

Conservation and Development: What Can Be Learned from Municipality of Janiuay, Iloilo, Philippines?

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Date Received: October 21, 2014; Date Revised: November 21, 2014

Abstract - This study attempted to examine how conservation and development projects are increasingly being critiqued for having failed to meet their objectives. The study was a qualitative study. The present study was focused on the goal of combining biodiversity conservation with the promotion of local economic development to create a win-win situation for both endangered species and marginalized peoples. Numerous recent studies have questioned the effectiveness of the conservation and development projects in the Municipality of Janiuay, Iloilo, Philippines. This present study is based on in-depth interview with the Officer of the Municipal Environment and Natural Resources and other stakeholders of Janiuay, Iloilo, Philippines. The findings revealed that the community development and conservation programs in the local community of the Municipality of Janiuay, Iloilo, Philippines, were developed in response to uncompromising confrontations between local people and nature reserve managers when managers attempted to enforce reserve regulations. Finally, they have met with both failures and successes and these programs have been successful in transforming what was once a violent relationship between local people and nature reserve managers into a much more cooperative one.

Keywords: Conservation, Development, Learn, Protected Areas, Land Use, Poverty, Municipality of Janiuay, Iloilo, Philippines.

I. INTRODUCTION

Opposing they may seem to some extent but when conservation and development are integrated, their offshoots would be better landscape-level conservation vis-à-vis development projects while learning from the successes and failures of past initiatives and understanding the trade-offs and synergies between livelihoods and conservation.

Of late, projects that have endeavored to assimilate both conservation and development have been widely evaluated (Oates 1999, Wunder 2001, Wilshusen et al. 2002, Christensen 2004, Terborgh 2004).

According to K. R. E. Sims (2009), protected areas are a key tool for conservation policy but their economic impacts are not well understood. However, the global conservation community is increasingly concerned about the local socioeconomic impacts of protected areas.

Prior to the 1980s, it was not rare for local or indigenous peoples to be expelled from protected areas (Schwartzman et al. 2000). Though, more recently, attempts to exclude humans from protected areas have

been widely viewed as letdown and, in many cases, these attempts are viewed to be ethically problematic, disparaging, or simply inappropriate for the needs of developing countries (Wood 1995, Adams and Hulme 2001, Redford et al. 2006).

In spite of these changing observations, evictions will likely continue as conservationists deal with the millions of looming displacements of “illegal” dwellers on strictly protected areas (Brockington et al. 2006). These weak points, combined with local opposition to unfriendly policies, as well as the recognition that local residents have often relied on parks, have led to a rethinking of conservation policy (Chapin 2004, West and Brockington 2006).

Despite the use of terms such as “integrated conservation and development” may have fallen out of favor, many interventions do, and will continue to, consider the well-being of populations inhabiting and surrounding protected areas (Wells et al. 2004).

As cited by Gockel and Gray (2009) in McShane and Wells 2004, the integrated conservation and development project (ICDP) approach became

particularly popular for working with communities in or around protected areas. These projects were funded by both international conservation and development organizations and were viewed as a way to incorporate models of sustainable development into conservation.

After a while, they were viewed as the foremost site-specific approach to conserving biodiversity. This happened in spite of a lack of evidence about their effectiveness (Wells et al. 2004).

Associated with the contexts where they take place, conservation decision-making processes are influenced by local, national and international socio-economic factors. On the contrary, conservation can also significantly affect socio-economic development and lead to improvements in people's lives ("Conservation and Development")

According to Gockel and Gray (2009) as cited in Leader-Williams and Albon 1988, Rolston 1995, Adams and Hulme 2001, Redford et al. 2006, Siurua 2006, Chan et al. 2007, tropical forest conservation has historically exhibited a "fortress conservation" or "fences and fines" mentality that has pitted people against the environment.

Adams et al. (2004), Scherl et al. (2004), Agrawal and Redford (2006), Wilkie et al. (2006) argue that protected areas restrict community development opportunities and increase poverty.

According to Sims (2009), as cited in Dixon and Sherman 1990, Albers 2001, Lewis et al. 2002, 2003, Robalino 2007, Costello and Polasky 2008, Robinson et al. 2008, economic models of protected areas predict both negative and positive local economic effects, leaving the net impact unclear.

As cited in Chapin 2004, Kaimowitz and Sheil 2007 by Gockel and Gray (2009) that projects tended to give local inhabitants little actual access to, or control over, natural resources; however, a primary criticism has been that projects have failed to achieve either goal (Brown 2003). There has been little evidence that improving the economic well-being of people around protected areas will translate into conservation (Emerton 2001, McShane and Wells 2004).

According to Mackinnon and Wardojo, (2001) Siebert & Belsky, (2002), many protected area management efforts have attempted to address the problem of local economic development and conservation of biodiversity through the integrated conservation and development project.

According to Cordeiro et al. (2007), de Sherbinin (2008), Upton et al. (2008), in Gockel and Gray (2009), because many of the most threatened areas in tropical

regions are inhabited by poor people dependent on natural resources, conservation policy must take them into account.

Wells and McShane, (2004), in the study of Sims (2009), expound that the conservationists have all recognized that local participation is of vital importance for the future of protected areas in developing countries due to increasing population, persistent poverty and permeation of the market economy.

Likewise, the Congress of the Philippines, 15th Congress House Bill No. 5485 was enacted in 2011 to provide for the protection, rehabilitation, and sustainable management of forest ecosystem. This bill mandated the development and adoption of a sustainable forest management strategy based on national allocation of forest and uses and promotion of land used, protection of existing forest resources and conservation of biodiversity, rehabilitation on development of denuded areas to expand the forest resource based and promote livelihood and food production activities.

In the case of the Municipality of *Janiuay*, a first-class town in the Province of Iloilo, Philippines, with 65,000 people, more or less, living in 17, 910 hectares, almost one-third of the land area is classified as timberland or forestland with 5,671.37 hectares. Seven (7) of 60 local communities are either fully or have portion within the classified forestland areas. The lowland areas that give way to few rolling, hilly rugged mountains and gentle slopes inland, characterize the town's overall outlook. Approximately 12,238.63 ha or 68% of the total land area is currently used for agriculture but only half of the area is fully developed; the remaining area is either open space, pasture lands or under-developed farm lands. The major crops are rice, sugar, corn, root crops, banana, coconut, abaca and mango while, peanuts, vegetables and other fruit trees are also grown as minor crops.

Janiuay is located between latitude 10°55'15.6" to 11°3'39.6" North and longitude 122°18'25.2" to 122°33'25.2" East covering about 19, 787.6 hectares according to the latest GIS survey conducted by the Municipality. It is bounded by the municipalities of Lambunao in the north, Badiangan in the northeast, Mina in the east, Cabatuan and Maasin in the south and the Province of Antique in the west. The town is under the Third Congressional District of Iloilo Province. It is 30 kilometers from Iloilo City, 15 kilometers from the Iloilo Airport in Cabatuan, Iloilo and 30 kilometers from the Dumangas sea port. While the population of *Janiuay* is growing, agricultural production is

dwindling due to low farm productivity associated with soil and nutrient depletion from long years of soil erosion. Uncontrolled illegal cutting of trees to meet the increasing demand for fuel wood and timber contributed largely to forest loss. Widespread poverty and landlessness also cause deforestation. Poverty drives people upland so they can eke out a living. In a country where more than half of the population is poor, forests are rich sources of food and other resources, which are very attractive to those desperate for survival.

The Local Government Unit (LGU) and the Municipal Environment and Natural Resources Office (MENRO) of *Janiuay*, restricted its native people in the mountainous area to engage in the *kaingin* farming (otherwise termed 'slash-and-burn' or shifting

cultivation) and strictly prohibited illegal logging. *Kaingin* can hardly be stopped due to poverty and lack of livelihood for the mountain dwellers. Hence, the control placed on the consumption of natural resources had great negative impact on locale's livelihood while conflicts arose on opposing native people on one hand, and between the authorities over the management of resources, on the other hand.

This confirms an assertion by West and Brechin (1991), that there are widespread conflicts between resident people and protected area management authorities particularly over property rights and livelihood activities within areas designated for conservation.

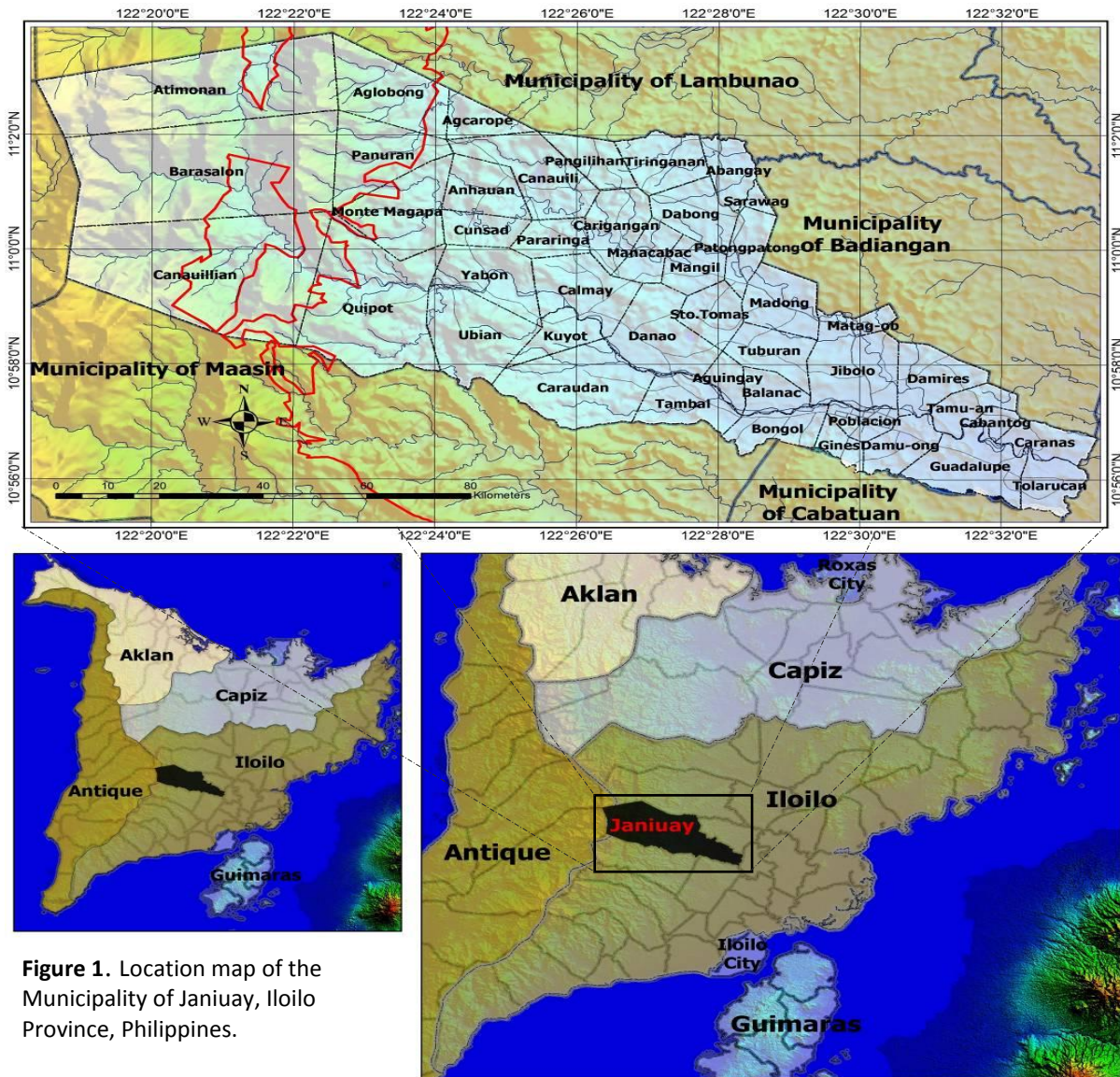


Figure 1. Location map of the Municipality of Janiuay, Iloilo Province, Philippines.

II. OBJECTIVE OF THE STUDY

The study aimed to evaluate the conservation program of the Municipality of *Janiuay*, Iloilo, Philippines, and relate this program to the town's economic development scheme.

Study Area and Methodology

This study was conducted in the Municipality of *Janiuay*, Iloilo, Philippines in October 2012. As study area, it covered *Janiuay's* protected forest and forestlands within the Mount *Amatong* in *Barangay Quipot* that stretches up to Mt. *Singit* in *Barangay Aglobong* going westward to the area of the Central Panay mountain range bordering the provinces of Antique and Iloilo.

The forest line runs across *barangays Quipot, Monte Magapa, Panuran* and *Aglobong* that typically divides the forestland and the alienable and disposable (A&D) areas. Inside the forestland in the vicinity of *Canauillan, Barasalon* and *Atimonan*, alienable and disposable areas (A&D) have been declared by the DENR (**Figure 2**).

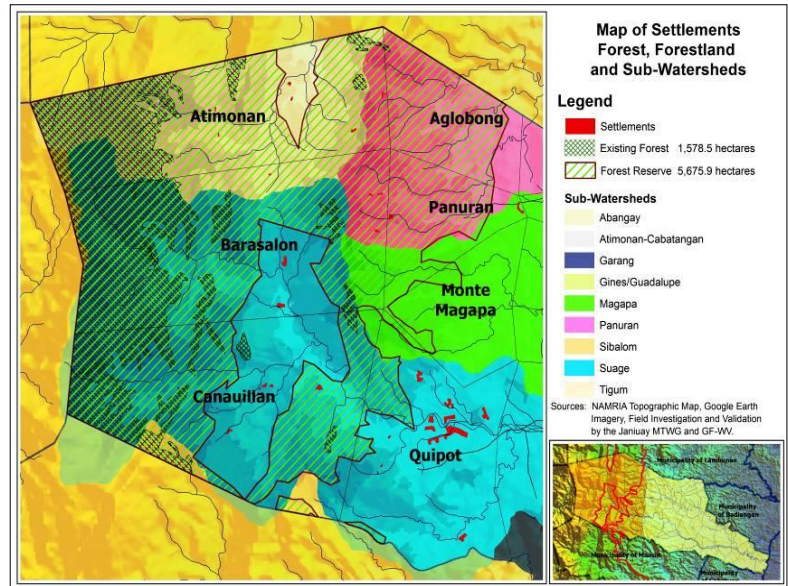


Figure 2. Existing forest, forestland and the sub-watersheds in the upland barangays of Janiuay, Iloilo.

The whole forestland harbors the headwaters of seven (7) river systems, but four (4) are considered the major river systems. These are the Magapa and Suague rivers that drain to the Janiuay area and the *Atimonan-Cabatangan* and *Panuran-Aglobong* rivers that drain to the area of the Municipality of Lambunao.

The forestland is 5,675.9 ha but the remaining forest cover is only 1,578.5 ha or 27.8% of the forestland. More than 4,000 ha (72%) of the forestland are used by the indigenous and upland communities for their *kaingin*, fallows, agro-forestry farms, paddy rice fields, settlements and croplands. Small portions are open grassland and landslide areas.

The in-depth interview with the officer of the Municipal Environment and Natural Resources, forest on-site leaders and guards, officer of the Municipal Planning and Development, and some local officials was used to gather the qualitative data. The in-depth interview is a direct, face-to-face means of gathering information from individuals using probe techniques. The interviewer asked questions using a topic guide or a set of general questions, often called an interview guide. Questions asked were open ended. Follow up questions are asked based on the responses and flow of interview (David, 2002). This method aimed at eliciting

information on the management of the protected area and understanding the need for conservation and the impacts of the protected area on local economic development.

III. RESULT AND DISCUSSIONS

The conservation program of the Municipality of *Janiuay* was evaluated as to the following: *Governance, Vision, Mission, Goals, Objectives and Activities*.

As to Governance: The MENR officer who acts as head is a licensed forester; Environmental governance looks into four areas: Forest Ecosystem Management, Freshwater Ecosystem Management, Coastal Marine Ecosystem Management, and Urban Ecosystem Management.

As to Vision: Green forestlands by 2022 that can resist the effect of climate change

As to Mission: Empower the upland communities for the restoration, conservation and protection of forest resources and livelihood enhancement; enhance and strengthen peoples' organizations through active linkage with local, national and international institutions; and develop rehabilitate forest area in preparation for the worst effect of climate change.

As to Goals: Sustainable management of forest and forestland resources enhanced with more livelihood opportunities; protection and preservation of natural landmark and cultural heritage; enhance and strengthen peoples' organizations through active linkage with local, national and international institutions; and minimal disaster risk and climate change worst effects can be adopted.

As to Objectives: Empower local communities through organizing and capacity building for forest and forestland protection and livelihood enhancement with appropriate area occupancy instruments; raise awareness on environmental protection, disaster risk management, sustainable forest management, and livelihood program, cultural heritage through information, education and communication campaigns; establish linkages and networks with government agencies and civil society organizations for rehabilitation, restoration, and protection of the environment, livelihood, infrastructure support and social services; generate resources through proposal preparation and municipal enterprise development; conduct community vulnerability mapping and disaster risk management; develop and promote ecotourism sites; establish digital infrastructure or data base; provide advocacy on climate change effect and develop adaptation technique for the survival of flora and fauna in the forest area; and conduct Para-legal trainings, formation of *Bantay Gubat* and enforce a policy advocacy.

As to Activities: Issuance/Localized enforcement of forest zoning ordinance; delineation of forest management zones; Information, Education, Communication (IEC); enrich fragmented and marginal area of natural forest through Assisted Natural Regeneration (ANR); establish networking with research group and finance institution on biodiversity conservation; deputation of Wildlife Enforcement Officer for seven (7) local communities *Quipot, Monte Magapa, Panuran, Aglobong, Atimonan, Barasalon* and *Canauillian*; develop and manage priority watersheds (*Suage* and *Magapa*); rehabilitate riverbanks downstream; enact ordinances; protect and develop freshwater ecosystem; develop brush lands and grasslands to increase production of food and raw materials; and maintain and enhance the natural aesthetics integrity of potential ecotourism destination.

At the outset, the critical forest management problems undermining the development of the Municipality of *Janiuay* are extensive deforestation, forestland degradation and soil erosion. Migration is

also considered as one of the factors in forest loss. The restrictions placed on the consumption of natural resources have negative impact on the native people's livelihood while conflicts arose between the native people on one hand, and the authorities over the management of resources, on the other hand. Likewise, there is already evidence of a increasing scarcity of good arable land, water and forests resources due to the conversion of forests into settlements and the cultivation of the area for food crops. Deforestation and land degradation are accelerating soil erosion, downstream flooding and water shortages. Hence, *Janiuay's* management of its forest conservation and development projects was being critiqued for having failed to meet their objectives.

The municipality, despite scanty resources, institutionalized the MENRO and hired five (5) *Bantay Gubat* in order to monitor and prevent unregulated activities in the forest land. It conducted GIS survey with the help of the German International Cooperation and Green Forum – *Western Visayas* in order to retrieve accurate data.

The Department of Environment and Natural Resources (DENR), a primary government agency with the mandate to ensure good forest management, has inadequate resources and personnel. There is no systematic forestland management effort; forest laws enforcement is poor; and provisions of tenurial security to the beneficiaries are not complete. The DENR also lack effort to stop the deforestation and poaching activities on remaining natural forest. Likewise, the Department of Agriculture (DA) and the Office of the Municipal Agriculturist are agencies concerned in maintaining agricultural productivity; but like the DENR, they do not have the personnel and expertise in soil and water conservation. Practices on inorganic farming which can aggravate the effects of climate change that can trigger disasters, are still allowed by said agencies.

By virtue of Local Government Code of 1991 and the Joint Memorandum Circular (JMC) 2003-01, the LGU can serve as overall coordinator, the DENR giving technical services, and the local communities and stakeholders participating in the overall management of the forestlands (**Table 1**). Its interest is to tap opportunities the forest can provide for local economic development. Along this line, all forest management strategies of MENRO *Janiuay* were gradually implemented with local community involvement while the LGU enjoined participation of *Sangguniang Barangay* to encourage wider participation. The

strategies of the conservation program is expected to lead to: 1) maintenance or expansion of natural forest cover, 2) improvement of watershed integrity and biodiversity, 3) regulation on expansion of agricultural areas in the forestland, 4) security of tenure rights of community participants, and 5) development of brush lands and grassland areas towards increasing productivity and income of the people of *Janiuay*.

The National Government Organizations (NGOs) in *Janiuay* also helped on research and provide extension services in biodiversity conservation. Some NGOs provide financial assistance for biodiversity conservation that can be tapped to sustain such effort with the LGU, DENR and local communities.

Table 1. Assessment of current DENR-LGU forest management capacity

INDICATOR	PRESENT CONDITION
Organization	<p>LGU Janiuay: FLUP - TWG organized. The MENRO has no specific LGU personnel assigned in forest management and other environmental programs.</p> <p>DENR: lack Eco-Governance Focal Group (EFG) which provides technical assistance to LGUs in preparing their forest land use plans. In the province of Negros Oriental, the CENRO provides technical assistance in the formulation of the FLUP.</p> <p>LGU Province: Provide training to the LGU in the Formulation of FLUP.</p> <p>Other forest management organizations: There are peoples' organizations (POs) holding Community Based Forest Management Agreements (CBFMAs) to develop and manage an aggregate of 300 ha. However, most of the members lack capacity to manage their CBFMAs. This organization is known as AMABUS. They were organized by the NGO. There are ISF organizations in several <i>Barangays</i>. They are managing and developing an aggregate area of about 400 ha. They are properly protecting their respective allocations; however, most of the areas were not developed.</p>
Annual Budget	<p>GIZ: The German International Cooperation (GIZ) provides fund for the protection and rehabilitation of the forests.</p> <p>NGOs: The NGOs that help promote environmental programs are, Green Forum Western Visayas, PROCESS foundation, PRDCI, and Haribon.</p> <p>LGU Janiuay: The budget to prepare the FLUP of <i>Janiuay</i> has not been allocated. It uses the budget of CLUP. Unlike other LGU that they budgetted P1.5 million for the FLUP. That's why the MENRO find difficulties in formulating the FLUP. No forest-management related budget was also allocated.</p> <p>GIZ: The German International Cooperation (GIZ) provides fund for the protection and rehabilitation of the forest in the amount of 4.7 million pesos</p> <p>DENR: has no budget for technical assistance to LGUs. No regular program and budget for capacity building and extension. There is a DENR satellite office in <i>Janiuay</i> but lack personnel. No one is assigned to work with LGU <i>Janiuay</i>. LGU hired <i>Bantay Gubat</i> just to protect the forest.</p>
Skills	<p>LGU Janiuay: Lack excellent planning skills, personnel, and facilities. The MENRO has no personnel. The Municipal Planning and Development Office help, but in terms of priority, environmental concern is just secondary. The Indicative Forest Management Plan is being prepared in conjunction with the Forest Land Use Plan.</p> <p>DENR: Good forest management planning ability, but lack personnel to coordinate with LGU.</p>
Past, Present, and Proposed Projects Related to Forest Management	<p>LGU Janiuay: To date, preparation of Forest Land Use Plan, start the implementation of GIZ project, 261 hectares were reforested. 130 hectares agro forestry, 80 hectares reforestation and 41 hectares assisted natural regeneration. Proposed projects include convergence initiative, and Jalaur Rehabilitation Project.</p> <p>DENR: current projects include CBFMA, UDP and NGP. Forest protection and law enforcement activities being done by LGU personnel with coordination to DENR. Past projects include: contract reforestation, watershed rehabilitation projects, and integrated social forestry. <i>Jalaur</i> project under the Forestland Management Project (FMP) is now on process.</p>

Table 1 (cont.). Assessment of current DENR-LGU forest management capacity

INDICATOR	PRESENT CONDITION
Potential Funding Support to FFM	LGU. Other potential sources: not identified
Existing Forest Laws Enforcement, M&E Bodies and Arrangements	LGU Janiuay: Has existing forest law enforcement activities particularly employment of <i>Bantay Gubat</i> , but not sufficient. A multi-sectoral Environment and Natural Resources Council (ENRC) will be organized. DENR: The Multisectoral Forest Protection Committee is not functioning. There are no Forest Guards. Law enforcement activities are under-financed.
LGU Ordinances Related to FFM	LGU Janiuay: There are five (5) forest management related ordinances. Existing forest laws, laws and regulations are not effectively enforced by DENR due to chronic resource constraints.

The concerted efforts and strong determination of the LGU and the MENRO of *Janiuay* to rise above these concerns and problems compelled them to strategically plan the forest conservation vis-à-vis the municipality’s economic development. To help achieve the development goals of *Janiuay*, future forest and forestland development must be characterized by increased financial and technology investments to: 1) empower communities for sustainable forest management and livelihood; 2) enhance climate change adaptation and disaster preparedness; and 3) improve watershed integrity through establishment and enforcement of Forest Management Zones, maintenance or expansion of natural forest, biodiversity conservation and protection, biodiversity-friendly agricultural practices and promotion of ecotourism sites. The initial and ongoing implementation of *Janiuay*’s Forest Land Use Plan is a resounding success. It has directed the municipality with utmost certainty as to the management of its forest land and the economic development that goes with it.

The effective management of forest zones was a concerted effort among stakeholders, local communities and the LGU/DENR. Stakeholders were made aware of the existence of management zones, including the prohibited and allowable activities for each zone as provided in the Municipal ordinance. Although monitoring and evaluation were difficult that resulted in backlogged reports, continuous efforts have been exerted to fine-tune the programs.

The conservation and local economic development programs of the Municipality of *Janiuay* were found to be in strong support with each other. The

municipality’s agro-forestry, upland development, Jalaur Water Shed rehabilitation brought about economic component in the forms of projects like communal irrigation system, farm-to-market roads, post-harvest facilities, and livelihood programs of the locale through upland farmers’ organizations.

This study also found out that the community development and conservation programs in the local community of the Municipality of *Janiuay*, Iloilo, Philippines, were developed in response to aggressive confrontations between local people and nature reserve managers when managers attempted to enforce reserve regulations due to the negative impact in their livelihood, restrictions to access and user-rights to land and loss of large portions of their former agricultural lands. Despite these problems, they have met with both failures and successes and these programs have been successful in transforming what was once an uncompromising relationship between local people and nature reserve managers into a much more cooperative one.

IV. CONCLUSIONS AND RECOMMENDATION

The designation of the protected area has had a strong bearing on the local economic development of the surrounding communities due to restrictions to access and user-rights to land and management of resources around the area; the poor management of natural resources especially trees is at the heart of conflict between native people on one hand, and the communities and the Municipality of *Janiuay* as a whole; and this case study demonstrates the difficulties in finding the balance between forest conservation and

local economic development and the importance of sufficient level of participation of local populations for the success of DENR programs. Forest conservation and local economic development are integrated and therefore conservation and development should be mutually supportive.

It is recommended that the provision on sustainability of the conservation program vis-à-vis Municipal economic development; establishment of more linkages with other international agencies for financial subsidy; strengthened monitoring and evaluation of ongoing implementation of the programs; and replication of the Forest Land Use Plan.

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