palawija and vegetable should be fertilized. Some community has livestock, i.e. cow and goat. Cow is from the fund of Program Pengembangan Kecamatan. Total cow in this village is 30 tails.

c) Home Garden

The home garden width for each KK is 0,1 ha, planted by some hard plants and fruits, such as coconut, limau, pinang, etc. Most plants produce no result since the planting was conducted in 1996 when moved in this location. The problem in the garden is similar to the palawija field, i.e. livestock infestation eat the plant.

d) Problem

The farmer does not know how to anticipate the disease pest except by spray. Beside, the wild hog and the livestock (cow and goat) often eat the palawija plants since livestock there is not tied. This living thing should be given such a herding land or tied. The price of the fertilizer is expensive and the market location is far, and so, the compost is difficult to get in this village. There is cow and other livestock but they are new and few only. When there was PPL, the farmer can be discussed or consulted in relation to the plant condition, plant care, and how to manage the pest-disease of the drugs size, including the care cost.

The farmer used to ask to PPL, and after PPL came down, he will give it to the Wali and it will be announced at mosque. However, this can be done any longer since PPL never come again for the last three years. The communities hope that PPL can come again in this village, it is beneficially if he come from the local village. KUD of Farmer through the farmer group put aside the cash fee in KUD and farmer can borrow money for farming capital. Nevertheless, the board of KUD run the money/fee away that belong to the farmer. Since then, KUD is inactive.

3. Water Supply System

At the first year of settling in the village of Pongkai Baru, the resettlement, palawija field and water supply facility is in a good condition. Now, resettlement and palawija land are covered by high coarse grass, and the water supply system as the dug well, public hydrant and IPAB, which was established by the project, is not maintained. Water supply system that uses the processing installation can be utilized for 7 days (one week) merely. Therefore, the public hydrant that allocated as the replacement of the water need is not run. Further consequence is the disappointment of community. Some distribution net system is missed.

a) Water Source

Shallow well. The shallow well construction in the village of Pongkai Baru is 100 units, 1 well is for 2 KK/house. The condition of the resettlement area that have a different elevation will influence the height of the well water level.

These following are the different:

High Elevation, the water level between 0 – 0,5 m

Medium Elevation, the water level between 0,5 – 1 m

Low Elevation, the water level between > 1 m

Those conditions are in a normal situation (not in the drought), while in the drought, the condition of the well is waterless. It was conducted such effort to deeper dig \pm 0,5 – 1 m but this effort gave no satisfaction result.

- The quality of the well water is colored yellow to white, soil smell and tasteless, and there is yellow sediment inside the water saving/pail if the water is let settled in a certain period. Structure of the available well body can be differentiated, i.e.:

- The width of the well is between 1 – 1,5 m
- Outside wall of the well was constructed from the mixed brick and cement.
- Inside wall of the well was constructed from the mixed brick and cement, and the mixed gravel and cement
- The wall well before it reaches the bottom of the well around 0,5 – 1 m is not covered with cement.
- The water is taken with the pail that tied with the rope

River of Kenawai. Beside this river is utilized to fulfill the water need in the drought, it is also taken for installation of water processing by most community.

The condition of Kenawai River is as follow:

- The width of the river is between 2 – 4 m, the depth is between 1 – 2 m
- The quality of the water is turbid, soil smelled and tasteless.
- In the drought (\pm 3 weeks), it will be waterless and in the rainy season, most houses (about 10 houses) are flooded with the period of flood is between 3 – 4 hours.

Water Processing Installation or IPAB (Instalasi Pengolahan Air Bersih). Started with the water flowing facility, i.e. the construction in the bank of the Kenawai River such as intake, consist of the 6 cm diameter pipe put into the river. Then, by using the sucker machine, the river water is saved in the water saving and after that, it is flowed to IPAB through the 6 cm diameter pipe. IPAB construction such as:

- The building consist of the machine room, laboratory room, equipment room and security room.
- A big building for the saving of BBM Pertamina with the iron wall and its width \pm 1 cm that have function as the water processing.
- A building consist of two big empty room as the water saving from intake.

After the water is processed from IPAB as the feasibility for clean water, it is distributed through the divider pipe of the T letter (such as a place/building that have similar line to the land). This divider pipe consist of the water faucet in the left and the right with its control meter and transmission pipe, which supply its distribution, have 6 cm diameter. The direction of the available pipe system in the village of Pongkai Baru home in on the public hydrant. The water flowing system uses a suppression and gravitation system, in which in the divider pipe with 6 cm diameter pipe and the pipe go into the public hydrant and MCK use the pipe of 1 cm diameter.

The position of this divider building is located in each intersection of the available road net in the village, and so, the occurred pipe net make the shape of the linear pattern along the road and the public hydrant is allocated in each the road line that take shape of the room structure of village. The pipe is put in the ground with the depth between 60 – 75 cm under the surface of the land and this time, those pipes are in a good condition. Meanwhile the pipe is damaged in the pipe net from intake to IPAB, motor machine (water processor) in IPAB, the divider building and the public hydrant.

Since community feel disappointed towards IPAB, which is only operated for 7 days (1 week), some public facilities are damaged such as:

- The missing hydrant seal
- The missing faucet and the pipe connection system
- The disconnection of the connection pipe to hydrant.

Water Spring. The village of Pongkai Baru have no water spring.

b) **Water Supply**

Water supply in the village of Pongkai Baru is a digging well and IPAB, it is also provided some supporting facilities such as:

- 10 units public hydrant construction
- 15 units divider building
- 2 units public MCK

The condition of water supply is damaged. Beside the river, only the digging well can be used by community.

c) **Sanitation**

Basically, the environment health in the village of Pongkai Baru is less, this is because of :

- There is no drainage ditch system of the well
- There is so many back and forth livestock and deliver its fesses at any place

It is only a few of people who make the water drainage from the well to drainage ditch along the roadside. It is because the less of awareness of community on the environment health. Meanwhile, the livestock which deliver its fesses anywhere (seen in the road that shape the village), it is because of there is no cage for their livestock and make it free to anywhere.

In the first process of interaction, there is only 3 persons. The team started to explore the available institution in this village and parts of the government agencies that have link with the villager. Those institutions are PPL, midwife, teacher, group of farmer, Group of Wirid, Ninik Mamak (village elders), KUD, village, BPD, PKK and PLN. Then, it was sustained with the identification on institution based on its benefit, some people started to be come and so, there was 8 discussion participants. Facilitator explained that the benefit of institution is symbolized with a cycle, the more the cycle gets bigger, and the more community feels its benefit. Unexpectedly, some participants feel suspicion and were asked what actually its objective for, is it such a form part of a political. Facilitator, then, explained that they were simultaneously studying a process to find out the rules and think about how/what effort to be done by community in order to increase the progress and the development of the villager itself. Finally, the discussion participants could comprehend and the interaction process become more dynamic. The institutional order based on the cycle of the bigger benefit to the smaller as follow:

1) **The village's Officer**

The role of Wali (village leader) and the officer in the village development is enough for community, particular in administration matter. In fact, some members dislike Wali but it is only related to the personal and not his responsible as Wali.

2) **Badan Perwakilan Desa/BPD or Village Representative Institution.** It has similar level with the village's officer.

BPD has responsible to assist Wali. Beside that, BPD also manages the available project activities in the village.

3) **Ninik Mamak (Village Elders)**

Ninik Mamak still has influence in community life. It can be said, if there is no ninik mamak, community feel like a

dog. When there is problem between the community members, ninik mamak become the arbiter in solving the problem.

4) PLN (State Electricity Enterprise)

Though the electric is often extinguished since it is restoring. If it is compared with the former condition with no electric, the light is better now. The PLN officer make notes of meteran, he also visit to the village when the payment has come, and so, community need no cost to go to the office for the electric payment.

5) Teacher

Education is important and teacher educated the children in the village. However, there are only 3 teachers. It should be one teacher for one class. Number of teacher is imbalance with the existing number of pupil.

6) The Group of 'Wirid'

Through this group of wirid, community can learn and deepen religion to give the serenity of life

7) The Group of Farmer

The activities of the farmer group are more connected with the problem of the plant and field. These group's activities are reduced since there is no PPL, no plant to be cultivated and the cash for group is used to be taken from the care cost. There is also no routine meeting that has been agreed by the member or coordinated by the leader. All this time, the meeting is conducted when PPL come and conduct extension.

8) Midwife (bidan)

Bidan does not stay in the village, she comes to the village one times every 15 days, particular when there is the activity of posyandu (integrated service post) for children under five years old. If communities get sick, they have to go outside of the village to restore the health. If bidan stay in the village, she can help to be delivered of babies.

10) PPL (Field Worker)

11) PKK (Village's program to educate women on various aspects of family welfare)

There were activities such as making field of PKK, but now, there are no activities at all.

After the benefit cycle was agreed, facilitator sustained the following process i.e. the close relationship/the harmonious of those institutions with community.

- The village officer, Ninik Mamak and BPD come into the community cycle.
- The farmer group comes into half cycle because the relationship between the member and leader is closed enough
- The group of Wirid comes into 1/3 cycle in community.
- Teacher and PKK are closed with the cycle because teacher and PKK have a little interaction with community.
- KUD and PPL are far from community since there was once disputed with community and lately, there is no interaction.
- PLN and Bidan is rather far from the community cycle because PLN made community moved in the inappropriate location, and bidan have interaction only when she comes for posyandu.

A. Result of Appraisal

1. Settlement

a) Relocation Process

Mayang Pongkai village is a relocation of Pongkai village that was overflowed by the development of PLTA Koto Panjang reservoir. The relocation was processed through three kinds of relocation models offered to the community, i.e., relocation with rubber plasma garden model to the area of Selatan Siberuang, PIR sawit (oil palm plasma) model to the area of Sungai (river) Pagar and free relocation model.

Before being relocated, data recording (1989-1990) for relocation compensation data recording for relocation choice were conducted. During data recording, the community got promise that if they were willing to move, they would have semi-permanent house type 36 with upstairs, free electricity installment, WC (toilet) and a well in the house, zinc roofing, asphalt road and water pam.

Of the above models offered, the community of Pongkai village, especially those that were mostly coming from kampong Martasan (259 households) chose the second model (oil palm plasma) to the area of Sungai Pagar. Before relocation on was conducted on 14th January 1996, many people were confused of relocation uncertainty. During this phase (period of relocation compensation and relocation) the community could not plant since the relocation schedule had not been certain, so that they could only "extravagant with money" for looking for relocation and kitchen needs.

The relocation on 14th January 1996 was the last period of the relocation of 8 villages overflowed by the development of PLTA Koto Panjang reservoir. Delivery of belongings and transport of the people were carried out by truck facilitated by the project. However, due to a lot of belongings of the community, the available transport (two mobiles/cars for 6 households) was not sufficient, so that some of them had to leave their belongings in their previous village.

After the people stay at Mayang Pongkai village, they faced different condition, much distinctive with promises ever given to them. Their houses' conditions were unprepared and mostly located in the area of swamps and underbrush, WC/toilets were not appropriate and allocation for their lives were reduced, less than they should have received. The government in charge at the village level at that time was KUPT.

After staying at Mayang Pongkai village, they got together with migrants from Java (137 households) and local migrants from Simalinyang village (108 households). This socializing and assimilating process had raised some problems, especially for the local community.

b) Compensation

The computation and payment of compensation was undertaken on the year 1991 – 1992 with prices determined by the district level/team. In the process of compensation, many people suffered losses since the prices determined by the team were not appropriate. Some people tried to extend compensation payment considering imbalanced compensation, nevertheless the compensation values even decreased after the extension period. To date, there are still 161 plots unpaid.

Houses

Houses provided to the people were buildings as wide as 6 m x 6 m (each house) with board wall, asbestos plates roof, and cement floor, mostly located in the area of swamps so that their housing surrounding was muddy. They had to dry it out by themselves or heap up the floor and repair the drainage ditch.

In the relocation period, many houses were not refined yet, reinforcing some people to stay at their neighbours (completed houses).

The recent condition is that of the 540 houses, more or less 10 % houses at Mayang Pongkai village have been permanent, 10 % semi permanent, and the rest 80 % are still temporary/original houses. The costs for rehabilitating the houses were allocated from the rest of compensation payment. To admit new households (part of the households) the government develops TSM houses in sum of 75 – 77 units in the village as wide as 3 m x 6 m/house.

At dusun (village cluster) Sungai Win, floods overflow RT/village hamlet 20 (8 houses) in the rainy season since the location is swampy and the ditch drainage is not well-managed. Floods are getting worse when plants in the forests of the r surrounding villages have been cut-off for oil palm garden. The community agreed to propose for making ditch drainage to solve this problem.

Of the 540 houses allocated by the project, there are some houses of which certificates have not been handed over to the owners. Similarly, the certificates of TSM houses are not transparent. According to the community, they should get this to the previous KUPT in charge at Mayang Pongkai village by asking to the Dinas Transmigrasi Tingkat I dan II (Transmigration Service at the District and Sub-district levels).

Land

The land for compensation is a houseyard and crops field as wide as 0,5 Ha/household. Land for plantation of oil palm plasma is 2 Ha/household, therefore, each household get compensation of land as wide as 2,5 Ha. When the community were relocated to Mayang Pongkai village, the houseyards had been planted with oil palm in 1991 – 1992 by PTPN V, however, to date there are still 38 lots of oil palm yard for the community that have not been conversed since there are conflicts of land ownership with other parties. According to the community, the best solution is proposing to the local government to extend new planting land for the 38 households who are suffering from the conflict.

The village land (tanah R) has been managed for TSM housing development for the other part of households. At present, the village has curving land (tanah bengkok) as wide as 10 Ha that is still in conflict with the local people. It occurs due to unclear borber of the land and symbolic submission of the village from KUPT to the village leader. In response to this condition, the community agreed to inquire again to the previous KUPT in charge at Mayang Pongkai village. Land conflict has impact on friction of the community's life since the community of Mayang Pongkai village feel that secure condition in their village is not conducive. So far, the Mayang Pongkai community gives in to the local people to hinder getting worse conflicts. The community expects to get help from the police to make a security post within the village (babinsa).

The most discomfort trouble for the community is that they will not be able to extend their planting area, while they will have growing number of children or grandchildren. This is a condition that really differ from the condition that they lived before (previous village), where there are still many *lahan ulayat ninik mamak*, areas of their family leaders, in which the people can plant it as they are able to manage. At Mayang Pongkai village ini, they still have *ninik mamak* (uncle/family leaders respected by the family/community as decision maker), but they do not have *lahan ulayat*.

Money

Besides getting facilities as clarified above, the community also get compensation in the form of money to recompense their wealth due to the reservoir development of PLTA, like houses, land and plants. The payments of compensation received by the community are mostly not in accordance with the calculation, so that to date there are still 161 plots of compensation that are stiiil unpaid/cancelled. It is worsened with the fact that the value/prices received by the community is so unfair. The price for farm is Rp. 300,-/m², rubber plot that has been productive is valued up to Rp.250.000,-. Removement cost for graveyard (Rp. 75.000,-/unit) have never been handed over to the community.

Up to this moment, they are still expecting to solve compensation problems, especially related with unpaid plots. If there is still fund for the compensation, it will be better if it is evenly distributed to all of the community impacted by the development of PLTA (Water Power Generator).

c) Public Facilities

Mayang Pongkai village also geot public facilities provided by the project when they were relocated. The recent public facilities available at Mayang Pongkai village are among others: Sekolah Dasar (SD)/Elementary Schools (2 units), mosques (2 units), *mushalla* of small building or room set aside in a public place for performance of religious duties (7 units), MDA (2 units), Kindergarten (1 unit), office of village leader, public hall of the village, office of KUD (Cooperative Unit at Village level): 1 unit and *puskesmas pembantu* (supporting health clicic): 1 unit.

The main road of the village is asphalt and in a good condition, while inner village paths is developed from hardened sand and stones jalan (40 %) and the rest is hardened soil so that some paths are muddy in the rainy season. Some paths are equipped with bridges (drainage ditch).

Area for graveyard is as wide as 2 Ha, yet, more or less 1 ha is located on swamp area so that the community cannot operate it. So far, they make use of their houseyard for cemetery of their late families. An effort to find a new location had ever been conducted by purchasing some part of the community's land for public graveyard, however, some people at the bording area for the graveyard disagreed with it. Another alternative consented by the community is by repairing the land/graveyard condition by heaping up the yard or trying to get new location.

d) Electricity

Electricity has entered Mayang Pongkai village since the year 1999 for approximately 200 houses of 540 houses, with installation costs about Rp.500.000,- to 1,5 million rupiah. The community perceived that it was not in line with the promise that the electricity installation would be free of charge. Nonetheless, since the community was in need of it, they did not care with the prices. To date, many houses have not been lighted with electricity although they have allocated fund for the electricity installation costs.

Payment for electricity billing was ever managed through KUD available in the village, but recently it is not operated anymore since the community had to pay the electricity billing to Sungai Pagar village (it costs Rp. 6.000,- VV.). Besides the above problems, the community is worried with electricity use (kwh) that is not similar with recording in the measuring device. Some number in the kwh have higher record than that of the bills. It seems that the community is obligated for kwh used by PLN (State Electricity Company). It occurs since the recording officer rarely records the number measuring device in the village, so that his calculation is not factual.

The community expects that the billing payment can be undertaken again within the village, while concerning obligation of kwh, the State Electricity Company /PLN can allocate it phase by phase. They also exect that the recording official can record the number of using kwh so that there will not be different record in the measuring device and the billing.

2. Income generation

a) PIR Kelapa Sawit/Oil Palm Plasma

The development of oil palm plot started from preparing the land, planting, and cultivating carried out by PTP V in the year 1991-1992, as wide as 1230 ha, consisting of 39 blocks. Each block is around 20-40 ha. The kind of oil palm seed is Marihat-Medan. The number of oil palms in 2 ha is 264 (12 x 24). When the community was relocated to Mayang Pongkai (1996), they worked in the oil palm plasma/PIR area paid with Rp 3.500/day/person. In the year 1997 this PIR area was handed over to the farmers as wide as 2 ha/household, when the plants were 3-4 years and able to produce. After the garden was conversed as the farmers', they started to be able to repay the credit by cutting off their harvest up

to 30 % (\pm Rp 16.000.000), most of the credits have been repaid within 3 years. Besides, cultivation and operational cost of the garden is shouldered by the farmers. To ease technical facilitation and organizing marketing of the products to PTPN V, a group of farmers was formulated. At Mayang Pongkai village, there are 24 groups of farmers that formulated Wadah Kerjasama Antar Kelompok (WKAK) or Forum of Farmers' Groups at village level.

Previously the production of oil palm could achieve the average of 3 tons/2 ha/ month, with harvesting system of 2 ha was divided into 4 parts, so that it could be harvested weekly. Yet, since the year 2000 the harvests have been decreasing, recently it only yield 1-2/3 tons/2 ha/month. The decreasing production of oil palm is caused by some factors as described below:

(1) Farmers are not able to buy fertilizers. With reference of the technical guidance of PTPN V, fertilizing should be done 2 times a year, each fertilizing consist of: urea, TSP, KCL and dolomit. Yet, usually farmers manage to manure the plants once for 3 months with 1 kind of fertilizer, while the dosage is 1 plant: 3 kg of fertilizer. In spite of that, since the fertilizer is getting very expensive the price of oil palm is decreasing, only about 50 % of the farmers are able to fertilize (routine fertilizing is only conducted by 25 % of the farmers).

There are some farmers who tried to substitute with chicken's wastes but it also caused fungus for oil palms resulting in rotten crops. Further, the farmers suffered with itching skin. On another side, KUD (Cooperative Unit at Village level) have not been able to give credits to farmers since the management condition is not conducive yet so that it is difficult to get credit access from other parties. Two kinds of efforts to be struggled according to the community are by proposing fertilizer credits to PTPN V, proposing fertilizer subsidy and proposing to PTPN V in order that the farmers can utilize *limbah tandan segar kelapa sawit* or waste of oil palm production.

(2) The farmers are not hard-working to purify weeds in the garden so that the oil palms can grow well. The oil palms are now 11 years, while replanting is ideally at the phase of 25 years. However, the oil palms conditions are not growing well now, so that replantation should be done before the phase of 25 years. To prepare replantation, the farmers have been members of Bumi Putra insurance to cover up the costs of replantation by paying insurance as much as Rp 25.000/month. The problem is that the farmers have not get alternative sources of income when the replantation is carried out and the new oil palms have not been productive.

Based on the farmers' perception, an alternative source of income is by working as temporary workers at PTPN V for replantation of oil palms in the area of oil palm plasma. It may be beneficial to propose for raising buffalo subsidy since the areas are available and buffalows' food is numerous, the farmers are able to make cages and experienced in raising animals/livestock while they were at Pongkai (previous inhabited village). The condition of land at Mayang Pongkai is not conducive for one season plantation.

The marketing of oil palm crops are collected by Oil Palm Company owned by PTPN V. However, the oil palm price is determined by Pemda (local government at district level) and the recent price is Rp 550,82/kg. This marketing is coordinated by KUD Tri Manunggal that has contract with Oil Palm Company of PTPN V. The payment of profits by PTPN V to KUD is through Bank Mandiri, then the farmers take it from KUD. The cycle of harvest transport to the Oil Palm Company in the distance of more or less 16 km from the garden is as follows: after the oil palm harvests are cumulated on the side of garden, they are scaled and put into the truck (facilitated by transportation agent contracted by KUD), after a letter of PB 25 (recommendation) have been signed by official and farmers, and controlled by the leader of WKAK, the harvests are delivered to the Oil Palm Company, at the company the crops are scaled again.

The transportation cost is shouldered by the farmers while the payment is cut off directly from the harvest result. A problem occurs when the price outside the price of PTPN V is higher (despite of little difference), there are farmers who sell their harvest to other parties. It is due to limited capabilities to organize it well, so that they do not understand

and feel another benefit (besides money) if they sell it within groups. To improve their capabilities the groups of farmers have conducted routine meetings once a month to discuss their problems. Another effort is by improving organizational capacities by carrying out training on organization for farmers' groups.

b) Other sources of income

To get additional income, the community of Mayang Pongkai cultivate their houseyards as wide as 0,5 ha with varied kinds of plants. Most of them plant oil palm since their land is not suitable for seasonal plants/crops. The oil palm harvest is sold freely (to tauke), although PTPN V actually can also cumulate oil palm harvest if it is qualified. There are also farmers who plant coconut tree, jengkol tree, pinang/areca nut, pineapple, and other plants.

The harvests of the plants cultivation are sold to the nearest market. Some of the community breed chicken (broiler) poultry in cooperation with PT (Co.) Unggas Jaya. All seedling and cost of broiler production are shouldered by the company, while its production is then bought also by the company. The cycle of broiler production result is every 28 days. At Mayang Pongkai there are 10 cages of broiler, each cage consists of about 4000 broilers. Nevertheless, the broiler breeding causes new problem for the community, i.e., many mosquitoes come into their houses. They tried to suggest the company to spray the area of broiler breeding.

3. Water Supply System

Relocation of the community in the year 1996 to Mayang Pongkai village still left the community unrest due to a hindrance related to pure water supply and WC/toilet of the project. In the early year of relocation, the condition was still muddy due to land extensification that interrupted wells because of the waste of woods and grass near the walls of wells and WC/toilets. The facilities developed by the project were not appropriate since the holes of waste were only 0,5 m, so that the waste of water was directly obstructed. Therefore, at that time the community used the land of cultivation or houseyard for the substitutes of WC waste termination.

After the oil palm garden was handed over to the community in 1997, some of the community started to make well and WC with basin, the construction is located near the houses, while some people who have not had the facility can temporarily join their neighbours or go to the river.

a) Pure Water Sources

Artesian Well

The distribution of artesian wells developed by the project for the community is one well is used for 2 households. The depth of well at the relocation period was 3 m with ± 1 m depth from the land to the surface water. The wells in the dry season are usually dry, so that the community suffer from lack of pure water supply. By setting aside of the income of oil palm, about ± 80 % of 540 households have made artesian wells within houses, the average depth of the wells are 4 – 7 m and the depth of water from the bottom is 1-3 m. The quality of water is pure, not smelly, and not flavored. The percentage of community using water from wells is ± 20 %, since there is not available fund to make their own wells or to deepen their wells from the project.

Sungai Win (Win River)

Another alternative to get pure water is to get it from Sungai Win (Win River), that can be used to take a bath, wash, and for toilet. Sungai Win is as wide as 6-10 m, the depth is 1-2 m with quality of water: a bit blurred in the rainy season and pure in the dry season, it smells wood and not flavored. In the dry season, Sungai Win is never dry and it flows along the year. In the wet season it flooded over and ever caused 8 houses nearby the river up to $\pm 0,5 - 1$ m high for the period of flood more or less 3 – 5 days, while the graveyard on the river side was flooded as wide as $\pm 0,5 - 1$ Ha. Sungai Win flows from upper course at Lubuk Sakai village.

Spring

Mayang Pongkai village does not available of spring.

b) Pure Water Facilities

Pure water facilities at Mayang Pongkai village depend on the capacities of households to provide facilities within their houses in the form of wells, while subsidy from government to provide pure water in the form of a public hydrant and installation of pure water management are not available. Sungai Win (Win river) is an alternative to get pure water. In the dry season watercourse condition was hampered with waste of woods from land (causing water in the river smelly) and grasses grew along the river.

c) Sanitation

Public buildings of MCK (for bathing, washing, toilet) at Mayang Pongkai village were not available, since subsidy to develop such buildings from government were not provided. \pm 20 % of 540 HH in the village did not have fund to make wells and toilets since the results of compensation had been used while waiting for relocation from the previous village and to meet the needs of their families.

The community who did not have toilets went to the garden, river, or neighbours. It caused unhealthy conditions around the waste areas. Although the community understand that such ways of life is not healthy, they do not have fund allocation anymore unless to meet their daily lives. More or less 80 % of the community are able to provide pure water and toilets withi their houses.

The community expect to be able to provide the needs for pure water by insisting on the government, for example:

- a. Making artesian well
- b. Digging the river (Normalization of river)
- c. Cleaning the drainage/ditch

A. Result of Appraisal

1. Resettlement

a) Relocation Process

The location of the new resettlement in community's Ulayat land lead the way of the area opening in 1991/1992. The relocation of resettlement from the old village of Pongkai to the new village of Pongkai Istiqomah was started in 1993 to 1996. Before moved in this present location, the government offered the location of the south Siberuang but the community is unwilling to be located there by these following reason:

- The recommended location is far.
- No discussion first and its promise to be moved in south of Muara Takus
- Based on custom, it cannot be passed through Candi Muara Takus
- They wish to inherit the ancestor land.

Community proposed this area as the relocation site; however, the government disagreed because the land is not enough. Community of Pongkai have a strong decision to inhabit the ancestor land and kept moved in this present location. Then, community established the village to divide the land for house and garden, the road and other supporting facilities with using the obtained compensation.

Government did not admit the existence of Pongkai Istiqomah since it was moved in until 1999. For administration necessary, community managed it directly to kecamatan but some have its main office in the new village of Pongkai (village of Pongkai Istiqomah as dusun I). To administer village, it is managed by ninik mamak (village elders). Finally, Bupati (regent government) have pleasure to visit the village of Pongkai Istiqomah. After seeing this village condition, Bupati stated that that village did not move in freely but it was moved in the group. In 1999, it was admitted as the preparatory village; and six months later on 16th December 1999, this village was admitted as a definitive village.

Since this village is admitted as a definitive village, government's program started to enter through the village government. In 2001, there was local government assistance to build a village office, however, up today; there is no such a transfer of function.

b) Compensation Process

Collecting data of community that receive compensation was conducted in 1989-1992. The payment process of compensation was in 1993-1994 since there was complain come from community, and so, there is a postponed persil (such a size of the land properties) to be paid in order to be reviewed. Total disbursed persil is 400 persil, 126 of them have been vowed, but 90 - 93% (from 126) who receive the payment is not the Pongkai people. Until now, there is still 1 persil of the unpaid garden after it was postponed i.e. persil No. 0013. The village government makes effort to gain it. Beside that, community get no relocation facilities as the affected community of PLTA Dam of Koto Panjang i.e. moving cost, Jadup (life supporting fund), House and Plasma. Community of Pongkai Istiqomah signed no agreement article no. 17 since government considered them as the dissident. Based on the witness on the Bupati statement that Pongkai Istiqomah is not included the pattern of the boundless relocation, and so, community need to conduct such effort to demand the rights on facilities that should be obtained as the victim people of PLTA such assistance as the program for village development.

c) Housing

In general, the existing resettlement in the village of Pongkai Istiqomah is a permanent and temporary building. The housing was built by community with the compensation cost. The building position between one to another looks

orderly. This structuring is based on the meeting result for the garden distribution of the building position and the yard. The width of the house's yard is similar i.e. 1.250 m² (25 x 50 m² or 12,5 x 100 m²) for 156 KK (according to number of KK when moved). About 40% of the existing houses have no well and latrine. Based on the final data, there is 265 KK in Pongkai Istiqomah, and therefore, the number of house and yard, which is distributed, is inappropriate anymore. To overcome this problem, one house is for 2-3 KK. This, therefore, need to be considered such effort to build RSS (a very plain house) in the village of Pongkai Istiqomah, and it is supported by the land of 10 ha, road, water source, workers. The electric entered into the village in 2000 and each house obtain the power of 450 watt with the installation cost is Rp 425.000 with twice payment.

d) School

Community built the 4 local self-reliant elementary school by themselves and inaugurated by Bupati in July 1999 because Ministry of Education and Cultural only can contribute number and teacher. Then, there is added the assistance local school from government in 2000. Now, there is 10 teachers consist of 9 paid teacher and one honorary teacher. It needs to make effort the facility establishing of madrasah (Moslem School). During this time, the madrasah activity uses Elementary School to educate its pupil. There is such location for madrasah, many pupil, and the new teacher to replace the retired one. They wait for the license Departemen Agama.

e) Road

The road construction in the village environment in 1996 was begun from the road improving of Simpang Batu Bersurat to the village of Pongkai Baru, and this was performed by PT. BMJ. The community actor of Pongkai Istiqomah conducted approach to PT. BMJ, and finally, PT. BMJ agreed to help since it has a heavy tools. The cost road construction is from the present Wali (Rp. 16.000.000) and community fee. In 2001, there is a program from Local Government II to blacktop the plan road of ± 3,5 km, but its realization is only ± 2 km and it is such a hardening with the stony covered of ± 1,5 km.

f) Other Resources

Dam of PLTA Koto Panjang owns potency to be developed as tourism particular in the area of Pongkai Istiqomah, which possess:

- The fall water with the height of ± 15 m with the distance of ± 500 m of the road.
- There are 4 caves, which spread around the village.
- The lake (Dam of PLTA) with some small islands from the land that is not covered out by the water dam.
- The rubber plasma estate will green the lake area.

2. Income Generating

a) Fishery

The livelihood means of community in the old village is as farmer, and to make an effective garden, make field and make irrigated field. Go fishing in the river of Kampar is just an irregular activity to be eaten by their own family. However, since they are moved in the village of Pongkai Istiqomah, the main means of livelihood was changed in 1996 i.e. be a fishermen (97%). This village is the only one that has a wide lake among the relocation village of PLTA. Beside that, fish is the quick way to make money and the fish gets much in 1998 (technical term is ikan main). There is 3 life patterns in catching fish: (1) going at immature night of Friday and Monday morning come home to the village to sell fish, at immature night of Tuesday after going shopping the daily need go again and come home at Thursday evening or Friday morning to conduct a Moslem pray together (2) coming home to the village every 10 days one times, (3) coming home every 15 days one times. The fishermen (50%) build such a resting house on the land that

is not flooded by the water from the lake or on the existing ulayat land across the village and make field when they do not go fishing, but its production is for family consumption.

There are 3 ways to catch fish i.e. (1) fishing rod, (2) netting and (3) electricity. In general, fishermen catch fishes with using those three mentioned ways and joint. The result of fish catching within one year is only effective three month in the rainy season (normally before the fasting month or post Lebaran) and it is caught fresh fish around 30 kg/week but its price is reduced. Meanwhile, in the season of no fish, the fresh fish is only around 10 kg/week. Fishermen sell fish to tauke (fish collector) in two condition i.e. (1) fresh fish, used to be the fish of Baung with the price of Rp 25.000/kg, (2) sun-dried fish (grilled with no spicy) for other kind of fish with the price of Rp 20.000-Rp 25.000/kg, but occasionally some sell sun-dried fish of Baung of Rp 70.000/kg.

In the making process of sun-dried fish, its weight is reduced; 1 kg fresh fish to be 300-gram sun-dried fish that is grilled during 12-24 hours depended on the flame stability. The quality of sun-dried in this village is the best among other six 6 villages in Kecamatan XIII Koto Kampar. The tauke once said that the quality of the sun-dried in this village is less if it is compared with the one in Langgam, however, after the fishermen checked it, it has the same quality. The fishermen sell fish to tauke who come to the village of Pongkai Istiqomah to be brought to Kuok, Bangkinang and Pekanbaru. Some people in Pongkai Istiqomah to be tauke, unfortunately they sell it to the coming tauke, and indirectly sell out to other village, and this adds the length of the marketing chain. Fishermen have tried to market it in-group, however, they meet a capital problem (Rp 1.250.000) to market it since the receiver (market and restaurant) cannot pay in cash when the fish comes. On the contrary, the groups should pay in cash to its member to fulfill their daily need.

In 2002, the fish catching become reduced. Some information said about the reason of the fish reducing i.e. (1) catching fish with electricity. However, most fishermen in pleno discussion said that the newborn fish is not dead by the electricity. It is unconscious merely. If the fishermen catch fish with no electricity, they cannot fulfill the need because of the not much caught fish. (2) The more day, there is not only the villager of Pongkai Istiqomah who catches fish there. (3) The unstable water surface of the lake (rise tide) make the fish go for new life.

Such effort that has been conducted (assistance from Dinas Perikanan) is spreading the newborn fishes into the lake (nila, mas, patin, gurami) but there is no result. The fishermen never reap the spread fish. Therefore, according to them, the increasing of the newborn is inappropriate with the normally caught fish. Beside that, community has submitted proposal on floating net to Dinas Perikanan (Fisheries Agency) but there is no answer.

As indicated by community, it should be forward conducted i.e. (1) try to propose to PLTA to control the stability of the water lake surface since some communities depend their life as fishermen; and the stability of the water surface will contribute the operating in spinning turbine for electricity, (2) try to sustain (explore) proposal on the fish floating net production to Dinas Perikanan because the available potency in the village is considered adequate to support and community has the knowledge of fisheries and floating net production.

b) Plasma Rubber Estate

The plasma rubber estate was established since 2001. Through the village officer, community tried to propose the plasma estate as other village. However, APBD Second Level Kampar only has revolving fund. Finally, this opportunity was caught by community because community feel the rubber estate need to be established from now as other income source in the coming years as well as going fishing. Pongkai Istiqomah proposed the width of 700 ha rubber estate in the ulayat land, located across the lake. It takes around 1-2 hours to get the resettlement by boat. The plan was 100 ha is managed by the village and 600 ha is managed by each household, but it is only 450 ha approved. The revolving fund is around Rp 8.000.000/2 ha for the seed supply, the land preparatory, cultivation and care in the period of one year.

The process of installment repayment is after the rubber tree can be tapped and in fact, there is no agreement how to pay and the rules with local government at second level. This rubber estate establishment is managed by the village and not by Contractor. The phase of the rubber estate process is as the following:

(1) The establishment of the farmer group of the rubber plasma was on 15th April 2001 and become 11 groups with 20 members of household/group. The former plan, each member of group receives 2 ha of rubber estate and it will be made its license certification after the rubber estate is realized. The group's activities are limited in the group meeting to discuss the progress rubber estate process.

(2) The preparation and looking for the land benchmark in ulayat land and its license from relative institution (Ministry of Forestry, etc.) was in May - August 2001. The group board conducted the seeking activity of the benchmark.

(3) The opening and the land preparation were started in September 2001 because community/group's member should go fishing and so, there are no workers to perform it. At last, it was decided to look for the worker from other village (about 50 persons). To pay them, it is taken from the cost for the land preparation and planting. The group leader controls this activity.

(4) The rubber trees were cultivated since March 2002. The activity process and its control are similar to the land opening. The planted seed is from Linggau. Total planted seed for 2 ha is 1000 trees. The basic fertilizer was not spread by the seed cultivation on the land, but when the seed in the polybag came in the village during waiting the planting turn, it has been spread fertilizer NPK. The plant distance was 3 m x 7 m but when it is considered too far and could influence its growing, therefore, the plant distance is changed to be 3 m x 6 m.

During the field processing, PPL and Dinas Perkebunan conducted consultancy assistance, in which PPL visit one times every 15 days. Community thought that community should conduct control and care on the rubber estate to meet no failure. It would need technical assistance of the plantation and the care cost for 5 years (rubber is ready to be tapped). Beside that, community has desire to propose to local government at first level on the rubber plasma transferring as compensation of the facilities rights that is contributed for the victim of PLTA since the new location of the rubber estate is available.

c) Drop Out Juvenile

Since the economical condition of the village is dropped off, some juveniles who are drop out from school (graduated from junior and senior high school) have no employment. They go fishing to fill in time. They thought that they would need to increase skills to develop the available potency in the village i.e. in the field of plantation, agriculture, fisheries, product marketing and tourism since the natural condition in the village possess the lake, small island, cave and water fall.

3. Water Supply System

After moved from the old village in the new location in 1993, community started to build the houses as the width agreement in the garden 25 m x 50 m and 12,5 x 100 m, and constructed a dug well and family latrine. However, not all houses have a dug well. It is depended on the house's capacity. To fulfill the water need, they take water at the river of Binamang and the water source, or permit to take water in the next door who has a well in family way.

a) Water Source

A shallow well. The depth between 8 – 16 m. Drought 15 days is waterless ($\pm 90\%$). The water quality: clear, unsmelled, tasteless. In the drought, community takes the waterless well from the neighbor to fulfill the water need. Community has attempted to dig deeper but it only takes for 2 – 3 days, and after that, the water will be dried again.

Water Source. There are two units in the village environment. There is one with the distance of ± 1 km in the

forest. It is only utilized for drinking water when the drought comes. It flows every year. The quality of water is clear, not smell and tasteless.

The plan was the water source that is located under the village, would be made such a saving water and pull into (flowed by the machine pump) to the village in the upper land and it is put in water storage to be utilized together.

The river of Binamang. The depth is ± 1 m and the width is $\pm 1,5 - 2$ m. It is only used for bathing and washing. It flows every year. The quality of water is clear, unsmelled and tasteless

Other Alternative to fulfill the clean water i.e. other water source of Binamang River. In the drought, the river of Binamang is never waterless and it flows every year. This river is only utilized to take a bath and wash, and according to the agreement, it is used for no other utilization. Community hopes to get the water, for instance, the construction of the well drilled in the ground. It is predicted if there is a drilled well ± 50 m, it is enough. However, there is budget and program to make a drilled well in the ground according to PMD (Pemberdayaan Masyarakat Desa or Villager Empowering), and there is only assistance from Caltex that have complete equipment.

b) Water Supply

The existing water supply in the village of Pongkai Istiqomah is the result of the household capability to make the water facility, and there is no assistance from government to supply the water for community.

Not every household in the village have a well, and its comparison i.e. Household that have no a dig well is $\pm 40\%$ and household that have a dug well is $\pm 60\%$. Communities expect a lot to have assistance from government to construct the water facility in the village.

c) Sanitation

There is no public MCK construction in the village of Pongkai Istiqomah because there is no such assistance from government as material supply. Most community has no fund to construct the well and latrine since the compensation fund has been allocated to build a house.

Latrine in the village of Pongkai Istiqomah can be seen in the house. Number of latrine is imbalance with the well. For community who has no latrine, they use the river of Binamang that is far from the house location. Some of them use latrine together with their neighbor.

A. Resettlement

1. The Resettlement Process

A number of 313 KK (households) of Tanjung Alai village has been moved to the preferably new location on October 4, 1994. At first, the resettlement would be at South of Siberuang or Muara Mahat Baru, however, community through its actor asked the Government to move in the present area (ranah Koto Talago) for these below reasons:

- The area is a moving field area for community of Tanjung Alai, and therefore, community more or less knows their new location village.
- Its location is such an ulayat land of the existing ethnic groups in Tanjung Alai (the ethnic group of Pitopang), which was entrusted to the Government to be made as the resettlement. If they move away to further area, this ulayat land will be taken by the existing ethnic groups in the neighborhood of its area, e.g. the ethnic groups of Pulau Gadang village.
- This new location is not far from the former village (± 4 km), and so, community still can take the remaining result that is not flooded by the PLTA dam (the rubber tapping).

Community feels forced to conduct the above relocation since they saw the condition of the adjacent village of Pulau Gadang that was forced to move away by Battalion 132 Bima Sakti Salo. The community resettlement and its possessions were conducted by using truck (two trip for one household). It is inadequate since there is too many possessions.

2. The Compensation

They received the house with the width of 6 x 6 m, timber wall, cement floored and asbestos roof, and also received the garden land of 0,1 Ha, palawija land of 0,4 Ha and the rubber plasma field of 2 Ha. Other facilities are two mosques, one elementary school, the village office and the housing of KUPT, and such a polyclinic of assistance. There are 88 KK who receive no house and land allocation because they are not listed, but they come with to move away by staying at other families (most of them are the new KK)

a) Housing

The condition of the housing is located at the hill with the up-down and muddy road, especially when the rain comes. The topography is hilly and the slope is 45°. This makes the settlement at the hill moved into the lower area. The reasons of this relocation are:

- The quality of the road to the resettlement area on the hill is inadequate since it is only the hardened soil and it will be uneasy to be passed by when it is raining. It is also up and down (undulating), and this makes their children difficult to go to the school and *mengaji* (learning to read Moslem's Holy Book). Up today, community meet difficulties to go to the rubber field, and they made such a footstep or short cut way. There is also who repair part of the village road with the fund of PPK Aid.
- Because its location is in the hill, the water is difficult to get to. The water source is in down at the vale, and it is waterless at the drought. The distribution of the water source allocation is unequal, e.g. one water source is for five houses. PAM water is only run for one or two months.
- Its location is far away from the center village and the big road.
- The condition of the house is inadequate (the width is 6x6 m, board wall, cement floor and asbestos roof). Some communities should camp to keep their possessions from the rain since it is not enough to keep them in the house.

- The electric net (the electric pole and cable) is inaccessible to the resettlement location (3 KK). If they want to have electric connection, they should add the cost for the electric pole and cable)

This resettlement started from 1995. Meanwhile the location for the new resettlement that move from the hill, is the palawija land, the land of village cash (land R) and with buying the palawija land belong to other people that is located at the road side.

The flood is occurred in some location of the new resettlement when the rain comes. It is because the area is lower and the condition of the river basin is narrower and the inappropriate house position.

b) Land

The former area of the new location for the village of Tanjung Alai is the moving farming for community with the system of cutting down, felt down and burnt the tress. Such location is planted by palawija and the paddy at the first year of the land opening merely. The function of the garden land (0,1 Ha) and Palawija land (0,4 Ha) are changed into the field since it is only suitable to be cultivated with hard plants such as jengkol, mangoes, durian, nangka, rubber, cashew, rambutan.

The change of the environment condition (from the river flow area to the hilly area) bring the means of livelihood change, too. There are many the lost means of livelihood, e.g. make field and make palawija, river fishing and breeding (water buffalo and goat). This new condition forced community to work harder to be adaptable with the environmental condition (to make field on the rubber, go fishing at dam, daily work to clean the garden of other people and cut down the trees)

c) Compensation

In the process of the price determining, community is not involved and received the existing information only (in the shape of table and price). The estimation was globally conducted and took part community only as the guide to each of its location. The community was paid by check and they went to the bank by themselves to change into the cash. Some communities who feel loss, made complaint to BPN Bangkinang, and the bank fulfilled their request. However, some others who feel loss, too, have no courage to complain because they were frightened if they complain, they will receive no indemnity. The condition of most community at that time was confused and scared, and therefore, they only just received the indemnities paid to them. The customhouse and public cemetery is not indemnified, only the cemeteries of community actors that were given the relocation cost. This occasion became the valued experience for community, and so, the community feels to be cautious to confront with the outside people. Up today, community requires to receive the indemnity cash to wipe out the tears and not recall of the compensation matter.

d) The Electrical

The electric connection entered into the village in 1997 after three years of resettlement. The electric installation was charged. According to the community, this procedure is not go with the government's promise that said if they move to the new village, community only push the button to set the light of the electric and the installation and monthly cost during one year are free-charge. However, the fact is community should pay the installation and monthly cost.

There are three (3) RT, which is not passed through the electric connection, and if they want to have connection, they should add the cost for the pole and cable. This makes them move in to the palawija land in the roadside and passed through the electric connection.

e) The Road

The country road (Riau - West Sumatera) is in a good condition, and so the axis road (Tanjung Alai - Pulau Gadang). However, the road that link to the housing is only few that have a good condition. There are many bad roads in the village and difficult to pass through when the rain comes, particular the road with the higher slope since it is a hardened

soil road. Community is unable to improve the road because it needs a big cost and muscle. This is one reason why the community moved from the house allocated to the house that was constructed by their own at the roadside.

f) The Other Potential

The process of the village resettlement also brings the benefit for the villager of Tanjung Alai such as the following:

- The country road (Riau - West Sumatera) that was made in 1996 through this village facilitates the transportation link from and to the village of Tanjung Alai.
- The electric connection (1997) lights the houses. In the former village, the light comes from the diesel, which owned by some peoples only and so, there is only part of people that have the light.
- The flood dam of PLTA becomes the source for the fishermen to catch fish, and the source for the retailer along the brink of the lake.

3. Income Generating

a) The Rubber Plantation

The width of the rubber estate of each household (KK): 2 Ha, and total width of the rubber estate in one village is approximately 626 Ha. The distance of the rubber estate with the resettlement is around 2-7 km. At the beginning, the making plan of the rubber estate would be performed by Contractor (maybe in 1991), however, the seeds were not planted and it was just put at the edge of the brink of the river. Community saw that the plant, performed by Contractor, not grew well. Finally, community ask request to plant the rubber seed by them, which it is divided into 18 farmer groups although the cost is not much. This cultivation was conducted in 1995 - 1997, that was called as plant I later.

The seed was from the project, the cultivation cost was Rp. 460.000/2 ha, no care cost assistance. Plant I that has produced the latex is about 5% (30 Ha), i.e. the group of 2 and 17, and part is from the group of 8, 10, 12 and 13. Now, it can be sapped about 20 kg/day and the sale price in the market is Rp. 2.300/kg. The failure reasons of the plant I i.e.: (1) the disturbance of pig, deer and elephant, (2) the garden is not cared enough because community look for other working for daily eating, and there is no care cost, (3) the path to go to the garden is not good and it is muddy and difficult to be passed by and so, community made a footstep, (4) part was burnt when the land was cleared away (1998). At last, community ask request again to get the rubber seed, it was called as plant II. This plant II was cultivated in 2000 with the planting pattern of monoculture and *terasiring* system. Total number of seed from the government was 1000ha/KK.

The success or fail farmer was given those seeds, the planting and care cost. The care cost has been run for one year and its hope is the fund aid will be given until the rubber can be tapped. The growth condition of the rubber (reach two years) is good enough with the irrigation system of *tadah hujan* (water rain). Notwithstanding, the accomplishment of the rubber plant is depended from the process of the plant growing for the following 4 years. According to the community's opinion, it should be conducted some efforts to pass up the failure as plant I, as the following: (1) increase the activities of the United Hunting to reduce the pig, deer and others, (2) through the farmer group and the village officer drive and control the fund disbursing to support the rubber care, (3) together maintain the road by conducting hardening, beside keep effort to ask the outside supporter to asphalt the road, (4) together prevent the field fire with always cleaning and making the burnt partition, (5) lead the forum establishment for the plasma farmer group of the PLTA victims of Kotopanjang as the organization to share experience between the villages and increase the bargaining position with the other party.

b) The Holticultural Land

In the village map, the location of holticultural (*palawija*) land is in the back of the resettlement, but in its process, the distribution of the houses and the holticultural land are drawn straws separately, and therefore, most of *palawija* field is

far from the house. Then, based on the village meeting, there was conducted the position re-arrangement on the property of the field with the width of 0,4 Ha. When moved in this location, the first was to conduct the land clearing away (in 1995) and then, there was cultivated with the rice and some kind of palawija with self-reliant cost. However, after plant I (first plant), palawija plant was dissatisfied though the way to plant and its nurse are similar as conducted in the former village. At last, the field is planted with the hard plants such as jengkol, nangka, rambutan, durian, mangoes and avocado. As indicated by the farmer/community, the land is inappropriate for palawija.

Beside, the field in the hilly is more appropriate to be planted with the hard plants in order to avoid the erosion of the soil. The cultivating pattern for the hard plants is irregular (to plant at random). This made the field is too heavy and it is not good to produce the plant. The farmer, then, conducted the thinning out. The condition and the problem in the garden are similar with the palawija field since the land function is similar as the field of the hard plant. The problem is that the farmers meet no short age plants (replacement of palawija) that can grow and produce fruits in the village of Tanjung Alai, or the activities based land to fulfill the daily need. In consequently, communities work to (1) tap the rubber tree that is not go under the water in the former village area, (2) cut down the trees at any forest (3) be the waged worker.

Communities thought that there should be conducted such as (1) to look for information of micro business to increase the economic value of the plants of jengkol, nangka, mangoes, rambutan, durian because these plants produce much fruits when its season comes, while the trader buy them with the low price, (2) to support the micro business activities, there should be established the groups according to the type of its business, as an organization for learning to each other among the members, facilitation to seek the work partner (the market and capital support), (3) the cultivation of Gambier is suitable in this type of land. After 1,5 years old, it can be harvested everyday and there is the manufacturer of Gambier that is ready to buy, (4) the cultivation of the auxiliary plants such as kunyit, ginger, serai, laos, etc, in the land of the rubber plasma since there is only planted with the rubber and also the land of 25 m at the right and left brink of the river. Some farmers have tried to plant those plants in a small number and its result is quite good.

Other resources that is not developed yet is the lake, the land along 25 m in the left and right brink of the river.

c) Forest

This forest is an Ulayat land of Tanjung Alai village with the width of 1, 180 Ha. The resource in this forest i.e. the river, the wood plant, the Gambier, the rubber, the nature plant (never opened) and the forest way. In 2000, there was a program from Ministry of Forestry i.e. Community Forestry (Hutan Kemasyarakatan/HKm). The problem is most plants is faded away and dried since the plant pattern is inappropriate, the plant is shaded other trees and inhibit its grow, communities are unable to conduct the moving field again (the field cycle is moved in three years). The Contractor conducted the preparatory process of the land and cultivation. This time, there is no transfer of those two and the care cost is not disbursed yet. In line with the community's opinion on the occurred problem in consequence of the HKm program would be overcome if community could also overcome the problem in the field of palawija and rubber plasma since the forest is such a potential land to be developed.

d) Fishery

To fulfill the daily need, some communities go fishing in the river and the lake and some make fishpond with utilizing the water from the water source of the village. Other some try to make such a floating net. To see the potencies such as the water sources, transportation facility and the community's background that live at the brink of the river, therefore, the floating net have the opportunity to be developed. However, community still meet problem to have the market net and the cultivation technique of the floating net.

4. Water Supply System

Water supply in the village of Tanjung Alai uses the well and water installation. It is because the topography condition of Tanjung Alai area have the land slope between the horizontal to the hill (0° - 45° based on the local measurement). Therefore, those sources can be used to fulfill the hydrant supply for community who live in the hill area when the drought comes and the well is waterless.

In 1994, the population of Tanjung Alai village was moved to the project location of the resettlement. In 1995, it was gone along with the exodus from the hill settlement to the lower location with the reason of water need since the water is unable to be obtained in the former location and it can be only fulfilled in the lower new location.

The water supply and its quality that can be studied in relation to the water need and the utilization of the supporting facilities are as the following:

a) Water Source

Shallow well. At the first relocation in 1994, each two households/KK received one dug well but the condition of those wells in the resettlement in the hill was waterless and cannot be used, and therefore, it was proposed to provide the public hydrant that is flowed from IPAB (Instalasi Pengolahan Air Bersih) or Water Management Installation.

The digging depth was only 3 - 4 m and it was unreachable the water source. It is because the location of those wells is in the slope of the steep land in the hill, and the community (in 3 households) should take a walk about 3 km to get the water; the community therefore, cannot live through in the former settlement, beside the road condition is improper to be passed by.

In the resettlement now, the dug well in the slope area of the horizontal to the undulating land have a various depth between 3 - 6 m i.e.: the well in the vale have the depth of 3 - 4 m, the well in the back is 4 - 5 m, the well in the hill is about 6 m.

In the resettlement of the hill, part of communities take the water with the pump machine through the pipes, and others should go down first to take the water since the distance between the well and their houses is about 50 to 200 m.

In the drought, part of those wells is dried and sometimes waterless. While some still have the water to fulfill the water need. The community who meet the dried well has attempted to dig deeper to 0,5 - 1 m but it has no water, and they take the water from the watered well. However, the distance of 50 to 200 m will be very difficult for them.

Meantime, to make a drilled well that reachable the water source, the community have the financial problem. They are also worried if they use the damageable handy pump since they saw the useless damaged pump in MDA/SD 030/sport field.

The Water Source. One of the water sources in the village of Tanjung Alai is the well. There are five (5) wells in Tanjung Alai. Those water sources that directly flow to the river of Silam are four and one is utilized by \pm 10 KK as clean water. Those water sources are not dried in the drought; however, the rate of flow is reduced. The problem is there is no effort to conserve the water source and no groups of communities who will conserve those wells. If the environmental condition gets worse, it will dry up the water source.

The River of Silam. The river of Silam passes the village of Tanjung Alai, which flow all year. This because the water source that enter into the Silam River never dry up.

During staying in the new location (from 1995 to 2002), there was happened the flood in 2001 when the rainy season came with the period of 12 hours. This because the river drainage met trouble since there was established some buildings at the water's edge and some garbage that inhibit the river flow. The flood covered the lower area in the village of Tanjung Alai.

b) Water Supply

Dam (Intake). There are two inhibit buildings and water collecting from the river in the village of Tanjung Alai, i.e. in the River of Silam and Bomban. At the first location of DAM in the River of Silam, it became the water source that can be utilized as the clean water after the water is processed in its processing installation.

The utilization of the Silam River only can be done less than one year after the relocation since there is the color change of the water after the community moved in to the village center (the horizontal area) from the hill. After that, the community will not utilize the water.

Other alternative to have clean water can be obtained from the river of Bomban that flow all-time and located $\pm 3 - 4$ km from the processing installation. However, during its construction for two months, there was an "X" factor after the water was flowed through the pipes into the installation and it make the water cannot be flowed to community. Now, those two DAM are damaged.

Pipes. The distribution system of the water flowing from the river to the public hydrant uses the dissimilar size of the pipes, such as:

- From the river to the reinforcing pump to the water saving use the pipe with the diameter of 6 cm (± 4 inch).
- From the water saving to the processing installation use the pipe with the diameter of 4 inch.
- From the processing installation to the public hydrant use the pipe with the diameter of 2 inch.

Pump. There are two pumps in the village of Tanjung Alai i.e. as the flow reinforcing of the water from the river of Silam to the water saving and handy pump nearby the dug well around the ball square/MDA. However, those pumps are not functioned (damaged).

Saving Water. There are three water saving buildings from the river in Tanjung Alai village. Two of them is the water saving of the processing installation results, and one is the water saving from the river, which next, it is flowed to each processing installation.

IPAB (Instalasi Pengolahan Air Bersih). There are two IPAB in Tanjung Alai village in the east and west of the village. These two buildings consist of: the water saving of the processing result, the water processing, motor-driven machine as the water processing and laboratory.

Community enjoyed the activity of those IPAB only less than one year in consequence of the improper Silam River to be utilized. Then, community sought other alternative of the water source with proposing to construct DAM in the river of Bomban. Unfortunately, during the construction from the Bomban River to the water saving in the village, there was unidentified trouble. When IPAB started to run, the machine of IPAB was suddenly not functioned to flow the water into the public hydrant. Up today, it is never run again and there is damaged on the distribution system of the water supply.

Public Hydrant. Total public hydrant in Tanjung Alai village is 18 units, however, because the processing installation system is not functioned, the conditions of those hydrants are damaged. The set spigot and the measuring device in each hydrant are damaged and loosed of its flowing system (spare parts), and the physical construction of those hydrants are damaged, too, both of the hydrant body and its position.

c) Sanitation

Public MCK (Mandi Cuci kakus) or BWL (Bath-Wash-Latrine)

There is no construction of the public MCK in the village of Tanjung Alai since communities are already have one in the back of the house.

Latrine. The latrine construction in the village of Tanjung Alai is from the project, on the fishpond and in the resettlement. Total latrine in the new resettlement cannot be calculated since there is no recently a definite data, however, there is 626 KK (households) based on the predicted number.

The Water Quality. The proper clean water to be utilized can be seen from its quality itself. The quality of the water in Tanjung Alai commonly fulfill the requirement as the drinking water by boiling it first before drinking. The water source that can be utilized by the community is the well and the water source. The quality of the water in the village of Tanjung Alai is seen from the water structure, i.e.:

(1) Color, part of the water well across the Negara Street of the village center is clear. While which is around the village center is yellowish clear.

(2) Smell, the utilized water as the source is not smell.

(3) Taste, the water source across the Negara Street of the village center based on the field test is not tasted, however, around the village center is a little tasted of soil.

The problem in relation to the water source is begun in resettlement in 1994. With the topography condition of the hilly area made exodus of the community from the resettlement in the hill to the recent location in 1995, and one of the reason is the water supply problem.

After settled for couple months in the new location, the community become unrest. There was a change of color, smell and taste in the water supply from the public hydrant. After being examined, the river of Silam was contaminated.

Therefore, it would need some activities in supporting the conservation of the water source.

Appendix 3.11 Muara Takus Village

Muara Takus village is very strategic, located within the following borders: north is reservoir, south and west is Gunung Bungsu village, and east is Koto Tuo. Muara Takus village is as wide as more or less 2.500 Ha. Seen from accessibility access, Muara Takus village is easy to reach since the transport is available, although only at certain times. The village location is more or less 12 KM distant and it takes 30 minutes from the central sub-district (Batu Bersurat). The road is asphalt, although it is not really good but the transportation is smooth enough.

The topography of Muara Takus village is quite flat although there are locations that are wavy mountainous at less than 35% slope. Vegetations growing there consist of thickets, rubber garden plasma, rubber garden using agro-forestry model, gambier, and lemon. The lands of Muara Takus consists of plasma land and crops land. Crops land is cultivated with varied plants such as rubber, coffee, petai (kind of tree that produces beans with pungent odor, widely eaten raw and cooked), jengkol (kind of tree the beans of which are eaten raw or cooked), durians, jackfruit, cashew nut, while plasma land is planted with rubber.

The recent number of Muara Takus village is more or less 1089 persons. The level of education of households that are not graduated from Elementary School (SD) is 12 persons, graduated from SD is 194 persons, graduated from SLTP (Junior High School) is 69 persons and SLTA (Senior High School) graduate is 39 persons, academy graduate is 2 persons and scholars is 2 persons. The working age is more or less 888 persons or 81.54 % and sex ratio is 114, of which each 100 women there are 114 men. Each 100 persons of working age shoulder the age of 48 of non-working age. In general they earn a living as farmers and fishermen. The potentials of Muara Takus village are that there is tourism place called Muara Takus statue, PLTA (Water Power Generator) reservoir that has some kinds of fish, community's land of plasma as wide as 2 Ha per household and 0,4 Ha has been cultivated.

A. Description of PRA process

1. History of Village

The process of data gathering on the village history was conducted gradually. The first phase was through discussion process among the Team and community's focal points who really understood milestones or important things happened at Muara Takus village. The community's focal points that had enough time to discuss and been able to give information on the history of Muara Takus village were Pucuk Adat (the leader of ethnic) and Village's Secretary. The early information from both persons were then clarified, and completed with other information or comments of the community at Dusun (village cluster) 3, Dusun 2 and Dusun 1, through FGD.

Meeting at Dusun (village cluster) 3 was carried out on Friday, 22 March 2002, participated by 20 persons (out of the team of 3 persons) or 8 women and 12 men. The meeting took 2 hours, starting from 08.30-11.30 (West Indonesian Time).

Meeting at Dusun 2 was undertaken at the Team's Post on March 2002 participated by 2 persons of the community. It took 1 hour, from 14.30 – 15.30 WIB (West Indonesian Time).

FGD at Dusun I took place at the Team's Post on Saturday, 23 March 2002, with total participants 6 persons, all were men. It took 3,5 hours, starting from 20.30 to 24.00 (West Indonesian Time).

2. Village Transect

Information collection of the village's potentials, problems in general was done using village transect technique. The activities started from the Team's Post up to rubber field, near ulayat forest. The Team walked around the village while observing its condition. The observation result was transformed into a chart of transect, especially picturing out

field/land management based on the height of locations. Preliminary chart of the village transect was discussed with the community through FGD in each Dusun (village cluster) as described above to get clarification and additional information in more detail and complete, especially related with problems, potentials, and expectations at the community for each field/land management.

a) Chart of Lemon Marketing

The chart was also carried out at the FGD at Dusun II due to the limited time. Besides, information on marketing of lemon could be represented through discussion with 2 participants. Firstly, facilitator asked the most dominant agricultural production seen from the aspect of income for the community, and they answered that lemon tree was the dominant. The facilitator deepened the question into its marketing and results/income of this production and he asked participants to described in a chart of marketing lemon at Muara Takus village. Discussion on this chart took place around 20 minutes before FGD at Dusun II was completed.

Meeting at Dusun 3 was carried out at the Dusun's leader on Friday, 22 March 2002 participated by 20 persons (out of the team of 3 persons) or 8 women and 12 men. Discussion on this chart took place around 20 minutes before FGD at Dusun II was completed, starting from 11.10 to 11.30 WIB (West Indonesian Time).

b) Chart of Fish Marketing

The discussion process started with facilitator asking to the participants on how the was the result of fishing so far. Afterwards, the facilitator asked how it was sold and asked two participants of FGD at Dusun II to picture a chart of marketing the fish.

The discussion was carried out 22 March 2002, participated by 2 persons from the community and took place around one hour, starting from 14.30 – 15.30 WIB (West Indonesian Time).

c) Sketch map

The process was carried out by using sketch of housing/residence and field/yard together with the community/farmers and in-depth interview in a location of rubber field. Facilitator asked on how the condition of houses given by PLTA project at the first time they were relocated to the new village. Then, facilitator tried to help them make sketch of house and yard/field and they corrected it by themselves.

The above discussion took place around 30 minutes, starting from 10.00 – 10.30 WIB on 20 March 2002.

3. Map of Water Network

The process was undertaken through discussion with the secretary of the village at the Team's Post. Firstly, facilitator asking the participants on water resources, use of water, problems, pure water service/facilitation, and its distribution, especially water resource from Check Dam and it was corrected by the village secretary. The discussion on water distribution needed around 30 minutes with some discussion results.

a) Matrix of Ranking

Getting opinion of the community was undertaken through Ranking Matrix during FGD meeting with the community. This process was a follow-up of transect analysis, since it searched for recommendations to solve the problems as described on the chard of transect that represented expectations.

Afterwards, the community were asked to classify solutions based on the expectations set forth by the community. It was agreed that the classification covered as follows: Compensation, Income, , Housing/Residence, Health, Transportation, Education, Sustainable environment

Each aspect was analyzed with the community based on potentials (supports of the environment), opportunities (supports of other parties) and capacities (support in term of human resources' capacities). In this analysis, the community were asked to evaluate each solution, how great was the support, each was ranked from ranking 1 to 4, with

criteria as agreed as follows:

- Scoring 1 : No support
- Scoring 2 : Less support
- Scoring 3 : Supporting
- Scoring 4 : Very supporting

Of the discussion taking place for about 1,5 hour, the priority of solutions to be undertaken could be described.

B. Analysis Results

1. Resettlement

a) Residence

The residence of the community were mostly in broken condition and some of them had been renovated with the community's own money. The broken parts were for instance: wooden wall that were getting decayed, broken floor due to thin floor, rusting and leaking asbestos-tiled roofs, etc. Besides, there were houses of PLTA project that were left by the owners looking for jobs in other places.

The broken conditions of houses on the roofs, floors, and walls discomforted the residents and they felt the impacts especially on their health that were getting worse. The residences that were only 6 x 6 meter was too small for families with big family members.

Efforts to totally renovate the houses or some parts of them had been conducted by those who were rich enough, while those who were poor (due to minimum income and lowering income) could do nothing unless waiting for government's support to enable them renovate their houses. Besides, the community had ever proposed to local government at district level (Pemda) for residence renovation, while an attempt should be undertaken was keep on waiting the realization of the balance of residence compensation based on the list of price of Japan (although it should be clarified again).

b) Facilities for MCK (Bathing, Washing, and Toilet)

Most of facilities for MCK (for bathing, washing, and toilet) developed by government were already in very bad conditions and unable to be used, especially WC/toilet facility. Encountering problem of bathing and washing, some community used wells facility and basin although some wells' qualities were not appropriate and basins (1 unit for 7 households) of which some had been broken. For WC facility, government had built WC for each households as wide as 1 x 1 meter with wooden walls and asbestos-tiled roofs, and direct holes for waste. (not 'goose' neck type).

Conditions of the community's MCK that were broken were very unhealthy. Rich community could renovate for their facility including house renovation. Yet, poor community were forced to go to their garden, river, or yard behind their houses, etc. instead of using toilet. The impact was that the community suffered from diseases like cholera when they were moved to the new location. A problem raised when 1 well was developed for 2 households, causing quarrels among them. It occurred since the residents whose yard were build with wells were uncomfortable when other residents took water in the wells, while a problem related with public hydrant developed (1 unit for 7 households) also raised conflicts since residents staying close to the public hydrant (located in their yards) felt uncomfortable when other residents took water and caused the surroundings of public hydrants dirty due to wastes of bathing and washing, their yards were muddy and it was noisy.

Solution undertaken by those who were wealthy was by building WC/toilet and wells by themselves, while the poor had to make use of garden or river instead. A problem on public hydrant was expected to be solved by government by relocating it to a more neutral place.

c) Lightning of Village's Paths

Lightning in the village's paths were not available and this condition was experienced by the community since they were relocated to this new village. According to the community lightning problem for village's paths was the responsibility of government to facilitate. Besides lightning problem for village's paths, another problem related with electricity and disappointed the community was incessant course of electricity and high cost per month, while using of electricity of the community was little.

Further problem was that the village's paths were dark at night and it annoyed the community if they have communal activities at night. The community rarely went out of their houses, and another problem was that robbery/stealing often occurred within the village.

There was no solution yet for this problem of village's paths lightning. Government should develop or install facilities for lightning the village's paths and it was expected to maintain continuity of electricity and its price (in order not to be increasing).

d) Income

The community's income decreased drastically due to decreasing sources to earn a living or environment support for the community who were mostly farmers. Most of the community got income from cultivating rubber while the 2 years rubber planted had not been producing (harvest period of rubber is at the age of 4-5 years). Besides planting rubber, the community got income from fishing in the reservoir, that day by day the fish was decreasing. There was no other source of income to meet the needs of life due to limited human resources and environmental supports.

The community used to get 20 kg a week when, however, later they could only get more or less 9 kg. If the price of fish per kg was Rp 5000,-, their previous income was Rp 100.000,-/kg/week, but later, they only got Rp 45.000,-/kg/week. They used to be able to meet their food needs with income Rp 100.00,- a week but later it was insufficient.

Problem occurred due to the community's decreasing income was inability to meet daily needs (this condition was so different than before, in which the community could provide daily needs in a year only by farming, gardening and managing fields though cultivating varied productive plants in their field).

In the framework of solving the problem due to decreasing result of fishing in the reservoir, the community had proposed to Pemda (local government at district level) to provide fishponds just as received by community at Gunung Bungsu village. However, there has not any reply yet on this request.

Efforts should be undertaken are providing fishponds (facilities and seeds), tourism development of Muara Takus statue (by building stores facilities to sell souvenir and fruits, as well as developing park representing the culture), improving production of garden/fields (by technical training and marketing training, providing fund for nurturing, insect eradication, developing ditches to throw away pigs, and making irrigation field).

e) Culture and Custom

Seen from the aspect of culture and customs of the community, that used to farming, cultivating in the fields, and fishing in Kampar river (as agrarian community living in the fertile valley of Sungai Kampar) had sifted to semi-urban community hinted with loosing of intensive farming activities and decreasing quality and quantity of agrarian community in general. The community of Muara Takus village that formerly lived in fertile valley suddenly moved to mountainous area and reservoir was definitely different in terms of environmental resources and ways of life. Based on the cultural and social point of view, they felt that their lives had been withdrawn from their origin and their dignity due to the development of Kotopanjang reservoir. It effected uncertainty of for the community to face different condition in their new location. Another fact was that there were more young people getting used to drink and no fixed employment. Problems due to the changing ways of life from agrarian to semi-urban were loosing spirit to do effective agricultural

activities, decreasing trust to ethnic institutions, ethnic leaders, community leaders (as indicated with some of the community's involvement to urge the people to move to the new location/residence).

There had not been solution conducted due to the complex problems and the community did not know what should do. Facilitation to the community to encourage them to live well is an effort that is prominent.

f) Compensation

From interaction with the community, it indicated that most of the had apathetic attitude to their recent condition. It occurred since they faced varied problems such as source of income that was getting decreasing, promises of government that were unfulfilled and unfinished compensation problem. Before resettling to the new location, the community received many promises from government such as good permanent house, free installation of electricity, compensation based on agreement with community, ready-producing rubber field, available water supply, and facilities on MCK (for bathing, washing, and toilet). Yet, they did not find the realizations as the houses were not appropriate to stay, installment of electricity was not free of charge, and they should wait for (5 years), compensation was unfair and forced to the community, no rubber fields for the community, pure water was unavailable – inappropriate to be consumed or used, MCK facilities were badly poor, etc. Problem of compensation of fields were recorded 31 cases, consisting of 2 cases partly paid and remaining 29 cases were not paid yet.

Problem or impact for the community were that many government promises were not fulfilled (though the promises were only told to them or there were not written evidences) decreased the community's trust to government drastically. According to the community, the promises had to be fulfilled regardless of they were written or unwritten.

Concerning problem of compensation, the community had urged BPN to provide Recommendation Letter of the regency's official in charge/ *SK Bupati* to PLN/State Electricity Company to solve the problem. An NGO called LSM Taratak was also asked to help them.

The community should keep waiting for realization of the promises while keeping on urging compensation through LSM Taratak, since the problem is related with their rights taken away by the project.

g) Sustainability of Forest and Reservoir

Sustainability of ulayat forest and reservoir raised attention of the community. The ulayat forest possessed by Domo ethnic was as wide as 2000 ha and the kind of plants are sungkai, durian, meranti, petai, durian, etc., its present condition was very poor. The case was set forth community that 1000 ha of it had been cut off by PT. Minakanua to get profits from the woods. The community predicted that there was collaboration of Ninik Mamak and PT. (company) Minakanua in selling the field. Besides problem of ulayat forest, the reservoir was polluted with oil palm waste from PT. Padasa that raised attention of the community. Stability of the height of water surface (supply) in the reservoir impacted on decreasing income of the community from fishing activities.

The decreasing plants in ulayat forest according to community was caused by erosion and declining water supply. Besides forest problem oil palm waste had polluted the reservoir and it raised attention since it caused the community's decreasing income from fishing activities.

The community had tried not to take woods in ulayat forest and recommended Pemda (Government at district level) related with waste of oil palm in the reservoir but it had not yield result. Meanwhile, replantation should be conducted for forest plants, there should be police in the forest, waste of oil palm and woods in the reservoir should be managed well, and stabilizing water surface.

2. Rubber Trees

a) Condition of rubber plants

In general the rubber plants were still young, about 1,5 – 2 years since the seeds were planted in the year 2000. Their

heights were about 3-5 meter. The total width of rubber field reached 488 ha. The rubber field was managed by the community and it become rehabilitated field. The field had ever been planted with rubber (around the year 1991/92), conducted by a contractor, however it failed. Replantation in the year 2000 was the second one and carried out by the community. Rubber plantation in the rehabilitated field was done within 2 phases, i.e., phase I as wide as 244 ha (available certificates), and then the community called it Field I, while the rest field was as wide as 244 ha planted with rubber called Field II.

The community were disappointed with the facts they experienced so far, especially when they talked about rubber field. The condition of rubber fields when they moved to Muara Takus village were not suited with the promise. The community's expectations to get income from rubber did not happen since they had to plant rubber by themselves, so that they had to be waiting for some years until the rubber plants are productive. This condition caused them allocate little time to rubber field, but doing other activities to get income sooner to meet their daily needs.

While waiting for rubber plants to be productive, the community got subsidy in forms of basic daily needs such as rice, palm oil, salt, kerosene, salt, soy bean appetizer, and salt fish. This subsidy was provided by government for two years, starting from the time they were resettled and stayed in the new location. However, the subsidy was not sufficient since after it was consumed up, they the community had to think of how to get money. Some of the community even had to sell their rubber field to meet their daily needs. The price of the fields offered were lower than market price, however the community kept on selling it due to urgent condition. This condition occurs continuously, it will worsen condition of the community's life that were already disappointed and suffering. They had tried to look for other jobs but the results were insufficient to fulfill their families' needs to live.

b) Rubber Field Preservation

The conditions of the fields of rubber were not preserved well. Underbrush was around rubber fields, even covering the rubber plants especially that were still young and short. However, some of the fields were preserved.

Less preservation of rubber fields could be due to a factor of pigs. Sometimes pigs came into the field, ate and destroyed plants, including rubber plants. Feeling of anxiety hindered the community to preserve their fields and plant other trees in their rubber fields. Their reason was that when they preserve their fields but the surrounding grew thicket or underbrush, the pigs would hide themselves underbrush at day time and at night they started to eat and destroy the plants. This condition caused the community "traumatic", and though simple on what preservation for, finally they were frustrated and preserve their fields unserious, just as they wanted.

The problem related with pigs was ever tried to be solved by the community, i.e., by fish trap, however the results were not satisfying. A solution should be making ditch and putting traps around the field.

c) Preservation Fund/Subsidy

Rubber trees/seeds received by the community to be planted in rehabilitation fields were 476 seeds/ha. To plant rubber tree, the community fertilizers consisting of SP 36 amounting 50 kg/ha, Suburin 30 kg/ha, and Round-up 2 liter/ha. After planting them, the community got fund for preservation for a year (year I) from government amounting Rp 500.000,-/ha. This fund includes costs for cleaning up goals, fertilizing, restraining germs and deceases, as well as making branches. In the year II (rubber preservation was entering the year II), the community got preservation subsidy in sum of Rp 450.000,-/ha, for replacing dying trees in sum of Rp 30.000,-/ha, as well as fertilizer of Suburin 30 kg/ha. The subsidy was not given at once but within two phases, i.e., each semester of every 6 months.

Less preservation of rubber plants of the community was also due to the community's factor that did not preserve as the had to do, while preservation subsidy was available. In general the community preserved by themselves, meaning that they used human resources in their families and they used the subsidy to meet their basic needs. In this case, the

community got dilemma. If they hand over to others, they will give wages for preservation service and they will get nothing, but if they preserve themselves they have limited capacities. The community's limitations are among others:

- The husbands only work in the field after fishing
- If the husbands work out of their village, the wives do preservation with limited time and capacities
- The children cannot be expected to work in the fields, since they are still young and less interest to work hard in the fields.

Although preservation fund was insufficient, the community tried to solve it by themselves, for example by looking for local rubber and then they planted in their fields to replace dying rubber plants. For the next rubber field preservation, the community still expected to have extension of preservation fund.

d) Condition of Location and Geography

Location of the rubber fields is about 1-3 km from their residence. The condition of paths/roads is quite good, although it is not asphalt yet. Its surface is made of stones and some land are bared so that sometimes it often slide in the rainy season since its topography is sliding the slope of rubber field about 80 %) so that it annoys the community to preserve the plants.

Topographic condition that ups and downs impacted the condition of fields' roads/paths passed by the community to bring farm inputs and agricultural productions from fields to their residence and residence to the market. Usually they went on foot, therefore the condition of some bared roads harmed the community, especially in the rainy seasons due to the gliding. They expected that the roads could be asphalt, especially in the village's paths and the roads to the fields.

The location condition that was not flat caused certain problem for the community. The high slope of fields made them difficult to preserve their fields. They expected to get subsidy to make *terasering* in their rubber fields.

e) Groups of Rubber Plasma

The community managing rubber fields were classified into groups called plasma. The total number of groups was 15, each group consisted of 16 households. Through these groups, varied subsidies of government in the forms of fertilizers, remedy and field preservation subsidy were distributed to the community organized in the groups.

Groups of only functioned in certain time, i.e., when fertilizer and preservation/treatment subsidy were distributed. There was not another activity and routine meeting was unavailable. The community had not felt benefits of groups, unless as intermediary of government's subsidies distribution to members of groups. For instance, related with unclear ownership of fields (unclear borders), a group could not solve it at group level. An interesting case occurred in the field activity, a resident had to move to another field to hinder quarrelling due to fighting for a field claimed by both of them. This case indicated that problem solution among members had not been optimally developed in the community.

Inadequately organized groups of plasma, was also seen from unclear mechanism of hand sprayer management, consisting of 2 unit/group. The availability of the hand sprayers were unclear, so that generally members could not use them when they need, including to overcome insect harming the roots of rubber plants. There was no strict sanction of groups on late returned hand sprayers, so that members did not feel to be responsible.

There was not other activity of plasma plasma groups unless distributing government subsidies (fertilizer and preservation/treatment fund). Therefore, roles of groups in organization, administration, capital, and productive works, as well as accessibility or sustainability, should be enhanced. Besides, hand sprayers should be provided and managed for 1 unit hand sprayer /households.

f) Rubber Plantation Pattern/Model

Rubber plants were generally cultivated monoculturally, especially for plasma fields, meanwhile in the fields where crops planted as 2nd crop in the dry season, rubber plants were planted with other kinds of plants like lemon trees. The

reason of planting with other plants was that the community were afraid of pigs destroying their fields.

Rubber plants in field I and field II were cultivated monoculturally. The community were actually still interested to plant rubber, as indicated that in their fields they still planted rubber besides other crops. Eventually, there was a farmer who planted in his field intended for other crops with 0,4 ha for rubber plants. Productivity of the communities' fields as wide as 2 ha actually could be improved by planting other plants within their fields (2nd crops) that took shorter time to produce to get income sooner. The kind of plants should be suited with local conditions, like sunlight factor, land fertility, and watering factors. However, that mechanism of planting had not been applied due to 2 factors, i.e., the harms of pigs and limited capital for production. Therefore, such strategy to improve land productivity by planting other kind of plants should be enhanced.

3. Water Supply

a) Wells

The number of wells were 128 units of 122 units available at the first time, then there were additional 6 units, For their daily life, the community mostly used wells for bathing, washing, and for toilet (MCK. 1 unit of well was used by 2 families, while the wells were more or less had been utilized for 9 years with bad conditions and bad quality of water, that was smelly and dark (unhealthy for consuming/drinking). The depth of the wells were more or less 4 up to 5 meter, average height of water from bottom or surface of land was about 1,5 to 2 meter. In the dry season, the wells were dry unless they were deepened some meters resulting more water, flavorless, and not smelly.

Many wells did not indicate that there were not other problems. Since 1 unit of well was for 2 families, quarrelling often occurred since both families claimed it was theirs. Locations of wells were less strategic (houses of the community) that raised quarrelling among 2 families staying close to one another (1 well for 2 families). Besides, there were other problems needed to be solved soon, such as water of the wells was not suitable for MCK, it was smelly, dark, unhealthy to consume and in the dry season many wells were dry. Instead, the community went to Kampar river for bathing and washing, while for drinking and cooking they had to ask from their neighbors. The physical conditions of the wells and floors were also broken.

The number of Muara Takus community were decreasing and use of water was getting demanded, social effects occurred, such as quarrelling among residents using water form the same well. It was tried to solve by asking government subsidy of the additional 6 units of wells. The conflicts and poor conditions of wells in terms of quality and supply in the dry season discomforted the community. They had to dig some more meters to get better quality of water and sufficient supply. It had been carried out by 10 families.

To meet the needs of water at Muara Takus and minimize quarrel among residents, 1 unit of well per household should be provided and the wells should be deepened to get better quality and supply, while the walls of wells should be renovated with concrete.

b) Check Dam

The quality of water from wells at Muara Takus village generally was inappropriate to consume, so that the community had very limited pure water. So, government through Dinas Kehutanan (Forest Service) managed fund from OECF to build Check Dam. Its water source was good and able to meet the needs of water of the community at Muara Takus village. The dam was at the height of 135 dpl, while the reservoir (pool) was at 120 dpl. The Dam development was conducted in two phases, first, developing embankment, second phase was placing pipes up to the reservoir as long as 800 m with diameter 3 inch. After being ready, the dam could not be functioning maximally and it would be perforated when the water gate was closed totally since the embankment was not tough enough. It could only filled with about 1 m - 2 m, while the embankment height was less than 5m.

The community's expectations were not as good as what they imagined, the dam was built for all the community's needs, yet not all the community could enjoy it. The height of water had to be minimized, further the condition of the dam had been unstabilized, if the water surface was elevated for 2 more meters it would have been broken down, but reducing water supply would result in narrow distribution of the area.

The dam was watered for some months, and water could flow to all Public hydrants, since the community were worried if the embankment was broken, the water was reduced.

In order that the check dam can be maximally used, the embankment has to be improved to be tough enough. In order that water can reach public hydrant, bigger pipes wider than diameter of 2 inch are required.

c) Reservoir /Tank

The reservoir (tank) was not far from the community's residence, and the condition was not treated properly and covered with underbrush. It was used to retain and filter water from the dam. Its construction was concrete with the height of 5 m.

Some pipes from reservoir/tank to Public hydrant (HU) were with diameter of 1,5 inch, and water could not reach public hydrant. Water could flow Public hydrant through the pipes with diameter of 2 inch.

The reservoir/tank condition was covered with underbrush, so that if it was growing it would wreck it. This condition was due to difficult access to the reservoir/water tank, so that they could not treat it well. Further, the flow of water to Public hydrant would not be fluent so that water pressure would be decreasing.

The reservoir/tanks had ever been cleaned up but it was not continued, so that within few months they would be covered again. The community was in need of pure water, and reservoir/water tanks were needed to be managed well and the width of pipes were prominent to make the water flow up to public hydrants.

d) Public hydrant

Public hydrants installed were not functioning anymore, some were broken and they were not kept well. Of 25 units of Public hydrants /HU, 14 units were broken and 1 unit operated with poor conditions: the taps and covers were broken. The floors of public hydrants were wrecked and many Hydrants could not be functioning since water could not flow up to the hydrants. The heights of HU were almost the same with the height of water tank and the pipes' diameters were not sufficient. 1 Unit hydrant served 7 houses and water from the hydrants could be used for cooking, washing and bathing. However, if the cover tools and taps/controllers were broken, the water would be in waste.

Not all community got water from the public hydrants due to unfitting of some hydrants, while other hydrants wasted water due to the broken controllers and covering instruments. Further, since they were located in the community's yards, the residents were discomfort due to wasting water or muddy surroundings. It often caused quarrelling among residents.

Leaking pipes were repaired by the community, some of them had to buy pipes to reach their houses since they did not get functioning hydrant. Broken hydrant had been moved to other closest locations.

In order that all the community could get pure water, location of pipes should be managed and the pipes should be wider, while location of hydrants that are high should be removed or elevated. Broken hydrants should be changed into new ones, and unchained pipes should be repaired, while broken taps should be changed. Further, hydrants' location should be neutral.

d) Pumped Wells

Pumped wells had ever been enjoyed by the community of Muara Takus village, yet, it was not long since the water was smelly, brownish and unhealthy to be consumed. After Dinas Transmigrasi (Transmigration Service) moved from the location, the community could not manage and pay the operational costs any longer. They need fire to operate the

engine every day, while the community's income had been decreasing.

Most of the community could not consume water from the pumped wells due to bad qualities of water that was unhealthy, smelly, etc. and they could not finance by themselves to improve and operate the pumped wells. It should be proposed to government through to finance the operational costs through Dinas Parawisata (Tourism Service).

C. Conclusion

Of the problems faced and identified by the community and the results of joint analysis on efforts to solve the problems based on the village's potentials (environment), opportunities (other parties), and capacities (human resources), and ranking of solutions or based on priority that should be undertaken is as follows:

1) Providing fishponds, 2) Improving productions of (rubber & crops), 3) Payment of the rest of compensation, 4) Payment of unpaid compensation, 5) Improvement quality of MCK facilities, 6) Improvement of roads/paths, 7) Developing tourism at Muara Takus statue, 8) Improvement of pure water facilities, 9) Improvement of channels of waste, 10) Subsidy for civil teachers (PNS), 11) Developing educational facilities, 12) Improving the quality of the reservoir, 13) Sustaining ulayat forest, 14) Improving the quality of services on electricity and 15) Living subsidy

A. Description of PRA Process

1. Village History

We found it from some of informal leaders, Leader of Village, Head of LKMD, Secretary of Village, and four villagers. On this activity we tried to discuss about village historical and the important event.

2. Village Transect

Our team found some difficult for people collecting in this village. For a week some people/ villagers go to lake (Hydroelectric Koto Panjang Dam) and they stay in their old village. We try to do small meeting at "dusun" level or discuss with some people in their home. We can intensive discuss with them and they informed potential and the problems of their village, specially about economic of their household.

We always check and recheck activity to another people when we meet them (him/her) in garden, village road or her/his home. The other activity to found detail information we walked around village from Block A till Block C and then we note nature resource. For village transect we need 1,5 day at the first day in this village (March, 19 – 20, 2002). Amount of people who participate on this activity more less 10 persons.

3. Sketch Map

For study sketch map we started from village transect result. We discuss it with 6 villagers in village leader (Wali) at evening of second day (March, 20, 2002). This discussion to hear their about all nature resource in their village. One of them draw the sketch map and discuss with the other. Our role is member group for they discuss, but we always make notice it's process and result.

4. Matrix Ranking

For delivering all of information of the assessment, the team invited on the Musbangdes in Kepala desa office date 23, March 2002. The meeting process to be done by 3 hours and attended by 45 persons. On the meeting process, the team inform of output of result. There are some experience between each other to learning each others. The meeting process, more often as a facilitating on learning by doing. *Conducted on March, 22 – 23, 2002 in some location for the member as . 6-7 villagers.*

To inform the study result, the team was invited to attend the meeting for the village officer that was conducted in the office of Kepala Desa (head of Village) on 23 March 2002. The meeting was run within 3 hours and attended by 45 persons. In the meeting process, we informed the study result during in the village and it was ended with discussion to obtain addition information and the community aspiration to develop. They learnt some lesson, then. The situation of the meeting more gave the learning process to comprehend and be aware on the potencies that never be developed.

B. Study Result

1. Resettlement

a) Fact finding

In general, most villagers expressed their "suffering" in this new location. This suffering is begun with the process of relocation preparation. This (according to some villagers) is because of the short process of inventories (take two months only), exactly in the fasting month in 1991. This short inventories process arose the villager's restless. It was getting worse since they feel forced (militarism) to approve the relocation and compensation. The "security officer" should come and get some communities actors (ninik mamak) to take them to Bangkinang and those communities were forced to put their signature on the agreement of compensation.

Most communities said that the compensation agreement is inappropriate with what they received. The inappropriate promise is:

- The quality of the houses is "very" plain.
- The land is not prepared for income generating (rubber estate).
- The villager should pay the electric installation (Rp.160.000,-), while according to the government promise, it was free.
- The quality of public facilities is under its standard.
- No obvious clarification on 214 forms whether it would be paid or not. Meanwhile, the Nine Team already signs those forms.
- No relocation cost. In the new location, they are given food (wrapped rice) during two days.
- The compensation for the cemetery relocation (Rp.75.000,-/ unit) is not realized.
- No compensation for irrigation (in Bukit Tangko, built in 1950) in the old village that is self-reliant constructed by community.

This present, most communities feel the income reducing, particular for the main need of household. Everything seem right because in the old village, they inhabit such a prepared area especially in relation to the income source. They can tap the rubber every day, catch fishes any time and directly gain money. Meanwhile in the new village, they feel as if there is the missing link of its economical since when they are moved in the new location, the production land is not prepared. Their life is dependent on jadup (the life supporting fund) that they received during two years merely. Those Jadup are rice, kerosene, palm oil, ikan asin (salted fish), kecap, salt, bath soap and wash soap.

Some has sold their allocation of house and garden with the price of Rp.4.250.000,-.

The village center is now used for the activities of Posyandu (integrated service post) which is conducted once a month every Friday.

Some farmers often use the short cut since the path to the plasma is damaged.

Many plants are affected by the pest such ants termite, red mushroom and white mushroom.

Some communities feel "suffering" especially the "old" generation. However, out of the "suffering" context, some people feel the positive value of this new village condition. Community in this village consists of the young generation and some elders who has forward vision. This positive vision is related to the transportation facility provide to go to kecamatan/kabupaten/provincial. It enables the next generation to sustain education to the higher degree. Beside that, the house equipments increase and develop since the electric has entered into some houses. Many families have the electric equipments for, instance, and refrigerator, color TV with its parabola, iron, washing machine, dispenser, and mixer, VCD. Those cannot be owned when they still stayed in the old village.

There is a behavior change on some communities, especially the young man. It is because their mobility is higher than in the old village. Some ninik mamak also feel this change since the young man become more polite towards them. However, the cultural activity such as working cooperatively is starting to fade away. This because of most communities have the priority activity i.e. looking for the main need to be eaten by the family.

b) Problem

The findings field and it is strengthened by the discussion and meeting with the community, these following are the arisen problem:

The unbelieving attitude of community towards the government officer (local government at second level). This unbelieving and uninteresting is also expressed for some parties who come in to the village to conduct survey because the community feel no and they even never feel the realization of those survey. The problem is most communities hope

to accept the agreement that made.

In relation to the compensation, it becomes such a "demand" and makes restlessness. In this case, if the compensation can be realized soon, they can also realize the economic development business in the village. In other side, this "demand" can become the culture or dependent of community.

The main problem is the reducing of community income, particular for the main need of family. Meanwhile, the price of "sembako" is quite expensive.

The farmer complain the pest and disease infestation in the rubber trees while these trees are not produced yet. Those pest are ants termite, akar merah and akar putih mushroom.

There is community demand come from the new families who receive no land allocation. There are more and les 200 KK addition in the village of Koto Tuo.

In aspect of social cultural, based on a discussion with ninik mamak and other community actor, it was revealed that the culture of working cooperatively is faded away in the new location. Beside, the young men that called in local language as preman (street kids), have less respect towards ninik mamak.

At village officer level, they meet complicatedness to communicate with kabupaten/ kecamatan. A manual communication (letter) is frequently late.

There is an opinion from communities and village officer said that they are the "victim of the government project". They, therefore, expect to be put the victim village of the development program in priority.

Substantial problem is part community is difficult to differentiate between the need and the desire. This is because they are used to receive and contributed "instant assistance".

c) Solution Alternative

Solution alternative that has been conducted:

- The village parties have proposed some program on infrastructure rehabilitation and submitted it to government (level II). However, its realization have no results yet. There is some program in this village, e.g. PPK.
- The compensation matter have once been also clarified to the relative institution and the answer is the nominal that received by community is similar to the assistance that was given by "the project holder" (they called as the Japanese party).
- The local government is making effort to make the investor come and become partner in agribusiness sector. The existence of investor is expected to increase pendapatan asli daerah (PAD) or local net income.
- Some households have conducted the activity of agriculture cultivation in the field (for the land of 0,1 ha and 0,4 ha). Those cultivations are fishpond, orange, watermelon, chilly, and Pinang.

Solution alternative that should be conducted:

- This present, most community feel as the victim of a "big project" of government. Some has a forward thinking, but some still feel heartache. For this reason, the government should conduct approach to minimize such condition and situation. Approach in this context is the program approach, and not the project approach. The most important thing is they (community) need more "proof" and not garbage statements. In connection with this, the government (level I and II) consequence should be one commitment in realizing the development policy in the "PLTA victims" area of Kota Panjang.
- In relation to the commitment, there is a hope or demand for local government, particular local government level II, to put priority APBD for the local development of those victim area of PLTA.
- To motivate the life "spirit" and productive business development in village level, assistance activity need to be conducted. The Field Worker is expected to grow and develop self-reliant group. Therefore, one of criterion for Field

Worker in Kota Panjang is to understand the community development concept.

2. Income generating

a) Fact finding

Since 1993, the community and household are increased, while the available area/land is only enough to fulfill the number relocation of community/KK need. This relocation is not considered the community increasing and the more day, community is difficult to make effort in agriculture and plantation. Beside that, most palawija land (0,4 ha/KK) has been cultivated such as rubber, coconut, and palm oil) and orange. Therefore, the land that will be used for season plants and palawija are narrower.

The low knowledge of farmers are caused by the unsustainable assistance and the theoretically trainings without balancing with sampling or demplot. From the observation result in field, many rubber trees are attacked by termite and mushroom (akar putih and akar merah), and this makes some plants are dead.

The damaged road to the field because of the erosion and less care cause difficult to get the far community land and so, the community field is not cared enough.

The assistance is in the inappropriate target since there is insufficient monitoring from relative institution. This can be seen from the ineffective pesticide and no wonder, if there is many rubber trees are dried of the pest infestation.

To manage the rubber estate/plasma, it was established 20 farmers group with 24-30 members KK per group, but the institutional/group is active when there is any assistance.

b) Problem

- (1) 127 KK obtain no land
- (2) The low knowledge of farmers
- (3) The difficulties to get to the land make the field is less cared
- (4) The distributed Pesticide is ineffective to manage HPT
- (5) The group is active when there is any assistance

c) Follow Up

Has been conducted:

- Proposed the land extended for new 127 KK.
- Discussion and sharing experience with other group member.

Will be conducted:

- To conduct training and sampling plot design
- To work cooperatively to improve the damaged road
- To realize the assistance with the field facts
- To increase extension and assistance/guidance

3. Water Supply

a) Water Source

The water source in the village of Koto Tuo can be differentiated into three types i.e. **Water Source** (South Block A and Block C), **Drilled Well** and **the river**. The water source in the south block C is unable to be used because the low rate of the water level, and the water is unreachable the water saving nearby SD. Meanwhile the water source in the south Block A is functioned, it produces a clear water and flows into the water saving in front of the market of Koto Tuo, in which it is functioned for water supply to fulfill the community need of the water.

The **project well** is not functioned since the project transferred its function to community, community in Koto Tuo feels difficult to fulfill the water need, particular for consumption.

Other water potency is the river (near KUPT) and it is used for bathing and washing by community. This river have two branches i.e. to the north (block C) and to the West direction (block B). Community has utilizes this river water since entering the village, and community in the downstream also utilize this water. In consequence of the bad quality of water, they become unhealthy.

In considering the big potential of the water source, the development of Check Dam in Block A, the improving of the water saving and the pipe is very urgent and should put in priority. For the long term and to avoid the lack of the water stock in the drought, it is suggested to restore the two units installation of the drilled well and its infrastructure with the right and directed planning and supervision.

b) Water Facility

Based on the field observation and community information, **the shallow well** that was constructed by the project with various determinate of one well for one house, one well for three or four houses, is unable to be used any longer since the first relocation in 1993. The reasons of this are (i) the depth of well is only 3 meter, (ii) the irregular allocation of the well, (iii) the well water in block A, is corrosion and colored and so, it can be consumed, (iv) block C in the mountainous with the depth well of 4 meter meet no water source, and (v) it is too far to get the location (> 150 meter).

Water Pump in the neighborhood of KUPT has gone and the one near the mosque (block A) is in safe hand of community. The processor water saving (4 x 4 x 2,5 meter) is not functioned though its construction is in a good condition. This water pump that is not functioned is caused by the expensive operational cost (solar), and the rare spare part of machine when it is damaged. Other failure factor is the superficial depth of the dug well, and unreachable the water source and so, the water not come up.

Storage Reservoir, with the structure of ferro cement (5 x 5 x 3m) on the land, there are two units (Blok C, close with the market and beside SD) constructed in 2001, used the fund from program pengembangan kecamatan (PPK). The physical condition of water saving in SD is good, but is does not work because (i) the clean water of the source not enter into the water saving, (ii) no pipes net to flow the water into the saving water, and (iii) no service pipes (outlet/inlet pipes). The water saving near the market is functioned but there is no distribution pipes. There is only the outlet pipe and therefore, it is only community around it that utilize it.

The Pipes Net, the main pipe from the pump to the water saving and the distribution net to the public hydrant are not functioned. Since this pipe net is not functioned long time ago, its existence is doubtful. Based on information, the water pipe was dug by community. The main pipe net from the dam to the water saving in block c have diameter 4" along 2,5 km, galvanizes.

Public Hydrant, which was constructed by the project with standard of 1 unit for 6 houses, was not in its place since it has moved in the kitchen of housing. Some community even used public hydrant as the water rain saving. The functioned public hydrant is only in block A. It is self-reliant constructed by community. However, the water supply becomes less in the drought because the water rate is decreased.

Check Dam in the south Block A is functioned well, though it has impermanent construction, and so, the saving capacity of dam is not much. Meanwhile, check dam in the south block C practically cannot be used.

To be more effective dam in the south block A, there should be constructed a high permanent dam that enough save the water.

Drilled Well in the village of Koto Tuo is 2 units, but those two are not functioned. It is because of the undeeep well (80 meter) and with such reason; it cannot reach the big water source. The drilled well near KUPT is not functioned but it

still spouts the water with using the pipe of PVC ¾". Community uses this water to drinking. The drilled well in block A is practically failed. According to community information, this drilled well produces muddy water.

The pump house for this drilled well still look well. It can be seen from the complete building construction. However, its installation is damaged both the pipe net and its water saving.

c) Sanitation

Sanitation in the village of Koto Tuo is very concerned. Community uses the available river flowing for MCK (Mandi Cuci Kakus or Bath Wash Latrine). The project has constructed MCK but it cannot be used and so, the river is already contaminated by the men-wasted. This condition is not good for the men health. Some communities make an emergency latrine over the fishpond.

To increase the awareness of community, it would need the environmental health. The public MCK requires a serious attention. The important thing to be paid attention, is the location that is achievable and nearby the water source, with sustainable supply.

Appendix 3.13 Muara Mahat Baru Village

Muara Mahat Baru village lies in the east of S.Buak, in the west of Bukit Payung, in the north of Kenantan and in the south of UPS IV. The distance of the village to the sub district is 10 km, the distance of the village to the capital of the district is 25 km and the distance of the village to the capital of the province is 85 km. The dweller of Muara Mahat Baru is 2156 (517 family) consists of 1065 males and 1091 females.

The main source of income of the community is planting oil palm tree. The community of oil palm peasant was spread out within 25 groups of oil palm peasants. The plantation field lies around the village. In general the village has a better living economically compared to other villages effected by the dam of Kota Panjang.

A. Description of Process PRA

1. The history of village

The history of the village of Muara Mahat Baru was arranged by the community through FGD meeting among 3 villages. The first step, the people attended FGD meeting at hamlet II on April 9 2002, attended by 15 men. They were asked to state important events related to the process before, during and after relocation and were asked to state the year of the events, starting from the year they could remember. The results of it then was clarified again in hamlet III in the FGD meeting on April 9 2002, attended by 13 men. After being clarified at hamlet I attended by 8 members of FGD on April 11 2002, it became a final result.

a) Transect

To know further the condition and the use of field in Muara Mahat Baru village, A team made 'transect village' (a visit) on April 8 2002 by seeing the whole Muara Mahat Baru village accompanied by the chief of the village of hamlet II. Based on the visit, the team then discussed in detail with the community about the use of lands, its potentiality or the sources available, its status, its problem, the efforts to cover the problems and the necessary efforts to transform community's hopes into reality.

A discussion was held in 3 villages, with the above schedule. Then a special visit was done on April 10, 2002 to the oil palm field belonged to the community.

b) Matrik Ranking

Matrik Ranking is the last step taken to get information with the community. By using such technic we were able to know further what kind of efforts are necessary to take to cover the existing problems, based on potentiality, chances, and human power available – whether they do not support, they support a little bit, they support, and totally support to fulfill some community's hopes revealed through transect/ a visit in three hamlet, those are hamlets I, II, and III.

Scoring process for each hamlet uses a different score range in accordance with the previous talk in the community. Hamlet III uses 1 – 8 score range, while hamlets I and II use 1 – 4 score range.

c) Village map

Village map was made by Kadus II (chief of hamlet) on Monday April 8 2002, after a visit to the village. The draft result from the village then was clarified by community at hamlet II and III in a FGD meeting.

d) In depth Interview

Beside several technique to get the data above, the team also interviewed intensively the cultural leader, and other community's patrons, such as the village officers (at Kelurahan office) to complete the available data.

B. Appraisal Result

1. Settlement

a) Relocation process and community's opinions on PLTA.

The relocation process of the community of Muara Mahat Village was done by choosing PIR (oil palm) pattern. The relocation process was done peacefully without any pressure such as in other villages. However the reality found in the new settlement disappointed the community because many promises from the government were only a fake.

The chronology stated from 1982 – 1983 when there were a survey done by PT. Eksahera about the data of village location, the plan on dam location, and the condition of the community. During the survey, the surveyors were accompanied by the villagers of Muara Mahat up to Muara Peti in which its distance is far. In the year of 1982 all the cultural leaders discussed about a plan to build a dam and discussed about a relocation of the community because the community had already heard from the surveyors about the plan even though the government had not stated it formally. The discussion was done at Pondok Pesantren Darussalam in the village of Batu Bersurat and it was attended by 100 men. The meeting was attended by Bupati (chief of municipality) and Bappeda (government municipality officials), and it got 17 points proposed to the government as follow :

- Government provides permanent house for the community type 36
- No charge for the electricity installed, but the monthly expenses will be paid by the community.
- The relocation of the community is carried out by “bedol desa” system (all the community moves at once/ with all the system)
- Government makes rubber field 2 hectares for each family and the rubber should be ready to be taken 2 years before the community dwells
- Refund will be given completely to the community with a sufficient price.
- Community will be given a public facility such as schools, center of healthy people, market, school buildings, mosques, small mosques, sport field, field for taking care cattle, graveyard and etc.
- Government supports financially the community for 4 years
- Government should treat the community properly not like a regular transmigrant
- Government should give a priority to the local worker for PLTA project in accordance with their skills.
- Government should relocate graveyard and other historical place completely and should make a monument above the old places covered by water.
- Government makes water supply system or well for the community
- Government makes bathroom, and toilet
- Government provides small field measured 50 x 100 and field 100 x 100 around each house.
- Government provides guidance to the community how to use lake for fishery.
- Government provides cows for each family.
- Government asphalts the road. Of the village.
- Government adds the religion teachers

In the year of 1985, the community heard the issues about relocation while the survey was still going on. In 1986 –1987 the government clarified the issued to the community and made an approach to the community to relocate to the new area with PIR Sawit / oil palm Pattern. At that moment the community had not been able to accept this kind of pattern because so far they worked on rubber field and they did not know about oil palm tree. Several meetings were held with some community leaders to discuss about it, and finally they agreed to take this pattern considering that the community would earn a better living economically.

In 1989, the survey activity ended after holding several activities related to making social and economical data and related to refund process. Several institutions dealing with these activities were PEMDA (local official government), Dinas Agraria (land official government under BPN), BPN (National land Board), department of plantation, Riau University, and Andalas University. The activities covered were : to make data on culture, on community wealth, on community's opinion on the new coming dam, and on refund, on measuring the community's land, etc. The process of making data was only three days, so there were still 75 families left out of the data because they were not in the area at that moment. It created a problem in the future because they would not get the oil palm field and houses in the future. In 1989 – 1991 government made a talk with the community about refund. The government promised all the community's belonging would be refunded, even a single bonsai. In 1992 the community got refund in accordance with the available data. During meeting among community and chief of municipal and Ginanjar Kartasasmita (a minister at that moment) in Pulau Gadang the government promised to give free electricity.

In 1992, the community got refund which they thought insufficient. They were also disappointed because they had not got refund for some of their land and field until they moved to a new place and even up to now. In 1993 the community of Muara Mahat drew a lottery on location and they moved to a new place called Muara Mahat Baru in the district of Tapung in the location of oil Palm PIR. The process took two weeks and was done in the end of the year. During the process, the government provided transportation facilities such as trucks, busses to carry passenger or goods. However there were also members of the community who rented van to move to a new place. During the process, the government provided food for 3 days and then the government support goods for living for 1 year. The living support given to the community was in the form of rice, oil, soap, beans, salt, soybean, and dried fish. In a discussion with the community, they complained on the quality of dried fish – decayed but still they had to consume it for there was no choice.

As they reached the new place, disappointment grew – part of the land was swamp, houses covered by high grass, the roof was zinc, the wall was wood, and the floor was covered by thin cement, one well for two houses, Toilet was not in good condition, electricity was not installed yet. The public facilities were available, such as small mosque, school, field, and village office, etc. PAM with machine was built to serve the water supply for the communities, but it could not be operated due to lack of maintenance fund.

The government did not pay the compensation as it was initially promised, making the people disappointed on the following matters:

- Type of the house is 36 m² with uncomfortable condition and not semi permanent building.
- There is no electricity as they come into new location, and it was installed in 1996, but they must pay the installation cost.
- Rubber plantation management by “Bapak Angkat System” where they must pay the credit for 7 years, and the rubber was given to them three years after they lived in new place.
- Oil palm plantation allocated for each household is 2 hectare, but the size of area received by the people is not the same. Some of them got less than 2 hectare.
- Compensation was not reasonable for them
- The workers from old village can not easily work in PLTA project
- The quality of well water is not good
- Latrine was available but the quality was not reasonable (worst and unhealthy)
- The yard is available with the size of 20 x 50 m, and the food crop area with the size of 40 x 100 m
- Village road was not asphalted

- The moving of cemetery was not paid

From the community's point of view about this case, they thought that the government was not appreciated their proposal. Besides, the government have decided the compensation without discuss it with the people in advanced. They feel uncomfortable with the realization of government's promises, and it creates the problems and long impact to the community's life.

Up to now, they still remember with the government's promises said by its functionary who in charge with the PLTA Koto Panjang project. They still remember by the time the were persuaded to move and were promised to get electricity without paying anything, and get the oil palm plantation without credit, etc. The main question asked by the community is why they have to pay the credit while the other villages get the rubber plantation for free (without credit). This is unfair to them, because there is no different between them and the villager in other villages e.g. the people who have the impact of Koto Panjang project. They still curious about this matter, up to now.

b) Compensation of the House and the Land House

Compensation of the house was not suitable with the government's promises orally. The government said that the semi permanent house would be given to the community. The size of house yard is 20 x 50 m, and the size of the house is 6 x 6 m. It was a simple house, wall made of wood, Zinc roof, and wood floor with thin layer of cement. This was initial condition when they moved in.

At present, the condition of the house is better. Many of them has renovated their house by using the compensation fund and the rest is still the same with it was initially received. The house that have not been renovated covered by the bushes because the owner not live there because they work outside the village. Besides the house, the environment surrounding the house was also not reasonable. The location of resettlement was swampy and it can be inundated frequently, especially in the wet season (rain lasting for 3 - 4 hours)

People have done some efforts regarding this matter, but they still hope that in the future, they will get back the different cost in building the houses, so they can fix their house to be more reasonable. Besides, they also propose the rehabilitation for the drainage.

c) Money for Compensation of land, garden, dry land, house yard, house, pond, etc.

The following is the compensation that have been proposed by the community and the compensation have been paid by the government:

No	Type of Items	Proposal (Rp)	Realization (Rp)
	Coconut (productive tree / TM)	35,000/unit	4,800/unit
	Coconut (not yet productive / TBM)	15,000/unit	1,000/unit
	Rubber TM	10,000/unit	2,400/unit
	Rubber TBM	5,000/unit	1.500/unit
	Irrigation rice field	15,000/m2	600/m2
	Non-irrigation rice field	10,000/m2	400/m2
	Other crops	10,00/unit	5,000/unit
	Garden land (far from village)	1,000/m2	30/m2
	Garden land (closed to village)	3,000/m2	400/m2
	Home yard (closed to road)	5,000/m2	600/m2
	Home yard (far from road)	3,000/m2	400/m2
	Permanent house	200,000/m2	92,000/m2
	Semi permanent house	150,000/m2	68,000/m2
	Temporary house (wood, plywood)	100,000/m2	48,000/m2
	Removing cemetery	75,000	None

The community was forced to receive the compensation because their proposal for compensation was too high according to the government and over the reasonable price in that time. They still keep the feeling of unsatisfied, betrayed and disappointed very much because of the compulsion to receive the compensation, but they did not think this was the main problem, because there is another problem that still have to be paid by the government e.g. compensation for the land and house that was not inundated but isolated land of 3000 ha. At present, this area have been controlled by the outsider who lived and cultivate the land.

This problem have been complained to Taratak NGO, Kantor Bantuan Hukum Bukittinggi, and Japan NGO ehen there was a field visit and dialog with the community at Muara Mahat Baru village in March 2002.

People still hope that government will pay the compensation of their properties that have not been paid yet.

d) Public and Social Facilities

Public facilities available in the village are small mosque, village road, cemetery, school (TK, SD, SMP, MDA), sport field, village office, mosque, etc. The condition of those facilities is good, except the village road and the drainage.

The people was not comfortable with the existing condition of village road, especially at night because it was dark due to no electricity available in the village road. People was worried about the inundation of their house in the wet season, because the water can not be distributed through the drainage, and will creates the diseases (malaria and demam berdarah) in the future.

They have improved the village road by giving it the sand and gravel, especially the road lies in front of their house. While the drainage have been cleaned by themselves, but the result still not yet fulfill their hope. So, in the future, there are some works need to be done :

- asphaltting the village road
- Improvement the drainage, and operate it optimally

e) Electricity

By the time they arrived in new location, the people did not find the electricity in their house, but three years after that (1996). They also have to pay the cost of installation, according to the power availability, as follows:

- Phase I : Rp Rp 150.000,- for the power 450 watt
- Phase II : Rp 160.000,- for the power 450 watt
- Phase III : Rp 300.000,- for the power 900 watt

This installation cost was higher at present, so there is a few people have not get the electricity yet.

Regarding this matter, they still remember the promises that they will get the electricity for free, so up to now, they still hope that the government will give them back the money for installation cost.

f) Living Allowances

In this village, living allowances was not discussed deeply. They asked why they only get living allowances for a year, while the rubber plantation was given to the people three years after they moved. It means that they have to survive for two years without any supporting from the government. In this case, they feel that the government treat them differently that the other villages that have living allowances for two years.

g) Additional/New Households

New HH according to the community is (1) HH that have not been registered when the process registration to get compensation of land and house, was done, and (2) New HH as the consequences of marriage after they moved in the new location.

New HH with the first criteria did not allocated to have the house and the garden. Now it become a problem. They felt that the time for registration was too short (only 3 days), so the HH that was not in the location for working or

another reason did not get enough chance to register. While at that time the communication was difficult, and took a long time.

They have made an effort to propose of having the house and land for the new households (75 HH) to the local government. This proposal was denied and the government can not approved that.

For the second criteria, the problem is there is no land and houses for them, and they still live with their parents, and work at the plantation. This condition make their parent's life more difficult and hard. Land and house is limited and not increase, but the member of the family is always increase.

This problem has been complained to local government and Komisi IX DPR, but there is no follow up till now. This effort have to be continued

h) Unemployment Youth

Unemployment young people is another problem faced by Muara Mahat Baru villagers. This condition make the parents afraid can made negative problem for young people. It is because limited field of work, skill and knowledge too. At this time, unemployment youth in Muara Mahat Baru village around 300 persons.

The problems in community is several incident that relation with unemployment (people did not want to explain that incident) and people (parents) afraid it can be increase.

The effort that they made is try to propose to PT. Rama and PLTA as worker, but PT. Rama and PLTA refuse them with reason their knowledge and skill not yet criteria and condition as a worker.

The effort that need to be done is give them training to increase skill and knowledge by government (Balai Latihan Kerja / BLK).

i) Community Culture

From the discussion with people and informal leader about cultural and traditional impact that caused by resettlement are very basic change and its make afraid by informal leader. The big change that happen as follow : working together that decreasing, traditional dicipline as sanction not work, traditional meeting decreasing, and the effort of traditional preservation decreasing work.

The problems above caused no fund and program from government for traditional preservation by government, and a several time from people use to find money for their family. So, people do not have much time for effort traditional preservation.

The effort that need to be done is government give serious attention for effort traditional preservation in people. Beside that, people especially informal leader have to try to thinking about this problem for next generation.

2. Income Generating

a) Oil Palm

Pattern of Oil Palm Management

Management of oil palm in Muara Mahat Baru village is PIR pattern, where the community as the plasma and PT. Rama Jaya Pramukti as the nucleus. The plantation has the area of 894 hectares, and owned by 447 households. Each of household should have 2 hectares area, but many of them have less than 2 hectares. In PIR pattern, oil palm plantation is managed by PT in all vegetative growth phase. It will be handed over to the community after the plants are ready to be harvested, as a credit. Total of credit was Rp 17 millions and they have to repay the credit for 7 years. First and second repayments are 20 % of total oil palm production, then third and the remaining period of repayment is 30 % of total production. All credit will be completed in 2004.

Oil palm plantation is located between the food crop area and the resettlement, and the distance between 1-6 km. They go to the plantation by bicycle and on foot.

Oil Palm Maintenance and Production

Oil palm was planted with the size of 8 x 9 m, and 250 seedlings of rubber plant per hectare. The plant age in average is 9 years. The average production of oil palm in 2 hectares is 2 tons per months (500 kg/week). The production is tend to decreasing since the last 5 years, especially after the monetary crisis in 1997. The decreasing production was caused by less maintenance, especially fertilizing. Maintenance cost is not balance with the income they get from their production.

The oil palm price is determined by PT in collaboration with another parties, and the farmers do not have bargaining position in this case. The lowest price for the farmer is Rp 175,-/kg, and the highest price is Rp 650,-/kg. While the existing price is between Rp 535,-/kg and Rp 546,-/kg. The both prices are happening for a month or the price will change for every two week. The level of price increasing is smaller than the level of price decreasing.

The selling of oil palm production was done by the community to the PT through KUD. KUD will directly do the reduction for the cost of credit repayment, fertilizer, cost for transportation, etc. by the time the farmers get their income every month. The net income received by the farmers with the production of 2 tons/2 ha/month is about Rp 200.000,-. This income is not enough to fulfill their daily needs of the family.

Another problem faced by the community are :

- Plantation road for transporting the oil palm fields (called as pasar pikul), is still not reasonable due to covered by many woods on it.
- The bridge in the plantation is damaged
- A part of oil palm area, especially those in DAS Lembu was damaged, due to erosion of the river in the wet season
- The soil condition of oil palm area near SP1 is not fertile (sandy soil), that make the plant did not grew well

Some efforts have been done in order to solve those problems, such as: improvement of "pasar pikul" in rubber plantation by themselves, proposed the fertilizer subsidy to the PT, and proposed to replace unfertile rubber area to the new location belongs to PT, and proposed the increase of oil palm price to PT. The people, however, still feel unsatisfy with the results.

Therefore many efforts still need to be done in order to solve the problems, especially those related to increase the quality of rubber plants in the future, such as:

1. Oil palm area lies along DAS Lembu need to be relocated
2. Improvement the bridge in plantation area
3. Propose the improvement of oil palm price that the price is a single price of PT and not the collaborative price
4. Trying to get fully attention from PT regarding unfertile land area near SP1 that gave minimal production of oil palm to the community. They need support from PT, not only fund but also the knowledge and skill how to increase the soil fertility that they can get better production.

Oil Palm Group

There is 22 groups in rubber plantation, with the various number of group member, between 15-32 Households. Group member is not the same one to the other because the block area of each group is different. Beside these groups, there is 1 group established by PT where the member is those who has ulayat land in the area of rubber plantation.

b) Food Crop Area

This area lies between rubber plantation and the resettlement. Majority of this land are covered by the bushes, due to lack of maintaining works. Besides, they do not have enough money to finance the cost of agricultural inputs and cost of maintenance. A part of land are planted by fruit plant organization another plants, such as: jack fruit, coconut, areca-nut, manggo, rambutan, oil palm, chili, bean, and banana.

The soil condition is fertile enough to grow the plant, but not all kind of plant can get better production. Base on the experiences of the community, only a few plants can grew well and also give better yields e.g. manggo, rambutan and areca nut if they are cultivated in this land. While the other plants such as: jack fruit, lemon, jengkol, and banana can grew well, but they only give the fruit once and twice, after that the plants were died.

Actually they understood that food crop area is allocated to food plants, but they still cultivate another plants in spite of food plants, even they change the plants with oil palm trees. This condition is caused by the following factors:

1. Difficult to market the production due to long distance between market and the garden that make the transportation become more expensive compare with the income that they will receive if they sell food crop production.
2. Income from rubber plantation is decreasing. This was also be the reason why they cultivate oil palm in food crop area, not the other plants. The soil condition is suitable for oil palm, and the marketing for this production is also easier. But, they do not feel free to sell the oil palms to the market outside, because they have to sell the yields to PT, with certain price that usually lower than outside market price. The different price is reach to Rp 500,-/kg.

c) Yard

Majority of house yard are in good maintenance, means that the yard is planted by some fruit plants and ornamental plants also. The fruit plants are jack fruit, manggo, sapodila, pineapple, banana, and guava. The soil condition is good enough, so those plants can grow well, and the yields are sufficient for the family consumption.

3. Water Supply

a) Water source

Well

Well is the majority of water source utilized by the people in Muara Mahat baru village. There was 243 units of shallow well built by Dinas Transmigrasi, and then it was added by the community by themselves, with the cost of Rp 250.000,- for 1 meter of well. Total of the well at present is 420 units.

Ratio 1 unit of well to serve 2 households is not reasonable. This well is not in good or strategic position, so it creates the conflict between the two neighbors. One of them feel not free to take the water from the well since it was located in the neighbor's yard. Based on this uncomfortable situation, they made shallow well by themselves to fulfill the need of water and prevent the conflict.

Those who still use the original well built by Dinas Transmigrasi, deepen the well to get clean water. The average depth well is 5 – 6 m, and the quality of water is good. The original depth well is 2-3 m, and the quality of water is bad in the dry season, and the yellowish color of water and bad smell water in the wet season.

The age of those well is between 3 months to 9 years. How the people maintenance their well is depend on the economical condition and their need of clean water. In Muara Mahat Baru, the water is not the problem since almost all of the people there have a well with good quality of water.

Water Supply Project

It used to be PAM facilities in the village, but it never been operated because the water flow could not reach the public hydrant. The source of PAM water is from artesian well that using the machine and dynamo to flow the water, so the water can be distributed to reservoir and public hydrant. The failure of PAM facility due to the people was not involved in the project planning, whereas the people wanted shallow well in each houses, in spite of PAM construction. They felt that it was difficult to operate PAM facility.

River Water

The river water is not utilized as the source of clean water

Rain Water

Rain water is only additional water for the people. They use well water for cooking and drinking, but rain water is used for washing, bathing and defecating. When they moved into new place, each of them has reservoir to collect the rain water. The condition of some reservoirs are still good, and the others has damaged.

a) **Water Supply Equipment**

Water supply equipments in Muara Mahat Baru village is good enough. Many people had used the water pump machine to light up the well water, and the pipe to light up the water into the reservoir.

PAM facility is consist of dynamo, diesel machine, reservoir, pipe network and public hydrant. The condition of PAM was worst. The dynamo was lost, and diesel machine was kept in the village office. Reservoir was covered by bushes. The pipes was lost and broken, and the public hydrant was not in its place anymore, a part of them were damaged, and kept in their house to collect the rain water.

b) **Sanitation**

Many people in this village have built the latrine inside the house, because the one that built by the project was very bad, and not health. The initial latrine is only 1 x 1 m. People who do not have enough money, still using traditional way of defecating e.g. in the river. Clean water is not their problem, since they have their own shallow well.

The problem face by the community in related with sanitation is drainage channel. This channel lies across the resettlement horizontally, and it cannot distribute the water smoothly. The consequence is the water will flow out and inundate the housing, especially in sub village I and III.

They already work together to improve the drainage, but still it can not distribute the water as it should be. The ditch and the water channel has limited capability to keep the water, so the water can not go anywhere but go into the resettlement area. They do hope that the government can support them to improve the existing drainage.

C. Conclusion

Base on the discussion with the community in the three sub villages using the PRA tools (sketch map, transect, and matrix ranking), it can be concluded that the scale for determining the priority for each sub village is different according to the problem and potency that could be developed in order to solve the problems. The result of matrix ranking can be seen as follows:

Sub Village I

- Repay back the oil palm credit to the community
- New households get the house and oil palm plantation
- Improvement the village road and district road
- Develop the knowledge and skill on oil palm processing
- Repay back the cost of electricity installation
- Create the job opportunity for young people
- Transparency of PT. Rama Jaya Pramukti about the CPO price
- Repay back the difference cost of semi permanent building and wood house building
- Providing the food crop seedlings
- Repay back the compensation and the garden that was not inundated by the dam
- Improvement the bridge in plantation area

Sub Village II

- Giving the compensation of the isolated land at the location of Kotopanjang dam
- Providing the house and oil palm plantation for new households (household that have not been listed by the time they moving into new location)

- Repay back the oil palm credit and the rest of their credit repayment
- Providing the fertilizer freely
- Repay back the difference cost of semi permanent building and wood house building
- Giving back the R land to the villagers

Sub Village III

- Providing the house and oil palm plantation for new households
- Repay back the oil palm credit and the rest of their credit repayment (because another villages get the plantation without credit)
- Improvement of village road
- Improvement the bridge in plantation area
- Repay back the compensation and the garden that was not inundated by the dam
- Develop the skill of unemployment people
- Providing the food crop seedlings
- Improvement of district road

Appendix 3.14 Gunung Bungsu Village

Gunung Bungsu is involve in Batu Bersurat Sub district, XII Koto Kampar District. The village location now has the following borders. The west is bordered with the village of Tabing, the north is bordered with the village of Pongkai Baru, the south is bordered with the village of Tanjung, the east bordered with Muara Takus village. The width of the village is 563 ha.

The population of the village are 350 HH such as 598 persons of male and 590 persons of famela.

A. Result of Appraisal

1. Settlement

a) Relocation Process

The relocation of community in Gunung Bungsu from the former to the new village was occurred on 23 to 25 March 1993. This relocation was happened after the community was asked for to and should be moved the new location. Some community who disagreed to move, feel forced to move in the new location since the area of the former village would be inundated with the water. Basically, the relocation process from the old village to the new village is not too far. According to the community, the mentioned new location was used to be their land to cultivate. During the data collecting, there is only 241 HH (households) listed from the 350 - 400 HH.

In general, community thought that the impact of the project towards their economical source caused inconvenience. Any type of the project that was conducted in the village finally is unacceptable thoroughly by the community. Community considered that the project would gain profit for some parties, which has access with the government. Several projects that were gain access to this i.e.; the HKM program, Agro forestry, plasma rubber, and agriculture demplot of 2 hectares. At the first stage, the community did not conduct this project, and the accomplished result was very dissatisfied. Meanwhile, at the second planting (involve community), there was a process progress to a better direction.

Especially the PLTA project in kotopanjang, community actually felt disapproval to move from the old (home-grown) however since there is such pressure and oppression from the government, the armies and police, and so, community has to accept it whether they want to or not. Nevertheless, the local government's promise is not consistently realized in its implementation. This added up the communities' frustration.

The main problem in consequence of the village relocation is the decreasing of the communities' economy. Beside, there is a conflict in the village of Tanjung. They dispute with the borderlines that it never happened before. This dispute is derived from the claim of the villager of Tanjung on the conservative land (agro forestry) that is cultivated by the farmer of the agro rubber. According to them, the mentioned land include in the ulayat area of the part community ethnics of Desa Tanjung. This claim arose conflict, however, this condition for a while can be clarified at sub district level. Further working out will be conducted after the ceremonial of MTQ¹ (Musabaqoh Tilawatil Qur'an) is done. Part community of the ethnic in Tanjung village called into question the published letter of the Governor, which stated that the area become the village area of Gunung Bungsu. The effect of this, some plants of villager in Gunung Bungsu get disturbance from Tanjung's communities such as the bud withdrawal, the fruit trees clearing away, and threatening of community expulsion.

b) Compensation

¹ In the same time, Government of Kampar District, have been celebrating an Al-Qur'an reading competition (MTQ) in the district level. To appreciate the activity, each villager made appointment to solve the conflict after the competition..

House. In the first stage of relocation, the housing constructions of 241 KK are constructed from the timber. The timber material is taken from the cut trees when there was the land clearing. According to community, the constructing process is hurried; therefore, the foundation hardening was not conducted as well as should be. In the first relocation, there were the unprepared of 10 houses e.g. no door, and no cement floor. This condition generally is the houses that constructed over the swampland.

Land compensation. The land compensation has been fulfilled with the inadequate price. There are some categories of compensation estimation that adjusted with the land status, such as the field, garden, land nearby the road, field farther from the road. Its condition influenced the level or the value compensation from the governor. However according to the community, this compensation process, is not data collected and good organized. Some received adequate compensation, some are less, some are more and some received nothing.

In relation to compensation from the Kotopanjang project, most are performed but its realization is dissatisfied. The compensation for the rubber estate was paid with the following pattern; community received a shrubbery land. Compensation cash was given phase by phase along with the process of the plants care. After the making of the marker and the hole, they were paid of Rp 150.000 per hectare. After spreading the seed, they were received Rp. 50.000 per hectare, and after replanting were paid Rp. 250.000 per hectare, when clearing away was paid Rp. 100.000,-.

Electrical. In the beginning, the electric is free of charge. However, in its implementation community should pay around Rp. 350.000 for installation. The electric condition is often extinguished and disturbs the lights. As indicated by community, the electric power is inappropriate as the plan. There is only one of the three electric turbines is run. Therefore, the electric power is not as hoped.

Other Potency of The Village. Some available potency in the village i.e. the field (rubber, Gambier, orange, chilly, pinang), the fishery (fishpond, floating net, go fishing), The livelihood means of the new villager is various. Basically, the kotopanjang project paid no attention for the community aspiration. Community felt to be not involved by the Government in designing any activities. The construction process of the field, water facilities, and the water source and MCK (Bath-Wash-Latrine) supply, noticed no community need carefully. Consequently, those construction results cannot be sustainable utilized by the community.

c) Solution Alternative

Some activities that have been conducted to overcome the above problem i.e. the claim for the compensation problem was conducted to the government through PLN (State Electric Company), but there is no result. The borderline problem has been confirmed to the sub-district level to be settled totally but the result is not followed up clearly.

Some suggestion that should be conducted to overcome and anticipate other problems i.e. the restriction for the fish catcher who damage environment (use the electrical and poison), the realization for compensation's problem in connection with the promise, the restoration for infrastructure construction, the development for floating net through the incentive program (capital), the relocation to other location with the compensation if the borderline problem cannot be settled.

2. Income Generating

a) Rubber Plasma

The rubber condition. The width of the rubber estate owned by the community is almost similar i.e. 2 hectare per KK, and it is the relocation compensation from the old village. At the first, this width of the rubber estate's compensation from this relocation would be given after the trees are ready to be tapped (3 years). However in its reality, the government gave no word for this. The condition of this rubber estate was very apprehensive. There was no plant, and it is still in bushes with the various condition (hilly, swamp and bushes). To see such a condition, community unwilling

to conduct the rubber cultivation and care. At that moment, the rubber worked by provider was not success. Beside that, the rubber seed is only planted in the land nearby the road.

Afterward, community reclaimed by conducting a demonstration and at last, the government performed the replanting program in 1999 and conducted directly by community. The result can be seen and was enough to achieve success until the PRA team conducted these studies (about 2-3 years after planting and cannot be tapped). With such age, the biggest income of community is not from the rubber, but from other business.

Most of the plasma rubber estate is planted in monoculture and there is no land left or hand function over. To fulfill the water need, there is the river of Kenawaii that its flow separates the field around the estate, beside, and there is such a drainage ditch that made to utilize the water source as the swamp. Because the plasma rubber area was the ulayat land of the forest, the topography is undulating to the slope of 25%. The soil fertility is good with the high frequency of the rainfall.

The Rubber Processing. In general, most villager of Gunung Bungsu before they were moved in (almost 100%) is the rubber farmer. The rubber processing commonly is conducted through the farmer group. The established farmer group is 14 groups with the member of 16 – 20 persons. The land width of each group is dissimilar according to the member's number since the land width of each member is 2 ha.

The grouping is established based on the spread out of area. The group is managed by the board of the group and chosen in the meeting by the member. The role of the group's board is to coordinate the distribution of the production inputs including the wages for the land working and to be the connection between the member and Dinas Perkebunan. In the group management, those function is run as should be. The board also conducted the process of simple administration arrangement including the financial administration. The operational and incentive fund is taken from the part of the land-working fund for the board.

The Land Management. Community with using the simple equipment such as chopping knife and mattock conducted the land-working starting from opening and clearing away. Based on information of the group leader VII, a thoroughly capital was given with the wages in amount of Rp. 500.000 per hectare to clear away and cut down. However, part of the fund (Rp. 100.000,-) is used for operational of the village garden that exists in the area and incentive for the group's board. The planting cost is amount Rp. 650.000,- per hectare with the detail such as the wage for the marker making and the plant hole is Rp. 150.000/ha, the collecting-burning is Rp. 100.000, the seed distribution is Rp. 50.000, planting is Rp. 125.000, basic fertilizer is Rp. 40.000, bush clearing with the roundup is Rp. 60.000 and having terrace is Rp. 125.000. The seed was obtained from the government such as the grafting seed inside the polybag. The seed distribution and replacing dead rice seedling with new ones are conducted by community with the wage of each is Rp. 50.000. The planting is conducted with the plant distance of 7 x 3 meter. The seed have an intensive shower before it is planted in order to be well adapted with the local environment.

Care. The seed for replacing is directly provided to each farmer. The second accumulation cost was disbursed in amount of Rp. 40.000, clearing away is Rp. 100.000, terrace restoring is Rp. 150.000, budding is Rp. 100.000, pest control is Rp. 50.000 and replacing the seed is Rp. 25.000. The fertilizer supply (SP 36 and PMLT) is 350 kg is given gradually. Total wages of the planting to the fertilizing (outside the land opening) is Rp. 950.000 per KK. Technique of the wages paying out is conducted after the works are done. However, the final value is similar i.e. Rp. 950.000 outside the clearing cutting. For some medium communities, they replace the distribution fertilizer with the fertilizer of NPK. Meanwhile, those who under medium still uses SP 36. The fund care and fertilizer supply often comes late. The effort is to contact UPT Perkebunan. The hog's infestation disturbs and damages the plants particular when the plant is immature, and this need intensive replacing.

Pest/Disease Control. Particular for roundup (bush control), part villager uses it for the outside of plasma need, while, the bush clearing is traditionally conducted (cutting-down). The control of Anai-anai and cendawan disease, the farmer is given the pesticide. The drainage ditch was made to overcome the hog infestation.

Skill Development. Dinas Perkebunan conducted once training for the rubber farmer in the village of Gunung Bungsu and this training was promised to be implement for the entire plasma farmer in some classes. However, in fact, there were only two classes with the participant of 60 persons. Training was conducted classically and field practice. Technically, Dinas Perkebunan made demplot as a planting sampling before it was conducted planting. Other training type is common training and the technical material is the rubber plant cultivation, such as technical technique of Community Forest /Agro forestry.

Community Income. Community income before the rubber is tapped, most utilize the available natural resource. Business based the land is clarified in business of food plant, plantation, animal husbandry, and forestry. The food plant business such as planting orange and corn (palawija plants) even though it was finally stopped, since the products is not sufficient to fulfill the daily need. The land width of orange is approximately 100 –150 hectare and its half has produced, and some are dead. The capital accumulation was conducted by their own including the farming inputs provide, and the working-land, and its marketing is conducted through the collector trader.

Fishery. Some efforts to be conducted i.e. going fishing in Dam, making the pond, and fish floating net. Going fishing in Dam becomes the community's hope, but after the fish production reduced, part of community tried other alternative as to make a bigger fishpond. The width of the existing pond is about 20 hectare. Because of the water supply is inadequate, this business is left, still, there is some who keep this business to survive. The fishery marketing is almost similar with the food plant i.e. through the collector trader who came to the village. The floating net business is in the starting stage, because there is the project of Kawasan Sentra Produksi (KSP) Perikanan from Dinas Perikanan Kabupaten Kampar and it was conducted in-group. To solve technical problem, there is technical expert from sarjana of fishery. Dinas Perikanan gave the seed and other farming inputs provide in the shape of loan. This floating net Keramba is located in the river of Kampar under the bridge of Gunung Bungsu.

The Plantation and Forestry. Such business as the Gambier field with the width of 200 ha, not produced as hoped and not owned by overall community. The marketing of Gambier through the collector trader that bring to Padang or Jakarta to be exported to India. Other plantation plants are rubber (non plasma) and oil palm. The existing rubber estate is the community rubber (local) and most have been tapped, some of them should be replanted. The forestry business is not many, but since the project of Community Forest/Agro forestry came, there was a forestry business. Though some members of community did not take part or they leave this business for the reason of the uncertain land working that was conducted by Contractor. The program planning was began in December 2000 and involved some stakeholders.

Other Productive Business. Other business that is not based on the land i.e. trading business, labor and home industry or leave home to go overseas to Malaysia. One of the existing home industry in the village of Gunung Bungsu is the sun-dried fish production, the bricks production and traditional herb production. For the bricks production, the problem is the limited capital. During these years, there is no effort to propose for capital to the outside parties.

3. Water Supply

a) The Water Source

The water supply in the village of Gunung Bungsu consist of three options i.e. Pipes with Machine, Dug well and "Natural Well". For the water pipe is taken from the river of Kampar with the pump machine and then, it is flowed through the pipe to the Water Processing Installation (Water treatment Plant), which is located in village II next to the Village Center. From this installation, the water in the pump forward to Hydrant Umum (HU) that have capacity to

serve around 10-15 KK (houses) in each line (Block) of Settlement. The condition of distribution net and the water installation including the pump, pipe, WTP and HU damaged and not cared.

The river of Kampar is the water source that can be utilized by community all year. When the drought comes, therefore, most community uses the water of the Kampar river for the need to take bath and wash (the water condition is quite clear and not smell). For drinking and cooking, the water source they use is from the well of their neighbor and or other natural well.

b) Water Supply.

The shallow well construction or Sumur Gali (SGL) was conducted simultaneously with the house preparation. One SGL is for two houses that are located in the middle (the benchmark of those two houses). The project provided the well with similar specification i.e.: the depth is 5 m (5 cincin), the edge of the well is 1 m (1 cincin), the diameter is 95-100 cm and it is constructed the cement floor around the well. Other completeness well is an pail, rubber/thick rope of container, hoist (kerekan) and the hoist pole is not available. The location distance of SGL from the house is about 10 m.

There are three natural well in the village of Gunung Bungsu and all is in Village I. The location of two natural well is next to the cared condition, and other is far enough down under (including) the land of Agro forestry (land of 0,4 ha) and its condition are not cared.

The problems. The pipe system with the pump machine only can flow water for one week. It cannot flow to Village I and III that its location is higher. Operation and maintenance is not submitted yet to community, beside, there is no training for the group and member. The cost for O/M of the pump machine (diesel 2 units) also cause community feels unwilling to maintain the public hydrant. The community disappointed towards installation and the water net (since it ate a big cost but there is fewer benefit, they released their frustration by damaging the water net and installation.

The dug well (SGL) construction in its realization is only taken the principle on the plan that was made by the project without considering the local height and the water source prospective. This brings about some SGL have the depth of 12 meter to obtain the water. The difficulty to get clean water to fulfill the daily need such as drinking, cooking, bathing and washing the clothes and the serving dish are felt by the community of Gunung Bungsu when the drought is come. The dug well that can be utilized its water is about 30 units of 122 units, which is located in the swamp. This condition is caused by the inadequate of the well depth and the hilly settlement location. The quality of the water well in swamp is not good, yellow to brown and smell.

Other effort that has been conducted by the villager of Gunung Bungsu to overcome the water crisis in the drought is to increase the depth of the available SGL with the depth of 1-3 m (cincin) by his or her own cost. Particular for the village III, KK who has waterless well, they relocate their houses to the lower location (land R that is for public facility) by his or her own cost, including to make SGL.

c) Sanitation

One latrine is for one house. Those latrine construction consist of the gooseneck, the covering hut and septic tank. The distance between latrine and SGL is around 10 m. The septic wall is made from the timber and the upper is roofed with cement.

The septic tank wall of the latrine that is provided by the project is made from the timber and it is only for one year used. The latrine that is not functioned is more and less 50% and therefore, community deliver their fesses in the back yard without covered by the dirt after it. To defecate (BAB), they dug the land. But in the dry season they go to the Kampar river for using it as an MCK. In the several of household, still use the latrine facilitation.

C. The Proposed Solution Alternatives:

Drilled well/ Dragon Pump. Drilled well/Dragon Pump was constructed with the various depth between 10-15 m, depended on the geographic condition of the pump location. One dragon pump was constructed for each village. The reason to choose dragon pump because its maintenance is very simple and inexpensive (no electric). The appeared problem is the location of the drilled well that will arise jealousy in particular when the drought comes since KK that live nearby the drilled well will dominate and “becomes the owner” of the mentioned well.

Pipe with gravitation. The water source in the hill of koto bono (old village) has the water all year and a good quality of water. It can be used for the clean water supply through community in Gunung Bungsu through gravitation pipe. However, this would be difficult to be realized since the height of the water source and resettlement is lower or it has almost similar level. Beside, its location is far, and so, it will need a bigger cost to construct Check dam and the pipe for installation and distribution.

Add the depth of the dug well. The waterless in the drought comes from most SGL of the community has the less depth and the inappropriate location of the SGL. To solve the problem, the depth of the dried SGL in the drought should be added 3-5 meter and its working is performed in the drought. This is to make sure the available water is thoroughly a permanent water and would be provided through the year.

A. Description of PRA Process

1. Village Transect

Transect aimed to know every sector of village land use. The media also could identify potency and also alternative of income generating. Further more, the discussion also purpose to identify the problems, and to assess alternative solution based on the problems, opportunity and also their capability.

The trip of the transect started from jorong Pulo Panjang bound for water resource on the west side of Nagari. The distance from water source to the resettled are 2,5 km. The trip through the housing, fish pond, main road, and horticultural land. Team with local people together go around the village from the home garden.

Team of PRA have discuss with the people who working in the field. The team also asking to the farmer who still working in the field, to knowing how they cultivate the land and also maintain the plantation. And also collecting the people request, alternative of solution have been done and what solution should be done.

Assessor team, identify to the people informally from place to another place. That is considering that through formal approach its can disturb the people. Beside that, they are very sensitive for miss-understanding and making conflict among them. Some of people who have discuss with the PRA team such us; Bapak Haji Mizur, with e persons of servant/peasant workers in gambier garden. In the defferent time, the team have conducted observe in the old village. Some of them as a fisherman and harvest the gambier (peasant workers), logger, and fishing. The meeting have conducted in gambir garden, forest area, rubber plantation, small shop, water spring area, and the old village.

2. Village history

Sejarah desa Nagari Tanjung Pauh ditujukan untuk mengkaji berbagai kejadian yang dialami masyarakat desa serta dampak yang dirasakan terhadap penghidupan mereka. Kajian dilakukan bersama orang-orang yang cukup mengetahui mengenai latar belakang dan perkembangan desa dan seputar pelaksanaan perpindahan masyarakat akibat Proyek DAM Kotopanjang. Kajian sejarah desa dilakukan bersama-sama dengan Tokoh masyarakat setempat di lokasi kedai nasi maupun berkunjung ke rumahnya. Diskusi dilakukan sambil minum kopi dalam suasana yang relatif santai dan familiar. Proses diskusi diselingi dengan humor agar tidak merasa bosan dalam berdialog.

Lokasi dialog di rumah makan Pulau Sebatang dengan 2 orang pemuda dan tokoh masyarakat (Datuk Tan Simarajo), pukul 19.30 sampai 22.30 wib. Pengkajian melalui teknik kajian sejarah juga dilakukan bersama Datuk Lelo Mangkuto Wali Nagari pukul 20. 30 – 22.30 wib di Jorong Pasar Buyuh. Dialog juga dilakukan dengan tokoh pemuda dan wali jorong. Kajian dimulai dari pertanyaan umum mengenai pola kehidupan masyarakat Tanjung Pauh di desa lama dan perbedaan dengan pola hidup di lokasi baru (nagari Tanjung Pauh). Selanjutnya tim mengajukan pertanyaan pertanyaan spesifik berkaitan dengan proses perpindahan, kompensasi, pembangunan fasilitas desa atau nagari dan lain-lain.

B. Result and Appraisal

1. Resettlement

Tanjung Pauh village is one of the villages located at the boundary of West Sumatra Province and Riau. The southern part of the village has a boundary with Desa Tanjung Bolit, the Western with Desa Pangkolon, thr Northern and Eastern with Riau Province. Nagari Tanjung Pauh consists of 3 (three) jorong namely : Pulau Panjang, Koto lama and Pasar Buyuh. In the people's view Desa Tanjung Pauh belongs to impact village, that is a village which does not become the main area of PLTA project development in Koto Panjang. So that the impact on the people is less satisfactory such as villages is Riau Province.

Before moving to the new location, the people of Desa Tanjung Pauh has a simple livelihood, but they are sufficient for meeting the daily needs. Much water is available, rubber plantation is ready to top and the people respect the local tradition of live. However the present condition has chopped. The people mostly suffered from the lack of clean water, land to live is hard to get and the tradition has gradually died away. Sense of togetherness in the tradition becomes disrespectful.

It has become noted separately by the people of Tanjung Pauh until now. This bitterness affects consequences of their incredibility forwards all parties, generations, religious government, type of program from outside addressed to develop /build the nation. Nevertheless, a part of the people still expect a better life in the future.

a) Process of Movement

The moving of people from the old Desa Tanjaung Pauh started on August 29, 1993. As many as 313 KK started to move to the new resettlement (around 350 houses were constructed/built). So that there were more portions of 37 houses. The remaining housing not yet in use was smoked by the people for new HH. The period term of moving is given for 3 – 4 days by Pemda (Regional Government). The people do not have any choice because they think that sooner or later they must move from the old village. Transportation is provided by the government such as bus and truck.

The moving goes smoothly. The method used/taken here is the entire village with government offices. This method is based on the people's agreement. They hope that in this new location all neccesities or facilities maybe easily found such as in the former village. Everything found in the former village should be the same as in the new village. The main needs they expect are that the water supply and main livelihood preparedness must be ensured (rubber plantation). However in reality, the condition has totally changed as they have agreed as previously together with the project management. This will certainly leads to the people's unsatisfactory towards a number of programs managed by the government. People will still demand for compensation which belongs to management's obligation to pay them for unpaid compensation.

On the other hand, a number of problem arising out of the project implementation of Koto Panjang include among others; the unfulfilled promise (problem of electrical installation, inappropriate house building/ construction, "inundated" well construction, appropriate compensation of land, availability of water supply system, implementation of rubber planting). A number of problems appear are roof of the problem of the people. A number of cases maybe observed in the following description :

b) Electrical Installation.

According to the people the government has promised to abolish the cost of electrical installation, but in reality the people are obliged to pay the electrical installation in their houses. Each KK has to pay the installation of Rp 105.000,00,- for 450 watts. The electrical installation is utilized by the people for lighting, information media trough radio and television. The problem faced to the study constructed comprises the lamp often goes off. This may damage the electronic equipment of the people and to disturb night activities. The future outlook, that PLN is requested to be able to solve the problem of why the electricity if often disconnected.

c) House Construction

According to the people, the house to be built by the government should be in accordance with the house type. By the time before movement, Pemda has declared that houses to be built are semi-permanent. However in reality the whole houses built are board hoses with single roofs. At beginning of movement, the condition of the people is really serious the condition of houses are not suitable to live in, some are needed because the land position outside the house is higher so that is entering the house. The people see that the house quality is far from satisfaction. The house construction of

type 36 is of (an area of 6 x 6 m). The board house built may not be renovated before it is used for 1 (one) year . Whereas the house condition is not suitable to live in.

There are 350 units of houses, while there are 313 KK at that time. The remaining units of house were based on the people's agreement allocated for new KK. A number of houses to live in started to be rehabilitated by the KK getting compensation. But in general, they see that the compensation provided by the government is not sufficient for their living necessities. These compensation has been further spend to meet their day-to-day living needs, waiting for the tapping of rubber plantation.

Efforts already made by the people include cleaning the house floor from mud and also cleaning the houses still filled with crossing tree trunks due to feeling down of trees to build houses. The houses are now relatively neat, but the boards used as house materials, some are already damage. Meanwhile, the people's livelihood from nucleus rubber which is mostly expected has not produced smoothly (the products are harvested).

d) Construction of Water Facilities

The facilities of clean water supply constructed cannot be enjoyed by the people of Tanjung Pauh. But on the campaigns before the general election on 1997, the installation has ever function. After the campaign period is over the water facility did not any function any longer until now. According to the people, the sucking pump and water pump in Desa Tanjung Basit (now changed into Nagari Tanjung Bolik) does not exist.

The well construction in average has a depth of 2 meters of the beginning of moving to the near location, the people see that the wall constructed contains full of water. But after a few day in use, the water is running out. The people then realize that if the well water is not from the deep soil water, but from the receiving station of rain water and newly filled. The well bed is made of cement, and it is intended that the ground water does not enter the well and or the receipt water will not penetrate the ground. According to the people the water condition of a larger part of wells are not suitable for use because the color is red and has bed smelt.

A number of well with good soil water has been made deep by them for daily needs. They try to dig wells again to get a lot of springs which are clean. However a larger part of the people are compelled to ask water to the next door who happens to have clean spring. In such condition of difficulty of water, part of the people must also buy water of Rp 5.000,00,-for each 30 liters.

e) Process of Land Compensation

At the beginning the process of land compensation goes well but in the further process, the government makes payment of compensation with half-heart. The inundated areas are started to be in pending and the payment is postponed within uncertain period. Until now, there are more than 150 KK having "Persil" and have not been compensation. Whereas in reality a larger part of the areas in the location, of former village in the water inundation of reservoir having been compensated changed the status into the state land.

The land compensation given to the people comprising an area of nucleus rubber plantation (around 2 ha) crop area (0,4 ha) and land of house yard (0,1 ha). However when the transfer is conducted for the nucleus rubber plantation, the condition of rubber land is only 35 % of the total area. The agreed land compensation sometimes is not realized as it should be. Part of the cases (around 30 %) of people with type A has a distance of 200 meters from the main road which is previously changed for Rp 7.000.000,00,-/ha but in the implementation it is only Rp 5.00.000,00,-/ha for land price of type B.

Of 133 KK compensated, there are a number of land ownership "persil" which has not been paid for around 150 KK (the date still under identification process and may be increased). The people mostly expect the realization of compensation for uncompensated lands. Technically, the location is far enough and hard to accessibility from the near

location.

Efforts having been made by the people include to complain against the concerned government agencies and to process it through the court, but the efforts are useless. Because it is the right of the people, those who have a problem will remain to endeavor their rights to obtain compensation from the government for such a compensation.

If there is any reason it is fully borne by those when they took office previously. However, the people still understand that this problems constitutes the institutional problem and not individual one. So that the government institutionally still assume the responsibility to solve it.

f) Other Public Facility

The layout and construction of facilities are undertaken by the project management. The community see that it has never been confronted for discussion in determining location and layout of construction. A number of facilities constructed can not be utilized optimally. A number of outstanding cases will be among others water supply constructed by a substantial fund does not function. The village office was constructed at the corner of the housing so that it looks not strategic for office for public service and the resettlement area is not moved to the near village, but it is left inundated.

Efforts already made by the people are among others to move the former village office to the location of Jorong Koto Lama. While the government promises that the water need will be met and rubber plantation is ready for tapping but it is not realized at all.

g) Living Allowance

To compensate this relocation, the people get living allowance provided comprises among others : rice, frying oil, kerosene, beans, salted fish, cooking pot, canoe, other cooking equipment. In the second year, the living allowance for the people is only applicable for 6 months only in the form of rice according to the family members. In reality, the living allowance does not sufficiently support their life till they are self-reliance. It happens because the rubber planting as their primary hope has never been realized as it should be .

2. Income Generating

To date, the people earn livelihood by doing anything but in general as daily workers with a wage of Rp. 25,000 for woman without meal starting from 08:00 to 16:00 PM but leaving home at 06:00 in the morning. The children are left to make their own creation. In addition, some are looking for wood, catching fish, utilizing rubber plantation and planting "gambier" as well as digging stones.

This is done to survive. They hope that rubber will make much money and the project management still assumes responsibility for the success of the rubber plantation. In general the existing livelihood in Tanjung Pauh may be described as follows :

a) Rubber Plantation

The area of the nucleus rubber plantation in Tanjung Pauh as compensation for relocation reached 7-00 ha per KK, though the reality is not exactly 2 ha. The distance between the rubber plantation and resettlement is ranging from 500 me to 5 km. The 1993 planting was undertaken by the contractor named P.T Aspalindo and it failed.; only a small part namely 35 ha or 5% of the total land to be tapped.

The productive rubber is only planted at the side of the road. While in the rubber plantation far from the road, its condition does not bear any fruit even the people supposed not to be planted. Because when the transfer is conducted, the plant only grows around 35 ha *5%) and in each plot only some plants grow. Supervision after the planting is not handled over to the people but to the supervisory consultant. Such condition is mostly disappointed the people, because it is not in accordance with what the government has promised prior to the moving. Starting from the planting to the

maintenance, the people are not involved. Land distribution is done while the implementation of the plantation by the contractor is transferred.

According to the people, the government has promised that the rubber plantation to be transferred to the people at the moving (July 29, 1993) is under the condition of the ready for tapping. In 1999 the people launched demonstration for their rights. The demand was responded by the government by providing assistance in the form of fund and seed. The value is Rp. 700,000 and local seed 100 units per KK. This grant was allotted for insertion, fertilizing, and replanting. While the grant in the form of goods or production facility was not provided. This condition of the seed was not so good because when it was received, many nearly died. However, because the rubber planted has not been successful, the processing by the group became not optimal.

The rubber plantation to be tapped until now is not maintained in an intensive manner without fertilizing or overcoming the disease and pest. The maintenance is just to the extent of cutting down the tall grass weed around the rubber bar to be tapped. So that the products obtained is only around 3 tons per week in dry season, not by the plantation owner, but sharing product with tapping workers with the production sharing pattern 1 : 3. The pest of wild animals which has to date attacked is only left without medical treatment or prevention. It is because the farmers are unable to buy insecticide. Nearly two rubber bars are dead within a month because the termite pest. The expectation of the people for rubber plantation is to replant under the direct management by the people. Simultaneous planting is done to prevent fire and pig pest will no longer disturb.

Lastly there is any envy, the rubber to be tapped had better be rejuveneled or replanted. The case to be anticipated if the planting is done until now is hunting and giving poison.

There is a will to make a loop, but the people are not able to purchase. In addition, the facility of the plantation road is also damaged due to the landslide. For that purpose, it is expected to repair so the access to the nucleus plantation will be easy.

b) Food Plant

Commodity of food plant in the yard includes hairy fruit "rambutan", jack fruit, 'edible' but malodorous fruit, orange but limited stuff. The production is collected by traders and sold to the middleman to be carried to Payakumbuh. For crops land includes among others edible but malodorous fruit, cashew nut, banana, orange, mango, "petai", and "melinjo". Of such commodities, a larger part would be cashew nut and edible but malodorous fruit.

The crops area of 0.4 ha is divided by using toss and located around the resettlement with far distance of around 100 – 500 meters. The planting of new crops area is undertaken a year after the moving. But at the moment, a larger part of the crop area is still empty and a number of areas left to be empty. To be planted in new plants needs some capital because just for daily need is felt difficult. Apart from the la pig pest and less suitable land for crops and difficult marketing.

Based on the research conducted by Andalas University, the condition of land around Tanjung Pauh is only suitable for annual plants. A number of commodities have a selling value because they do not know the processing such as "melinjo". There was almost none of product processing while the processing equipment such as rice peeling equipment, equipment to make "crispy" with the existing government aid.

The production is sold to the collecting seller and to Payakumbuh because it is sold to Pangkalan Market, the price will be lower. Apart from through the collecting seller or "toke", the people sell directly to the weekly market such as on Tuesday at Kuok Market, on Sunday at Payakumbuh Market. Particularly to Payakumbuh it can be sold any time. They do not have to wait for the market days, but usually the people sell to Payakumbuh when the people also have other needs at Payakumbuh.

The selling price is relatively low, even at big harvest The price for 1 kg hairy fruit "rambutan" is only Rp. 1,000,-. Particular commodities such as edible but malodorous fruit is left rotten at big harvest.

c) Fishery

The fishery enterprise which becomes the hope to meet the daily needs is to look for fish in the lakes and construct ponds. But the number and production of the reservoir is not numerous. The fish species often caught included among others "motan", "tapa", "toman", "kalui" (gurame), "gabus" and "baung".

Today it is difficult to get fish. The product obtained is sold to the traders who come to the vicinity of the lakes and Payakumbuh or to Bangkinang. The collector/sellers do not sell the fish at Pangkalan Market because the price is lower compared to those at Payakumbuh and Bangkinang.

But unless, it is fish season, the collectors only come once in a week. So that a part of the people only sell to those who happen to buy at low price. The price of "gurame" fish which is usually Rp. 8,000,- per kg may be sold for only Rp. 8,000,-; "baung" fish Rp. 20,000 per kg reduces from the normal Rp. 15,000. The species of pond fish is among others "nila" and "gurami". The number of pond is not so many and the production is sold to the traders coming to the village. The fish seed is obtained from Pulau Gadang or Koto Mesjid, Kampar Riau District and the forage may be obtained at Payakumbuh.

d) Community-based Plantation

Potential opportunity to be developed will be the plantation of ingredient for gambier. Because almost every KK has plantation of ingredient used for gambier "ulayat" adat land outside nucleus plantation land and former kampung.

It is planted in "ulayat" forest or the former forest (because) its is based on the experiences in obtaining the products much better compared to the plantation in another land. The area owned by each KK is an average 3 ha with a total of more than 400 KK or around 1,300 ha. The ingredient used for "Gambier" in majority is produced by the workers from Payakumbuh with a wage system of product sharing.

The local people are many unable to produce the ingredient used gambier and are reluctant to work in the plantation of ingredient used for gambier. The system is divided two minus the meal debt, side dishes with the rice and transportation cost. A number of "gambier" plantation has been self-produced in spite of less than 10%. The obtained production within 3 ha of first harvest 800 kg, the third harvest 1 ton and the fourth harvest 1.5 tons. Such product is sold to the traders to be further carried to Padang. Collecting the leaves to the sales and is done every four months. A number of "gambier" land can not be harvested, not only by unavailable fund; there is not any worker. The production of "gambier" decreased in rainy season, especially in November and December. A part of the farmers hope that there will be a factory processing for "gambier" so that they sell only the dam. Because to find out workers of "gambier" is very difficult.

e) Cattle Breeding

Buffaloes are found in the former kampung as many as 20 and chicken is only afforded around the new resettlement. A larger part of chicken is not sold but consumed on their own to date.

f) Forestry

Community-based forestry activity is to seek for forest wood in a group of 3 – 5 persons. Each group spend the night for a week or two weeks even for a month. The production obtained per cubic may be finished within a week. The product is further collected using a vessel. At the moment the forest area increasingly reduces and "ulayat" forest of Tanjung Pauh is already inundated.

g) Enterprise and Other Potential

The enterprise of seeing stones along the state road will become an alternative job. The stones to be sought includes

hard and soft stones and usually used for construction and to collect oil palm land.

Such stone is sold to Riau Province with the price of each one cubic Rp. 40,000,- for hard stones and Rp. 35,000,- for soft stones. In addition, there is also stall business or restaurant located around state road with the total 50 stalls.

Other potential to be utilized is availability of remaining land of 6 hectares. This land is planned to be used for the growth of new KK. It is difficult to find a new area due to the growth of family.

3. Water Supply

a) Water Source

In Nagari Tanjung Pauh, there are two (2) springs. The first is located near state road (eastern part) and has a distance around 2 kms from the resettlement. While the second spring (Permata River) located in the forest is adjacent to the "gambir" plantation (in the north – west part of Nagari) with a distance of around 5 kms from the resettlement). Both springs have a good water quality (clean, no odor, or change in taste) and the debit is substantial despite dry season. Constraints faced by the people is the distance to pass is far enough, while to flow the water to the resettlement requires a lot of costs. At the beginning of 2001, a Japanese student gave a fund grant of Rp. 15,000,000 to the government of Nagari Tanjung Pauh to flow the water from the first spring. All these activities were undertaken by the people of Nagari Tanjung Pauh. At the moment the water has been consumed by around 80% residents and they call "Japanese" water.

To improve the clean water service to the residents, the local government 50 Kota within a short period will have the plan to conduct PAB (clean water supply) project in Nagari Tanjung Pauh and Tanjung Balit. The spring comes from the Nagari Tanjung Balit. In order to cope with the future problems such as getting first earlier and genuine income of local Nagari, the people of Tanjung Pauh has objection and propose that the water source should be replaced. For Tanjung Pauh, the water source has forwarded requirements to the local government of 50 Kota in the project implementation, that is starting from planning, implementing, and monitoring to the operational phases and maintenance and the people are also actively involved

The river water which flows in Nagari Tanjung Pauh in rainy season is a bit turmoil due to the erosion along the river. While in the dry season, the water is clean but its flow is very slow. The people around the river use it for bathing and washing. And for drinking water, the people take it from the public MCK (washing – bathing) still in function, from wells or take the well water from the next door. The water of dug well at the beginning of the moving (in 1993) can be used for 10 days. According to the people, the well water is first filled by the contractor so that the people come they will feel happy to find clean water easily. After 10 – 30 days, the water becomes dry. After being examined, it is actually stones of rocky area or part is cemented. Before "Japanese water" exists, used for bathing and washing, the people use river water and well water. While for drinking and cooking, they buy it from "water trader" for Rp. 5,000 per unit with the content of 30 liters. To solve the water use, the people who get home from the plantation, first take a bath and fill with water from the river in the forest. The water is boiled in plastic tank with the content around 20 liter and brought by using a pushing cart. When it rains, they catch the water and use it for drinking and cooking.

b) Facility of Clean Water

The clean water first time constructed by the government covers the dug well. The pipe is put at the boundary of 2 houses so that it can supply for 2 houses (2 KK). The total is around 175 units. The depth of the well is around 2 – 3 meters, the well floor is made in a piece of cement. The distance of the well and the house is around 10 meters. Constraints faced by the people are among others that a larger part of "Air Sumur Gali" (ASG) is dried (only durable for around 10 – 30 days, after being placed and even if the water is turbid and odorous so that it is prone to skin disease. In order to meet water need, they construct a digging well along the river side with a depth 1 me. They construct a new

ASG in another place with the assistance of “clever man” to show the proper location and it is successful. Either in rainy and dry season around 10 units of ASG are in function.

The piping system in Nagari Tanjung Pauh started its construction in 1994, known as PAM (Clean Water Supply). The facility of this water every functioned for around one week. In advance 1997 General Election, the PAM was in function again for around 1 month. The water from the Panca River was taken using pumping machine located in Tanjung Pauh.,

The water is caught in a reservoir, located at Nagari Tanjung Balit. The reservoir is channeled to Public Hydrant at Tanjung Pauh and Tanjung Balit using a pumping machine. For Tanjung Pauh, the Public Hydrant constructed total to 35 units (1 HU for 10 KK). At the moment the PAM installation does not function.. The sucking pump machine was lost, the reservoir, the pushing pump machine, generator and distribution pump still exist. The public hydrant remaining at the moment is only standing while the body has moved.

The constraints faced by the PAM processing include among others, (1) to adjust the machine needs diesel old, while the fund to purchase is not available because the people will not pay for the contribution, (2) the operational stage one PAM maintenance is still under the project supervision, the machine operator works in less disciplinary manner. The machine is often on and off so that the flowing water is not smooth and (3) the people are of the opinion that they do not care of the existence of PAM. Efforts already made by the government when water is difficult is to purchase water tank carts but the total water is not sufficient. At the moment, the government of Nagari still attempts to take care of the remaining installation because it is the state assets.

In 1999 the local government constructed 13 units of public bathing – washing facility (MCK) through P3DT project who gets the fund from OECF. The existing facility of the public MCK takes the form of 1 Unit of ASG, 2 bathrooms (for gents and ladies) – each room has 1 bath tank, 2 washing tables. The public MCK was not used by the people because when it is dry season, the well water is dried and when it is rainy season, the water becomes turbid and dirty. After the Japanese student gave a grant (Japanese Water) in 2001, the government of Nagari Tanjung Pauh revitalized 4 units of MCK utilizing the Japanese water pipe. The farthest distance of MCK and the people’s house is around 350 m. Because the accessible of MCK service is limited, the people hope that the pipe connection may reach houses.

c) Sanitation

Sanitation facility provided by the government for each house (KK) takes the form of toilet. It is placed behind the house with a distance of around 10 m. At the beginning of the moving, it was still functioning, but because the water is difficult, it was no longer used.

At the moment the toilet construction no longer exists, what remains is the only hole of receptacle or the septic tank. To defecate a larger part of the people use the fish pond and those adjacent to the river, they defecate in it . A small part of the people (around 10 KK) construct the toilet on their own and also ASG as well as bathroom inside the house.

Appendix 3.16 Tanjung Balit Village

Tanjung Balit village, Pangkalan Baru sub district, 50 Koto district, West Sumatera province, was relocated to new village on June 1993. At this time, the number of population is 2,795 persons (male 1,888 persons and female 897 persons). In the beginning of the relocation to new village, number of population is 450 HH but at this time it is increasing to 550 HH. Although since June 1993 they were moved to new village, but until now they still have about 60 HH in old village. That is because of the people on how hard to get water in the new village.

Tanjung Balit village is bordered with Tanjung Pauh village in the North, Pangkalan village in the South, Balung village in the East (XIII Koto Kampar sub district) and Batu Bersurat in the West (XIII Koto Kampar sub district – Kampar district). Local people said from this village to reach sub district town (Pangkalan Baru) takes around 45 minutes to Payakumbuh (district town) within around 2 hours from Tanjung Balit village. To reach Padang (provincial town) the distance needs 5 to 6 hours. Geographically, Tanjung Balit village is strategic enough because it is in the line of province road that connects Payakumbuh and Pekanbaru. From Payakumbuh, Padang and Pekanbaru the car is operated the whole day.

A. Resettlement

1. Process of Relocation

When the relocation of people from old village to the new village did not go together (separately). Relocation process began in June 1993. A part of people that had the discussion did not remember about the date when they were relocated. When they were seeing the new location, they feel disappointed because the location is hilly. Until now, still many people return to old village. There are 60 HH until now who stay in the old village. They get house compensation and have new house in the new village, but the economic activity in the new village is not yet promising for family life. In dry season, they are very hard to get clean water.

2. Compensation

a) Land

The land that the government has promised, many have not yet been certified. That is because it didn't fix about the width of land right. For plantation land except rubber plantation land, they have felt not respected. There are many facts that we get from people opinion, for example:

- To count compensation for orange plantation decided by compensation committee.
- Compensation for plantation is still confusing between productive trees with non productive.
- There are land that did not get compensation because it not is inundated although getting closer.
- Compensation for rubber plantation garden is still not yet satisfied for people especially the case was suspended for the payment, by the way in the map was marked by the location including the compensation by government. The location that was suspended was decided by committee and until now there is not any explanation.

From the above description it could be seen that the people still hope for compensation although just Sago Hati (compensation provided only for land but not include compensation for plantation), there are people who did not yet accept certificate for rubber plantation land because the rubber plantation that was promised was not yet realized and border still not clear.

b) Rubber Plantation

Until this time, the rubber plantation promised by the government in 2 ha per HH was not yet realized because the third period of planting did not success. People thought it was due to the corruption, collusion and nepotism. It is because the contractor did not assume responsibility and professionalism. The consequence from that failure is

people's income generating went to weak because it was not their main source of income (from rubber).

In the last planting, replanting was conducted by people by padat karya labor intensive program, the given support is not very enough. It is possible for replanting if the plantation covered around 15 - 50 trees per plot, although the population have to 952 trees.

If the government will be concerned about their prosperity for common sacrifice, so the replanting is a obligation that must be done soon, like their statement "we will be always patience with this suffering, until rubber plantation starts the production. But what we expect now, because the expected rubber plantation is only grown with bush there".

c) House

The complaint about the condition of the their house they accept always happen in each discussion. Compensation for the house in the old village was not suitable and it was shown by lack of the ability of the people to rebuild their houses in new village. Therefore, the people needs rehabilitation fund for rebuilding their houses that was not suitable.

3. Money

The money compensation received by people was big enough for that time, but the amount of the money depends on "smartness" and heavy sacrifice. Even in several statements and opinions from the people said that it can be negotiated, so the person who has power and vocal voice can get advantage from people who are afraid with threat.

So much money would not restraint if not use for activity that advantage, for awhile after receive the compensation, the people tend to be consumptive and buying unproductive stuff.

4. Public/Social Facilities

Compensation for government facilities like school in the form of relocating to new place, while public facilities compensation is received by the money with the amount which can not be used to build new one in the new location. It can be seen from the mosque build by the fund from people in self-reliance and donation of muslim people. Total compensation for village asset is Rp. 135.000.000,- to be used for :

- Mosque building 1 Unit
- Little mosque 3 Units
- Football square 1 Unit
- Market
- Grave yard
- Wali Nagari office 3 Units

a) Traditional House

For traditional meeting needs, in Tanjung Balit village, the traditional house was already built. This building is representative with strategical location. At this time, the condition of the house starts to be damaged and need maintenance from people in self-reliance.

b) Education Facilities

Education facilities have 2 units of elementary school that were relocated from old village.

5. Electricity

One of promises before the relocation is the installment for electricity free of charge, but in the realization the people should pay the installment. The charge ranges between Rp. 97.000,- until Rp 107.000,- that should be paid in three terms. People must pay because it is the primary need and they should hardly pay it and until now they still demand free of charge by government. In general, they need explanation from stakeholders.

6. Others Potential

In the old village the people still had many plantation which is not inundated and still usable such as coconut, rubber, and fruits. In addition, there is still fish pond that is still productive and operated by people.

B. Income Generating

1. Rubber

a) Land

Tanjung Balit village was moved into new location on June 9, 1993. Regarding the government promises before the moving process, each of household will get 2 hectares of rubber plantation area, with 3 years old plants, but they have not been properly implemented yet up to now.

Based on the meeting and discussion result with the community, there are some problems in relation with land availability. One of the problems is unclear land ownership that make some of certificates can not be given to the communities. Wide area that have been divided for the community is only 1,7 to 1,8 hectare.

In 1993, Transmigration Office have measured the land in order to solve this problem. Re-measurement of the land has been done by Badan Pertanahan Nasional (National Land Agency) in 1994 and 1995. Those activities, however, still did not give accurate results. This was indicated by the overlapping the land ownership and each of HH get the area less than 2 hectare.

b) Planting

When the people come to new location, they only found different condition as it was initially promised. Only a part of plantation area was planted by the rubber, that makes the people most suffering because living allowance fund that would be given for three years were stopped, so the people difficult to fulfill their daily needs. They do not have another sources of income because the rubber plantation as the main source of income has unsatisfactory performance, and the rubber was only cultivated in the land of 1 ha per HH.

The first land processing in 1991, the land was not planted, and it was continued by the second planting in 1994/1995. In this second planting time, the rubber was only planted in the edge of the road, and there was only 15-50 plants per 2 hectare with uneven growth of rubber plants. Majority of plantation area were not planted or empty. Meanwhile, many rubber seedlings and fertilizers were thrown in the swamp area and ravine. So, the rubber plantation can be said that it was failed.

In 1998/1999 through the force labor project of PHPA Sub Balai Konservasi Sumberdaya Alam (KSDA – Nature Resource Conservation Agency) West Sumatera, rehabilitation of rubber plantation of 526 hectare was done by giving the fund of Rp. 700.000,- and 800 rubber seedlings to the community.

In 2000, the plantation area was burnt that so many rubber plants and food crop area were on fire and damaged. So, it can be said that the rubber plantation in Tanjung Balit was failed. As the consequence of this calamity, the people become a little bit lazy and also afraid to manage and cultivate the rubber plants in that area.

The failure of rubber plantation can strongly influence the people's economy. Most of people try to earn their living outside by taking the beneficial of rubber plants in the old village, work as a labor to harvest gambier plants ("Menggampo" or Pemanen) and taking the rocky stone near the provincial road.

In order to solve those problems, the people ask for help to replanting the rubber plant with sufficient supporting fund, according to the need until the rubber is ready to be tapped.

c) Pest and Diseases

Pig and termite are dominant pests attacking the plant, and they make the people do not want to cultivate and maintain the plants. The solution for this problem is simultaneously planting and also the application of pesticide and poison.

2. Food Crop Area (land of 0,4 hectare)

Based on the field observation, there is only a few of people to cultivate this kind of land. In 2000, this land was also burnt, that made the people afraid of managing the land seriously. High level of pig attack was also influencing the willingness of people to cultivate their land.

Intensively extension is needed, especially in doing the simultaneously planting and using the poison to minimize the pest population. Land clearing in rubber plantation can cut the pest cycle and minimize their nest.

3. Fishery and Husbandry

a) Fishery

Fish pond is one way of fish cultivation that can be done in this village. A few of people have pond in the surrounding area of their house, but the existing water source is not good since the pond is depending on the rain water, with the water from the erosion process (the water is dirty).

Another way to cultivate the fish is 'keramba terapung (floating fish pond), but there is some constraints to develop this business, such as lack of capital, water flow is not stable, and the pest of 'buntal' fish. So, the feasibility study and business analysis need to be done before the supporting fund be given to the community.

Dam of PLTA Koto Panjang has a great potential to be the area for fishing. Based on the people (fisherman) opinions, there are many kinds of fish available in the lake. The price of this fish is expensive, but due to limited fishing equipment owned by the fisherman, so they can only get a small number of fish. Supporting fund is needed to run the fish cultivation and also to complete the fishing equipment.

b) Husbandry

Potential husbandry in Tanjung Balit village is cow and buffalo because there is no land available for animal feed (prairie). Based on the field observation and discussion with the community, there is possibility to develop another live stocks, such as goat, chicken and duck.

C. Water Supply

1. Water Sources

Water sources in Tanjung Balit village could be divided into two e.g. river and spring. Sungai Nanam is located in the Northwest part, and become the sources of clean water for the communities in Kalangan Hamlet. Sungai Panca is located in the South part, and utilized as the place for bathing and washing for the villagers in Panang Hamlet. In this location, there is water pump that can not be operated and damaged. There is a huge spring in Batang Gosang river. It used to be utilized for drinking water, but the dam was destroyed before it was operated.

The utilization of Sungai Nanam spring, although the discharge is small, using the PVC pipes and hose is done by the villagers themselves or group. This technology is more efficient than the provision of another water supply facilities, using the machine or artesian well.

Considering that there is a big potential of this spring, so the construction of new dam will be more tuft and improvement of reservoir and pipes network is the priority to be solved. So, the accurate and focused planning and supervision are needed.

The main problems in water supply is the kind of existing soil (clay), that creates bad quality of water. In the depth of 4-6 meter, the quality of water still is bad, so in the dry season. The villagers have to buy the water from old Tanjung Balit village, with the price at Rp. 500-, for each jerrycan. Total cost has to be paid is Rp. 3.000,- (passenger and jerrycan).

Another effort to be done to get the water is using the hose to the spring, or collecting the rain water in drum and jerrycan.

2. Water Supply Equipment

Shallow well built by the project can not be operated since it was initially placed in 1993. One unit shallow well is allocated for 2-5 houses (depend on location). It can not be functioned due to some factors, such as (i) the well depth is only 2-3 meter (this well depth depends on location), (ii) Location of the well was not arranged, (iii) the colored water can not be consumed, (iv) there was still no water in the well depth of 2 m.

There is 3 units of water pump. 2 units in Kotalama Hamlet , and 1 unit in dusun Panang. All of them can not be operated. Only the pumping house is in good condition. Reservoir beside the pumping house is also in good condition. The failure of this machine to be operated was caused by the following aspects (i) high operational cost (solar), (ii) difficult to provide the machine spare part, and (iii) less maintenance by the personnel who responsible.

There is 1 unit reservoir in Kulangan Hamlet that was built by Badan Perwakilan Anak Nagari (BPAN) in 2001, with the cement structure. Physical condition of this reservoir is still good, but it is only used for the water need of little mosque and people in its surrounding area.

Pipes network, both the main pipe to the reservoir and distribution network to public hydrant was also not function. It is not clear enough where the pump is at present, because this condition has lasted for a long time. According to people's information, the water pipes were dig out by the people. It is noted that the pipe network is the pipe that have been planned to distribute the water from the Batang Gosang river, to be able to operate as soon as possible in order to prevent the heavier damaged.

Public hydrant built by the project in 1993, was not in the location as it was initially placed. One (1) unit public hydrant was allocated to serve 12-20 houses. This building was placed in the location of people's housing (at the kitchen area). This public hydrant is also used for collecting the rain water.

3. Sanitation

Sanitation of Tanjung Balit looks unhealthy because the people much used a simple latrine behind their house. The means of MCK (Bathing, Washing, and Latrine) constructed by the project can not be used. Apart from the simple construction, the location is not in order.

The field observation proves that the sanitation improvement has been undertaken by the local government. This effort was conducted by constructing new MCK in 10 units located at Kotalamo hamlets (5 units), Kulangan Hamlet (3 Units), and Panang Hamlet (2 units). However, without involving and mature planning, this effort turned not to be optimal. The most important factor is the depth of swallow well, around 4 meters. Based on the interview with the people, the depth is planned in 20 meters or touching the water source. Thus, in the dry season the well gets dried so that it does not practically bring any benefit for the water users.

To raise the community awareness on the need for the clean of environment, it is necessary to build a permanent MCK which needs a serious attention. The most important thing is that the location should be easily reached and adjacent to water sources by the continuing supply.

