

# **The Bukidnon Experience on Natural Resource Management Decentralization**

**By**

**Dr. Antonio T. Sumbalan**  
**Environmental Planner and**  
**Consultant on Rural Development**

## **ABSTRACT**

The Province of Bukidnon in north-central Mindanao is the largest of Region X and the eight largest in the country sits on the 829,378 hectares of land that comprises the watersheds of six of the islands major river catchments. The natural state of the environment and the province's natural resource that it is known of have been disturbed by economic endeavors of its people, particularly those occupying its watersheds. Despite threats of natural calamities, the drive to earn and generate subsistence livelihood prevails.

Government has been aware and concern of the circumstance. The Provincial Government welcomes the decentralization of natural resource management through the Local Government Code of 1991. Several approaches have been put in place to ensure that problems attendant to socio-economic development can be appropriately addressed.

This paper attempts to present initiatives of the local governments of Bukidnon on natural resource management based on a framework plan developed through multi-stakeholders' participation. It will also present the national government's special programs and projects in the province, as well as the participation of the local communities and the support extended by resource organizations.

It focuses on how the various stakeholders can play a valuable role in shaping the direction of a their concerted efforts in natural resource management.

## **1.0 INTRODUCTION**

There has been a continuing shift in the management of watershed and natural resources in the Philippines. This has been reflected in the changes in government policies from central government-driven to more participation among local stakeholders, such as the local communities, local government units (LGUs) and Indigenous Peoples (IPs).

The Forest Management Program demonstrated this gradual shift in the 1970s. This was through controlled devolution of rights to utilize individual land parcel with responsibilities to conserve adjacent forestlands. Such efforts were pursued through the application of agro-forestry, tree farming, and soil conservation technologies.

In the 1980s, the upland development direction was towards social forestry agenda from purely technical concerns to issues in rural development. This was carried out under the Integrated Social Forestry (ISF) Program that placed greater emphasis on providing land tenure to forest occupants.

The 1990s saw the passage of the Local Government Code (LGC) of 1991 that has created tremendous impact upon the delivery of basic services at the local level. The environment and natural resources sector was among those sectors affected by devolution. The policy content of the LGC of 1991 suggested that the implementation of social forestry and reforestation initiatives, the management of communal forests not exceeding 5,000 hectares, the protection of the small, and the enforcement of forest laws were to be devolved to the LGUs.

Likewise, the National Integrated Protected Areas System Act of 1992 was passed. This is Republic Act (RA) 7586, which mandates organization of a protected area management board. This is composed of representatives from the local government units, local communities, and non-governmental organizations given broad participation in the management of declared protected areas, such as the Mt. Kitanglad Range Natural Park (MKRNP).

The late 1990s showed the recognition of the rights of the IPs as universal, indivisible, interdependent, and interrelated. IPs have the right, through the Certificate of Ancestral Domain Title (CADT) to equal protection, non-discrimination, and respect for cultural integrity. This is the essence of Republic Act 8371 of 1997, otherwise known as Indigenous Peoples Rights Act (IPRA) of 1997.

## **2.0 NATURAL RESOURCES**

The province of Bukidnon is among the provinces in the Philippines blessed with natural resources, which includes watersheds, forest resource and human resource. The seven major watersheds of the province supply its hydroelectric power. These watersheds also boost the agricultural production in Bukidnon. Similar to the watersheds, the province forests resource should be protected not only preserve its environmental integrity but also to prevent further deterioration of its present condition

### **2.1 Physical Features**

Bukidnon is an elevated landlocked province covering an area of more than 829,000 hectares making it the eight largest province in terms of area in the Philippines. About half the province (49%) consists of rugged hills and mountains including about 300,000 hectares with slopes above 50%.

Located in north-central Mindanao, the Province comprises the upper watersheds of six of the islands major river catchments. Almost two-thirds (65%) of the Province (i.e., about 540,000 ha) comprises the upper sections of the extensive Pulangi River catchments that extend through two adjoining provinces to enter the Celebes Sea at Cotabato City as the Rio Grande.

The province has two types of climate under the Coronas Classification. Type III, which is experienced in the northern part characterized by the absence of a very pronounced maximum

rain period with a short dry season. Type IV, which is experienced in the southern part has a rainfall that is more or less evenly distributed throughout the year.

The topography of the province is generally described by slightly undulating and rolling upland areas cut by deep and wide valleys. There are clusters of small volcanoes, mostly extinct, the most dominant are MKRNP and Mt. Kalatungan with elevations of 2,838 and 2,80740 meters above sea levels respectively. These mountains are also the second and the third highest mountains of the country.

The MKRNP was proclaimed a Natural Park under Presidential Proclamation No. 896 in 1996. Through the efforts of the Protected Area Management Board, the MKRNP Bill was passed by congress and signed into law by the President on November 6, 2000 as RA 8978. The natural park has an area of 47,269 hectares consisting of 31,235 protected areas and 16,034 hectares for buffer zone with a total of 45 globally threatened or near-threatened species of wildlife including 17 species of mammals, 23 species of birds and five species of butterflies (NORDECO and DENR, 1998).

## **2.2 Watersheds**

There are seven major watersheds in the Province (DENR-PENRO, Bukidnon, 1999). The Pulangi Watershed comprised 44 % of the total area of the Province. Its remaining forest cover is concentrated at its headwaters along the Pantaron Range and the headwaters of Tigwa River. The Pulangi Watershed is ecologically important to the vast Pulangi agricultural basin of the southern part of Bukidnon. It also protects a major dam, which supplies hydroelectric power of the National Power Corporation (NPC) and irrigation water of the National Irrigation Administration (NIA).

The other watersheds are Tagoloan and Cagayan Rivers that rise on the slopes of MKRNP and Mt. Kalatungan. The resulting valley floors, volcanic terraces and mountain foot slopes provide the extensive areas of relatively flat and fertile land and gentle climate on which the rich and

diverse agricultural production of the province developed. These two watersheds provide water for power generation, irrigation and domestic use for provinces like Bukidnon, Misamis Oriental and Cotabato.

### **2.3 Forest Resource**

The forest resource of the province consists of residual, mossy, old growth, plantation forests, brushlands, and open/cultivated grasslands (See Box 1). Within these forest resources are protected areas consisting of five mountains, one reforestation project and 35 caves.

This resource is another major feature of the province (accounting 61% of its total land area). Brushland, open/cultivated grasslands constitute 55% of the total forest resource that if not properly taken cared of will surely affect the environmental integrity of the province, as well as have a negative impact on its other resources.

### **2.4 Human Resource**

Provincial population growth rate had been declining for the last 40 years. The 2000 population of Bukidnon stood at 1,060,265 (NSO, 2001) with an annual growth rate of 2.43% between the periods 1995 to 2000. (See Box 2).

Asian migrants were believed to be the original settlers of Bukidnon. They traveled from Indonesia in Southeast Asia and landed on the Davao Gulf area in Southern Mindanao. This Asiatic origin of the Indigenous People of Bukidnon is chanted in their oral traditions and folktales (Lao, 1985).

Historically, since 1889 there were only two tribal divisions of the IPs in the province. These are the Bukidnons who inhabit the lowlands and the Manobos who occupy the mountain peripheries. The watersheds that they occupy identify the Manobos. Those found in the municipalities of

Damulog, Kibawe and Kalilangan are identified as Southern Manobo. Those who reside in Kalilangan and Pangantucan are called Western Manobo (Opena, 1998).

The Bukidnon tribe on the other hand started to be subdivided in 1967 when a certain Ricardo de la Camara started to organize them and put them together to protect them from the loggers. He was responsible for the organization of the Higa-onons tribes out of the Bukidnons in Malaybalay, Cabanglasan, and other lowlands of the northern part of Bukidnon. Later in 1975, the people of Lantapan and Talakag embraced the Talaandig as their tribal identity. The late Anastacio Saway of Sungco (Datu Kinulintang) was the leader of this group (Opena, 1998).

Today, Bukidnons (7.7%), Talaandig (60.1%) and Higa-onon (23.5%) tribes comprise the IPs in Mt. Kitanglad Range National Park, which numbered to 2,512 individuals comprising 451 households. The tenured migrants constitute the remaining (8.7%) occupants ( Mordeno, Canoy and Magbanua, 2001).

### **3.0 NATURAL RESOURCE PROBLEMS**

There is also a general awareness among the rural communities and the local government units of the Province regarding the problems that besieged the bountiful resources that the Bukidnon Province is blessed with (TAC, 1996 and Amoroso, 1999). These include the following:

1. The rapidly increasing population (due to natural increase and a historically high rate of in-migration).
2. The extensive logging that has caused rapid denudation of much of the steeper upland areas, particularly in the last two decades.
3. Watershed denudation worsened and upland cultivation intensified as forest conversion to grasslands
4. Subsistence upland farms that pressed relentlessly into the headwaters of all river catchments.

5. The impact of the resulting twin scourges of rapid rainfall runoff and severe soil erosion which is increasingly evident as flash flooding, landslides and siltation in the rainy season alternated with worsening droughts and destructive fires in the dry months.
6. The extent of rural poverty in the uplands between the IPs and the tenured migrants continued to increase and the ability of the upland farm families to generate even subsistence livelihoods from the deteriorating resource base continued to decline.
7. The absence of security of tenure over the lands by local communities in the uplands has created an open access situation; it is a disincentive to invest in more sustainable agricultural practices and leaves the local communities powerless when trying to keep people from expanding agriculture into forest areas.
8. The trend of agricultural development in the province that tends to shift to the establishment of high value commercial crops plantations taking place near or inside protected areas. This further increases the in-migration and pressure on land for farming. It does not only results to displacement of IPs but also increases pressure on remaining natural habitats, and increased swidden cultivation by opening up the remaining forest areas.

#### **4.0 LOCAL INITIATIVES ON NATURAL RESOURCE MANAGEMENT**

As early as 1989, the provincial government has already acknowledged the need to protect the province's natural resources. This can be gleaned from its vision statement that spells out the need to have “. . . an optimally developed agricultural economy and ecologically balanced environment”(Strategic Development Plan, 1989). This vision has guided the provincial government in the final results of the Bukidnon Integrated Area Development Project (BIADP), the Asian Development Bank funded project. One of the major components of the plan is the provision of drip irrigation to promote high value vegetable crops development in the upland areas to improve the socio-economic status of the Indigenous Peoples and tenured migrants of the upland communities.

The provision of drip irrigation is consistent with the efforts of the Provincial government to maximize the use of water for agricultural development, as well as confined agricultural development into smaller upland areas and thus ease the pressure on upland cultivation that started to encroach in the declared protected areas of MKRNP.

The intention of the Provincial Government to promote an ecologically balanced environment was put to a test when a group of concerned citizen from the Municipality of San Fernando barricaded logging roads in the southern Tigwa watershed of the Upper Pulangi and some of them traveled to Manila and fasted in front of the Office of the Secretary of DENR to press their demand to stop the logging activities in Bukidnon. The Provincial Government of Bukidnon sided with this group when then Provincial Governor Ernesto N. Tabios went to jail to show sympathy to the group.

The efforts of the concerned local community and the local governments did not go to waste because a log ban was declared for the entire province of Bukidnon. The same group staged a mass protest to the National Government's program to implement the Pulangi III Hydro Electric Project of the National Power Corporation that would have put under water a good portion of the Municipality of San Fernando, Bukidnon. This project was put on hold until this time and probably forever.

The devolution of certain functions from the Department of Environment and Natural Resources pursuant to the Local Government Code of 1991 had enable the local leadership of the Province to implement its own version of the reforestation program. The devolution of the 127 Integrated Social Forestry (ISF) Projects of the DENR to the province paved for the implementation of the Bukidnon Environment Small-Scale Tree (BEST) Farm Project inside ISF Project areas that was turned over to the Provincial Government.

The BEST Project is a partnership between tree planters and the Provincial Government whereby the latter provides the financial requirements to carry out a technically and environmentally sound land-use practice and financially viable long-term investment. The financial assistance as



direct loan to farmer-participant is expected to develop a one-hectare tree farm of 400 trees that will provide an average income of P39,375 per hectare. To date, a total of 2,793 farmers have participated in the tree farm project and 3,364.22 hectares have been developed as of December 2000.

The BEST Project of Province has demonstrated that decentralization of the DENR responsibilities can be successfully implemented provided that the local government units invest financial, as well as technical resources to the devolved responsibilities. Total fund investment of the province to this project has amounted to P21 Million over the last eight years (1993-2000).

Other lessons learned from this tree farm initiative include the need to make a choice of tree specie based on topography, elevation and soil types. There is a need to link with research institutions to fill in the gap, which is the absence of technical expertise among most local government units. This is to effectively carry out natural resource interventions for the devolved responsibilities from the DENR.

In June 1993, then Governor Carlos O Fortich issued Executive Order No. 26 to exercise general guidance and oversight functions relative to watershed and environmental management in the Province and to facilitate inter-agency coordination. This was the result of the growing concern of the local leadership for the apparent absence of effective development efforts to provide the necessary investment and development that will protect the watersheds of the river systems that have been tapped for the power and irrigation projects of the national government. He created the Bukidnon Watershed Protection and Watershed Development Council (BWPDC). The organization of this council was also in response of the national mandate to operationalize the Philippine Council for Sustainable Development (PCSD) at the provincial level. This is a multi-sectoral body composed of national and local agencies, academe, local government units, and representatives from non-government organizations.

The initiative gained recognition from the national government when President Fidel V. Ramos issued Presidential Memorandum No. 270 on March 1995 *“in order to fully protect and preserve*

*the remaining forests in the Bukidnon Watersheds and rehabilitate open areas within their headwaters.”*

Resource agencies, such as the Environmental Science for Social Change (ESSC), Heifer International and the International Center for Research in Agro-Forestry (ICRAF), as well as the National Power Corporation, National Irrigation Administration and the Department of Environment and Natural Resources with the province’s Planning and Development Office composed the Technical and Advisory Committee (TAC) of the came up with the Bukidnon Watershed Management Framework Plan (BWMFP) that was approved by the Provincial Development Council of Bukidnon in 1996. The Provincial Legislative Council (Sangguniang Panlalawigan) had legitimized the plan through Resolution No. 97-107 in 1997.

The BWMFP documented the common understanding reached by the range of institutions and interest groups on the current environmental and socio-economic situation in the province. It also outlined the general principles and approaches that the Council believes should be followed to most effectively address the situation, and to provide a commonly agreed framework for coordination and supervision of subsequent programs, projects and activities on behalf of the Province.

Having the BWMFP, enabled local actors and stakeholders the opportunity to realign their efforts with the intentions of the Provincial Government. At the municipal level several LGUs have bonded together and formed into watershed clusters to better address natural resource concerns. These were made possible through the technical assistance of several resource agencies. The USAID through its Associates for Rural Development Inc.-Governance for Local Democracy (ARD-GOLD) Project and the Canadian International Development Agency (CIDA) with its Local Government Support Program (LGSP) assisted several Municipal Governments of Bukidnon in the formulation of the Watershed Cluster Development Plans.

At the provincial level, a watershed summit billed as the 1<sup>st</sup> Bukidnon Watershed Summit was held in 1999 that was aimed at building awareness and appreciation of the key issues and

opportunities in localized management of watersheds. It also resulted to awareness of the available range of management options and tools, and how they maybe availed of. Further the summit served as a venue and opportunity for local governments to agree on immediately doable actions to facilitate the preparation and mobilization of local watershed action programs. Finally, it enabled service providers and research organizations to better appreciate the needs of local initiatives as basis for developing responsive support programs for LGU initiatives.

The holding of this summit demonstrated the willingness of various resource institutions to pool their resources to help a local initiative that further the cause for natural resource management. USAID and the Australian Agency for International Development became the principal sponsors while technical expertise were provided by ICRAF, ESSC and the Central Mindanao University (CMU).

The summit has also strengthened the operationalization of the BWPDC. This is through the technical assistance provided by the Associates in Rural Development, Inc.- Governance on Local Democracy (ARD-GOLD) Project of USAID, particularly for the capacity building of the Maradugao River Watershed Cluster and the preparation of five municipal watershed management plans from each LGU member of the cluster. Further, the TAC and secretariat of BWPDC were reorganized and meetings are regularized. The TAC has likewise formulated the BWPDC Five-Year Strategic Action Plan (Cadavos, 2001).

The lessons learned with the holding of the watershed summit (Buenavista, 1999) include:

1. The role that intermediary organizations play in mobilizing local actions. They are vital in linking local voices with the political structures.
2. The need for adjustments in policies that deal with resource allocation, institutional mechanism and procedures, legal and regulatory frameworks in order to ensure that practical actions identified by the local people will be facilitated.
3. The local actors and stakeholders have fully recognized that the Local Government Code of 1991 has shifted certain responsibilities for environmental management from central to

local governments. The essence of decentralization lies in strengthening the capacity of local organizations to become partners in the process of governance.

4. Finally, the summit showed the importance of the local stakeholders to work with the research community for technical assistance, training and information exchange.

Technology of Participation (ToP), an ARD-GOLD Project developed tool on participatory planning was introduced during the summit became the standard tool in the formulation of the watershed cluster plans and other related planning activities in the province and its component LGUs. This has ensured a wider and active participation of the different stakeholders especially the locally elected officials, representatives from various non-government organizations and from local communities.

ToP is founded on six distinct yet interrelated values (ARD-GOLD,1997). These are participation, teamwork, creativity, consensus, reflection and action. Given these foundational values, facilitating group processes allows groups to come together and work with each other towards particular ends and purposes. The basic methods of ToP for facilitating group processes, such as discussion method, workshop method and planning method were extensively used in all activities carried out by the Province in implementing the framework plan including the watershed summit and the watershed cluster planning in Bukidnon.

The LGSP provided financial counterpart funding that enabled the local government units to hold several seminar-workshops to gain awareness of the state of the Bukidnon watersheds and its environment that ultimately resulted to the preparation of two municipal cluster watershed plans.

Lessons learned from these activities include better appreciation of watershed approach to planning and the understanding that natural resource management issues and solutions go beyond the political jurisdiction of any given local government unit. Likewise, the province was able to access technical and financial assistance from various resource agencies because of the presence of legitimized plans based on participatory approaches.

The province is also involved with the DENR's Regional Resources Management Project (RRMP) under the Environment and Natural Resources – Sectoral Adjustment Loan (ENR-SECAL) Program. The project is the Upper Pulangi Watershed that supports the irrigation system and hydroelectric plant downstream in Central Bukidnon.

This seven-year project started in 1992 with the province's involvement in 1994 when DENR's contract with a Non-government Organization was terminated on the grounds of "Failure to Win Point of Entry". The province's participation lasted for three years until the project was transferred to other sites in Bukidnon. The reasons behind the transfer were the fact that a large portion of the project area is within the Timber License Area (TLA # 28-B) with a suspended logging operation set to expire in 2004 and the same area was covered with a Presidential Proclamation No. 451 in 1968.

Lessons learned from this partnership include the need for consultation with the concerned communities and LGUs prior to project identification and actual project implementation. It is also important that all stakeholders are properly informed and represented in the engagement and commissioning of contractors, such as consultants and non-government organizations. These are to ensure community ownership of the project. Further, project social acceptability is high whenever the LGUs are involved in project implementation. Likewise, the LGUs can be a potential source of equipment, material and personnel compliment that are essential in project implementation.

In the Municipality of Lantapan, the Philippine site of the SANREM Project, the Municipal Government started to address the issue on appropriate natural resource management through its initiative of formulating a natural resource management and development plan (NRMDP). An initiative of the former Mayor Teddy Pajaro, the plan was an effort to incorporate the scientific and research outputs that have been assembled (Lai, et al, 1998) with the implementation of the SANREM Project in Lantapan.

The process involved in the development of the NRMDP that was supported by information, as well as technical assistance from various SANREM research partners. The researchers have greatly influenced the local planners and officials in their perceptions regarding the importance and profitability of natural resource conservation and management. This municipal initiative of Lantapan has demonstrated that Natural Resource Management planning does not require a large sum of money and that LGUs can tap local and external resources to help them plan and solve local environmental and resource degradation problems. It has also demonstrated to the other LGUs the potential to plan and manage their own natural resources. This should also encourage the national government to further decentralize forest management authority, functions and responsibilities to the local government units.

Elsewhere in the province, the initiative of Lantapan has caught the attention of other municipalities. There are now four LGUs (Baungon, Impasug-ong, Libona and Manolo Fortich) that have formulated their own natural resource management plans. These were successfully carried out with technical support from the International Center for Research in Agro-Forestry (ICRAF).

The DENR in partnership with the LGUs and other development actors, as well as the local communities have pursued various initiatives to protect the forest resources. These include declaration of protected areas, forest resource management, and forest plantation management.

The initiative of the local legislative council (Sangguniang Bayan) served as the springboard of the various efforts to have important natural resource in the province declared as protected areas. The initiative started in 1989 when the legislative council of Sumilao recognizing the biological and socio-economic importance of Mt. Kitanglad passed a resolution. This led to the declaration of Mt. Kitanglad as a national park in 1990. Subsequently, it was chosen as one of the ten National Integrated Protected Areas System (NIPAS) priority sites under the Conservation of Priority Protected Areas Project (CPPAP)

The CPPAP is a seven-year biodiversity conservation project. One of its components is the development of livelihood systems in the protected area. It also aims to improve protected area management, confirm the tenure of IPs and tenured migrants and promote involvement of local communities in managing protected areas. As of the end of 2000, a total of 76 livelihood proposals came out amounting to P7,140,690 and benefiting 1,694 households.

Lessons learned from the livelihood systems development include the need to substantiate the IPs and tenured migrants' understanding of project concepts, such as the idea of allocating amounts as equity and the value of savings for themselves and their organizations. It also demonstrated the positive impact of incorporating the Indigenous Knowledge System (IKS) of the IPs in sustainable upland development and their concepts of biodiversity conservation.

Finally, the initial experience in the implementation of the CPPAP showed a need to effectively reconcile the two tenurial instruments available to the upland communities in confirming the tenure of the IPs and tenured migrants. The Certificate of Ancestral Domain Title (CADT) is available to the IPs and the Community-based Forest Management Agreement (CBFMA) for tenured migrants.

CBMA as a tenurial instruments seem to have sown conflict among the IPs. They voiced out their observation that after the project has been introduced their fellow IPs tend to dissociate themselves from tribal affairs. They are apprehensive that it might undermine whatever gains they have so far gained in their participation in conservation and protection of MKRNP.

The declaration of Mt. Kitanglad as a National Park is a demonstration of a local initiative that gained support from the national government agencies in the field of biodiversity conservation.

The PAMB is likewise responsible in pursuing non-destructive livelihood projects within the buffer zone of the protected area with an objective of improving the forest cover of the area, as well as to improve the socio-economic status of the IPs and the tenured migrants thereat. Just recently approved by the PAMB under the non-destructive livelihood project is a proposal to

carry out agro-forestry project that incorporated the Indigenous Knowledge System (IKS) of the IPs of Bukidnon, as well as promote “organically” grown fruits from the protected area.

The decentralized management of the park pertaining to planning, peripheral protection and general administration of the protected area by the PAMB has brought rich experiences and lesson learned in natural resource management (Sumbalan, 1999). These include the following:

- Park management can be implemented successfully by changing the locus of decision-making from the national agencies to local levels;
- Decentralization of park management is not mainly the domain of local government but should provide for participation of stakeholders and implementation of complementary projects;
- Devolving responsibilities is accompanied by the devolution of decision-making authority; and
- There is no ready-made template in park area management.

The Bukidnon experience in the management of MKRNP demonstrates that sensitivity and recognition of cultural tradition and local knowledge, as well as flexibility to negotiate with various stakeholders can sustain many local initiatives.

Specific to the participation of the IPs in natural resource management, the Bukidnons, Talaandig and the Higa-onon can be acknowledged of their active involvement in various efforts to help attain the objectives of CPPAP. They have revived their indigenous culture and practices with a culture-based organizing strategy. This has encouraged the indigenous cultural experts to revive the Council of Elders where the IPs rights are asserted. The three tribes made a history when they proclaimed ownership of 200 medicinal plants within the protected area (Philippine Daily Inquirer, 1999).

The *Alimaong* or the tribal guards were also revived and became active in park protection. They were recognized as front-runners in suppressing 79 forest fire incidents that destroyed 358



hectares of the park. Locally known as Kitanglad Guard Volunteers (KGVs), they have effectively complemented the local governments and DENR personnel charged with the protection of MKRNP. As a matter of fact, these were the groups who were responsible in apprehending the researchers of the National Museum who failed to secure the entry pass to the protected area.

Aside from the declaration of Mt. Kitanglad as a natural range park, there other five mountains that were declared as protected areas. These are Mt. Kalatungan, Mt. Kimangkil, Mt. Tago and Mt. Tangkulan. The Impalutao Reforestation Project was likewise declared as a protected area. Their declaration as protected areas is a testimony of the concerted efforts of the local governments and their upland communities in these areas through the leadership of the DENR-Provincial Environment and Natural Resources Officer. All these are the result of the level of awareness of the LGUs and the people of Bukidnon to the importance of natural resource management.

The Bukidnon Forest Incorporated (BFI) development of the Malaybalay Reforestation Project signals the new approach to reforestation. This is a development of a large-scale sustainable tree plantation in Bukidnon through the establishment of the Philippines-New Zealand Bukidnon Industrial Plantation Project (BIPP).

It covers an area of 39,000 hectares. The primary objective of the management of BFI was to establish and manage a commercially viable plantation forests enterprise; first as a model for the development of plantation forestry in the Philippines, and secondly, replication of the technology elsewhere in the country. There are now over 7,000 hectares of plantation forestry that are being managed into a sustainable system with planned rotation lengths of 12 to 20 years (BFI,2001).

The experience gained from this plantation project is how an industrial forest management be implemented. It pointed the need to carry out a project autonomously with its own Board of Directors from the other government agencies including the raising of loan funding to finance afforestation activities (BFI,2001). It also demonstrates for the need of a local champion (the

chair of the Board of Director, the Provincial Governor of Bukidnon) in the implementation of a foreign assisted project. This commercial plantation is fortunate to have technical and management advice, some equipment, training, fund for research and community development program. Finally, it has demonstrated the need for a strong emphasis on the research and community development in order to ensure success of a reforestation project in areas populated by the IPs and tenured migrants.

## **5.0 CONCLUSION**

The Province of Bukidnon sits on the 829,000 hectares of land that is predominantly mountainous with headwaters crisscrossing the area. This natural state of environment and panoramic view that Bukidnon is known of has been disturbed by the economic endeavors of its people, particularly those occupying watershed areas. Despite threats of natural calamities, the drive to earn and generate subsistence livelihood prevails.

Government has been aware and concern of the circumstance. The provincial government thought of providing drip irrigation facilities through the Bukidnon Integrated Area Development Project (BIADP) to those occupying the protected areas of Mt. Kitanglad National Range Park to remedy the proliferation of upland cultivation in the area. It is along the concept of forest rehabilitation of preservation that the Bukidnon Environment Small-Scale Tree (BEST) farm project was born. It is a joint venture of the provincial government and ISF beneficiaries that intends to “carry out a technically and environmentally sound land use practice of financial viable long term investment”. Special bodies, such as the Bukidnon Watershed Protection and Rehabilitation Council were also organized by the provincial government to avert the problems in watershed and forest management.

The national government through DENR also launched its share of strategies in Forest Resource Management under various projects such as the CPPAP, CADT and CBFM. It also introduced the establishment of a large-scale sustainable tree plantation through the Philippine-New Zealand Bukidnon Industrial Plantation Project (BIPP).

Government also recognizes the vital role and contribution of IPs in forest and watershed protection. Although government efforts are not unheard of, there is a need to further conduct researches and community development programs not only for environmental protection but also for the rehabilitation of the remaining natural resources.

The signing into law of Republic Act 8978 reflects the national government's recognition that administration of protected areas, such as the MKRNP is possible through cooperation among national government, local government units, local communities and non-government organizations as recognized under the NIPAS Act of 1992.

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