



# Development-Induced Displacement, Resettlement Experiences and Impoverishment and Marginalization in Pagbilao, Quezon and San Manuel, Pangasinan

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## **Abstract**

This study looks at two cases of resettlement programs initiated by the National Power Corporation with the involvement of two energy-producing companies in two different areas. They are the Mirant Power Plant (formerly Hopewell Inc.) in Pagbilao, Quezon and the San Roque Multi-Purpose Dam Project in San Manuel, Pangasinan. The paper documents the experiences of the members of the two resettlement communities and discusses some insights that could improve their living conditions. Hopefully, this paper will contribute to the improvement and refinement of resettlement programs that the Philippine government undertakes as it implements large-scale development programs. It is imperative that the members of communities who were displaced and were asked to sacrifice their lot for the benefit of the members of an abstract category called the majority should partake of the benefits of the development initiatives of the Philippine government.

Keywords: Resettlement programs, displacement, Pagbilao, Quezon, San Manuel, Pangasinan.

## **INTRODUCTION**

The marginalization of communities displaced from their traditional homelands and relocated to project resettlement communities is one major impact of the

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construction of large scale infrastructure and development projects aggressively being undertaken by many developing countries wanting to industrialize. These patterns are evident in communities affected by the geothermal project in Leyte in Central Philippines (De Jesus

2000) and by the construction of the Ambuklao and Binga dams in the Mountain Province of Northern Philippines (Cordillera Resource Center-Fact finding Mission 1999).

In Leyte's case, De Jesus indicated that a total of 106 were resettled out of the 127 households that were directly affected by the construction of the 640-MW Leyte Geothermal Project (LGP). Out of the 106 families offered resettlement options by the project proponents, only 51 agreed to settle in the resettlement community that the National Power Corporation (NPC) had constructed. The other 55 households opted to get compensated for the disturbances that the project had brought into their lives and moved somewhere else in other parts of the province. The community members' dislocation greatly affected the quality of their life and their daily survival. Through the years, due to the lack of attention given by the project proponents to their pressing daily survival needs, unfavorable perception on the impacts of the continued operation of the Leyte geothermal project was widespread among the members of the resettlement community. To counteract the increasingly negative perceptions among the relocatees on the project's continued operations, the NPC and the Leyte Geothermal Company facilitated some programs from 1998 to 2000. They were aimed to empower the members of the resettled community. The experiences of the National Power Corporation's resettlement program in Leyte indicated a salient need for proponents of large-scale infrastructure programs to implement continuously community development projects among the members of

resettlement sites. This is crucial to prevent further marginalization of communities displaced by the operations of large-scale development infrastructure programs.

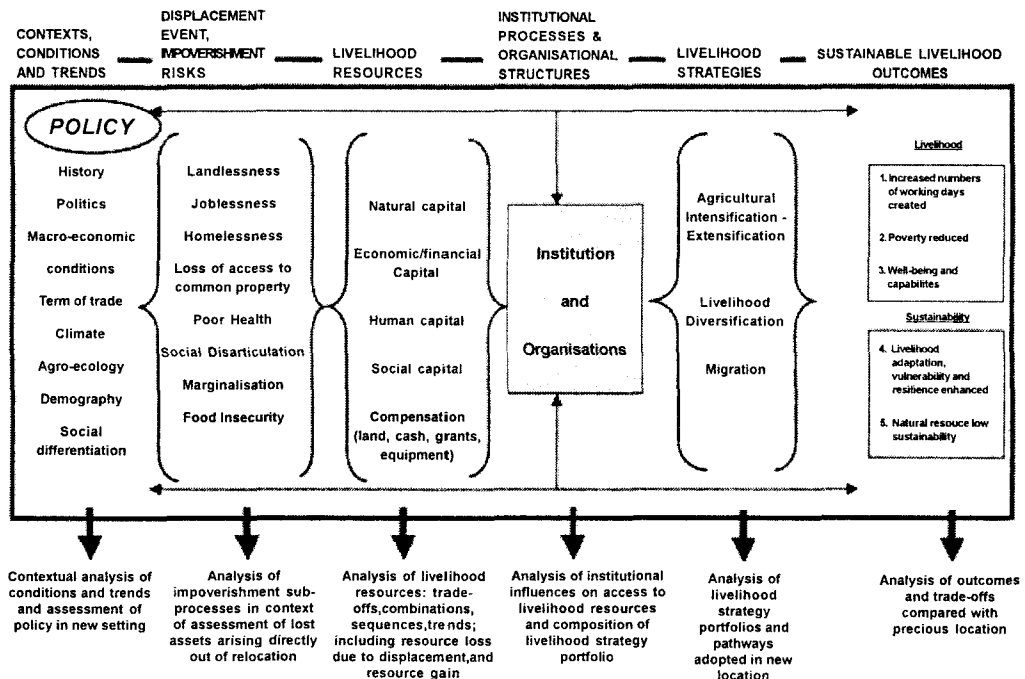
### **THE FORCED DISPLACEMENT, SUSTAINABLE LIVELIHOODS AND IMPOVERISHMENT RISKS MODEL**

It has been recognized that forced population displacement and involuntary resettlement due to large-scale development projects have considerable socio-economic, psychological, political and cultural impacts. The unfortunate experiences of the members of the Ibaloi ethnic group of Benguet are a living testimony of the impacts of involuntary resettlement on a group of people. They were displaced from their homelands in Benguet to give way to the construction and operation of the Ambuklao and the Binga Dams in the Agno River. They were forced to resettle in the rural areas of Palawan with malaria-carrying mosquitoes and in other inhospitable areas of neighboring towns in the Mountain Province and Nueva Vizcaya provinces. Their relocation into these areas also got them into conflict with members of indigenous peoples who have inhabited the designated resettlement areas for centuries. Thus, the Ibaloi people were uprooted from their homelands and were forced to resettle in the earlier-mentioned areas only to be relocated again. The designated relocation sites where they were relocated either belong to another indigenous community or do not have a livelihood system in place. In the process, their institutional systems, social networks, and livelihood support systems were drastically distorted.

A number of social scientists have been critical of the way a government has treated people whose only shortcoming is being residents of the site where a large-scale infrastructure program will be constructed. In 1997, Cernea developed a theoretical representation of the processes that were being faced by people who underwent involuntary resettlement after being forcefully relocated from their traditional homelands. Cernea's Impoverishment Risks and Reconstruction (IRR) model draws attention to the inherent perils of forced displacement. They are lack of sustenance, loss of homes and livelihood sources, marginalization, exposure to health-debilitating stresses and other health problems, loss of access to common

property resources, and community disarticulation. All these risks lead to the impoverishment of people displaced from their traditional living and working spaces.

The IRR model highlights negative effects difficult to quantify. They are those that are associated with the dissolution of family ties, social support system and other social structures that provide the community members with social capital needed for the survival of human groups (Cernea & McDowell, 2000:363-364). The IRR Model recognizes the multi-faceted nature of the process of impoverishment. Impoverishment is close to the concept of ‘cumulated deprivation’ which is brought about by forced displacement and involuntary resettlement. The model also discusses possibilities for reconstructing displaced communities. The model persuades researchers to “map the ‘variables of impoverishment’ and understand the ways in which those variables are interlinked, and influence one another in ways that lead to livelihood reconstruction or further impoverishment, or both ” (Cernea, 2000:19).



**FIGURE 1**  
Forced Displacement, Sustainable Livelihoods and Impoverishment Risks –  
A Revised Framework for Analysis

Source: McDowell, 2002

The IRR model has been improved since then. Figure 1 presents the analytical framework that was developed by McDowell in 2002 that aims to examine the multi-faceted and dynamic relational dynamics of the many processes of impoverishment and reconstruction. The emphasis of the IRR Model is on the notion of reconstruction or development. The revised IRR framework highlights the need to transform impoverishment into the actuality of reconstruction. It is closely associated with the concept of sustainable livelihood development. It aims to get people out of poverty, prepare and equip them to cope with stresses that they may encounter in the future in a manner that takes into account the importance of maintaining the productivity of their livelihood source and environment (McDowell, 2002). Crucial to the restructuring of livelihood sources is the 're-creation of institutional and community structures' (Cernea, 1997:41). Community structures can constrain or play a positive role in community reconstruction. They can intensify inequalities or lessen them. Re-building and strengthening community structures should be emphasized in resettlement policies and practices. It is important to emphasize the inherent rights and entitlements of the displaced people in the design, planning, and operations of successful livelihood recovery programs in resettlement sites (Cernea, 1999). This analytical framework is used in this study.

### **THE ENERGY CONTEXT IN THE ASIAN REGION AND THE PHILIPPINES**

The generation of sufficient energy is crucial to any government that aims for economic development. Energy is the main fuel that drives the country's production of goods and services. They are necessary for material progress, daily comfort and the delivery of basic services. There is a strong correlation between the level of economic progress that a nation enjoys and the level of their energy utilization. The situation in China, Japan, Korea, and in other Asian countries with strong economies is a solid example of such a condition. It becomes obvious why most Asian countries have instituted vital programs to meet their energy requirements. Brunei, Indonesia, Malaysia, Iran, Saudi Arabia and other oil-producing countries in Southwest Asia have sufficient oil supplies that shelter them from oil price and energy supply fluctuations in the global market. Other countries such as Laos, Myanmar, Thailand, Vietnam and the Philippines have resorted to different sources and means of energy

generation (geothermal, hydropower, natural gas, solar photovoltaic, wind) to propel economic growth and implement many government programs.

In the early 1990s, the power plants of the National Power Corporation of the Philippines (NAPOCOR) generated 2,500 MW of electricity per day. The estimated daily demand was 3,200 MW (Flores, 1993). The energy shortage was the result of years of poor management and lack of maintenance of existing energy generating facilities. The energy shortage served as a major stumbling block to the government's program of transforming the Philippines to the status of a Newly Industrialized Country. The government was pressed to depend on quick solutions, like large-scale infrastructure projects that harness the energy resources of frontier areas. To supply the current and future power demands, the Philippine government has a

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policy and a strategy of reducing dependence on imported oil. It is developing other energy resources, like coal, geothermal and hydropower energy. The major energy resources in the Philippines are: 1) geothermal; 2) coal; 3) hydro; 4) petroleum; and 5) new and renewable energy sources (NRES). NRES are managed by the Department of Energy's Energy Utilization and Management Bureau (EUMB), while the rest are managed by DOE's Energy

Resources Development Bureau (ERDB) (Philippine Delegation to APEC Meeting in Korea, 1997).

The Philippines was the world's second largest producer of geothermal steam for power generation in 1996 with an installed geothermal power capacity of 1,448 MW or 13.34 % of the country's total capacity of 10,944 MW. Geothermal power generation displaces million barrels of fuel oil that are needed for power generation and generates millions of US \$ in foreign exchange savings. The country's petroleum production declined from 1.067 million barrels of oil in 1995 to 0.329 million barrels in 1996. The contribution of hydropower plants to the total energy mix in 1996

was 4.34 % of the total amount of generated energy. The Philippines has large and medium river systems that are potential sources for hydropower generation.

Energy generation is not the sole enterprise of the national government. It is much more complicated than what it seems to be. Financing the construction of energy-generation facilities has always entailed foreign investment and credit. The increasing globalization of economic activities as a result of economic liberalization policies and structural

adjustment programs has greatly favored the construction of large-scale infrastructure energy projects financed off-shore. As a result, large areas of the country that are possible sources of non-fossil based energy are open to large energy multinational

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corporations that operate profitably in the country under the Build-Operate and Transfer scheme. Often, the beneficiaries of this type of BOT energy generation projects are not the surrounding communities in need of electricity to propel its development trajectories. The Philippines primarily uses the energy that it generates in supplying the needs of thousands of multinational corporations that operate in different parts of the country rather than providing rural households with sufficient and cheap electricity supply.

Fourteen (14) large-scale hydropower dam projects were targeted for construction in different parts of the country by 2005. Interestingly, most existing and proposed dam sites are located within indigenous peoples' territories like in the Agno River Basin in the Cordillera Region. This has resulted in conflicts of interests between the national government and the indigenous peoples in the area. As a result, the ancestral domains of the indigenous groups in the region have become heavily militarized (Cordillera Resource Center, 1993). Often, the local people lose in conflict situations because most indigenous people have not had access to legal protection regarding rights to residential, agriculture, mining and forest lands. They have been vulnerable

to dispossession or eviction from areas their predecessors occupied for centuries. The Philippine legal system, which is a legacy of the colonial era, does not fully recognize indigenous concepts and customary laws regarding the rights to land and territory (Lynch, 1986). This type of energy generation activity has greatly contributed to the dislocation of hundreds of communities in the country.

Many studies focus on energy policies of the Philippines, the need for generation of energy and development of energy sources, and the impending energy demands due to the present trends of energy utilization. Discussions on their economic benefits and the environmental impacts on the surrounding communities in the Philippines also abound (Lysy, 1999). What needs to be studied more closely, however, is the processes that are

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being encountered by the different actors affected by the whole industry of energy generation (Polistico, 2002). This is particularly true among those that do not have influential roles and are not active participants in the national decision making machinery. One group that needs to be closely studied is comprised of the members of communities whose ancestors happen to have lived for centuries in areas where the energy generation activities will take place. This group comprises small communities of minority groups who are always asked to

give way to large-scale energy development programs.

This condition of uprooting communities to give way to the construction of large-scale infrastructure programs is related to a phenomenon called development-induced displacement (DID). This phenomenon raises questions on the desirability of large-scale infrastructure energy development programs. The bias towards this development approach leads to the displacement of the politically underrepresented and socially

and economically marginal human communities from their traditional economic activities and cultural practices. This prevalent practice has greatly contributed to increasing marginalization of cultural communities, wide-scale population movements or displacement at local and regional levels. These make salient the need to further understand the processes associated with development-induced displacements. It is necessary to highlight the responsibilities of the government in realizing its obligations to those who are affected by the construction of large-scale energy generation projects. This step is necessary to balance the tensions between the right of the country to develop and pursue a higher level of economic development, and the basic human and existential rights of the people who will be displaced by the construction and operation of these large-scale infrastructure programs.

#### **DEVELOPMENT-INDUCED DISPLACEMENTS IN THE GLOBAL ARENA**

The issue of development-induced displacement is one pressing problem affecting many peripheral communities in many countries today. Indeed, development-induced forced relocation has contributed to an increase in the number of internal refugees who are forced to relocate across provincial or regional boundaries in many nations. Their number across the globe reached the 100 million mark in 1995 (McDowell, 1996). It is expected to double in the first decade of the 21<sup>st</sup> century. In some instances, the geographic displacement can be within a town only that is, from one village to another. Nevertheless, the same sets of challenges face the persons who are involuntarily uprooted from their residence. They are forced to live in a place with economic opportunities, social-cultural networks, and political affiliations different from their own.

Displacement of communities is caused by many factors. Natural and human-made disasters, such as devastating earthquakes, ethnic cleansing and other forms of genocides, forcibly push people out of their homelands. Thousands of people are driven out of their homes by low-intensity and major military conflicts and the implementation of large-scale development infrastructure programs initiated by the government. These involuntary relocations can happen internally, that is, within the boundaries of a country, and internationally, across national boundaries. People who are affected by international displacements are categorically referred to as refugees.

They are given protection by their adoptive countries and receive assistance from the United Nations (UNHCR, 2001). The people who are affected by internal displacement do not have the protection of international law and its support system. The responsibility of looking after the condition of internally displaced persons and the delivery of forms of assistance to them belong to the government of the country which has sovereign jurisdiction over them. It is the same government that aggressively implements development projects to pursue economic development at

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Millions are ordered by their government to make a sacrifice for the sake of the country's bid for progress. They are forcibly disconnected from their livelihood sources and social support systems. They are cut off from their political system of representation as their lands are expropriated by the state for the construction of large-scale infrastructure projects. They are made to give way to bring

progress to a majority of the country's populace. Persons who are affected by *development-induced internal displacement* have been referred to variously, as "development displacee," "development refugee," "oustee," or "resettler" (Muggah, 2003). As stated earlier, providing the internal refugees with some forms of assistance is complicated. The problems of securing their livelihoods and the observance of their human rights fall under the sovereign jurisdiction of their government. This government is also the main proponent of the large-scale development projects that primarily caused their displacement. The state is in a powerful and compromising situation since it serves as both implementer and

referee in resettlement situations (Koenig, 2002). One cannot help but ask how a government, which is responsible for the internal displacement of its people, can be just and equitable as it ensures the protection of the population that it has displaced through the implementation of its development programs (Barutciski, 2002).

To counteract the impact of large-scale infrastructure projects on development displacees, some governments prepare resettlement schemes for people forcibly evacuated from their homelands. The development displacees are to be reintegrated to the surrounding communities. Governments do this through social engineering schemes that promote the people's well-being and reduce their dependency on the state and the development project proponents (Chambers, 1969; Cernea, 2000). However, most resettlement schemes are inadequately planned and resettlement projects continue to result in the impoverishment of the development oustees. What often takes place is the exact opposite of the goals of these planned resettlement schemes. For example, the disturbance compensation that development displacees receive is often not equivalent to the land, housing and livelihood opportunities that they have lost. This compensation does not stay in their pocket for a long period of time. Short of assured livelihood income, they have to spend a lot of money to cover the expenses associated with living in a resettlement site. In a new environment, all basic expenses such as procuring food, water, energy and transportation costs necessary to move in and out of their newly-developed relocation site can only be covered if one has some cash. Except for the disturbance compensation that they receive, most of them are short of cash. They are uprooted from their source of income and livelihood opportunities, thus, most involuntary relocation schemes lead to the further marginalization of the development displacees (Muggah, 2003). The situation further contributes to the social disruption, and thus evokes more resistance among development displacees (De Wet, 2002).

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## **GUIDELINES OF THE WORLD BANK AND THE PHILIPPINES ON UNDERTAKING DEVELOPMENT PROJECTS**

The project proponents of large-scale development projects undertake programs to reduce the impact of involuntary relocation. They have plans to improve the living conditions of displaced members of communities. However, there are many

However, there are many documented cases of the opposite scenario taking place. The displaced communities do not smoothly partake of the results of development processes. Instead, the members of uprooted communities undergo various forms of marginalization that limit their livelihood opportunities and other life choices. This paper seeks to contribute to the discussion on how to improve the ability and capability of people to cope with development-induced displacement.

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improve the ability and capability of people to cope with development-induced displacement. It hopes to open some discussions on how to halt such marginalization, how they can partake instead in the gains of large-scale development projects.

These are institutions aiming to reduce the impact of large-scale development projects on communities involuntarily relocated to other living spaces. For instance, the World Bank has developed, and is implementing guidelines for development-induced displacement. These are contained in an operation manual called the *Operational Directive*. This directive is explicit on what programmes should be undertaken by the proponents of large-scale development projects to deal with uprooted communities during project implementation. The World Bank recognizes that displacement of communities is a feature of major development projects. The

uprooted people are often faced with difficult challenges such as dismantling of production systems, loss of productive assets and livelihood sources, and the dissolution and weakening of social capital (1990, 1). Thus, the World Bank's policy on involuntary resettlement is very clear. It is "to ensure that the population displaced by a project receives benefits from it" (*op cit*, 2).

One guideline in the *Operational Directive* urges all project proponents to treat an involuntary resettlement program as a development program in itself. Uprooted families who will be resettled should be afforded all the necessary resources and support so they will have better chances to partake of the benefits the development project would bring into an area. The World Bank directs project proponents to compensate the members of displaced communities for all losses associated with being uprooted from their place of abode and livelihood source. It has clear guidelines on how to assist the displaced persons. There are clear provisions on how to improve their quality of life, living standards and livelihood and production activities. The issue at hand is the extent to which most governments cooperate with the World Bank on the implementation of the guidelines that are specified in the *Operational Directive*.

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In the Philippines, the Department of Energy and the Department of Environment and Natural Resources are two of the primary agencies that formulate policies on energy development and dam construction projects in the Philippines. The three major implementing government agencies are the National Power Corporation (NPC), the National Irrigation Administration (NIA), and the Department of Agriculture (DA). The Philippine Government, through its agencies that undertake development projects (e.g., the National Power Corporation), has indicated that it follows the guidelines stipulated in the World Bank's *Operational Directive*. The Resettlement Policy Framework of the Philippines is directly based on the policies of the World Bank. The

Philippine Resettlement Policy Framework also draws on a number of Philippine laws and policies in determining issues that pertain to land acquisition and involuntary settlement. An important law is found in the the Bill of Rights of the 1987 Philippine Constitution which stipulates that “No person shall be deprived of life, liberty, or property without due process of law, nor shall any person be denied the equal protection of the law (Article III, Section 1)”. Furthermore,

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the Constitution states that “Private property shall not be taken for public use without just compensation (Article III, Section 9)”. The term compensation in this context refers to payment, at a replacement cost in cash or in kind, of all assets that the Philippine government and the project proponents will acquire from displacees by the construction and operation of the infrastructure projects.

It stipulates on the prompt and just payment of compensation costs to owners of real property to be acquired in the implementation of the government’s infrastructure programs. It requires the payment of disturbance compensation to agricultural lessees who are affected by the construction and operation of the project. The disturbance compensation is equivalent to the monetary amount of five times the average gross annual harvest of the affected agricultural lessee in the five-year period prior to the project construction in the area.

Aside from the disturbance compensation that should be given to members of displaced communities, disturbance assistance which is not to exceed

PhP10,000.00 per household is likewise due to them. This disturbance compensation is afforded to members of displaced communities who hold titles, tax declarations, or proofs of usufruct, as in the case of members of indigenous communities. Area settlers, occupants and agricultural tenants who will be affected by the project construction are entitled to financial assistance equivalent to the average annual gross harvest for the last three years and should not be less than PhP15,000.00 per hectare. This financial assistance is on top of the cash payment or compensation for crops that will be damaged during the project implementation.

All of these forms of disturbance compensation should be given to the project-affected or displaced persons (PAP/DP). The PAPs/DPs are those people affected by the project construction and who were relocated from their original residence to a government resettlement site (or to any other site). They also include those in which the standard of living, rights and access to any land premises (including agricultural and grazing land), perennial crops and trees, and other temporarily or permanently acquired or possessed fixed or movable assets, or business and other work occupations are affected by the project implementation. One would expect that the lot of the PAP/DP should be alright in most resettlement programs. However, this does not always happen smoothly as the experiences of the development –displaced persons who are now relocates in the resettlement sites in Pagbilao, Quezon, and San Manuel, Pangasinan, would illustrate.

The World Bank's *Operational Directive* also clearly stipulates the forms of rehabilitation assistance, such as, provisions of skills training, availability of micro-finance support, job-referrals and other measures. Through these provisions the PAP/DP would be able to restore their livelihood sources and improve their income levels and living standards. The guidelines are to be followed and implemented by the officials of government agencies and companies that are involved in the construction and operation of government-initiated large-scale development projects. With these guidelines, one would expect that PAP/DPs are properly attended to in most resettlement programs.

The community experiences in the two resettlement cases were documented using data gathered from primary and secondary sources. Secondary data pertain

to a number of published and unpublished sources of information that were generated by different professional groups as well as by government and non-government institutions at different administrative levels. These include materials such as *Environment Impact Assessment documents*, *year-end reports*, *officially published town profiles*, and published maps. They were gathered from the officials of government line agencies and employees of the two power generating corporations. Other documents available on the internet were accessed. These secondary data sources offer historical and factual accounts that provide the context for this study. A number of courtesy calls, formal and informal discussions, and interviews were undertaken with officials of local government units and the two power plant corporations. Individual and group interviews of local residents in the two municipalities were undertaken. The research assistance that was rendered at different periods by Lev Dacanay, Jonas Gaffud, Evangeline Katigbak, Joemy Lillo, Simeona Martinez, Lou Ann Ocampo and Angelo Paras are well-appreciated. The results of the interview sessions were transposed into vignettes and are provided in this paper. These primary data outline the experiences of members of two resettlement communities uprooted from their original places of abode and livelihood systems due to the construction and operation of two development projects.

### **THE PAGBILAO POWER PLANT RESETTLEMENT PROGRAM**

#### **The Power Situation in Luzon in the 1990s**

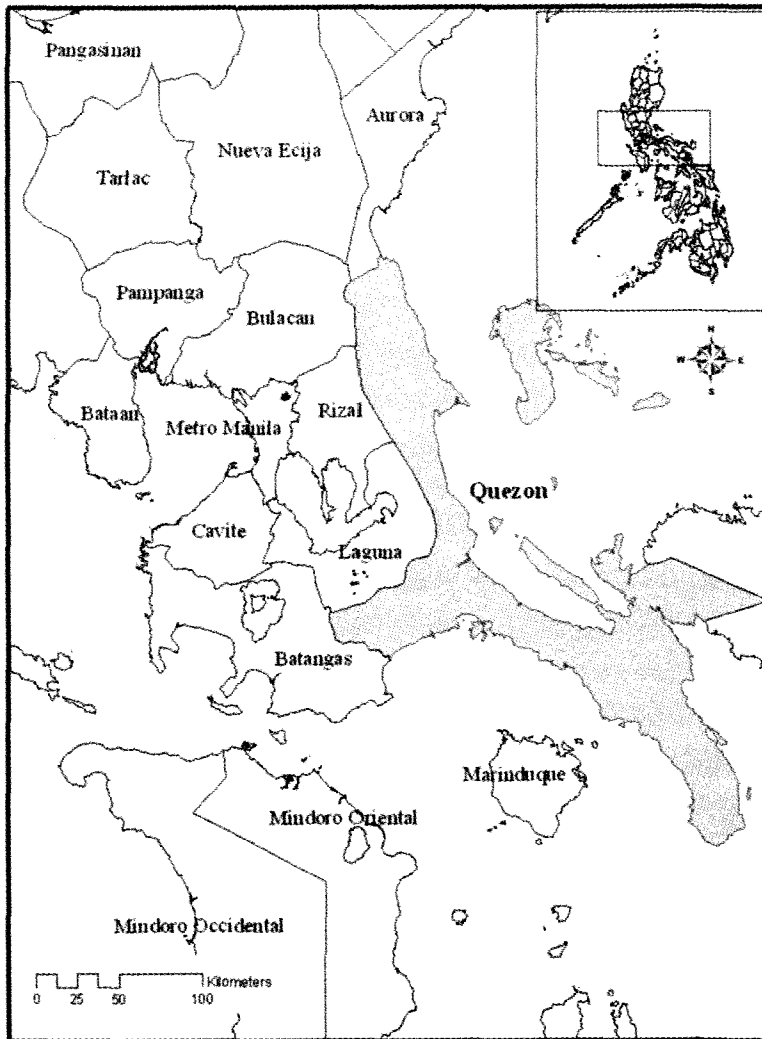
The Pagbilao Thermal Power Plant was conceived to remedy the power shortages in Luzon that caused immense losses to the Philippine economy in the late 1980s and early 1990s (Environmental Impact Study on Pagbilao Power Plant, n.d.). The power shortages were a product of lack of planning on the part of the Aquino government and the decision in 1986 by President Aquino not to operate the 620MW nuclear plant in Bataan. In the latter part of 1991 the Luzon Power Grid had an installed capacity of 4,626 MW. It was comprised of 1222 MW (26.51 %) from hydropower sources; 660 MW (14.27%) from geothermal operations; 300 MW (6.48 %) from coal; and, 2440 MW (52.74 %) from oil powered plants. Due to some technical problems in their operations, such as frequent shutdowns due to mechanical

breakdowns of the ageing thermal plants, low water supply during the dry season, heavy siltation of hydropower plants reservoirs, and dwindling steam supply in the geothermal plants, the dependable capacity of the plants was only 75 % or 3, 500 MW. The peak power demand at the time (particularly in February 1992) was 3200 MW. The system reserve capacity was only 280 MW. This was much lower than the required minimum reserve of 300 MW. As earlier stated, most of the old thermal plants were often shut down for emergency maintenance reasons. The many incidences of shutting the thermal plants down had resulted in the system reserve capacity to fall to negative values resulting in power shortages (brownout incidences).

From 1991 to 1993, the whole Metro Manila area and the surrounding regions suffered from daily power outages that lasted from 4 hours up to 12 hours. It led to the closure of factories and the loss of half a million jobs. The economic losses from power outages were estimated at US \$ 1 billion a year. This was a conservative estimate. Others had estimated the loss to have reached about US \$ 2 to 3 billion a year or 4 to 5 % of the GDP. If one would put a cost to inconveniences associated with power outages that were suffered by the public and their effects on productivity, the amount of losses would even be greater. These losses served as the precursor for then President Aquino to establish the framework for the 'Build, Operate and Transfer' (BOT ) scheme on power generation.

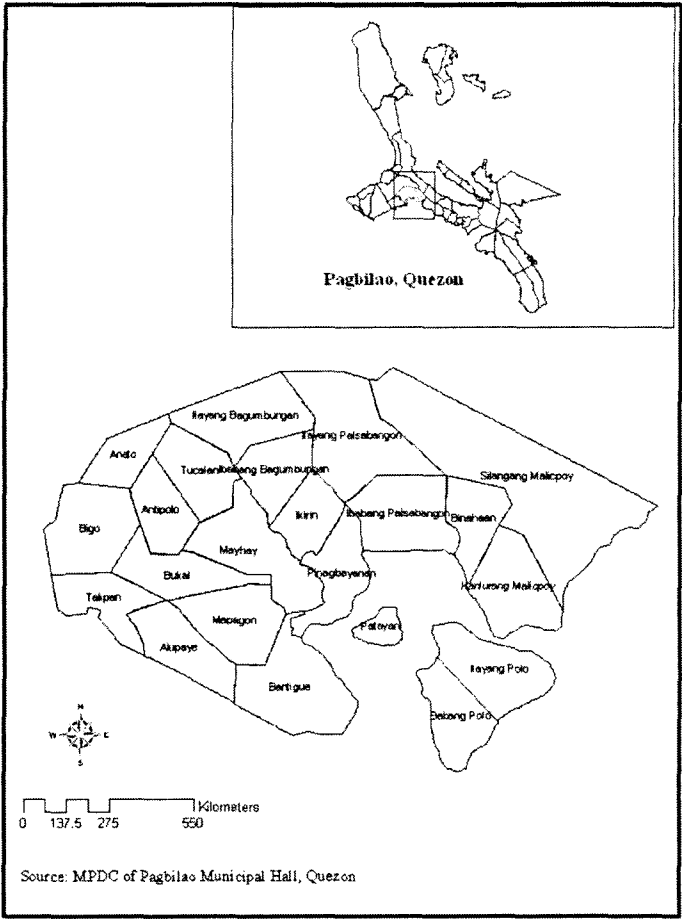
### **The Pagbilao Thermal Power Plant Station**

The Hopewell Power Corporation of Hong Kong was awarded the first BOT scheme in power generation in 1989 for the 200 MW Navotas gas turbine power plant. It successfully remedied the power outages in Metro Manila from 1991 to 1993. But it did so at a very high cost. The Pagbilao Power Plant was conceived as a base load plant to normalize power supply in Luzon at a more reasonable cost. The contract for the Pagbilao Thermal Power Plant to generate 700MW of energy was signed in 1991. The financing scheme of \$933 million was arranged through Citibank, the US Ex-Im Bank, Japan Ex-Im Bank, the Bank of Tokyo, MITI and the Mitsubishi Co.. The construction began in 1993. The IFC, ADB and CDC provided additional loans for the project completion.



**Figure 1: Province of Quezon, Philippines** **FIGURE 2**  
Map of the Quezon Province, Philippines

The Pagbilao Thermal Power Plant, a coal-burning power plant was built on Pagbilao Grande Island (about 160 kilometers south of Metro Manila). It was completed in 1995. (Please see figure 2). However, it did not operate for a period of six months. The first unit became operational and was commercially available in June 1996. The second unit became operational in August 1996. The National Power Corporation failed to build on time the transmission line that was necessary to connect it to the Luzon power grid. The delay in the power plant operation due



**FIGURE 3**  
Map of the Town of Pagbilao in Quezon Province

to the failure of the National Power Corporation to construct the 230 KV transmission line on time had caused losses for the Hopewell Corporation. It was compensated for by the Philippine Government by extending the BOT period from 25 years to a much longer time of 29 years. The ownership of the thermal power plant changed since it became operational in 1995. It was operated under the management of the Southern Energy of the United States in late 1997. But the power plant is now operated by the Mirant Corporation.

The 700 MW Hopewell Power Station consists of two 350 MW coal-fired power plants in the southwest tip of the Pagbilao Grande Island (Pagbilao Power

Plant Brochure, n.d.). It is within the jurisdiction of Barangay Ibabang Polo in Pagbilao, Quezon. The project covers 145 hectares of land and 22 hectares of foreshore area (Please see Figure 3). The project site houses the following facilities: the powerhouse, a 330m x 170 m coal yard, an administration building, the substation facilities, and a 124, 777.93 m<sup>2</sup> ash disposal area which includes an 80-hectare ash lagoon. Aside from these facilities, several support infrastructures were constructed by the company and are now operational. These are as follows: a 12-kilometer access road from the Pagbilao-Atimonan Highway to the power plant site; a 300-meter bridge called Quipot at Juaya Point that connects the mainland of Quezon Province and the Pagbilao Grande Island; a jetty that is used for unloading coal for the plant's operations; a housing facility for the employees; and, a resettlement site for the communities that were affected by the project construction. The construction costs of these facilities amounted to US \$ 850 million.

The power station has a coal usage of 7, 000,365 MT. The high grade coal that is used for the operation of the plant originates from Kalimantan, Indonesia. The plant was designed to handle coal with less than 1% sulfur content and 13.84 % ash content and discharges water that is used for cooling the plant machinery. The Environmental Compliance Certificate issued by the Department of Environment and Natural Resource specifies that the water's temperature should not exceed 3 degrees centigrade in the mixing zone. The plant's water consumption is about 803,000 m<sup>3</sup> per year. It gets its water through a water pipeline system that affords the transport of freshwater coolant from the Palsabangon River. Other provisions in the Environmental Compliance Certificate issued by the DENR include the conduct of and continuous monitoring of the plant's effluents and emissions (including noise) and the state and conditions of the surrounding agricultural and marine resources (An old company brochure, n.d.).

### **Town Profile of Pagbilao, Quezon**

The municipality of Pagbilao is in Quezon Province. It lies eight kilometers from Lucena City, the provincial capital of Quezon, which bounds it on the southwest. The municipality of Tayabas lies northwest of Pagbilao. Atimonan lies on the northeast and Padre Burgos on the southeast. The municipality

links to Bondoc Peninsula and Bicol Region through the Daang Maharlika national highway. Due to its accessibility, Pagbilao has been a preferred location for a number of government extension offices and institutions that offer extension support to agriculture, agro-livestock, cottage and fishing industries in Pagbilao and other towns of Bondoc Peninsula as well. In 2000, the total population of Pagbilao stood at 57, 055. Pagbilao is composed of twenty-seven (27) barangays. Twenty-one (21) barangays are located outside of the town proper. Six barangays comprise the poblacion or town proper. Most town proper residents get their water from the Lucena - Pagbilao - Tayabas Water District (LUPATA), now Quezon Metropolitan Water District. Many residents of the outlying barangays get their water from open wells, natural springs and from precipitation (Physical and Socio-Economic Profile of Pagbilao, 2000).

Pagbilao has a land area of 17, 760 hectares(PSEP of Pagbilao, 2000). A majority of the landholdings is owned by people living out of the municipality. The types of soil in Pagbilao are the following: Bantay Clay, Sevilla Clay, Bolinao Clay Loam, Guadalupe Clay Loam, Macolod Clay Loam, Ibaan Silty Clay Loam, Buquey Loamy Sand, Buringan Sandy Clay Loam, and Hydrosol. About 12, 377.20 hectares or 69.692% of the total area is devoted to agricultural production. The National Irrigation Authority provides most fields with irrigation water. Rice fields and coconut plantations comprise a majority of the town's agricultural lands. Other crops in cultivation are root crops, banana, corn, vegetables and fruit trees, such as different varieties of citrus, mango and rambutan. Most of Pagbilao lands have a slope of 0-3 %. The lands within the boundary of Mauban are hilly and have 8-15 % slope. The mountainous portions of the municipality are situated in the following barangays: Binahaan, Ilayang Palsabangon, Ilayang Bagumbungan, Kanlurang Malikboy, Silangang Malicboy, and in the island barangays of Ilaya and Ibabang Polo. The 3,015.16 hectare-forest area of the municipality is found in the earlier stated barangays. Those in Silangang Malicboy comprise mostly the Quezon National Forest Park, a dipterocarp forest that houses a number of wildlife species. Pagbilao has good limestone and industrial lime reserve found in Ilayang Bagumbungan, Silangan Malicboy, Kanlurang Malicboy and Ilayang Polo.

Pagbilao has an extensive mangrove forest that lies mostly in Barangay Ibabang Palsabangon. This mangrove forest serves a number of important roles. It is being used as a natural laboratory for local and international scientists, students and researchers that study mangrove taxonomy and do experimentations on mangrove forest rehabilitation, management and protection. The mangrove forests of Pagbilao connect to a rich coastal area with numerous strips of white sand beaches and shallow waters with rich patches of sea grasses and corals. The marine and inland waters of Pagbilao are utilized for artisan, commercial, aquarium and game fishing. It is also used for recreation, swimming and bird watching and nature appreciation. The Pagbilao Bay connects to Tayabas Bay. The marine and inland fishing activities in the two bays provide employment to thousands of people. A good fish port with modern fish processing facilities has to be developed in the municipality.

### **The Impacts of Pagbilao Power Plant Operations on the Environment**

In 1999, a World Bank report indicated that the Pagbilao Thermal Power Plant had met the national and the World Bank's environmental standards required of such a power generation plant. Lysy (1999) notes that in 1998, the plant's annual average stack emissions of sulfur dioxide was only 27 % of the guidelines that were set by the IBRD. In the same manner, the annual average nitrogen oxide emissions of the power plant were only 32 % (power unit 1) and 52 % (power unit 2) of the IBRD guidelines. An environmental audit was made to see whether the water effluents standards were met and whether the ambient air quality levels in the two power generating plants were complied with. It indicated that the thermal power station had operated in compliance with the national and international environmental standards, e.g., the average level of annual generation of nitrogen oxides was only 7.5 % of the IBRD standard.

The Mirant Power Plant has been doing the necessary measures to ensure that the Department of Environment and Natural Resources (DENR) and World Bank environmental standards are met. Officials of the Mirant Thermal Power Plant Station have shared with the researcher that the company has been active in undertaking eco-management and biodiversity conservation programs. Since 1992, the power company has actively assumed environmental stewardship in the project site. It does so in cooperation with a multi-sector group composed of representatives

from non-government organizations, the DENR, NPC, and various government offices at the provincial, municipal and barangay levels. It has initiated tree planting activities under a program called 'Carbon sink initiative' in upland barangays of Pagbilao, Quezon since 1997. It has provided 425, 000 tree seedlings for the reforestation program in the 150 hectare-watershed in barangays Bagumbungan, Sta. Catalina Ilaya Palsabangon, and Binahaan.

In lowland areas, Mirant Corporation has initiated the rehabilitation of a 150 hectare-mangrove forest area along the coast of the municipalities of Padre Burgos and Pagbilao, Quezon (Mirant Company brochure, n.d.). It has cooperated in the development of the Mangrove Experimental Forest at Barangay Ibabang Palsabangon (Pagbilao) as an Eco-Destination Area (EDA). It has provided 500,038 mangroves, propagates and supports the local and national government units in Pagbilao, Quezon in maintaining 112.52 hectares of mangrove plantation (with 92.98 % survival) in the area. With 48 endemic mangrove species, it is the world's second most diverse mangrove forest (Pakistan has 52 mangrove species). On May 18, 2002 Mirant established, and successfully maintains, a 10- hectare marine sanctuary at Sitio Banlisan in Barangay Ibabang Polo, Pagbilao, Quezon.

As part of its Coastal Resources Management Program (CRMP), it has also initiated programs on cleaning up the coastal area since 2000. It piloted sea grass transplantation in Sitio Capas-Capas, Barangay Ibabang Polo. It has also coordinated with the local government units in monitoring illegal fishing activities. The environmental unit of the Mirant Corporation regularly submits reports to local and provincial authorities on the illegal fishing practices so that appropriate action can be done. The Mirant environmental officers have also initiated a bird sanctuary development at the Pagbilao Power Plant's ash ponds. The ash ponds host thousands of wild ducks that are endemic to Pagbilao and provide sanctuary to other bird species that abound in the area. It has established a baseline biological survey of the wild ducks and other wildlife at the Pagbilao power plant's ash ponds. The Mirant Corporation cooperates on some environmental programs with the Kapar Power Plant of Malaysia by exchanging some technical and conservation practices with them (Personal communications with Mirant Officials, December 20, 2005).

## Impact of the Pagbilao Thermal Power Plant Project on Pagbilao Grande Island

The Pagbilao Power Plant was projected to bring in changes to the whole island of Pagbilao Grande and to the surrounding communities as well. The project has physically connected the Pagbilao Grande Island to the main island of Luzon in year 2000 through the construction of the 300-meter Quipot Bridge. In the same year, the construction of the 15.6-km Binahaan-Ibabang Polo Access Road has made it easier for people in the Island to move from their community to the Pagbilao town proper and other areas on the mainland using land-based transportation. A total of 660 households in Pagbilao Grande Island had access to electricity in 1999 (300 households in Barangay Ibabang Polo, 260 households in Barangay Ilayang Polo, and 100 households in Barangay Tulay Buhangin) when MERALCO got the franchise to operate in the area. Other communication facilities became available to the island residents as well. Aside from the earlier stated infrastructure, the power plant authorities assisted in the construction of a police station in the area in the same year to improve the security in the locality. The island residents also obtained dependable water supply from the eight deep wells that were dug in different parts of the island with funding coming from the Southern Power Company (formerly Hopewell). In 2001 the waterworks system in Tulay Buhangin and in Binahaan were rehabilitated with funding from the company, too.

Moreover, the company has been involved in the facilitation and realization of the following small-scale infrastructure and building improvement projects in the island and in other adjoining areas (Mirant Company Brochure, n.d.). They are as follows:

- a) rehabilitation of the St. Anne Parish in Barangay Silangang Malicboy in 2001;
- b) construction of a livelihood center at the project resettlement site in 2001;
- c) construction of a palay drier facility in Pagbilao in 2002;
- d) construction of St. Claire Church's fence in the town of Sariaya in 2003;
- e) construction of the Quezonian Livelihood and Training Center in 2004;
- f) painting of the St. Catherine Alexandria Parish Church of Pagbilao in 2004;
- g) construction of the Pagbilao Central Elementary School Fence in 2005; and,

- h) construction of three Bigasang Bayan facilities and the Bay view Accommodation Center and Bantigue Chapel.

The Southern company (now Mirant) was involved in improving the educational facilities in the island. It provided funding for the construction of a high school facility in the island in 1999. The school has four classrooms, an administration and faculty building, a library, a canteen and a toilet. More island residents now get high school education since the secondary educational facility is more accessible to them. Each year the company awards the two top graduates in the Pagbilao Grande High School with full college scholarship in any university of their choice. The two top graduates can then get higher education and improve their chances to get better employment in the future. Aside from the establishment of the Pagbilao Grande High School the company had undertaken the following initiatives:

- a) construction of one classroom in the Talipan National High School and the rehabilitation of its toilet in 2000;
- b) rehabilitation of seven classrooms, stage, playground, pavement, toilet, administration building and the library of Polo South Elementary School in 2001;
- c) establishment of the Computer Learning Center at Pagbilao Grande Island NHS by donating 20 computer units in 2002;
- d) concreting of pavement, rehabilitation of three classrooms, toilets and the waterworks system, and the construction of 6 classrooms in Polo North Elementary School in 2003;
- e) concreting of pavement in the Binahaan Elementary School in 2003;
- f) construction of four classrooms in Pagbilao National High School in 2004;
- g) book donations to the Pagbilao Grande Island NHS, Polo North & Polo South Elementary Schools, Malicboy East Elementary School, Bagongbungan Elementary School, Bigo Elementary School, and “Adarna Books” to All Day Care Centers of Pagbilao and Padre Burgos’ from 2000 to 2004; and,
- h) donation of two computer units each to Malicboy East Elementary School, Pagbilao East Elementary School, Pagbilao West Elementary School, Parang

Elementary School, Polo North Elementary School, Polo South Elementary School, Pagbilao Central Elementary School, Bantigue Elementary School and the Palsabangon Elementary School.

The power plant company has provided funding assistance to a number of health programs in the island also. It funded the construction of the Ibabang Polo Health Center in 2001 and the Bantigue Health Center in 2003, and the establishment of the Botika (pharmacy) sa Isla Grande in 2002. It sponsored the holding of first aid training awareness in 2003 and has supported feeding programs since 1998. The company has been providing financial assistance to the Bantay Kalusugan Programs since 2002. The company has also initiated dental and medical Missions (since 1999), fire prevention trainings (2003), and provided refresher courses to the Barangay Health Workers in 2000 and 2003. The company doctor also occasionally provides free medical services to some residents in the community. In 2005, the Mirant Corporation donated a computer each to the health centers in Barangays Ibabang Polo, Ilayang Polo, Binahaan, Silangang Malicboy, Bantigue, Mapagong, and Alupaye. It has also organized and provided capability-building trainings and alternative livelihood programs in the barangays of Ibabang Polo, Ilayang Polo, Tulay Buhangin and Lipata. During the construction phase, the Hopewell Inc. had given priority to the local residents of Pagbilao for their manpower requirements and initiated special job-training programs such as carpentry and environmental-friendly fishing practices to the residents of the island. At present, the company gives priority to the local contractors and service groups in the island in providing maintenance services in the power station. The company has been sponsoring on-the-job training opportunities (OJT) since the year 2000 and it has benefited 50 persons already. The Mirant Corporation has also initiated the Cadet Engineer Internship Program in the power plant facility with an initial number of 20 cadets in 2005.

The company has also provided financial assistance to livelihood improvement programs in the community such as the establishment of a micro-financing scheme, with the Mothers' Club members as beneficiaries; it gave financial assistance to backyard farming in 2001 and organic farming in 2004. It helped organize 10

community-based Mothers' Clubs and supported the monthly alternative livelihood trainings on bangus de-boning, meat processing and soap and candle making. It has helped in the organization of five cooperatives in the Pagbilao Grande Island such as the Kapit Bisig Ugnayan Multi-Purpose Cooperative, Samahan ng Kababaihan sa Isla Grande Multi-Purpose Cooperative, Kababaihan ng Binahaan Multi-Purpose Cooperative, Bantigue Mothers' Club Multi-Purpose Cooperative, and the Bagong Buhay sa Maulawin Multi-Purpose Cooperative. The company has also assisted in the organization of an association among the island fishermen called the Samahan ng Pangkalikasan at Pangkaunlaran sa Pagbilao Grande, Inc., and has facilitated capability building and value formation training. Aside from the earlier stated activities, the Mirant Power Company has been involved in the provision of disaster relief goods and financial assistance to the rehabilitation programs in the towns of Real, General Nakar, Infanta, Sariaya, Candelaria, Pagbilao, and the city of Lucena in Quezon Province and to other disaster-afflicted towns in the provinces of Aurora, Nueva Ecija and Camarines Sur.

#### **The Experiences of the Development-induced Displacees in the Pagbilao Power Plant Resettlement Community in Pagbilao Grande Island:**

The following vignettes were taken from the accounts of the barangay officials and members of the Pagbilao Power Plant resettlement community in the Pagbilao Grande Island. The interviewees are direct participants in the relocation process of the development-induced displacement in the area. The vignettes are translations of the original interviews in Filipino but they are presented as they were narrated by the interviewees. Minor editing was undertaken for improving the clarity of the narratives. There were no inputs given by the National Power Corporation officials in this interview process. When the researchers visited the NPC main office in Quezon City, the persons who used to work in the site could no longer recall the details of the program. When they were asked for copies of the accomplishment reports or any documents about the resettlement site, the person responsible for keeping the records of all NPC resettlement programs was surprised to find out that all files about the Pagbilao Power Plant Resettlement program were missing from their file stack.

*Interview with Francisco Portes, a Barangay Council Member on May 16, 2002:*

Francisco is 46 years old and has been a resident of Barangay Ibabang Polo since he was born. According to Mister Portes, the project was started in 1992 by the Hopewell Power Plant. After several years, the company's name was changed to Southern Energy.

Some people who were affected were relocated to the resettlement site in Ilayang Polo. Others who opposed the resettlement program opted to relocate in St. Martin Hills where the environmental conditions are not as conducive as their former settlement site in Sitio Capas-Capas. During the establishment of the project, most residents here in Pagbilao Grande Island were fishermen and farmers. There was a hearing conducted to discuss the project and the people were informed of the power plant establishment in the area. A majority of them protested because they were made aware of the danger of ash falls and coal dust circulating in our atmosphere. They were also told by some concerned environmentalist-activists that the coal dust and ash can increase water acidity and thus affect fish production in the area. He was one of those who opposed the project because he was afraid that it would bring harm, in terms of community health and environmental deterioration, in terms of air and water quality. But since there were only a few residents in the island in comparison to the total number of Filipinos in the Island of Luzon who will be benefited by this government energy-generation project, the interests of Hopewell Company prevailed. What is a thousand island dwellers compared to millions of people who will be benefited by the project? The national interest is more important than the local concerns. The power plant has not triggered any serious untoward environmental incident among them.

Some people got short-term employment during the construction phase of the Hopewell Power Plant but many did not get employed by the plant at all. The project, however, brought some positive changes. Electricity became available to every household who could afford to have it installed and pay the monthly fee. Hopewell built a bridge that connected the island to the mainland of Luzon and it also constructed concrete roads in the island which were formerly asphalted. The barangay got some projects funded by the Department of Energy as the barangay started to get its share in the power generation. The delivery of water services by

NAWASA became available almost a year ago (in 2001). Before the entry of NAWASA in the island, people had to pay two pesos per container of drinking water. Drinking water used to be brought into the island by the tug boats going back and forth the town proper.

Later on the name of the power plant was changed to MIRANT. MIRANT has initiated a number of environmental-friendly projects in the barangay. For example, MIRANT started a project to protect the island's coastal areas and its mangrove resources. It does so to preserve fish nurseries and other marine resources that depend on the extensive mangrove forests. He pointed out that although he is happy that MIRANT has initiated this project, they did this project quite late. He mentioned that in the Memorandum of Agreement they should have initiated the coastal protection program three months after the plant operations. They were half a decade late but as one Filipino saying goes, "Better late than never." As a result of this project however, fishermen were barred from fishing in the area. Now nobody can fish in Sitio Banlisan and Sitio Bakung. It is good though that MIRANT is participating in taking care of Pagbilao's coastal resources. They were effective in reducing the incidence of illegal fishing in the barangay. The fish catch has not declined since their operations. They also constructed a high school building for the barangay, the Polo South Grande High School. MIRANT has done a lot for the island which used to be a secluded island barangay.

People who were directly affected by the project were compensated for their losses. However, most of the displaced people were not provided livelihood opportunities. They were left to fend for themselves (the *kanya-kanya diskarte*). The livelihood activities of the fishermen who were displaced from the site where the power plant now stands were greatly affected since their place of abode now (the project resettlement site) is located far from the coast.

*Interview with Virgilio Calizo, Sr. on May 30, 2002:*

Virgilio is a barangay council member. Before the power plant was constructed on this island, the houses of most residents here were made of nipa (a local palm that is used as house roofing and walling material). Only a few houses were constructed with concrete materials. Most were semi-concrete houses. Many people

had no private toilets. There was no water supply before. They dug wells and potable water was bought from the town proper in water containers and was delivered by the boat owners on the island shore on a daily basis. Electricity became available to the island residents who can afford to install the electricity distribution system. This happened when MERALCO got the franchise to provide electricity in the island as negotiated by the local government units in Pagbilao.

The power plant company did not follow the agreement that they had before the construction of the facility. They had agreed that 50 % of the employees who would be involved in the plant construction and operations should come from the area. As the project progressed, workers from other towns and cities were the ones hired and contracted by the Pagbilao Power Plant officials and other contractors who were working on the project. The reason often cited was that the residents of the two barangays in the Pagbilao Grande Island were not qualified to fill the jobs that were needed in the power plant operations. Those employment posts need specialized training. The people of the Pagbilao Grande Island have not been greatly benefited by the construction and operation of the plant in terms of livelihood provision. The majority of the island residents continue to be fishers and farmers. They fish by night and cultivate small chunks of agricultural lands by day. The younger members of the island's male population start to fish at the age of 10. One cannot call this practice child abuse even if the child works at a young age. The family needs their help and the young need money for themselves, too. The young boys join the fishing trips not only because they are being trained by their elders. They need the money that they can earn from the fishing trips. If they do not fish they will have no money. Young girls and women gather sea cucumbers that will be sold in the market.

Before the power plant construction, most of the young members of the island community did not go to secondary and tertiary schools. They lacked the money to pay for the boat ride and other expenses associated with attending higher education. It was a good thing that a high school was constructed here with funding from the power plant company. It allowed more educational opportunities for the younger members of the community. Still, there are limited livelihood opportunities for most women in the island. Many women stay in the house as housekeepers and do all the household tasks the whole day. Some women gamble by playing cards after

finishing their household tasks. Not many projects for women have been initiated by MIRANT here in the barangay. They formed a mothers' club in the resettlement site but we do not know what they do there.

To facilitate its operations, the company built a bridge and concreted the main road that connects the island to the town proper in the main island. This improved accessibility to the main island has greatly helped the island residents. The Barangay Council also has been using the money that the local government receives as its share in the earnings of the power generation to fund development projects. The barangay gets 1/4<sup>th</sup> of a centavo for every watt generated in the plant. The last time it was given to them, the barangay got 9 million pesos. The local officials spent the money to build the barangay roads in Sitio Little Batangas to Tulay Buhangin. They also used part of the money for constructing sea walls in the low-lying areas of the barangay. The Department of Energy, in cooperation with the barangay council, also facilitated the construction of the barangay hall and basketball court inside the project resettlement site.

The National Power Corporation (NAPOCOR) facilitated the resettlement project to relocate island residents who were displaced by the project. People who used to live in the coastal area where the power plant now stands were displaced by the construction of the power facility. They were given a house and lot in the resettlement site. NAPOCOR delivered most of the things that were stated in the Resettlement Action Program in the area save for the provision of appropriate livelihood sources and issuance of titles to a number of people.

There was one instance when the resettlement community was given P 2 million pesos as seed money for establishing livelihood projects. These were undertaken with the assistance and guidance of the members of the social engineering unit of the National Power Corporation (NAPOCOR) and MIRANT Public Relations Office. There were five members of the social engineering unit of NAPOCOR who helped organize the cooperatives but the project did not become successful. NAPOCOR organized a cooperative called "Bukluran ng Bagong Buhay sa Mulawin". The resettlers bought some wood planks, had six tug boats built that were complete with all the paraphernalia for fishing, especially fishing nets. They bought two units of jeepney. However, the recipients did not manage the funds well. He thinks that the members of the cooperatives lacked dedication and they did not know how to make the

cooperative work. The wood planks were taken by the members of the cooperatives. The boats are gone. The fishnets are nowhere to be found while the units of jeepneys were taken back by NAPOCOR and they do not know where they are now. NAPOCOR has not been providing enough livelihood opportunities for the people.

One practice of the power plant company that they do not approve of is their policy of driving fishermen away from the coastal waters near the plant. There was nothing in the MOA between them and the local government that the company has full control over their coastal waters. The company prevents local people from fishing in their coastal waters. Warning shots are fired towards the local fishermen who happen to go near the plant. As a result, earning a livelihood among the fishers in the barangay has become more difficult. In a way, company control benefits the barangay since the guards are able to control illegal fishing, particularly dynamite fishing. Also, the pier and the areas controlled by the plant have become a fish sanctuary. Thus, fisheries yield increase in some parts of the barangay.

But there are some alarming incidents caused by the operations of the plant. On June 7, 2001 the electrostatic precipitator of the plant malfunctioned. For half a day, the plant was emitting thick smoke and ash falls dispersed all over the island. On May 21, 2002, the electricity supply tripped. As a result there was a plant shut down and black smoke prevailed in the area for several hours. Occasionally thick black smoke would be released during nighttime and early morning hours, particularly from 2 to 3 am. These incidents bother the residents of the barangay since the ash, coal dust and the thick smoke are driven by the winds towards and inside their houses. Although the people do not see the coal dust, they suspect that this gets into their lungs. However, it is very difficult for the people to prove this since they cannot see this happening with their bare eyes. When incidents like these take place and it happens to rain, the color of the rainwater resembles that of milk with soot. That is one of the reasons why island residents do not collect the rainwater for household related uses immediately after a rainfall. They let the rain fall for several minutes before they collect it in water containers. During the times when the atmosphere becomes dark due to the thick smoke that is released by the power plant smoke stack, many people smell sulfur-like fumes. During those times more people seem to suffer from asthma and experience of breathing difficulty. One problem here is that local people do not have the system to monitor the extent to

which these things are taking place. MIRANT has told them that they have people who study these things but the island residents are not necessarily informed of the results of their study.

One big problem that they encounter as local government officials, in relation to environmental problems like these, is the difficulty of pressing the government to do something about environmental problems related to the power plant operation. Whenever they complain to the proper government authorities, the barangay officials are asked to provide scientific proofs on the incidence of the problems. In several instances, they decided to ask the island dwellers to sign a petition and protest letters to the Pagbilao Town Council. They do it so that the government will do something to remedy the environmental situation in the island. However, the town council would just direct them to present the problems to the Quezon Provincial Council. Whenever the barangay officials face the people in the Office of the Governor and the members of the Quezon Provincial Council, they would allot time to listen to their complaints. However, instead of doing something to remedy the situation they would tell the barangay officials that instead of complaining they should look for creative ways to deal with the problems. The Office of the Governor and the members of the Provincial Council would then shelve the barangay officials' complaints.

*Interview with Pacita Tamayo in January 2002:*

Pacita is 57 years old. She finished 4<sup>th</sup> grade of elementary education. Pacita's family has lived in Sitio Capas-Capas for ten years. Sitio Capas-Capas now houses the power plant facility. The fishers in her family used to operate in the coastal waters of Capas-Capas. Some members of her family also did some slash and burn agriculture and planted corn and sweet potato in the adjoining agricultural lands in Capas-Capas till they were asked to move out of the area. Her family moved into the Pagbilao Resettlement Site in 1992. The resettlement site is located in the middle, and in an elevated portion of the island. Thus, they do not experience any hazard that is associated with the rise and fall of coastal waters. However, their access to the artisan fishing site was greatly reduced since the location of the resettlement site is far from the coast of Pagbilao Bay. There were many things that the

NAPOCOR had promised to give them during the time that they were convincing their family to move into the resettlement site. For example, the NPC personnel had promised them that there will be free electricity and water supply for them in the resettlement site. This promise did not materialize. Not only did they have to pay for the costly water and electricity bills, they often experienced power outages or brownouts in the site which often lasted for one to three days. The power outages also lead to the stoppage of water supply in the site since the pumps that bring water to the water tank of the resettlement site are fueled by electricity. One promise that was delivered by the NPC was the provision of a house and lot in the site in 1992. However, up to now they do not have a title to the house and lot. They were promised by the NPC that they would be issued a title to the house and lot after they have lived continuously for five years in the resettlement site. They worry about the delay in the issuance of title since they need to have a legal title to show that they are the rightful owner of the house and lot that they occupy in the resettlement site. Since they moved into their house, they have not been able to add anything to the original structure.

After they moved into the resettlement site, her husband worked on a part-time basis as a gardener of the power plant. He cut grass in the Hopewell compound. However, the power plant officials did not need his gardening services any more. Pacita and the other women in the family found no employment opportunities in the power plant company. They complained to the Hopewell officials about their livelihood situation and reminded them that the power plant officials had told them before that they would have priority in the employment hiring of the power plant to help them earn a living. They also told the power plant company officials that they did not deliver on its promise of employing local residents. They were hiring people from other barangays of Pagbilao and from other municipalities nearby. However, the company officials told them that they cannot hire the residents of the resettlement site because they lack the needed qualifications to be employed in the plant.

Before they moved into the resettlement site, their family depended on fishing to survive. Since they moved into the resettlement site, the gasoline cost of hauling the boat to the coastal waters and docking it by the river that leads to the fishing waters of Pagbilao Bay has greatly increased. Fishing has become a less profitable and non-sustainable livelihood for them. For a long time now, her husband and

other family members have no regular form of employment. They often ask for assistance from their relatives to help them find some forms of emergency employment. They also go to them for some financial help. Their relatives help them if they have something to share. Oftentimes though, the relatives do not have enough to share with them. They resort to some creative ways to subsist on a day to day basis. They also rely on the help of their neighbors in the resettlement community. Most of their neighbors in the resettlement site were their former neighbors in Sitio Capas-Capas and they have blood relations with them so they capitalize on that. They think that life conditions in their former neighborhood in Sitio Capas-Capas were much better than what they have now in the resettlement site.

*Interview with Vivian Mansanares in January 2002:*

Vivian is 38 years old. She finished 2<sup>nd</sup> year of secondary school. Vivian's family is from Sariaya, Quezon. She owns and manages a small convenience store in their unit in the resettlement site. Her family bought the housing unit that they now occupy in the resettlement site from the original resettler, Mrs. Remedios Abanilla. They bought it two years ago for the price of PhP 60, 000.00. They were forewarned that the original grantees of the house and lot units in the resettlement unit are not supposed to sell the units to other people but they took the risk. They needed a place to stay in Pagbilao Grande Island since her husband works as a security guard in the MIRANT compound. Her family bought the unit from Mrs. Abanilla because the barangay captain who has been assigned two house and lot units in the resettlement site has been buying units from the original awardees in the resettlement site who moved out of the area. The original occupants of the resettlement units had decided to get out of the housing site to find better livelihood opportunities elsewhere. The barangay captain was given a unit (and another unit later on) on the site even if he did not have a house expropriated by the project during the plant construction since he was not a resident of Sitio Capas-Capas at the time of the project negotiations. Mrs. Abanilla sold her house and lot unit in the resettlement site to Vivian's family since her family needed the money. They needed money to pay for their monthly water and electric bills and for other subsistence needs. Mrs. Abanilla's son has a unit located beside the house and lot that is now

owned by Vivian's family. Mrs. Abanilla's son has allowed her to stay with his family in his unit.

Vivian's family does not know when they will get the title to their house and lot since the contract says that the title of the unit will be issued only to the name of the original awardees. However, she is confident that there will be no complications regarding this matter. She heard that the barangay captain and some people in the resettlement site who live beside the house of the barangay captain were given titles to their home lot units already.

Vivian related that they do not receive any form of help from the government and especially from NAPOCOR. They have some community-related problems in the resettlement site. For example, nobody collects the garbage in the area so they just burn their garbage in their backyard. Neighborhood relations in the resettlement site are fine. However, they need to watch out for the security of their property and their belongings from unwanted intruders. She says this is common in most neighborhoods anyway. She likes the physical facilities in the resettlement site. The roads inside the resettlement site are cemented. Likewise, the main highway that connects them to the power plant and to the town proper of Pagbilao and to the adjoining city of Lucena and the municipalities of Tayabas and Atimonan are all concrete. Their life is much better now since her husband has a full-time employment as a security guard in MIRANT.

*Interview with Lucita Pastorete in January 2002:*

Lucita is 40 years old. She finished 4<sup>th</sup> grade of elementary education. Her family depended on fishing before they moved into the resettlement site. Their family still continues fishing but she laments that it is more difficult to fish now. The resettlement site is located far from the coast so they need cash to pay for the transport cost (jeepney ride) to go from the resettlement site to the bank of the river where their fishing boat is anchored. They also need more money to purchase gasoline to run the boat from the anchorage point to the fishing waters. Their boats are anchored not by the beach but by the river bank located at least half a kilometer away from the fishing coast. The gasoline cost needed to bring the tug boat to the fishing ground has almost doubled.

They lived for 15 years in Sitio Capas-Capas. They did not want to leave their former fishing community since they depended on the coastal shores of Capas-Capas for their daily subsistence. But they had no choice. They moved to the resettlement site in 1992. The NAPOCOR officials had promised them the title to their unit after five years of continuous stay in the area. They were given a title to their house and lot in July 2005. It was thirteen years after they moved into the project resettlement site.

Her husband used to work as a laborer in the Pagbilao Power Plant. He was expecting to work as a laborer in the Hopewell Plant for three to five years but he got laid off after working for two years only. There was no need for laborers in the plant since the construction phase was over. The members of their family were promised free water and electricity before they moved into the resettlement site. But the promise turned out to be an empty one. They pay high electricity bills on a monthly basis to MERALCO, the franchiser of electricity distribution in the island. They also buy water for their drinking and other household needs. They get their water from the resettlement water tank. However, the bills are quite high since they need to share the cost of electricity that powers the pump to bring water into the resettlement water tank. Fishing in Pagbilao bay was better before the plant was constructed in the area. The coastal waters were clearer before the plant started its construction and operations in the area. The seabed was not muddy then. Now the mud is about one and a half feet thick.

Their livelihood opportunities were much better before they moved into the resettlement site. However, they got used to the difficulties in their life and livelihood conditions in the resettlement site. They have no other choice. Neighborhood relations are as fine in the resettlement site as it was before in Capas-Capas because most of the people who moved here are related to them by blood. One thing that they do not like is that their backyard gets flooded on a yearly basis because the creek overflows during the rainy season.

*Interview with Juliana Bentoro in January 2002:*

Juliana is 60 years old. She finished six years of elementary education. She has been a resident of Ilayang Pulo since 1988. It was okay for her to be resettled but she

did not expect to be relocated to a place far from Capas-Capas. Her family's livelihood system was heavily dependent on having an easy access to the fishing sites of Pagbilao Bay. She used to gather coastal shore marine products when they were in Capas-Capas. She did not have the money to pay for the jeepney or tricycle fare to go to the shore to gather some marine products. She completely lost her livelihood opportunities when they were relocated in the resettlement site. They moved to the resettlement site in 1992. The resettlement site is located far from the coastal waters of Pagbilao Bay. The community's fishing beds are in the bay. She had wanted to move to another coastal area where they can easily go to the sea to fish and gather other marine products but the NAPOCOR found no alternative coastal area for the relocation site. They were promised to be issued a title to the house and lot that they occupy after living there for five years.

Her husband used to work as a carpenter in the Hopewell project site when the power plant was still being constructed. Her husband had a three-year contract but the construction period did not last for three years. He was laid off after working in the plant for more than a year. The job opportunities that were made available to the island residents because of the construction of Hopewell's facilities were gone in less than two years. They do not receive any form of livelihood provision or any form of assistance from the NPC and from the Philippine government. Their life in Capas-Capas before the Pagbilao Power Plant was constructed was much better than what they have now. Before, they did not have to pay for the water that they needed on a daily basis since they had their own well then. Before, they only needed to fish to subsist and live their daily life. Now they often deal with the question of where they would get their next meal. Neighborhood relations are fine in the resettlement site. She can depend on them when things get really bad as they subsist on a day-to-day basis. However, she wants to join the others who have come back to a place near the coast so that they can have better access to the fishing area of Pagbilao Bay.

*Interview with Ophelia Abella in January 2002:*

Ophelia is 44 years old. She finished six years of elementary education. Ophelia's family lived in Capas-Capas for more than ten years. Her husband used to fish in Pagbilao Bay. Her husband still fishes but at higher operating costs. In Capas-Capas, the fishermen are nearer to the municipal fishing waters. Now they

have to consume 2 gallons of gasoline before even getting out to the municipal coastal waters. Two gallons of gasoline cost more than fifty pesos. Fifty pesos is a big amount of money for them to spend on gasoline alone. In the early 1990s, they were able to persuade the NPC to allow them not to move out of Capas-Capas immediately after the plant construction started. The NPC had allowed them to operate their convenience stores in the project construction site for more than a year and then they finally moved into the resettlement site.

She now owns a convenience store and operates a billiard hall in the resettlement site. Sales at her small convenience store were good, and so were the earnings from her billiard tables during their first four years of operation in the resettlement site. However, sales from the convenience store and earnings from the billiard tables have continued to drop since 1997. Now there are only a few items left on the shelf of her store. The sales of the store and her earnings from the billiard tables seldom reach PhP 300.00 a day. She mentioned that it is better to live here in the resettlement site. Their house is concrete and is much sturdier than their former dwelling unit in Sitio Capas-Capas. Their former dwelling unit was made of nipa and other non-concrete housing materials. However, they have no alternative livelihood programs in the resettlement site. Also, the living expenses in the resettlement compound are much higher than in Sitio Capas-Capas. Everyone buys everything in the resettlement community, including electricity and water. If one does not have money to buy food, one will die of hunger.

Some cooperatives for the residents of the resettlement site were formed by the NPC officials on the resettlement site. She joined the associations that were formed by the NPC officials. They were given some funding assistance to start up some livelihood improvement programs before. These were facilitated by the NPC officials with the help of the employees from the power plant and the barangay captain but these few projects failed to progress. There was an instance when their association, under the project management of the NPC officials, purchased fishing boats, two jeepneys and other items. The project did not prosper. There is only one boat remaining now and it is rotting on the shore, with the engine and other useful fishing paraphernalia gone. The NPC officials had assumed the responsibility for maintaining the two jeepneys. There were small scale livelihood programs that were initiated in the resettlement site also, like production of rugs and slippers. The

women had produced rugs and slippers but they were not able to sell them since there were no marketing plans.

Some relatives of the residents of the resettlement site had taken it upon themselves to deal with the livelihood problems of the members of this community. They entered into contracts with a recycling company in the city of Lucena to hire them on a daily basis at a subsistence salary. Now a number of the resettlers go to the recycling plant everyday to clean bottles and do other recycling tasks. A vehicle of the recycling company fetches and brings these bottle cleaners to and from the site from Monday to Saturday. It is easier to move from the island to the adjoining towns now since the roads that connect the island to the mainland are now cemented or concretized. Other families send their daughters to work in adjoining towns and cities, and even in Metro Manila. Many have sold their housing units to the barangay captain (who now owns more than two units) and people from Pagbilao and other places. The former resettlers have moved out of the resettlement site to squat on the coastal shores of Pagbilao Bay and other places so they can have access to fishing waters.

Ophelia's family does not have a title to their house and land unit in the resettlement site yet. There is a legal problem between the NPC and the original owner of the land where one half of the resettlement site was built. The original landowners did not want to give up ownership of the land for a price lower than its market value. They have good neighborhood relations in the resettlement site since they know most of the residents here. Most of them are related by blood. However, no government affiliated organization collects garbage in the resettlement site.

#### **DEVELOPMENT-INDUCED DISPLACEMENT IN SAN MANUEL, PANGASINAN – THE SAN ROQUE MULTI-PURPOSE DAM PROJECT**

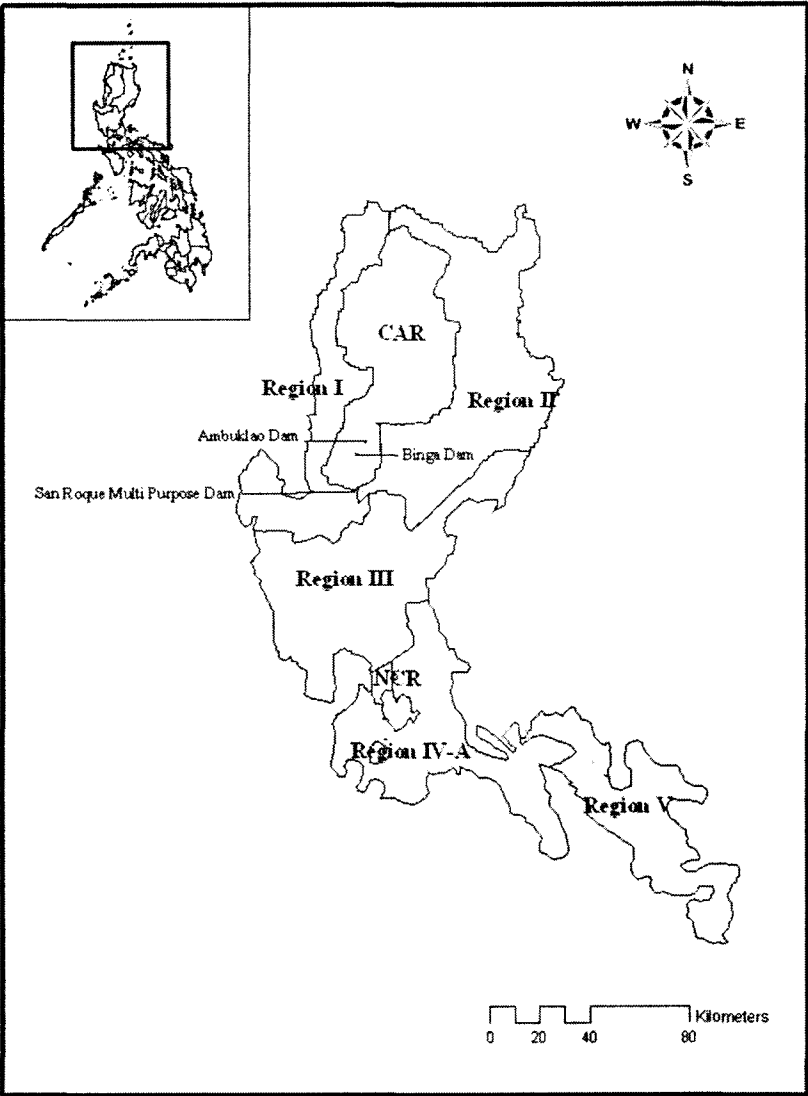
##### **The Agno River Basin**

The Agno River Basin is the 5<sup>th</sup> largest river basin in the country with a catchment area of 8,013.41 square kilometers. It occupies a great part of northwest Luzon. It is located within 120° 51' 21.1" to 120° 51' East longitude and from 15 8' 29.9" to 16 51' 07.9" North latitude (Agno River Basin Development Commission, n.d.).

The basin's 270-kilometer river is known as the Agno River. It has an estimated runoff of about 8,044 million cubic meters of water that passes through V-shaped gorges in the mountain areas of Benguet. The river winds through a rich valley that is elongated in the north-south direction. The Agno River joins the Tarlac River in Bayambang, Pangasinan before it discharges into the Lingayen Gulf. The Agno River flows through three administrative regions: the Cordilleras, the Ilocos and Central Luzon (Please see figure 4). The three regions cover 8 provinces, 68 municipalities and 5 cities. The Agno River's greatness indicates its great ecological and socio-economic value and vast potentials as energy provider to the multi-cultural and indigenous communities located within and around the area. The outlet of the Agno River in the Lingayen Gulf, which stands at zero elevation or mean sea level, has the lowest gradient in the Agno-River basin.

The Agno River Basin is a discrete geographical area. The vast agricultural areas in the provinces of Pangasinan, Tarlac, Nueva Ecija and a small portion of La Union cover approximately 50 % of the total area of the Agno River Basin. Its gradient ranges from zero to 18 percent slope (ARBDC, n.d., 14). The flat lands in this cluster are found in the cities and municipalities that comprise the Pangasinan Central West Cluster. These urban centers are the towns and cities of Labrador, Bugallon, Lingayen, Binmaley, Dagupan, San Fabian, Mangaldan and Calasiao. The lands rise gently from these areas and reach a gradient of 18 % in the western foothills of the Cordillera mountain ranges in the Pangasinan Central East Cluster. The same condition applies at the eastern foothills of the Zambales mountain range in the Pangasinan West Cluster and in Tarlac in the South Cluster approximately at an elevation of 100 meters above sea level. From here, the ruggedness of the topography begins. The slope gradients in the Cordillera and Zambales mountain range from 18 to nearly 100 percent. The area is characterized by irregular and jagged ridges and canyons and peaks that reach an elevation of 2,930 meters at Mt. Pulag's highest point. The upland watersheds of the Agno River Basin cover about 39.59 percent of its total area (ARBDC,15).

The Agno River Basin faces a high and multiple demand for its water resources whose quality and quantity are now at a critical level. Conflicting activities in the basin such as demands for service reservoir provision, mineral exploitation,



**FIGURE 4**  
The Northern Luzon, Philippines

development of all sorts of infrastructure, the spread and encroachment of urbanization, agriculture, business, industry and other related activities such as waste disposal, recreation, tourism, wildlife conservation and landscape enhancement and environmental degradation make the task of managing this geographical unit a challenging one (ARBDC, 2). The Agno River Basin Development Commission is

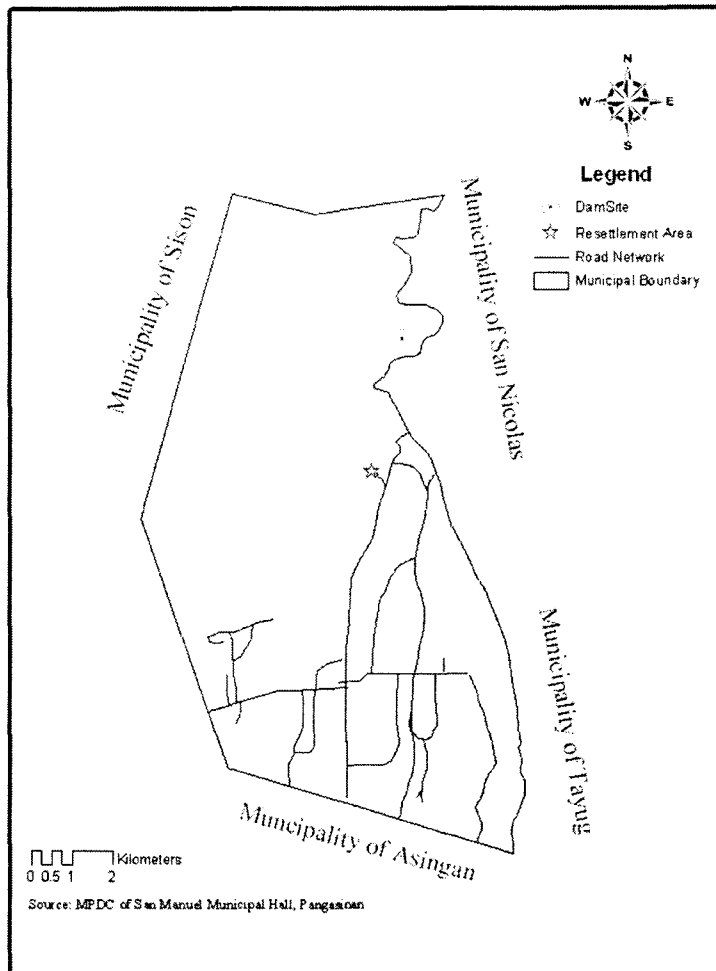
the government agency that is tasked to oversee the overall coordination of water-related programs in the Basin, through Executive Order 442 and as amended by Executive Order 140, s. of 1999.

The strategic development plans for the Agno River Basin follow development plan guidelines of the Cordillera Administrative Region (CAR), Region I (Ilocos Region), and Region III (Central Luzon). The Ilocos Region aims to develop export-oriented agri-industrial and tourism-based activities on its western seaboard. Central Luzon's development strategy is anchored on the "W" growth corridor strategy. This "W" growth corridor strategy capitalizes on the comparative advantages of the provinces and growth areas in the region to bring development to all parts of the region. Meanwhile, the Central Administrative Region, with its 12 river basins that include the Agno, is the watershed cradle of Northern Luzon. The CAR is the prime source of water for the adjoining lowland regions as well. It is also a major source of energy through the hydropower stations of the Binga and Ambuklao Dams and hydropower stations. A third, the San Roque Multi-Purpose Dam Project (SRMDP) was recently constructed by the river..

The site of the SRMDP belongs to the Central East Cluster in Northern Luzon's Strategic Development Plan. Together with 18 municipalities and one city in Pangasinan (Alcala, Asingan, Balungao, Bautista, Binalonan Laoac, Natividad, Pozorrubio, Rosales, San Manuel, San Nicolas, San Quintin, Sta. Maria, Sosio, Sto. Tomas, Tayug, Umingan, Villasis and Urdaneta City), this cluster has an area of 1,684.52 square kilometers (ARBDC, 63). This is vulnerable to a number of hazards such as soil erosion, landslide occurrences, and flooding. Travel between municipalities can be difficult during the rainy season due to flooding problems and the unpaved roads. Most of the houses are constructed along the few concrete major roads and already, traffic congestion characterizes these transportation arteries.

### **The Town of San Manuel, Pangasinan**

San Manuel is part of the Central East Cluster (Please see figure 5). The town of San Manuel consists of 14 barangays (Physical and Socio-Economic Profile of San Manuel, Pangasinan, 2005). In the year 2000, its population stood at 44, 632, with



**FIGURE 5**  
San Manuel, Pangasinan

13, 808 people living in the town proper (or poblacion). A total of 27, 398 people live in the barangays outside of the poblacion (Please see table 1). The population has an annual growth rate of 2.70 % and a sex ratio of 101 males/100 females. The average monthly family income in the area is PhP 9, 662.67 while the average monthly family expenditure is pegged at PhP 7, 545.42. The town is a 4<sup>th</sup> class municipality with a municipal government income of PhP 41, 431, 235.79. The municipal government expenditures total PhP 45, 008, 145.82. It is not a self-reliant community and needs assistance from the national government to deliver basic services to its constituents.

Development-Induced Displacement, Resettlement Experiences and Impoverishment  
and Marginalization in Pagbilao, Quezon and San Manuel, Pangasinan

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**Table 1.** Population by Barangay (2000 Census)

Barangay	Population	No. of households
1. San Antonio – Arzadon	1914	407
2. Cabacaraan	1754	353
3. Cabaritan	1699	338
4. Flores	4768	979
5. Guiset Norte (poblacion)	4360	908
6. Guiset Sur (poblacion)	3201	764
7. Lapalo	1179	249
8. Nagsaag	19865	401
9. Narra	2970	592
10. San Bonifacio	3138	658
11. San Juan	2367	508
12. San Roque	4261	932
13. San Vicente	3091	629
14. Sto. Domingo	4518	926

*Source: PSEP of San Manuel, 2005*

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**Table 2.** Economic establishments in San Manuel, Pangasinan

Establishments by sector	Number
Wholesale and retail	237
Manufacturing	114
Community personnel services	53
Hotels and Recreation Work	24
Financing Insurance and Real Estate	10
Health and social work	8
Transportation, communication, storage	4
Agricultural, forestry and fishery	1

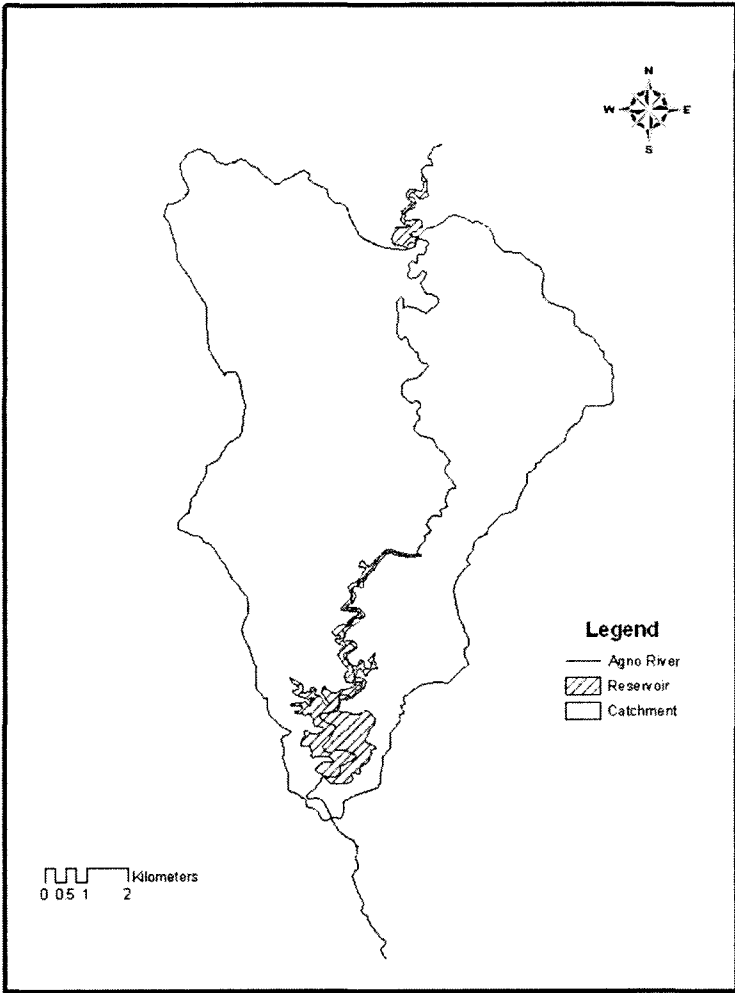
*Source: San Manuel PSEP, 2005*

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The municipality is located 200 kilometers north of Metro Manila. It is bounded on the north by Itogon, Benguet and by the Mountain Province. It is bounded on the south by Asingan, Pangasinan, on the east by San Nicolas, and on the west by Binalonan, Pangasinan. San Manuel, Pangasinan has two prevailing weather systems. The dry season runs from December to April and the wet season starts from May to November. The average monthly temperature in the area is 26.8 degrees Celsius. Together with the other municipalities in the Central East Cluster, San Manuel is a predominantly agricultural community. The town has a total land area of 13, 370 hectares, of which 8, 059.37 hectares of lands produce 33, 466.36 metric tons of rice per year. Other agricultural lands support onion, tobacco, coconut and vegetable production. However, low agricultural productivity characterizes the town in the past decades due to lack of irrigation water during the dry months. There are only 15 communal irrigation systems in the town that service 2, 589 hectares of agricultural land. The National Irrigation Authority system services only 3, 076 hectares of agricultural land. The place is affected by too much flood waters during the rainy season, high cost of fertilizers, lack of post-harvest facilities (there are only 15 rice mills and three warehouses), and some difficulties associated with bringing the farmers' produce into the major markets. Most agricultural land in the town is also being converted to other urban uses.

A majority of the farmers is into livestock and poultry production which provides its single town market and slaughterhouse with a number of goats, cattle, carabao, swine and chicken on a daily basis. Small-scale retailing is common in the town with gold panning as one alternative livelihood source. Table 2 shows the other establishments in the municipality.

San Manuel is vulnerable to a number of hazards such as soil erosion, landslide occurrences and flooding. Travel between municipalities can be difficult during the rainy season due to flooding problems and due to the unpaved roads. Not much planning is given to the town's infrastructure and the system of transportation. There is a limited road network system and most of the houses are constructed along the few concrete major roads. At present, traffic congestion characterizes these limited transportation arteries due to the changes brought about by the San Roque Dam in the area and the situation is bound to become more serious in the future.



**FIGURE 6**

The San Roque Dam Reservoir on the Agno River System

**The San Roque Dam Multi-Purpose Project**

The San Roque Dam Multi-Purpose Project exploits the Agno River for energy production. The San Roque Dam is an earth rock fill dam that now lies in the area. It has a maximum height of 200 meters. Its three turbines (Vertical Shaft and Francis), with a maximum gross head of 125 m and minimum gross head of 125 m, can generate 345 MW of electricity every month. The power plant is of the switchyard type with high voltage SF<sub>6</sub> circuit breakers. It has the following transmission

characteristics: voltage-230 KV; lines type – D. circuit; length-9 km. The San Roque Multi-Purpose Project operates on a minimum of eight hours a day but it can run up to 24 hours a day. The San Manuel Substation that is located 10 kilometers away from the plant is connected through a 230 KV transmission line (San Roque Corporation Brochure, n.d.).

The project aims to reduce the perennial flooding problems in 16 Pangasinan and Tarlac towns by attenuating the flood peak in the lower Agno River through the use of the power plant's flood control capacity of  $140 \times 10^6$  cu m. Floods with a 5-year recurrence period will be impounded and floods of greater magnitude will be routed to contain flows that exceed 2,500 cubic meters per second. In 2004, Liongson indicated that the construction of the dam had altered the flooding pattern in the area by containing the floodwaters in the impoundment site. However, a number of local government officials in Pangasinan, including those of Dagupan City, indicated in 2003 that the sudden rise of floodwaters at the height of the occurrence of tropical depression Chedeng in their areas of jurisdiction was due to the sudden releases of floodwaters from the Ambuklao and San Roque Dams (De la Rosa, 2003). This situation was denied by Speaker Jose de Venecia, Jr., in the June 2003 edition of Pangasinan's *Sun Star*. However, the projected steady silt build-up at San Roque will induce upstream flooding along the Agno River and its tributaries.

The SRDMP also aims to provide year-round irrigation waters to the surrounding areas. It will cover 70,800 hectares to 87,000 hectares of agricultural lands that produce rice and other crops. This will benefit 53, 000 farmers in 28 municipalities of Pangasinan, Nueva Ecija and Tarlac. The three host communities of San Manuel and San Nicolas, Pangasinan and Itogon, Benguet are expected to benefit from the electricity sales of the project. This will give them the Advance Financial Assistance Fund (DOE ER 1-94) in the amount of P 9, 470,000.00 per year. The officials of the three municipalities can use the fund to finance the electrification programs in the area, the construction of development infrastructure, livelihood and skills training programs, reforestation and watershed management projects, and health and environment enhancement programs.

## Displacement of Communities due to the SRDMP

The widespread resistance of the surrounding communities to the construction of the dam was rooted in many causes. One of them relates to a number of untoward incidents experienced by the residents of the areas that are now submerged under water and/or are now part of the SRMDP complex. For instance, on July 20, July 22 and July 28 of the year 2002, demolition of houses and evacuation of residents in the area's vicinity were reported. The houses of residents of Sitio Bolangit, Barangay San Felipe in the town of San Nicolas, Pangasinan were dismantled and the affected residents were forcefully evacuated by people who were said to be officials of the NPC and SRMDP (Otadoy, 2002). The families of the evacuees were asked to sign some documents, board a chopper, and leave their animals and property behind. They were given tents to put up in an adjacent area where they lived temporarily.

A total of 718 households were displaced by the construction and operation of the dam. This figure does not yet include more than a thousand households whose livelihood sources were cut off by the establishment and operations of the SRMDP. A more detailed discussion of the topic is found in a related paper of the same author with the title "Causes and Consequences of Development-induced Displacements in San Manuel, Pangasinan, The Philippines."

The Resettlement Action Plan (RAP) that was drafted in 1995 for the people that would be affected by the SRDMP was revised by the NPC in 1999 upon pressure exerted by the Japan Bank for International Cooperation (JBIC). It detailed the objectives of the relocation program as follows: resettlement of households that maintained their place of residence in the project site, restoration of the economic conditions of the affected communities, compensation for all property that was expropriated and damaged during the project construction and operation phases, and provision of programs that will help improve the conditions of the persons affected by the project in the resettlement area.

The RAP elaborated that NPC had prepared for the relocation of 741 households. Other activities that were stipulated in the 1999 revised RAP are the following:

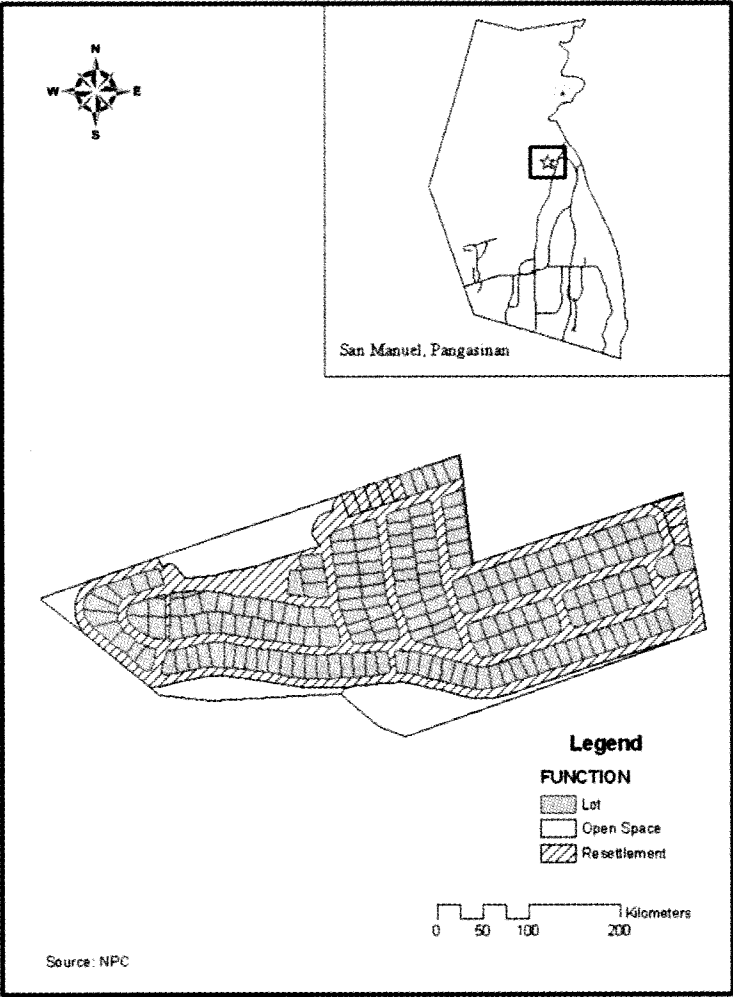
- 1) The expropriation and compensation of individual landowners or occupants and resource users with land holdings or improvements located within the project site;

- 2) The entitlement of the project-affected persons (PAPs) to the following:
  - a. payment on expropriated lands based on current market values;
  - b. payment for houses and any man-made structures in the area which is based on the current cost of replacement materials and labor in the locality;
  - c. payment for fruit-bearing and non-fruit-bearing trees, plants and all sorts of crops on the lands that will be expropriated and affected by the dam construction and operations;
  - d. granting of financial assistance (that should not be less than PhP15,000.00) to all land tillers; this is equivalent to a year's worth of harvest, averaged from the past three years gross production yields;
  - e. granting of a 33-square meter house on a 200 square meter lot (the Transfer Certificate of Title for the house and lot will be awarded to the recipient if they reside in the unit for a continuous period of five years);
  - f. granting of lot in the resettlement sites for those who prefer to build their own homes (the Transfer Certificate of Title for the lot will be awarded to the recipient if they reside in the area for a continuous period of five years);
  - g. granting of PhP 17, 000.00 for self-relocatees who may wish to purchase a residential lot in a different location within the vicinity;
  - h. granting of a disturbance compensation in the amount of PhP 7, 500.00;
  - i. compensation for the cost of ceremonial rites associated with transferring the remains of their dead relatives and ancestors.
- 3) For the indigenous people in Itogon who occupy an area in the future reservoir, the RAP has provided the option of a land-for-land swap, in which they will be awarded a contract that assures stewardship of state-owned land for 25 years within the Lower Agno Watershed Reservation in exchange of their ancestral lands. The contract is renewable for another 25 years.
- 4) The RAP also mentions that the NPC will initiate some Community Livelihood Development Programs in the resettlement sites to restore their livelihood sources and help them improve their quality of life.

5) The RAP scheme likewise covers the following:

- a. The Energy Regulation I-94 which stipulates that a fund, that will be derived from the energy generation project's income at a rate of PhP 0.0025 per kilowatt-hour generated, would be established for developing the livelihood systems of persons that were affected by the energy-generating project. The funds will be disbursed through the PAPs' cooperatives and/or people's organizations as interest-free loans.
- b. The NPC Watershed Management Department can employ the PAPs by contracting their services in the NPC watershed and reservoir management activities.
- c. The PAPs can continue with their farming, gold-panning, charcoal-making, and fishing activities during the dam's construction stage and operate their own small variety stores and canteens at the construction site.
- d. The PAPs can farm in designated portions of the NPC-managed watershed area and pan gold upstream of the reservoir during the dam's operation stage.
- e. The PAPs can participate in the operation of transportation between the municipalities of Itogon, San Manuel and San Nicolas.

However, these resettlement plans were not implemented properly. The SRDMP has dislocated more people than the ones that have benefited from the NPC's Resettlement Action Plan as PAPs or project-affected persons. According to the NPC officials who worked in the SRDMP, dislocated people include only those whose houses were burned and had been physically removed from their former homes in the San Roque dam site and the Bolangit reservoir areas. They did not include those who have been economically displaced or whose livelihood activities were curtailed. They did not include those who have been displaced because of the project's adverse environmental effects. For example, the victims of the flash floods that affected many residents of Narra and other barangays on the Agno River banks were not assisted by the SRDMP. The flash floods in these areas were due to the change in the course of the Agno River that was effected by the river quarrying or



**FIGURE 7**  
The Sitio Camanggan Resettlement Site in Barangay San Roque,  
San Manuel Pangasinan

burrowing of dam materials from the river during the dam’s construction. These floods had displaced scores of households on the Agno river’s banks. They had to move out of San Manuel and had relocated to other places such as in other parts of Pangasinan, the Ilocos Region or in Metro Manila because their houses and farm lots were greatly devastated by these flash flood occurrences. They do not qualify as SRDMP’s PAPs.

The NPC developed two resettlement sites in Pangasinan. One site is in the town of San Nicolas at Sitio Lagpan, Barangay San Felipe East and another one in the town of San Manuel at Sitio Camanggaan, Barangay San Roque (Please see figure 7). However, there were only 187 houses in the resettlement areas. The NPC had provided 187 units to 187 PAPs only. The rest of the 741 households that were directly affected by the SRDMP chose to be self-relocated or were simply forced to leave the place. A number of self-relocatees were reported to be still waiting for some of their compensation money. They were still hoping that some genuine assistance in developing new forms of livelihood systems will be afforded them.

The following vignettes relate the experiences of some actors and participants in the San Roque Resettlement project. The interviews were held from 2002 to 2005. For purposes of writing this report, they were translated into English from their original Filipino and Ilocano narrations. Only minor editing was undertaken to keep the narrations in their intact form.

*Interview with Bienvenido Basbas, Jr., on December 2, 2002:*

Bienvenido is a NAPOCOR official and site manager of Sitio Camanggaan Resettlement site in San Manuel, Pangasinan. According to Bienvenido Basbas, Jr., the San Roque Dam Multi-Purpose Project affected 384 families. He mentioned that the NPC was able to resettle 188 families. They located the resettlement site in Sitio Camanggaan in Barangay San Roque in observance of one resettlement guideline - the community that will be displaced should be relocated in the same barangay that they were uprooted from. Thus, families that were uprooted in San Roque were relocated at a resettlement site in the same barangay. They did the same in the town of San Nicolas, Pangasinan. They did this so that the uprooted people will not suffer from all sorts of shocks, most particularly, culture shock associated with development-induced displacement and relocation.

According to the NPC site manager, the NPC officials held a number of meetings and dialogues with the officers of the affected local government units, barangay councils, and residents of the barangays before the resettlement plans

were finalized. The issues and concerns discussed with the people were addressed in the resettlement package that the NPC officials had promised to deliver. They were listed in the NPC's relocation action programs (RAP). The RAP has served as the NPC officials' guide in the implementation of the resettlement program. However, he did not give the researcher a copy of the RAP. He mentioned that the NPC officials cannot give a copy of the RAP to anyone who is outside of the NPC resettlement working team. The document is classified as confidential. He stated that there were no contracts signed between the NPC and the people regarding the programs and assistance that are included in the RAP.

According to Mr. Basbas, a total of 182 households did avail of the house and lot package in the resettlement site. These families now live in the resettlement area. Other households that were displaced by the program availed of lot procurement and constructed their own house. Other displaced families opted for self-relocation and they moved to other places. The NPC allocated PhP 50 million to cover the disturbance compensation packages of all families who lost their houses and other structures due to the SRMDP construction. The Sitio Camanggaan resettlement site has been constructed and installed with electricity connection, its own water supply, a network of concrete roads inside the site, a basketball court, a multi-purpose hall and a chapel. As part of the NPC's assistance to the families in the resettlement site, the NPC officials had asked the members of the resettlement sites to form community associations. They also advised the displaced families to think of livelihood improvement projects that they would like to implement. There were six associations that were formed in San Roque and 11 in San Nicolas. Under a financing scheme, the NPC provided the members of the community associations with funds for their livelihood improvement projects. Through the years, millions of pesos worth of livelihood assistance programs under various financing schemes were given by the NPC to the families that they have resettled. However, the repayment rate, according to the NPC official, has been very slow.

The NPC officer has indicated that the NPC has guided these families in undertaking livelihood assistance programs, such as raising cattle, vegetable production, rice production, and piggery. Some programs are still on-going in the resettlement sites. However, most of these programs have not materialized

successfully. The NPC is still in the process of implementing some guidelines in the resettlement action package. The NPC still supervises and follows through some of the projects that were implemented by the families who have resettled in the area, even if they failed or did not prosper. The NPC's recent assistance to the families who have been resettled in Sitio Camanggaan was the facilitation of access to a piece of land in one of the hilly portions of Barangay San Roque. On this lot, each family is allocated 1000 square meters of agricultural plot. Here the family members can cultivate any crop they wish to raise.

According to Mister Basbas, the NPC officials are aware that from among the 188 resettled families, a number of them have already sold their rights to the units that were assigned to them. They sold them to other people who originated from outside the resettlement site. The site manager has made it clear that the original owners of the houses and lots in the resettlement community are not supposed to sell their rights to the units. The NPC will transfer the titles to the resettlement houses and lots only after the people who have resettled there have occupied the houses for a period of five years. Most of the displaced people who chose to be resettled in Sitio Camanggaan have been there since 2000. The NPC will turn over the titles of the lot and house units to the original awardees by 2006. He mentioned that the NPC officials have no idea of how many resettlers have already sold the right to their resettlement units to other parties. The buyer took a gamble on her or his decision to buy the rights to the resettlement units. The people who have resettled in the site do not yet have any papers or documents that will serve as proof of ownership for the unit. The title of the property will be issued only to original awardees of the resettlement units who have stayed there continuously for five years. If there will be any trouble pertaining to the ownership of the resettlement unit in the future, the NPC will not have anything to do with it. The title is to be issued only in the name of the original occupant of the unit.

As for the NPC's other projects, he mentioned that they have initiated reforestation programs in the dam's watershed. It maintains a watershed reforestation project. It does not allow people to do slash and burn agriculture in the area. The Department of Environment and Natural Resources monitors it on a monthly basis. According to the NPC's assessment, the environmental condition in the San Roque

Resettlement site has improved a lot. The NPC has also conducted a survey of the socioeconomic conditions of the residents to compare their living conditions before the resettlement program and their living conditions at the present time. Questions such as “If before they were using firewood for cooking what fuel are they using now?” are being asked. This survey is being undertaken in other resettlement sites in the town of San Nicolas, Pangasinan, and in Itogon, Benguet, too. The NPC resettlement project team has not fully completed all the programs included in the resettlement action package for the Sitio Camanggaan Resettlement site. In the near future, the NPC officials will initiate the bidding for the construction of the often flooded rough road that connects the resettlement site to the other districts in the barangay of San Roque. The NPC also has to install a gate and build a fence around the periphery. The NPC expects to finish them in 2006.

*Interview with Eusebio Marquez in October 2002:*

Mr. Eusebio Marquez is 48 years old. He is a member of the SRDMP Camanggaan Resettlement Site, in Sitio Camanggaan, San Roque, San Manuel, Pangasinan. He is a high school graduate and a council member in the barangay. He earns an honorarium of PhP 9, 000.00 per quarter as a council member. He is a Protestant and a former resident of the dam site. He used to cultivate a rice land whose area is more than half a hectare and produced 50 cavans of rice a year. Before the SRDMP, he was also involved in gold panning. His family moved into the resettlement site in 2000. The whole relocation period took about more than a year. They were given PhP 7, 500.00 as disturbance fee. Negotiations between the PAPs, the SRDMP representatives and the NPC officials started in 1998. At the time of the negotiations, there was no written contract or document that they signed. There were families like his family who opted to be relocated in the site while others opted to move somewhere else. He knew of ten families who opted not be relocated. They decided to move to different places, like Baler, Aurora. Other families opted to stay with their relatives in nearby places such as Sitio Calaocan after receiving disturbance compensation and payments for their dismantled houses.

Their resettlement unit in the site has a lot area of 200 square meters. Their house in the resettlement site is bigger than their old dwelling. It has two rooms, a toilet and bath and a kitchen. It is sturdier than their old dwelling. There is a water tank in the resettlement site that provides for the daily water needs of the community but they have to pay for the water that they use on a daily basis. There is a chapel for Protestants in the resettlement site. However, there is no post office, telephone post, health center, or school. The Catholics have to go to the town proper to attend mass. The resettlers go to the town center to get their daily needs by riding the tricycle. However, they still prefer their former house even if it was made of cogon and was worth only about 50, 000 pesos. Their yard in their former home lot was more spacious. He used to raise some pigs and chicken in their former place. They used to have a small fishpond, too. They lost their right to till an agricultural lot in their former homeland when they moved into the resettlement site. They also lost their chicken cage and their fishpond on which his family had spent ten thousand pesos for their construction and development.

He recalls that the NPC had promised the relocatees that if they would resettle in the site they will not have to pay for anything, including the electricity and water bills. However, they ended up paying for their monthly energy and water needs. He also recalls that part of the resettlement program that the NPC had promised them is the provision of a 29-hectare agricultural lot. This area will be allotted to the members of their association as agricultural plots so they could farm right after they had moved into the resettlement site. This lot was not made available immediately to the resettlers. The NPC officials had told them that there were several processes to be made before this agricultural lot could be made available. There was a time when they seriously doubted whether the lot would still be made available to them. It took several years before the agricultural lot was made available to the resettlers. It is not a 29-hectare agricultural lot, but a tiller can get a 1000-square meter garden plot to cultivate instead. He remembers that the NPC officials had also told them that all able-bodied persons have a chance of working in the dam and they will be prioritized as beneficiaries when the agricultural lot becomes available. It turned out that only a few would be able to avail themselves of employment in the dam facility. Nevertheless, he is happy to realize that the

agricultural lot is now available to them after almost five years of not having access to a piece of land where they can cultivate farm crops.

He is aware that there are about 196 units in the resettlement site that house 196 families. He relates that the NPC officials had been managing the relocation program. The NPC officials had convinced them to move out of their homelands prior to the SRDMP construction when the NPC officials had promised them that the uprooted people will be given some livelihood opportunities in the resettlement site. Indeed the NPC initiated some programs for raising goats, pigs and cows, sewing and biogas production but they were very difficult to sustain since they did not and still do not have access to any pasture lands. The NPC officials had promised them access to pasture lands but up to now they have not delivered on their promise. His present job is raising pigs in a pigpen that they built in one part of their resettlement unit backyard. They have five pigs which bear piglets two times a year. They earn about P 100,000 pesos a year from pig-raising. Subtracting all the expenses associated with pig-raising, they incur a net of P 50, 000.00 pesos or about four thousand pesos a month. He would like to farm in the agricultural lot that was recently provided by the NPC to the resettlers on an adjoining hill but he finds it difficult to farm in an area where there is no irrigation water. He hopes to have a stable livelihood source in the future.

Most adult male and female members of many households in the resettlement site have no stable jobs. Many people here are simply sitting down the whole day due to lack of things to do. The males are usually on standby for work but employment is difficult to find. There was a time when people from the resettlement site were employed in the dam as laborers but they have since retrenched especially after the dam facilities had been built. Men and women here have no other choices. They cannot farm in the resettlement site. They also do not have access to gold panning. Even children used to do part-time gold panning. They have totally lost those income opportunities. The same case stands even among small-scale businessmen who used to trade in gold. There are not many opportunities for doing business in the resettlement site. Some women maintain a small convenience store, or sell small items, vegetables and duck eggs if they can get them on a consignment basis. Thus, many women simply stay at home, with the elderly and the children.

His wife is luckier than the other women. She has a small convenience store which earns a profit of 50-100 pesos a week. What is important, however, is that the store helps provide for their daily food requirements. It also allows them to meet the children's daily material requirements. Their living condition was much better before they were displaced from their homelands. They incur more expenses in the resettlement now than before. For example, they did not have to pay for the water that they used to maintain their household, but they do now. They also have less money to pay for their electricity bill which averages up to P 300 to 400 a month.

In terms of political participation, there is not much change. He pointed out that many interest groups and politicians have given them empty promises in the last five years. He can only hope for irrigation water to be made more available to the agricultural lot that was allotted to them for cultivation or they can be given back their farm lots to cultivate. He thinks that the NPC officials and the contractors in the SRMDP should do something to remedy the stressful situation in the resettlement site.

*Interview with Sabina Guillermo, the registered owner of a resettlement unit in Sitio Camanggaan, and Marife Lorena, Sabina's daughter, in 2002:*

Marife is 29 years old. She is a Catholic, a high school graduate, and a former resident of Cadanglaan, Narra. She was formerly engaged in gold panning and used to earn P 300 for panning 8 grams of gold in three days. She is now unemployed. Her family used to cut trees in the watershed. They transported the cut logs to the lowlands via the river. They produced charcoal for sale in the market. Her family did not want to move to the resettlement site but they had no better choice, and they did on March 23, 2000. She mentioned that the negotiations and discussions on the relocation process went on for a long time, i.e., from 1998 to 2000. They were given by the NPC officials the amount of P 5000.00 a month, as part of their disturbance compensation, when they were uprooted from the dam site and while they were waiting for the completion of the resettlement site. The provision of five thousand pesos stopped when they finally moved into the

resettlement site. She related that the NPC had facilitated the resettlement process. There were no contracts given to them. They did not receive a certificate of ownership of the house and lot but the NPC officials promised them that they would get the title after living in the unit for five years. They were promised P20,000 pesos if they moved to the site but the NPC did not give them the P20,000.00. The NPC officials have not completed paying them the rest of the cost of their farm lot which measured about 5 hectares. The NPC still needs to pay them 30 % of the total amount. The NPC officials told them that they will not be given the remaining balance for the land payment since they only have an emancipation patent to the lands that were expropriated from them. She mentions that the officials of the NPC were not legally bound to complete their payments and deliver on their promises because there were no signed written contracts between the NPC and the PAPs during the resettlement negotiation process. She remembers that during the negotiation period, the NPC had told them that water in the resettlement site will be distributed free for their daily use. It turned out that they need to pay for every drop of water that they will consume. To remedy this problem, they spent a large amount of their limited funds to build an artesian well in their lot but they still need to pay for their drinking water. Marife knew of some families who moved to Sitio Calaocan instead of moving in to the resettlement site because water is free in Sitio Calaocan. They were issued payments for their expropriated residential lots.

Her family was given a lot with an area of 200 sq meters and a 33 sq. m. house. The NPC officials had initiated some livelihood training in the site but they did not institute sustainable livelihood programs in the area. There are no pasture lands or any space available for such purposes. Many male members of the households in the resettlement site have no employment because there are no farms to cultivate. The women and children cannot do gold panning since they do not have access to the Agno River. The SRDMP had erected gates and fences that prevented the people's access to the river. The only regular source of income for their family is that of her brother. Sabina Guillermo has a son who works as a laborer in the dam construction. They worry since the construction of the dam facilities is near its completion.

Although there is not much change when it comes to holding their political affairs, they notice that safety and security are an issue in the resettlement site. They have lost chickens in the first few days after they moved into the site. Their neighbor lost his dog, it simply disappeared. Another problem that they experience in the resettlement site is that a portion of the main road that leads to the town center gets flooded when there is heavy rain so accessibility is a problem during the rainy season.

The pain that was caused when they moved out from their former residence was deep. They lost their association with their neighbors and their social network which they used to depend on in their former homes. They do not have fruit trees and vegetable plants in the resettlement site so they have to buy almost everything to subsist daily. Their biggest problem is where to find the money to pay for their electricity and water bills and to meet their daily subsistence needs. There is nothing promising to do in the resettlement site. There is already a saturation of small convenience stores in the resettlement site. She hopes that the NPC would deliver on their promise of providing them with livelihood programs, so they can survive.

Update interview with Sabina Guillermo on October 17, 2002:

Sabina's daughter (Marife) now works as a seamstress and earns P 260 pesos per day.

Sabina has no regular job so she stays in the house most of the time but she sells plants and baskets whenever there is an opportunity for it. She collects and sells junk items to add to the household earnings but her earnings still cannot cover the daily household expenses. She is trying all means to make do with what she earns. She tried raising chickens in the resettlement site but she stopped doing this because her chickens often got lost or stolen somewhere in the area. She noticed that they do not have good neighborhood relations in the area. The members of the resettlement community do not help or support each other. Seldom do they get together or undertake any community gathering or activity, e.g., they do not have any neighborhood Christmas party. She considers their family's living conditions in the dam site as more desirable than what they have now. Their family could farm and raise cows in the area. The NPC officials had promised giving them a title to

their resettlement unit after five years of occupying it. Up to now, no title has been issued to them. They still experience the recurring flooding problem on the main entrance road to the resettlement site. The NPC officials have failed to buy a certain portion of a property that belongs to a private person. The main entrance road falls on this private property, thus they cannot improve the condition of the road. The government does nothing to solve this problem. Both the local and national government agencies do nothing to solve these problems.

*Interview with Irma Bitano in May 2002:*

Irma is 24 years old, married, and a high school graduate. She was a former resident of Tayug, Legaspi. She used to cultivate rice. She has been a resident of the resettlement site for two years now. Irma has a clear recollection that the NPC officials had promised them that if they would give up their house and their farm lot these would be replaced. They were promised a farm lot in another part of the Agno Watershed in exchange for their farm lot so they could cultivate crops. However, there was no written contract signed by both parties so the replacement of the farm lot was never realized. Nevertheless, they have a house and lot unit in the resettlement site. The NPC officials had also promised them that they will develop the resettlement site by providing business opportunities for residents like poultry raising. Again, the NPC officials did not deliver on this promise. According to Irma, the NPC officials had convinced them that they would have a life in the resettlement site that is better than what they had before. NPC paid them P24,000.00 for their expropriated house and farmland.

The SRMDP officials occasionally provide them with vegetable seedlings. It hosts trainings on how to make fruitcake but other than these activities, Mrs. Bitano indicated that no other livelihood trainings was given to them. Some people in the resettlement site earn a living by driving a tricycle. They experience life as more difficult here because the only main and stable source of income is if one gets employed in the dam. Not everyone is qualified to be employed in the SRDMP site. Moreover, even if her husband has a job in the dam as a water supplier his wage is not enough to sustain the family's daily subsistence needs. Many children of

families in the resettlement site have stopped attending school since they now cannot afford the cost of sending the children to school. She can only hope that the NPC officials would deliver on their promises of livelihood opportunities and improved living conditions in the resettlement site.

*Interview with Berting del Rosario (68 years old) and Yolanda del Rosario (63 Years old) in 2002:*

Berting and Yolanda are members of the Catholic Church. They used to plant sweet potatoes or camote, rice, vegetables and corn. Berting finished 4<sup>th</sup> grade of elementary education while Yolanda completed 3<sup>rd</sup> grade of elementary schooling. Berting and Yolanda used to oppose their being uprooted from their former home and their relocation to the resettlement site. They were not able to stop the SRDMP and the NPC officials from uprooting them from their home and farm lots. The two were former residents of the present dam site. The couple were asked to evacuate their original residence and farm lots in the dam site on very short notice. They were miserable when their house was dismantled and when they had to leave their former home and place of work. They moved to Bubon in 1998. They did not have any idea as to what jobs they would have. They were not sure if they had a place to stay. At their age, it would not be easy to find a job other than farming. They do not have a title to the two-hectare farm that they were tilling but they had been cultivating the land for about four decades already. The NPC officials had paid them P20,000.00 for their camote crops and a monthly support of P5000.00 pesos for three years after their house was dismantled and left their farm lot and while they were waiting for the resettlement site to be completed. They moved into the resettlement site on April 18, 2000. They spent P 1000.00 pesos to facilitate their move into the resettlement site. After they moved into the resettlement site, they no longer get the P 5000.00 monthly support from the NPC.

Every arrangement and discussion on the issue of resettlement was finalized in verbal agreements. There were no written contracts. However, two provisions were very clear when these verbal agreements were made – the house and lot in the resettlement site and livelihood opportunities for the people who will agree to relocate

in the resettlement site. The house and lot package was delivered by the NPC as promised but the provision of livelihood systems and the needed jobs were not.

The interviewees stated that in the resettlement site they have a concrete house but they have no place to farm. They only know how to farm. In the resettlement site, the roads are concrete but there are no productive activities that they can get involved in. Unless somebody gives them rice, they have no assured food supply. The SRMDP has no place for elderly persons like this couple. They can only hope that their living condition and their life situation would improve in the near future.

*Interview with Miriam Marquez in 2002:*

Miriam is 17 years old, a Catholic, and a resident of Sitio Cadanglaan, Narra, San Manuel, Pangasinan. Miriam's parents used to be rice farmers who produced 50 cavans of palay every harvest season on a half-hectare land. Now her father drives a tricycle earning 100 pesos a day while her mother stays at home and sells a few items in a small retail store with a gross of less than five hundred pesos a day. They have been living in the resettlement site for more than three years already. They were given PhP 7, 000.00 as disturbance compensation plus the right to live in the house that they are in now. They took PhP 500.00 from their disturbance compensation and used the money for renting a truck to transport their things from their former home to the resettlement site. They had no choice because if they did not leave their home and their farm lot, they would be submerged under water.

They were promised employment in the dam facilities but most family members of their uprooted community were not hired. Instead the SRDMP hired foreign workers. Miriam's parents had a hard time explaining to the younger members of their family that they had no money to provide them with their school needs. Her parents did not know exactly how to explain to them that they cannot buy the items that they need on a daily basis since they are now unemployed. Together with some elderly members of the community that became unemployed when they were uprooted from their traditional living spaces, Miriam's parents now while away their time playing the local variation of Russian poker in the Philippines or the *tong-it*.

Miriam related that life is more difficult in the resettlement site since they have no regular source of livelihood. In the resettlement site, they have to buy everything that they need to survive everyday. Before, they did not need to buy food (rice, root crops, vegetables, pork and chicken meat) since they can get them from their farm. She remembers their former house in the now submerged dam site as sturdy, although it was not made of concrete construction materials. In the resettlement site, the house is made of concrete materials but they are of substandard quality. She pointed out that the windows are now disintegrating since the materials that were used for its construction were of low quality. Miriam mentioned that many people promised to help them but they did not deliver on their promises. Their words and pledges were just empty promises. There are not many things that await the young people in the resettlement site. She mentioned that she can only continue being a good student and hope for things to get better in their new home at the resettlement site. She expects the NPC to deliver on their promises.

Update on Miriam Marquez in 2002:

Miriam Marquez was in Taiwan as an overseas worker. She went there once before and she did not finish the term of her contract of employment because she was often badly beaten by her former employer. The experience did not stop her from going to Taiwan again. She sees no other way that she can earn a decent income here in the resettlement site, nor in San Manuel, Pangasinan, nor in any other place in the country.

*Interview with Oscar Caldito Cuaresma in 2002:*

Oscar is 33 years old at the time of the interview. He is a Catholic, married, and a high school graduate. Oscar was a former gold panner in Sitio Cadanglaan, Narra, San Manuel who used to earn about P 7000 a month. He used to produce charcoal out of wood and earn an additional amount of PhP 400.00 a week. He now works as security guard in the SRMDP compound. He earns 185 pesos a day and he has no day-off privileges. He earns much less now than before the implementation of the SRDMP. He had heard that there were about ten residents

in the dam site that did not agree to move to the resettlement site. They received some amount of disturbance compensation from the NPC officials and they had moved to other places. One is now residing in Nawac, San Esteban.

His family was made to leave their former home lot in 1998. The area of the lot was approximately 700 square meters. They were temporarily relocated to a place in barangay San Roque. They received a PhP 5, 000.00-monthly support from the NPC for about three years. They also received from the NPC officials the amount of PhP 15,000.00 as part of their disturbance compensation. When they moved to the resettlement site they were told that they will only get a certificate for occupying the house and lot unit. The title to their home lot will be given to them after five years of living in the resettlement site. They were also given PhP 7, 000.00 as part of the disturbance compensation and PhP 11, 000.00 for their crops. They were supposed to receive the amount of PhP 70, 000.00 as payment for their farm lot but the NPC officials had only given them PhP 40, 000.00.

Contrary to what the NPC officials had promised them, one wall of the house structure that they now occupy is not made of concrete materials. The water supply in the resettlement site is often problematic. Women have to fetch water from a distant water source. The NPC officials in the resettlement site control the water flow by turning the valve off from 5 pm to 5 am. He hopes that more water wells will be constructed in the area.

Update on Oscar Caldito in October 2002:

He still works as a security guard of SRMDP. He has no other source of income. He plants squash and other vegetables in the agricultural lot that was made available by the NPC officials to the residents of the resettlement site about a year ago. His family does not yet have the title for the home lot that they occupy. The NPC officials have not delivered on their promise of building a concrete peripheral fence in the area. What it built was a fence made of chicken wire.

His income as a security guard of the SRDMP does not suffice for his family's everyday subsistence needs. This is true especially during the matriculation period when his children have to pay their tuition fees to continue their schooling. They occasionally incur debts from informal sources to make ends meet. Oftentimes

they borrow rice from their neighbors so they can feed their children during those lean days. If a member of his family gets sick, his wife asks for the assistance of the health workers in the barangay health center and gets whatever medicine is available for everyone suffering from minor sicknesses.

*Interview with Cecilia Obaldo in October 2002:*

Cecilia is 30 years old. She completed 4 years of high school education. She is a resident of Sitio Camangaan in block 2, Lot 6. She remembers clearly that there were 187 of them who opted to be resettled on the site. The resettlers' families, houses and farm lots were surveyed by the officials of the NPC. The officials had verbally discussed most of the things that the NPC resettlement team had promised to provide them. The NPC officials had interviewed them many times regarding their farm and home lots. They were given disturbance compensation in the amount of PhP 7, 500.00 and were asked if they wanted cash payment for their house or if they would opt to be resettled. They chose to be resettled. When they were asked to leave their house while the resettlement site was still being constructed they were given a financial support of PhP 5, 000.00 a month. The NPC officials had promised to give them employment. Her husband was employed by SRDMP for a while as a construction worker, but immediately after the dam was completed, her husband was laid off by the SRDMP. The NPC officials also gave them a house whose title will be awarded them after five years of continued occupancy in the unit. However, they have been living in the resettlement site for more than five years but they do not yet have a title to the home lot. Cecile cannot remember all the discussions that transpired during the negotiation of the details of the relocation process. The NPC officials talked only to her husband and not to her. Her husband made all the decisions regarding this resettlement process.

Her husband now works as a jeepney driver. However, he does not drive everyday. He only drives when there is a jeepney unit available for extra trips. Occasionally, she makes slippers. This is part of the NPC livelihood provision program. Sometimes, they help in the rice planting activities of people they know in Sitio Cavite, Barangay Narra, San Manuel. Their earnings are not always enough

for meeting their daily needs. To survive they ask neighbors and other family members for loans. They also try to reduce their daily needs and change their spending practices.

They found it difficult to adjust in the resettlement site because they buy everything that they use here, including water. They have never paid for the water that they consumed in their former place. They need money to pay for their electricity bills. They think that their electricity supply and current connection will be cut off since they have not been able to pay their monthly bills for several months already. Since they do not have access to agricultural lands now, they have no other source of livelihood. They also lost their other sources of livelihood such as charcoal making and gold-panning. Their living conditions were much better then.

There were no problems with their neighbors in the resettlement site since they have known their neighbors from way back in their former settlement area. They were made to choose as to who would be their neighbors so they decided to group themselves. They can always depend on their neighbors if they have extra resources to spare them. However, most of them do not have much, too.

As for their children, they have not been greatly affected by the resettlement process since they are still young. They are still attending school now. The future may offer them something different though.

The environmental conditions in the resettlement site have since improved. The mango trees that were planted in the home lots are bigger now. They now have small gardens where they plant some vegetables that they eat on a daily basis. Occasionally, they would receive some assistance from NPC. For instance, the NPC officials had once provided a P 20,000.00 loan to their cooperative so they can start up small-scale projects like production of slippers, or raising pigs. These loans need to be paid on a monthly basis starting on January 2006. There is one big problem, however. They have not sold all the slippers that they had made. Although there is a lot of suffering here, there is nothing that they can do. They send their complaints to the NPC, the SRDMP, and the LGU officials but they all fell on deaf ears. But they do not lose hope.

*Interview with Celia Aquijo in October 2002:*

Celia is 45 years old. She used to live in Kalinga Apayao but her husband is from San Manuel. Celia's family is the new occupant of a resettlement unit in Sitio Camanggaan. They bought the house in the resettlement site from his uncle (Guillermo Castro) for a price of PhP 140, 000.00 in 2001 even if they were made aware that it had no title yet. Her uncle now lives in Sitio Cavite, Barangay Narra, San Manuel. The legal ownership of the house will be transferred to them upon the release of the original title from NPC. Her uncle had discussed this property ownership transfer with the NPC officials. The NPC officials had agreed to the arrangement to sell the house since Mister Castro had sold it to a relative of the original home lot awardees. Her uncle would then facilitate a transfer certificate of title upon the release of the original title to the home lot by the NPC officials in the near future.

Her uncle sold the house since he could not maintain it. He had no source of income since he was resettled here and he had to pay for everything (water bills, electricity, food) and other needs to subsist. He used part of the cash that he received from the couple to buy a tricycle. He now drives a tricycle to earn money to support his family. He lives in Cavite where most of his relatives are. He is not the only one who sold his right to a home lot in the resettlement site. There are at least 30 resettlers who have sold their house to outsiders already. The prices by which the home lots were sold vary. The price ranges from PhP 20,000.00 to PhP 180,000.00 per unit.

Celia and her husband had converted the façade of the house into a small sari-sari store that she now manages. Her husband is a soldier and is based in Fort Bonifacio. The couple has one child who attends school at San Manuel. They try to make ends meet if they are short of cash by getting short-term loans from the bank. They have friends in their neighborhood in the resettlement site but they also maintain some distance from them. As far as they know, the residents of the resettlement site were given some form of livelihood assistance by the NPC officials. Celia and her family are not included in the livelihood programs since they are not among the original group of resettlers. Her family does not get any help from the NPC officials,

nor from the barangay officials. She indicated that one pressing issue that affects them now in the resettlement site is the lack of outflow for the resettlement site's drainage system. Another problem that really affects them is the regular flooding of the main entrance road to the resettlement community every rainy season because of its conditions and its low elevation.

### **DISCUSSION AND IMPLICATIONS OF DATA AND SOME PRELIMINARY CONCLUSIONS**

#### **The Impacts of the Power Plants on Host Communities**

As can be deduced from the information presented on the Pagbilao Power Plant Case, the coal-powered plant company has been effective in bringing positive changes to a majority of the residents of the Pagbilao Grande Island. The Quipot Bridge that the company had built to support its operations in the power plant site connects the island to mainland Luzon. Moreover, the road concretization that the company had invested in to support its plant operations in the power plant site had connected the main transportation artery of Pagbilao Grande Island to the Maharlika Highway. Maharlika Highway is the national artery in Southern Luzon that traverses many municipalities of Quezon Province. This national highway leads to the nation's capital city of Manila and up to the northernmost part of the island of Luzon. The same highway connects the Pagbilao Grande Island to the southernmost province of Luzon. It is now easier for the residents of Pagbilao Grande to move to the different cities and municipalities of Luzon to look for better opportunities using land-based transportation.

The coal power plant corporation had installed many physical and social services infrastructure in the island, the most important of which is the Pagbilao Grande High School which opened a lot of opportunities for the young members of the island population. They can now get some form of secondary education that would make them more competitive as they look for better employment outside of their island community. The power plant has been generating funds for the implementation of various development programs as the barangay partakes of the earnings from its energy production. Although there were several incidents in the past when the island residents were bothered by the blackening of their local atmosphere due to the heavy smoke that the plant occasionally released, and there were several instances

when their house furniture would be covered by ash dust and soot, their environmental conditions seem to be fine. Increasingly, the condition of the mangrove stand on the coastal shores has been improving, as the upland watershed Palsabangon River becomes greener and more vegetated. This river supplies the water that is used by the plant for its daily operation.

In the same manner, the San Roque Dam Multi-Purpose Project has been generating power for about three years already. Similarly, the SRDMP had concretized the road that traverses Barangay San Roque and connects it to the road network of San Manuel, Pangasinan to support its construction activities and plant operations. The concrete road has improved the accessibility of the different patches of rural communities in different barangays which it traverses. Also, the concrete road has been popularly used as a drying area for removing the moisture of newly harvested palay, corn and other farm products. The concreting of the road has encouraged the construction on both sides of the road of modern and concrete houses with vehicle garages. These are owned mostly by people who work full-time in the plant facility and by overseas workers in the area. The SRDMP also has initiated some community improvement projects such as holding livelihood training programs in its training facility inside the power plant compound. Some examples are quilt-making and women accessory production such as necklaces and bracelets made out of different stones and beads. However, some gaps need to be filled in the whole development picture in the barangays that were directly affected by the construction and operation of the two power plant facilities in the towns of San Manuel, Pangasinan, and Pagbilao, Quezon. They relate to the everyday survival conditions of the people who were uprooted from Sitio Capas-Capas, the site where the coal power plant facility now stands, and were relocated to the Pagbilao Power Plant Resettlement site, and the persons who were displaced from the dam site in Itogon, Benguet and, in San Nicolas and San Manuel, Pangasinan, where the hydropower plant facility now stands.

### **Timely Payment Of Just Disturbance Compensation And Land Payments**

One major complaint of those who were uprooted from their home and farm lots to give way to the San Roque dam construction is the failure of the NPC officials to complete the payments for their expropriated property and deliver on

some pledges they allegedly gave during the displacement negotiation phase. These uprooted people clearly remember how much the NPC officials still owe them. However, it is going to be difficult for them to prove their complaints in a legal forum since they do not have any written documents that lay out NPC officials' promises. Only the officials of the NPC hold the written terms and records of the resettlement action plan. This brings to light the importance of coming up with a written agreement between the PAPs and the NPC officials regarding the terms of their relocation agreement. The need for a signed written agreement between the NPC officials and the PAPs is salient both for the protection of the rights of the PAPs and for maintaining the integrity of the NPC officials. This needs to be implemented in future uprooting and relocation programs.

It is also important to define the notion of confidentiality in matters of public documents like in the case of the resettlement action plans. Why should the members of the NPC social engineering team be the only persons to have full access to the written copy of the RAP? Making the RAP accessible to all interested parties will provide the needed transparency that is necessary to gain public trust on how this task is being undertaken. It will also give the PAPs some degree of protection because they will have the needed information necessary to participate in monitoring how projects suppose to assist them are being undertaken. Controlling access to information, such as the contents of the RAP, skews the power relations between negotiating parties. The PAPs should not just be on the receiving end of the negotiating table. They should have access to all information that will definitely impinge on their future. Nevertheless, this problematic concern is just one among others that should be modified and improved; e.g., negotiating processes crucial to the implementation of displacement and relocation programs.

One issue that needs further consideration is what constitutes fair disturbance compensation. Due to the SRDMP, the residents of the resettlement site's uprooted families had completely lost their home lots and productive farm lands. They also lost open access to any productive livelihood source in the area due to the space requirements of the dam facility. The amount of disturbance compensation and land payments that were given them by NPC officials proved to be small. The land payments and disturbance compensation were not adequate for the PAPs to procure or purchase even a much smaller size farm land. Providing the PAPs a chance to

own another productive piece of land will enable them to obtain a certain degree of normalcy after their displacement from their homelands. However, the land payments that they received were not enough to buy another piece of land. This reality makes them clearly grasp the magnitude of their losses in the displacement process. The question of what is appropriate and just compensation is important to clarify in this regard. One needs to change the questionable and non-working assumptions that are being followed in the computation of land payments that are due the PAPs. The formula used for the computation of losses should incorporate the process of reconstituting their productive systems, not simply the replacement of livelihoods and the corresponding income that they derive from them (Cernea, 1996). It should be highlighted that the displacees lost not only their income for the day or for the entire year, but their main source of yearly income for decades. The replacement of the loss of the main source of income needs to be prioritized in any uprooting and resettlement procedure.

One should critically look at the implications of the way the government determines payment for the expropriated property of displacees. Government officials base the computation of land payments and disturbance compensation on the present assessed market value of all structures that will be dismantled. The government assessors assign value to the properties for tax relation purposes and not according to how much they can be purchased by another party. Their assessed market value is much lower than the price it commands on the land market if the property is put on sale. This makes salient the argument of Cernea that “compensation for the loss of assets needs to be at replacement cost, not market value” (op cit, 26). The displaced farmers will not be able to buy another piece of land to replace and restore the productive systems that they have lost due to their uprooting. As experienced by these PAPs, the amount of the disturbance compensation and land payments that they got from project proponents who were responsible for expropriating their property did not enable them to purchase another piece of land. What they received was one fourth of what was needed to purchase

Government officials base the computation of land payments and disturbance compensation on the present assessed market value of all structures that will be dismantled.

the same size of land in any other area within the project site vicinity. The amount of disturbance compensation and land payments were not even enough to sustain them during the first few months of their stay in the resettlement site when they did not have any source of income to support their daily living expenses. The displacees need to be compensated more for the loss of their productive systems.

One needs to recognize that the displacees will start their life and their productive activities anew in the new living space. They need to put in place the necessary initial infrastructure so they can have a productive system to depend on. Money for this kind of livelihood restoration activity should have been allocated by the project proponents for the development-displacees. This makes salient failure on the part of the government resettlement planners and project proponents “to pay proper attention to how people would make a living in resettlement zones” (Scudder and Colson, 1982, 270). The funds for resettlement should not just be on the provision of housing and social services during the uprooting process. Funds have to be allocated for addressing the needs of the PAPs to restore their productive systems to reduce the negative impacts of the whole uprooting and relocation process. This kind of sensitive development projects should not simply be relegated to a social engineering unit of the NPC. There has to be an inter-governmental agency that would gather inputs from economists, social workers, and other people on workable uprooting and resettlement strategies that would be less impoverishing to the PAPs. The experiences and sensibilities of these development workers and professionals will greatly help, say for example, in arriving at a proper computation of costing that is needed for undertaking activities such as reconstituting of livelihoods (Cernea 2000). This will avoid a very insensitive way of looking at the costs associated with uprooting and relocation. As Pearce had pointed out “the costs need to include the full social costs, which include the loss of non-priced environmental and cultural assets, loss of social cohesion, loss of market access and psychological damage; environmental economics provides a model for how to include these costs(1999:52,53).” He indicated that “questions of economic sustainability also need to be taken into account, among them intergenerational equity. This requires that stocks of capital assets be no less in the future than now; capital assets involved in resettlement include not only the everyday notion of capital,

but also the stock of skills and knowledge (human capital) and environmental assets (Pearce 1999:59)". Arriving at a fair and just costing of disturbance compensation, land payments, and restoration of livelihood systems is crucial to avoid the further impoverishment of people who in the first place have given out so much for a government project to be undertaken.

### Livelihood Provisions And Access To Possible Sources Of Income In Resettlement Sites

Another glaring difficulty faced by many members of the two resettlement communities is the lack of employment opportunities for the resettlers to earn a decent income, or any income at all. The situation is similar for the adult family members of Pacita Tamayo, Lucita Pastorete and Julian Bentore in the Pagbilao Resettlement Compound, and Sabina Guillermo, Berting and Yolanda Del Rosario, Miriam Marquez and Cecilia Obaldo of the San Roque Dam Resettlement site in Sitio Camanggaan, San Roque. Joblessness is one big problem that will be faced by the PAPs. Joblessness is a very difficult thing to deal with by people who had been living their life independently either as fishermen, marine product gatherers, farmers or livestock raisers throughout the years. Total loss of employment is more difficult to bear if compounded by the fact that there is nothing they can productively involve themselves in within the new place of abode. The lack of access to any space or source of materials from which the displacees can base new or alternative livelihood activities is debasing. Not only did the PAPs face a difficult condition of having to deal with landlessness in two different situations, i.e., when they were displaced from their lands and when they moved into the resettlement site with no land to cultivate at all. They also spent their everyday life with the distressing experience of not being able to work and provide for their family needs.

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This was seen in the case of the PAPs in Itogon, San Nicolas and San Manuel, Pangasinan. They were dispossessed of their traditional productive lands which had primarily supported their families' subsistence for several generations. These people had been disassociated from their time-tested knowledge base and production systems. They were displaced from a life following a systematic ordering of seasonal agricultural, social, cultural and political activities. All these life rhythms were intricately connected and related to the characteristics and potentials of their productive land spaces. They were autonomous in planting rice, root crops, fruit trees, vegetables and taking care of livestock animals such as cows, pigs, chicken and other fowls for decades or even centuries in their traditional homelands. They buried their ancestors, built their families' histories, shaped their identities, and planned their life trajectories in those productive spaces. All these they did independently. They did not ask for nor received much help from any government or private entities. Suddenly these people found themselves without any piece of land to cultivate and get daily sustenance from. These formerly self-supporting people are now trapped in a resettlement community, whose peripheries are fenced, and whose access to livelihood production systems is deficient. Any person will find this condition problematic to build their lives upon, or even to anchor one's daily existence.

The displacement had cut off their access to their common resources on the banks and watershed of the Agno River, too. It has to be remembered that most people who live in the peripheries, such as in the uplands and in the rural areas of many river valleys, have small landholdings. They forage a lot from their surrounding open-access spaces to contribute to their daily food supply. Foraging on the resources that are available in open access common resources add to their household operating capital. When they were uprooted from these common resources they lost the shield that buffered them from experiencing food shortage. These difficulties, associated with the alteration of their livelihood system and loss of capacities for foraging and food production, are the conditions that they have to deal with in their new home lots in the resettlement site. This explains why most resettlers find themselves in a condition more impoverished than before, even if they have concrete dwelling units.

The fishermen in the Pagbilao resettlement site face a similar condition. A big chunk of the income of the fishermen of Sitio Capas-Capas is derived from harvesting the products of the marine resources of Pagbilao Bay, and also that of Tayabas Bay. These fishers were trained to base their subsistence on, or exploit and explore the open coastal waters all their growing up years. Then they were uprooted from a physical space that offers direct access to municipal fishing grounds. They were relocated to a fixed physical space in the middle part of an island with no direct access to coastal waters or marine resources. At the same time, these fishermen were not given extensive support and training to deal with a primarily land-based dwelling site. They were also devoid of access to productive agricultural plots. The loss of access to common property as experienced by the members of the relocated fishing community in Sitio Capas-Capas and the farmer-forest gatherers and gold panners on the watershed and waters of the Agno River had considerable impact on the livelihood and survival of these people. It still does. To say that this experience had cut off their income source is an understatement. Acknowledging that it has curtailed their life source is nearer the truth.

Another grueling adversity that the residents of the Pagbilao Resettlement Site have undergone for the last thirteen years is the lack of livelihood programs that will open up opportunities for them to earn money. As observed by barangay officials Virgilio Calizo and Francisco Portes in Barangay Ibabang Polo of Pagbilao Grande Island, one perennial source of hardship among the development-displacees who were relocated in the Pagbilao Resettlement Site is the lack of livelihood opportunities. This prevents them from earning money to buy more gasoline that is needed to run their boat engines to earn a living as fishermen. As stated earlier, this problematic condition was brought about by the considerable distance between their living space and boat anchorage areas and the Pagbilao coastal waters. Having not enough money to buy gasoline that would enable them to fish has been putting them further down the ladder of the subsistence pit. The fact that they need to have cash to pay for the monthly water and electricity bills that are crucial for the maintenance of their modernized and more comfortable concrete dwelling units adds to the dire need to have a regular source of income. The urgency of providing them with sustainable livelihood opportunities is glaring.

It is not that the NPC officials have done nothing. The NPC officials had provided the resettlers with training on how to raise pigs in their backyard, and pasture goats and cows and other livestock in the SRDMP resettlement site. However, the resettlers are left on their own to source out a big chunk of the needed capital to procure the necessary materials to build the pig pens and chicken cages so that they do not get stolen. They also need access to pasture lands to raise cows and goats successfully. Unfortunately, most members of the resettlement site lack the needed capital and access to both common agricultural and pasture lands. The fact that the NPC officials had granted the SRDMP resettlers some access to 1000 square meters of cultivation plots so that they can cultivate vegetable crops five years after they were relocated to the resettlement site, can not really be seen as a blessing; it came in a little bit, too late for some twenty members of the SRDMP resettlement site who had sold their units to outsiders who were interested to own their home lots. Indeed, one may call this a blessing if one does not take into account that the relocatees in the Pagbilao Resettlement site, up to now, have no access to any agricultural plot that can offer them some livelihood opportunities after staying in the compound for more than thirteen years.

### **Social Differentiation And Demographic Issues In Resettlement Sites**

In development-induced displacement and resettlement cases, the importance of looking at the different actors in the process not as monolithic entities but as diverse participants is paramount. Take into account the female adult members of the households in the SRDMP resettlement site. The NPC officials in the SRDMP resettlement site have been giving training on how to make fruit cakes, slippers, necklaces and bracelets that are made out of beads and other non-precious stones. However, the women have no capital to invest in these entrepreneurial activities nor the marketing strategies and connections to support them. Also, sometime in the year 2000, a livelihood scheme was introduced by the spouses of foreign workers in the SRDMP power plant facility. This livelihood scheme involved women in quilt-making activity. A woman earned P75.00 in three days for making and finishing up one piece of quilt (for beds). A woman worked eight hours a day for three days to

earn P75.00 per quilt or 25.00 a day for quilt-making. Although exploitative, this livelihood scheme had been provided to the women affected by the dislocation process. However, this does not suffice to provide women members of the resettlement community with livelihood opportunities that are long-term and have fair remunerative value.

This discussion brings to the fore one issue not considered by people who were involved in planning resettlement action programs. Attention should be placed on the diversity of people who are uprooted in implementation of development programs. One should remember that these development projects uprooted and relocated adult male members of households, plus the women, the young and the elderly in the households. The concerns of these differentiated groups need to be studied closely. Programs have to be undertaken to address them since they have different characteristics and varying needs. These groups played important roles in maintaining household and livelihood operations before they were uprooted from their traditional homelands. These groups have important roles to play in the resettlement site as well.

The elderly members of the displaced communities have different health conditions, mental capabilities and possess different skills and capacities to learn new ones. These peculiarities have to be taken into account as the elderly are forced to deal with the demanding physical and social changes that are associated with getting displaced from traditional homelands and relocated into new and less nurturing environments. It may be true that children or the young members of the population are more open to changes that are brought about by displacement and relocation activities. However, there are things that still need to be taken into account to help the children adapt better to the demands of the new environment. It is important to provide them ample educational opportunities. This will equip them as they get incorporated into the larger society

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that absorbs their community altogether. The young has to have better chances to participate in mainstream economic activities and political decision-making so they will not be made sacrificial pawns again in future government-initiated development undertakings.

Women have always been regarded as silent participants in displacement and resettlement processes. Often, if not always, their concerns and needs are relegated to the background. As related by the experiences of the housewives who were interviewed for this study, the project proponents only talked to their husbands when they were discussing the details of the uprooting and relocation processes. As a result, even their simple needs were not highlighted nor taken into account. Women displacees were seen as appendages of male members of uprooted and displaced communities. Thus, they were not compensated for the disturbances the two programs had caused on their lives.

The female shell-gatherers in Sitio Capas-Capas were not seen as a separate group of PAPs. They were simply seen as housewives or daughters of the male fishermen who were categorized as heads of households. The same thing happened to the women of the displaced communities of Itogon, San Manuel and San Nicolas. The economic values of their participation in agricultural activities were not taken into account by the NPC officials. The economic values of women's non-reported activities such as loom-weaving, sewing, backyard gardening, maintenance of small convenience stores, chicken raising, fruit and wild vegetable gathering, and other activities that supported their household and livelihood systems were not compensated for by the project proponents.

The concerns of the resettled women, such as finding them some vegetable gardening plots or areas to gather marine shells from were not prioritized. It is now widely known that women make ends meet in household sustenance and maintenance. They also provide most animal protein and minerals (from fruits and vegetables) on the dining table of households in rural areas. Women gather them from nearby environments or raise them in backyard gardens themselves. The water resources or fuel materials that women provide to sustain family members are not valued. Not only males but also females fetch water and gather fuel wood for the household's daily consumption. Thus, when women moved into the resettlement site, they came in as part of the baggage of male adult members. They did not have

cash to contribute to the household daily expenses since they received no disturbance compensation from the project proponents that they could call their own. Almost all disturbance compensation is tied up in the production systems and livelihood activities that are well-recognized by the public domain as that of the males.

The resettlement action programs are also not socially differentiated. The farmers who only possess emancipation patents and did not yet have the actual legal titles to their lands received lesser amounts of land payments compared to the amounts that were paid to those with legal land titles. The compensation for expropriated properties of physically dislocated people has greatly benefited landlords more and the tenants less. Large percentages of remunerations that were due to tenants (because of improvements they have done on the lands and crops they had planted through the years) had been appropriated for the landlords who held legal land titles.

It is interesting to bring up an issue that concerns the San Roque Dam Multi-Purpose Project Resettlement Site. It relates to the question of “who qualifies as a Project-Affected Person?” Does the term only cover persons directly uprooted from the project development site or should it include other people whose livelihood and living spaces were in some manner curtailed and destroyed by activities related to the project construction? Scores of families in Barangay Narra, San Manuel, whose houses were devastated by the flash floods and whose life patterns were changed by the burrowing or quarrying of construction materials that were used for dam construction, were forced to move out of their flood-ravaged houses and water-devastated rice and vegetable lands. Many of these families had moved out of San Manuel and relocated to other places in Pangasinan, Ilocos Region and Metro Manila because their houses and farm lands were totally devastated by the floods. NPC officials did not classify them as PAPs. What about the gold panners who were living on the dam site but whose existence depended on free access to the gravel and sand and waters of the Agno River? They did not qualify as PAPs either. What about the farmers, or fishers, in the downstream of the river whose source of water for irrigation or migrating fish was seasonally or permanently curtailed? Should not they be categorized as PAPs? The problematic question of who qualifies as a PAP needs more discussion and elaboration in future displacement and resettlement programs.

## Impoverishment And Marginalization Of Development-Induced Displacees And Relocatees

The preceding sections show the difficulties faced by the uprooted who were relocated, and then neglected in the resettlement sites of Pagbilao Coal-Powered Plant and San Roque Dam Multi-Purpose Project. Their loss of traditional livelihood systems, loss of access to resources and productive lands, and corresponding unemployment and underemployment contribute to their further marginalization. The resettlers recognize this discouraging situation themselves. Pagbilao resettlers realize that the future is bleak for most of them. They know that many members of their former community in Sitio Capas-Capas, who had cooperated to move into the resettlement site, sold their house and lot units either to the barangay captain, to some migrants to Pagbilao Grande Island or other interested parties. These members have moved out of the resettlement compound to squat on a coastal shore in nearby or faraway places to find a living but they are willing to face another environment with a lot of risks and uncertainties. They are not afraid to venture into another life characterized by insecurities because they had lived anyway with so many insecurities for thirteen years in the resettlement site.

As indicated by the experiences of the members of the two resettlement sites, their loss of independence in food production, and their present livelihood problems have caused deficiencies in their daily food requirements. Insufficient nutrition among the young, the adults, and the elderly members have had serious impact on the general health conditions in the two resettlement communities. Many of the resettlers are also suffering from conditions of helplessness. This is evident in the males resorting to drinking alcohol and the females to addiction to card gambling. The trauma and other psychological imbalances associated with displacement and relocation experiences are not simple to deal with.

Flood-related problems also beset the two resettlement communities. Due to the lack of drainage in the Pagbilao Resettlement site, most backyards are flooded during the rainy season. This is compounded by the fact that there is no systematic garbage collection in the area. Vectors of different diseases often find refuge in areas where garbage abounds. Garbage problems, the proliferation of communicable

and infectious disease-vectors and seasonal inundation by floodwaters, threaten the Pagbilao Resettlement site.

In San Roque's case, the floodwaters that inundate the main access road to the resettlement site bring not only physical dangers to the young children of the resettlement compound, but may also result in transmission of water-borne communicable parasites and diseases. Thus, the need for reliable medical facilities and competent health services personnel in the resettlement sites.

Economic marginalization activities greatly contribute to the disintegration of the relocatees' social network systems and social capital. The forced removal of a group from their traditional homeland greatly disrupts their social relations. One should remember that the drive to maintain one's self-reliance and to continue defending one's rights as a member of a group depends on the availability and integrity of cultural resources and economic, political and social capital (Koenig 2002). The uprooting of people from the traditional cultural, social and political resource bases leads to a number of unwanted outcomes. Among them are loss of identity, dispersion of kin groups and weakening of extended family cohesion and community institutions. It leads to the dispersion of mutual formal and informal help patterns and the dismantling of community and social organizations. Widespread loss of forms of social capital may also result. These processes can greatly erode one's confidence to face life challenges. A decrease in faith in one's traditional society leads to cultural impoverishment and eventually lack of interest in political representation and participation. This will further lead to loss of political power and contribute to a feeling of helplessness. This makes difficult the process of bouncing back to one's original condition.

### **The Need For Democratization Of Development-Induced Displacements And Resettlement Activities**

It seems an oxymoron to say that development-induced development activities can be and need to be democratized but this point cannot be overemphasized. For example, many members of the Pagbilao Resettlement Site had received some form of assistance from the power plant and NPC officials. However, these forms of

assistance did not really have lasting positive effects on the resettler's living conditions. Most of the programs ended up as failed undertakings. Part of the reason why most programs ended up as failures was that the residents were never seriously involved in the planning of livelihood programs in the newly-established communities. In fact, they were not even consulted on the choice of relocation site (which should have taken into account their livelihood as fishermen.) Increased local autonomy and democratizing all these negotiation and planning processes could have led to the better definition of their rights as human beings, and other benefits from the whole development process. Appeal mechanisms could have been put in place and due process ensured.

Crucial to making informed decisions and more people responsive programs is the availability of appropriate information. For future resettlement programs, developing a data-base on the capabilities of the relocatees would make possible the identification of appropriate livelihood programs. Appropriate skills training is necessary for the reinstitution of livelihood systems in new environmental settings. The skills improvement program should be varied and must be drafted within a wider context of the regional economy (demands, supply and market opportunities). This is necessary for the sustainability of the livelihood reconstitution programs to be assured. Offering diversified choices to reconstitute the new livelihood systems of the resettlers is crucial. This should not be seen as new since one should remember that before the PAPs were uprooted and relocated, they had varied income sources. The contributions of the private sector to enhancing livelihood and production schemes in the resettlement sites should be explored since its support will diversify the livelihood resource base. Likewise, the participation of the civil societies and non-government organizations in empowering the displacees must be secured at all times.

Is The NPC Social Engineering Unit The Right Institution To Undertake The Resettlement And Relocation Processes That Are Associated With DID?

The conspicuousness of NPC officials' inefficiency in delivering important life-support programs raises questions on their capability to handle these development activities. It is time to delegate the undertaking of resettlement program activities to privately-run professional organizations with highly trained and properly motivated

personnel. It is important to recognize that there are other government agencies and other private groups which have more efficient organizational skills, more informed planning strategies, and the foresight and sensibility to implement resettlement programs successfully. It is evident that the major proponent of resettlement programs should have the necessary training and determination to come up with more sensible resettlement strategies. The organization must recognize that the primary responsibility of the proponent of a resettlement program is not simply to provide housing for the relocatees but to help them build their life anew. The major proponent of a resettlement project should be mindful of the need to cooperate with the people in planning, implementing and monitoring of strategies on resettlement and rebuilding community structures, community relationships, social networks and social cohesion.

#### **On The Government's Commitment And Funding Allocation To Resettlement Programs**

The NPC officials have indicated that lack of funding had prevented them from efficiently implementing their resettlement strategies. This may be a valid excuse for their unsuccessful implementation of the resettlement programs in the two project sites. As indicated by a World Bank study, sufficient funding is necessary to allow the implementation of more responsive resettlement strategies (De Wet, 2002; Koenig, 2002). However, although funding is a major determinant, it should not be the sole determinant of the success of resettlement program implementation. The uprooting and relocation activities need to be integrated within the ongoing development initiatives of the country, and particularly in the region where the project is implemented. This is necessary for synergy to take place and attain the best results for the resettlement programs (de Wet 2002). Thus, the government must be clear on its commitment for the efficient realization of the resettlement programs. Again, the role of the state serving as one of the project proponents and also as an arbiter between the displacees and the project proponents can be questioned. However, no institution is in the best position to deliver a more responsive resettlement program than the state. This cannot be relegated to the hands of business and private organizations alone. The private organizations always act for

the realization of their own proprietary interests. The issue becomes “How do you make the state a better arbiter?” This question requires a lot of discussion; it highlights the need to gather a unified array of locally-based and international groups that will pressure the government to pay proper attention to the needs of the development-displacees (Rew, Fisher and Pandey, 2000). Other government institutions whose interests align with those of the resettlers can also be tapped. Concerted effort among these institutions should ensure relocatees of the fruits of development, a decent and comfortable life and not a life of poverty.

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### **Acknowledgments**

I owe much to the residents of Pagbilao, Quezon and San Manuel, Pangasinan for their utmost cooperation during the conduct of this research. The research assistance that was rendered at different periods by Lev Alburt Dacanay, Jonas Gaffud, Evangeline Katigbak, Joemy Lillo, Simeona Martinez, Lou Ann Ocampo, and Angelo Paras are well-appreciated. Many thanks to Maria Josefa Nantes for editing the final draft of this research. Funding assistance from the University of the Philippines’ Center for Integrative and Development Studies and the Office of the Vice President for Academic Affairs of the University of the Philippines System has facilitated the completion of this study.

## REFERENCES

Agno River Basin Development Commission (ARBDC). (No date). Strategic Visions, Realistic Actions: A Strategic Framework Plan for the Agno River Basin. Office of the President: Republic of the Philippines.

American Association for the Advancement of Science (AAAS). (1996 February 13). Environmental Refugees: Anticipation, Intervention, Restoration. Paper presented during the 1996 Annual Meeting of the American Association for the Advancement of Science (Symposium no. 316). Baltimore, Maryland, Retrieved December 15, 2005 from the World Wide Web: <http://www.eldis.org/static/DOC14448.htm>

Asian Development Bank (ADB). (2001, August 30). Dams and Development: Summary of Proceedings, Philippines In-Country Workshop. 11 pp. ADB Headquarters, Manila, Philippines. Asian Development Bank Report.

Barutciski, Michael. (2002). *Desk Study Two: Addressing Legal Constraints and Improving Outcomes in DIDR Projects*. Retrieved February 2, 2006 from the World Wide Web: <http://www.qeh.ox.ac.uk/rsp>.

Center for Refugee Studies. (2003). *The Ethics of Development-Induced Displacement Projects*. Toronto, Canada: York University's Centre for Refugee Studies.

Cernea, M. (1997). "The Risks and Reconstruction Model for Resettling Displaced Populations," *World Development*, 25(10), 1569-1588.

Cernea, Michael. (2001, November 9-10). Development Economics, Sociology and Displacement: A Vexing Dilemma Under Interdisciplinary Dialogue. Prepared for the workshop entitled "Moving Targets: Displacement, Poverty and Development Process" held in Cornell University.

Cernea, M. and C. McDowell, eds. (2000). *Risks and Reconstruction: Experiences of Resettlers and Refugees*. Washington, DC: World Bank.

Chambers, R. (1969). *Settlement Schemes in Tropical Africa*. London: Routledge.

Cordillera Resource Center (1993). *Damning Our Future*. Final Report of the Fact-Finding Mission to Areas Affected by the San Roque Dam Project in Pangasinan.

Corpuz, Catalino, Jr. (1999). "Two major headaches for indigenous peoples." *Echoes. The Earth as Mother*. Retrieved October 1, 2003 from the World Wide Web: <http://www.wcc-coe.org/wcc/what/jpc/echoes-16-03.html>

De Jesus, A.C. (2000, May 28-June 10). *Resettlement of Affected Communities in the Leyte Geothermal Project and Strategies for Co-Existence between the Community and Project Developer*. Proceedings World Geothermal Congress. 553-558. Japan: Kyushu-Tohoku.

De la Rosa, Erwin. (2002, June 23). "850 villagers go on picket". *Sun Star Pangasinan*. Retrieved October 1, 2003 from the World Wide Web:

De la Rosa, Erwin. (2003, June 29). "10 towns send reps to disaster seminar". *Sun Star Pangasinan*. Retrieved October 1, 2003 from the World Wide Web:

De Wet, Chris. (2002, April). *Improving Outcomes in Development-Induced Displacement and Resettlement (DIDR) Projects. A Synthesis Report on the Findings of a Project by the Refugee Studies Centre*. Oxford: Queen Elizabeth House, University of Oxford. Retrieved February 1, 2006 from the World Wide Web: <http://www.qeh.ox.ac.uk/rsp>.

Environmental Impact Study on Pagbilao Power Plant. (No date). Pagbilao, Quezon, Philippines. Escobar, Arturo. (2001, November 9-10). *Displacement and the territorial imperatives of Development and Modernity (draft notes)*. Prepared for the workshop entitled "Moving Targets: Displacement, Poverty and Development Process" in Cornell University.

Fact-finding Mission. 2001. *Damning Our Future*. Final Report of the Fact-Finding Mission to Areas Affected by the San Roque Dam Project in Pangasinan.

Flores (1993).

Fuertes, Yolanda S. (2002, November 16). "With twin dams, Central Luzon to become rice granary. *Sun Star Pangasinan*. Retrieved October 1, 2003 from the World Wide Web: .

Hampton, Janie. (1998). *Internally Displaced People: A Global Survey*. London: Earthscan.

Koenig, Dolores. (2001, 2002). *Desk Study Three: Toward Local Level Development and Mitigating Impoverishment in Development-Induced Displacement and Resettlement*. Washington DC, USA: Department of Anthropology, American University. Retrieved February 1, 2006 from the World Wide Web: <http://www.qeh.ox.ac.uk/rsp>.

Lynch (1986).

Lysy, Frank. (1999). Case 1. Pagbilao Thermal Power Plant – The Philippines. The private Sector and Development : Five Case Studies. Results on the Ground. Retrieved December 15, 2005 from the World Wide Web: [http://ifcln1.ifc.org/ifcext/economics.nsf/AttachmentsByTitle/rog4/\\$FILE/rog4.pdf](http://ifcln1.ifc.org/ifcext/economics.nsf/AttachmentsByTitle/rog4/$FILE/rog4.pdf)

McDowell, Christopher. (1996). *Understanding Impoverishment: The Consequences of Development-Induced Development*. Providence, R.I.: Berghahn Books.

McDowell, C. (2002). "Involuntary resettlement, impoverishment risks and sustainable livelihoods." *The Australasian Journal of Disaster and Trauma Studies*, 2.

Mirant Company Brochure (No date). Pagbilao, Quezon, Philippines.

Muggah, Robert (2003, Summer). "A pressing humanitarian and development issue: reflections on internal displacement and resettlement". *GSC Quarterly* 9. Retrieved February 1, 2006 from the World Wide Web: <http://www.ssrc.org/programs/gsc/publications/quarterly9/muggahpressing.pdf>.

Oliver-Smith, Anthony. 2002. *Desk Study Four- Displacement, Resistance and the Critique of Development: From the Grassroots to the Global*. Gainesville, USA: Department of Anthropology, University of Florida. Retrieved February 1, 2006 from the World Wide Web: <http://www.qeh.ox.ac.uk/rsp>.

Otadoy, Bong E. (2002, August 8). "Villagers deplore forced evacuation". *Sun Star Pangasinan*. Retrieved October 1, 2003 from the World Wide Web:.

Pagbilao Power Plant Brochure. (No date). Pagbilao, Quezon.

Philippine Delegation to APEC. (1997, 24-26 March). Report of the Philippine Delegation to the Second Meeting of APEC Seoul. Republic of Korea: GEMMED.

Physical and Socio-Economic Profile (PSEP) of the Town of Pagbilao, Quezon, CY 2000. (2000). Pagbilao, Quezon: Municipal Planning and Development Office.

Physical and Socio-Economic Profile (PSEP) of the Town of San Manuel, Pangasinan CY 2005. (2005). San Manuel, Pangasinan: Municipal Planning and Development Office.

Polistico, Rachel. (2002, August). "Gender and Energy in Southeast Asia." Regional Paper prepared for the World Summit on Sustainable Development. Energia. International Network on Gender and Sustainable Energy.

Rew, A., E. Fisher and B. Pandey. 2000. Desk Study One: Addressing Policy Constraints and Improving Outcomes in DIDR Projects. University of Wales, Swansea: Centre for Development Studies. Retrieved February 1, 2006 from the World Wide Web: <http://www.qeh.ox.ac.uk/rsp>.

San Roque Power Corporation Brochure. (No date). SRPC: Power Producer & Operator for San Roque Multi-Purpose Project (A Philippines Flagship Project). Barangay San Roque, San Manuel, Pangasinan.

Scudder, T. and E. Colson. (1982). "From welfare to development: a conceptual framework for the analysis of dislocated people," in *Involuntary Migration and Resettlement*, ed. by A. Hansen and A. Oliver-Smith. Boulder: Westview.

Second Women's Health and Safe Motherhood Project. (No date). Resettlement Policy Framework of the Philippines (RP 251).

United Nations High Commissioner for Refugees (UNHCR). (2001). *State of the World's Refugees: 50 years of Protection*. Oxford: OUP.

Water Recycle Group. Hydropower Case Studies: Luzon and Mindanao, Philippines. Power-Pal Micro-hydrosystems. Retrieved October 1, 2003 from the World Wide Web: [waterrecycle.com.au](http://waterrecycle.com.au)

The World Bank. (1994). Operational Directive 4.30: Involuntary Settlement (1980, 1990, 1994) *The World Bank Operational Manual*. 9 pp.

World Commission on Dams. (2000). *Dams and Development: A New Framework for Decision-making*. London and Sterling, VA: Earthscan Publications.

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and Marginalization in Pagbilao, Quezon and San Manuel, Pangasinan