

**Conservation and Adaptive Management of
Globally Important Agricultural Heritage Systems
(GIAHS)**

**The Ifugao Rice Terraces
Philippine Project Framework**

Department of Environment and Natural Resources

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Ifugao Rice Terraces Philippine Project Framework

1. Introduction

The Ifugao Rice Terraces (IRT) of the Central Cordillera Region, Northern Philippines is one of the pilot system of the FAO's global project Globally Important Agricultural Heritage System (GIAHS^{1/}). Its objective is to promote the dynamic conservation and adaptive management of globally significant agricultural biodiversity harbored in Globally Important Agricultural Heritage Systems.

The Philippines became a part of the FAO-GIAHS global initiative in 2004. The first stakeholders' consultation and workshop was held in April 2005 and followed through in 2006 and early part of 2007 to frame up the data needed for the preparation of the project framework. The series of workshops were carried out with technical and financial support from FAO through the Department of Environment and Natural Resources (DENR) designated as the national Focal Point Institution (NFPI).

The document presents the overall project framework of the GIAHS-IRT pilot system and its components presented in hierarchy from the national, regional and community level. It defines the overall implementing arrangements including mandates, roles and tasks of each level of stakeholder, organization and management structures, program of work and financial plans.

The framework is the result of the series of local and national stakeholders' consultations and workshops previously conducted. The framework also draws lessons from the experiences in the implementation of the existing IRT master plan.

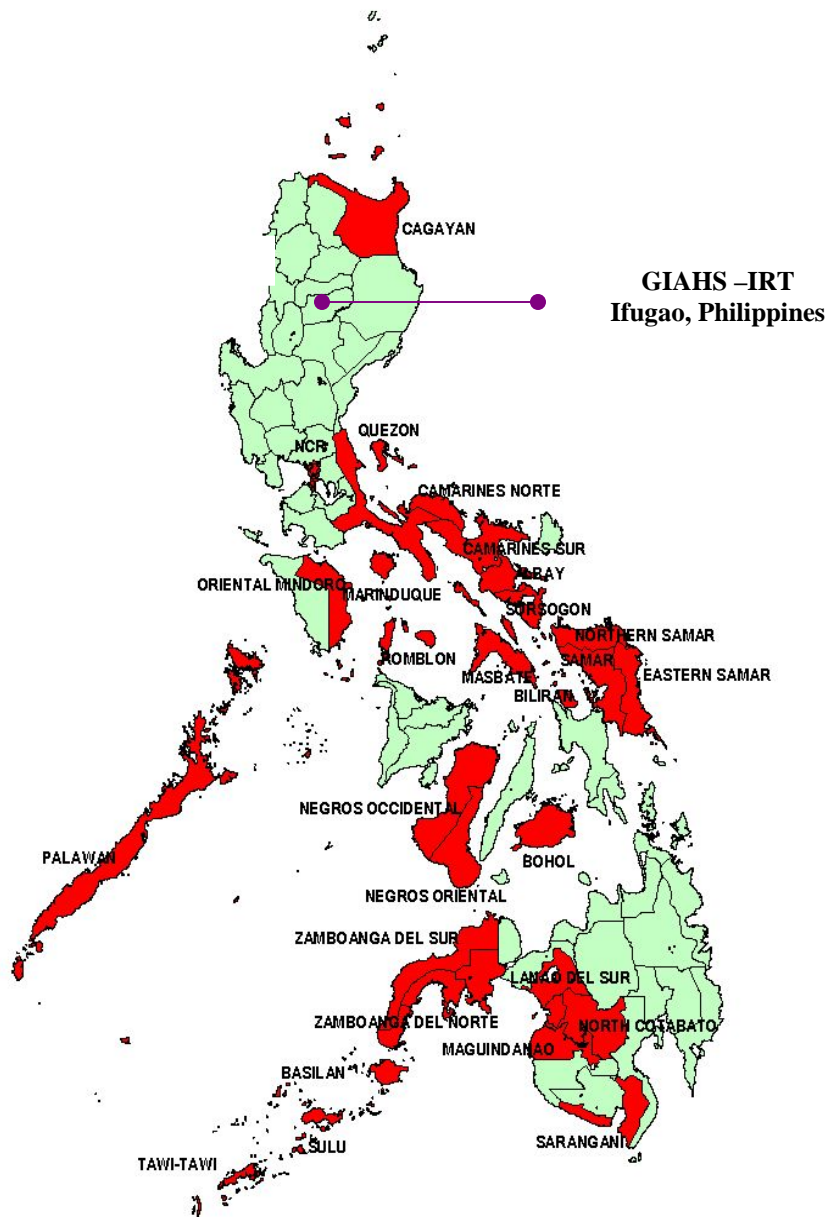
2. Background Information

2.1 Profile of the Area

Ifugao is located along the eastern flank of the Luzon Central Cordillera mountain ranges. It is bounded on the north by Mountain Province, on the west by Benguet, on the south by Nueva Vizcaya and on the east and southeast by Isabela. Eleven municipalities comprise the province with a combined land area of 251,778 hectares. Of the total land area, 198,246 hectares (79%) is occupied by nine upland municipalities containing the rice terraces clusters and the remaining 53,532 hectares (21%) is occupied by the two lowland municipalities of Lamut and Alfonso Lista.

^{1/} GIAHS are defined as "Remarkable land-use systems and landscapes which are rich in biodiversity evolving from indigenous and dynamic adaptation of a community/population to its environment and the needs and aspirations for sustainable development" (FAO, 2002).

Fig. 1. Location map of the GIAHS Pilot Project in the Philippines



The topographic feature of the province is marked by rugged mountains and massive forest except for the rolling lowlands toward the municipalities of Lamut and Alfonso Lista. The terraces are located at high elevation between 800 to 1,500 MASL with a slope range of 50% and above. The municipality of Banaue has the widest share of rice terraces but has the least number of terrace cultivators. The distribution of rice terraces per municipality is shown in table below.

Table 1. Ifugao rice terraces: area ranking, distribution and population

Municipality	Area Ranking	Area (Ha.)	%	% Farming
Banaue	1	4,751.75	27.7	50
Hingyon	2	2,651.75	15.5	70
Mayoyao	3	2,301.00	13.4	100
Hungduan	4	1,600.75	9.3	92
Asipulo	5	1,475.75	8.6	90
Lagawe	6	1,326.75	7.8	80
Aguinaldo	7	1,301.00	7.6	97
Kiangan	8	725	4.2	95
Tinoc	9	577	3.4	89
Lamut	10	426.75	2.5	
Alfonso Lista				
Total		17,138	100	

Source: BSWM and NSO, 2000 and Ifugao Poverty Map (2006)

2.2 Socioeconomic Characteristics of the Province of Ifugao

The province of Ifugao is the fourth poorest province in the country (NSCB 2000) having the highest poverty incidence in the Cordillera Administrative Region. The Philippine Human Development Report (2000) listed Ifugao as having the 6th lowest Human Development Index (HDI) of 0.4480 in 1987 out of 78 provinces. Its HDI slightly improved to 0.512 in 2000 but still the lowest in the Cordillera region.

Many terraces farmers consider themselves poor. Although poor, they have a very positive attitude toward work and consider themselves employed where most of them are engaged in farming, wood carving and weaving. (Ifugao Poverty Map, 2007) In spite of their claim of employment, their average annual income still falls below the poverty line of Php 85,245.00 (NSO 2000).

Table 2. Ifugao Poverty Index by Municipality

Municipality	Poverty Index	Rank
Mayoyao	.15	1
Banaue	.24	2
Asipulo	.36	3
Aguinaldo	.44	4
Hungduan	.47	5
Kiangan	.50	6
Hingyon	.52	7
Lagawe	.54	8
Tinoc	.54	8
Alfonso Lista	.61	9
Lamut	.79	10

2.3 Population and Demographic profile

The province of Ifugao has a total population of 161,623 (NSO 2000) with 82,528 males and 79,095 females with an annual growth rate of 1.67% and an average household size of 5.1. The population and households distributed to the 11 municipalities are:

Table 3. Ifugao Population and Household by Municipality

Municipality	Population	No. of Households
Mayoyao	14,151	2,917
Banaue	20,563	3,952
Asipulo	12,294	2,129
Aguinaldo	16,377	3,341
Hungduan	9,380	1,699
Kiangan	14,099	2,692
Hingyon	16,377	3,341
Lagawe	15,269	2,944
Tinoc	9,783	1,680
Alfonso Lista	21,167	4,275
Lamut	18,731	3,654
Total	161,623	31,346

In terms of educational attainment, majority have formal education from the elementary (22%), high school (30%) and college (41%). The higher literacy rate may have positive implications in the overall implementation of the GIAHS-IRT initiative at the local and community/site level.

2.4 Sociocultural Characteristics

The local management and governance of the rice terraces have been influenced by culture embodied in customary laws based on social taboos and customs handed down from one generation to the other. Ifugao have no form of writing and follows that they do not have a written law. In the absence of a written law, the Ifugaos had made themselves a consummate diplomat, they survived and prospered through the generations by keeping their point in harmony with nature and without involving themselves in serious trouble with their fellows.

Several principles guide the application of the Ifugao customary legal system. Firstly, the legal system has a personal character meaning a person is held liable for damages inflicted on others. Secondly, it is guided by collective responsibility meaning that not only the person who committed the act is liable but including kins and relatives are also liable. But the extended responsibility is less for the kin than the individual who committed the injury. Thirdly, the Ifugao legal system is guided by collective procedures participated in by families and clans. The collective procedure empowers families to resist and make strong demands.

The collective nature of Ifugao customary laws is the most powerful tool for re-affirming family commitments for the conservation and appropriate treatment of natural resources. Unfortunately, collective decision making is losing its relevance amidst the pressures of modern living leading to commercialization.

In earlier times, an Ifugao put so much value on their terraces and would not like to part from it at any cost. But in recent years, many Ifugaos became practical by mortgaging or selling their ancestral landholding and used the money to buy ricefields in the lowlands.

2.5 History and General Characteristics of the Ifugao Rice Terraces

2.5.1 Eco-evolution of the Ifugao Rice Terraces

The people of Ifugao have no written history in the evolution of the rice terraces. Two rival theories about the origin of Ifugao and their terraces is considered. One school of thoughts led by H. Otley Beyer believes that the Ifugao belong to an ancient origin. Some 2000 years ago a group of people from Indo-China must have moved northeasterly from Lingayen Gulf. These immigrants carried with them from Indo-China the knowledge of wet terraces cultivation. As they moved northward, they built rice terraces until they finally settled in Ifugao. On the other hand, Felix M. Keesing theorized that the Ifugao rice terraces are only 400 years old. During the Spanish era, people from the Magat area must have immigrated into Ifugao as a result of the Spanish military penetration in the area. This theory is supported by evidence of drastic population decreases in the Magat area during 16th to the 19th century. The Ifugaos however have no recollection of any migration in the past even in mythical terms

(Dulawan, 2002). When asked how the Ifugao rice terraces came about, the answer is “hidin kanaman” meaning in the past.

Carbon dating revealed that the age of the terraces vary from one place to another. The higher elevation terraces in Amganad and Lugu in Banaue are of recent origin dated in the 16th century. Terraces in other parts of Ifugao are found to be from the 7th to the 11th century.

Anthropological studies shows that the Ifugao rice paddy system evolve from more extensive forms of land-use. Although no historical records are available on the type of vegetation previously occupying the rice terraces space, it has been speculated that they were previously forested areas while others are presumably grasslands. It is however, the availability of water that dictates the Ifugaos to build terraces. Where water is abundant and could be redirected toward a particular portion of the mountain slope, the Ifugaos staked their claims and start to build their terraces. The evolution of the terraces is the results of a learning process which strictly relates to the specificity of the landscape in terms of geographic, climatic and ecological terms. It was a learning process that spanned long years of man and environment interaction. The learning process allowed the Ifugao farmer to adapt to their environment and to adapt the environment for their own use. The system did not evolve overnight but rather it is an accumulation of small changes in the landscape implemented by trial and error. Trial and error have taught the Ifugao farmer what is good to the environment and what is not.

2.5.2 Component of the Ifugao Rice Terraces System

At the micro-watershed level, the Ifugao Rice Terraces is seen as an agroecosystem composed of five major components, namely: woodlot (muyung) and communal forest (ala), swidden farms (habal), rice terraces (payo), settlement areas (boble) and water bodies and irrigation systems (liting) and). Each of this components are harmoniously interrelated but may perform unilateral functions within the landscape.

- A. Muyung (woodlot)- woodlots are privately owned and maintained by families or clans. They are usually part of inherited properties which has been transferred from one generation to another. The woodlot plays important economic and environmental functions within the IRT landscape. It is the primary source of wood for the wood carving industry, and provide fuelwood and construction materials to the local population.. Woodlots are located at the upper fringes overlooking the rice terraces. By virtue of its upper location, it regulates the impact of precipitation by trapping water (320 cubic meters) higher than primary forest at 74.5 cubic meters) and nutrients from rainfall slowly releasing them to the rice terraces below.

- B. Habal (Swidden Fields) - cleared for the cultivation of sweet potatoes, vegetables and legumes. Swidden ownership is usually usufruct in nature. Any member of the community can take over cultivation when the field is laid to fallow. A typical Ifugao swidden contain at least 5 to 10 varieties of domesticated crops such as sweet potato, kadios, corn, bananas and others. In earlier times, swidden crops ensure the availability of food for families during the lean months or during crop failures in the terraces. It also provides year round supply of animal feeds for native pigs and chickens.
- C. Payo (Rice Terraces)- the rice terraces are the most dominant type of agricultural land-use in the Ifugao landscape. The rice terraces need to be inundated the whole year round for aquatic biodiversity to flourish. In this regard, the woodlot need to be in a healthy condition at all times to yield sufficient water for irrigation.
- D. Boble (Settlement Areas)- Ifugao families live in a small dispersed hamlet of one house to several dozens. These settlements are always located close to agriculturally-developed properties ranging from small pieces of ricefields to terraced mountain sides. Settlements constitute loosely organized distinct communities.
- E. Wah-el, Wang-wang (Water Bodies)- bodies of water (rivers and creeks) below and above the rice terraces. These are used for irrigation, washing and drinking. Normally, water bodies are biodiversity centers that harbors economically important species of fishes and shells. Pollution from commercial hog production, and the continued used of pesticides in the terraces and gardens have reduced the importance of water bodies as home to important biodiversity.

2.5.3 Key Species and Associated Biodiversity

The key species and associated biodiversity found in the IRT are:

IRT Component	Key Species	Associated Biodiversity
Muyung (Private Forest) and Ala (Communal Forest)	<ul style="list-style-type: none"> • 264 tree species of which 47 are endemic and 112 species being used by the community • It is now reduced to only 200 species 	<ul style="list-style-type: none"> • 10 varieties of climbing rattan • 45 species of medicinal plants • 41 bird species • 6 indigenous mammal species with 2 endemic
Habal (Swidden Fields)	<ul style="list-style-type: none"> • 5-6 varieties of root crops 	<ul style="list-style-type: none"> • 4 varieties of legumes • 3 varieties of bananas • 3 varieties of leafy vegetables
Boble (Settlement Areas)	<ul style="list-style-type: none"> • 2 species betel nut palms • 5 species of fruit trees 	<ul style="list-style-type: none"> • Chickens, pigs, ducks, dogs, cat, draft carabaos, cattle being domesticated
Payo (Rice Terraces)	<ul style="list-style-type: none"> • 10 or more varieties of rice • 4 species of fishes • 7 species of edible mollusks 	<ul style="list-style-type: none"> • Crabs, crayfish, frogs and many insects that keep the paddy field active the whole year round.
Wah-el, Wang-wang (Water Bodies)	<ul style="list-style-type: none"> • Primarily populated by a broad range of fishes and shells of the same species found in the rice terraces. 	<ul style="list-style-type: none"> • Larger fishes such as eel, monitor lizard and other vertebrates.

2.5.4 Goods and Services provided by the Ifugao Rice Terraces

The rice terraces provide multiple goods and services in terms of: food security and sovereignty (rice, fishes, shells and vegetable crops), income generation (sale of wood carvings and marketing of tinawon rice, vegetables and other organic products) quality nutrition (consumption of rice, fishes and shells as protein source), conservation of biodiversity (rice, fish and associated species through organic agriculture) carbon sequestration and nutrient cycling, soil and water conservation, pest regulation and preservation of culture.

2.5.5 The People, Organization and Management System .

The rice terraces are owned by the Ifugaos, one of the ethnic cultural community in the Cordillera region. Ownership of rice terraces is through families and clans with an area ranging from a few square meters to 5 hectares. In its traditional form, Ifugao have no formal organization whatsoever, except those informal arrangement to bond resources together to help a distress neighbor during the performance of rituals or in time of emergency.

Through time, the Ifugaos evolved unique ways and strategies for the dynamic conservation and adaptive management of the Rice Terraces which are still functional at present. Among the adaptive management strategies still being practice today are:

In the forest, the maintenance of biodiversity relies mainly on the capacity of owners to regulate harvest and do continuous silvicultural operations. The strict regulation on cutting coupled with enrichment planting as well as the efficient utilization of harvested timber crops are the best strategies adapted by Ifugao families for the protection and conservation of woodlot biodiversity.

In the rice terraces, the Ifugaos ensure that terraces are well kept and inundated the whole year round. Although rice production is done once a year, the terraces are busy the whole year round. After the harvest season, vegetables are grown in organic mounds (pinkol) and flat organic beds (inado) while fish are raised in fish holes (luhok) built inside the terraces. Off season fishing is observed during the booting stage of rice. Thus, fishes and shells are readily abundant immediately after the harvest season. The sustainability of rice terraces depends on the availability of water and the physical integrity of the terraces to hold water.

In the swiddens, multiple cropping is practiced. Associated crops in swiddens are sweet potato and other root crops, legumes such as kadios and beans including bananas and other permanent crops such as fruit tree are also included. The sustainability of swiddens depends on the efficiency and arrangement of crops to hold soil in place and the long fallow periods enabling the swidden to regain its vegetation before another swidden cycle starts.

3. Justification of the Project

3.1 Problem and Gap Analysis

The rice terraces are now in a very critical stage of deterioration. The continued survival of the IRT is threatened by various factors such as environmental degradation, unregulated development and neglect brought about by urbanization and changing values. In view of the country's eligibility to receive GEF assistance by being a party to the ratification of the Convention on

Biological Diversity (CBD), the Ifugao Rice Terraces was designated GIAHS to provide a systematic support for the dynamic conservation and adaptive management of significant agricultural biodiversity harbored in these sites including their associated culture and knowledge systems.

Over the last century, the IRT had been self sufficient in food, timber and water but today its capacity to provide for goods and services have been impaired by human abuse. Apparently, the root causes of human abuse on the traditional farming system stems from its inability to provide for the increasing needs of farming families and much more so that the multiple goods and benefits it provides are not factored in the expanding market economy surrounding the rice terraces. The marginalization of the rice terraces has negative spillover effects on the integrity of other resources within the IRT landscape. Among the negative spillover effects of marginalization threatening the viability of globally important agricultural biodiversity and culture in the IRT are:

A. Loss of Biodiversity

Commercial timber extraction in woodlot and public communal forest to support the booming woodcarving and construction industry had reduced the number of timber species from 264 to 200 for the last 50 years. The continuing use of pesticides and other synthetic products in the IRT is also posing a threat to biodiversity. As a result of these human activities, some species are getting extinct and hard to find in their natural habitat. The low level of people's awareness on the value of biodiversity, the absence of policies, the commercialization trend and the increasing needs of the household are the factors putting pressure on biodiversity in the IRT.

B. Destruction of the Watershed

During the January 25-26, 2007 GIAHS-IRT workshop held in Banaue, three problems besetting the Ifugao Rice Terraces were highlighted: 1) fast destruction of the terraces due to lack of water, 2) worm infestation and 3) encroachment of residential areas within the rice terraces.

During heavy rains erosion and landslides occur often in the terraces. As a result, eroded soil are carried downstream and deposited on rice terraces, irrigation canals, and along bodies of water causing pollution. The problem on erosion is further aggravated by earthworm infestation leading to the collapse of rice terrace walls and dikes.

C. Reduced Farm Labor

Massive out-migration of Ifugaos has emptied Ifugao villages of people needed for the cultivation and maintenance of the rice terraces. Out-migration is

an offshoot of the perceived lack of economic opportunities associated with terrace farming.

Younger Ifugaos refuse to return to the terraces, thus leaving only their aged parents to tend to the terraces. This has resulted to an imbalance between the available manpower and the labor requirement of the terraces. Family labor is insufficient to meet the high labor requirements of the terraces. Similarly, the traditional system of labor sharing do not exists anymore, thus, many farmers depend on hired labor to tend to the terraces. Terraces owners with children working overseas are lucky enough because they can hire paid labor but many others can not. Major damages on terraces imposed by natural calamities are left un-repaired due to insufficient labor.

Shift in economic activities from terracing to handicraft is also contributing to the continuing reduction in farm labor. Some families reinvested surplus earnings in the terraces but others are reluctant to do so due to the perceived low economic returns.

D. Loss of Interest on Culture and Rice Terracing

The younger generations of Ifugaos are losing interest in their traditional culture and rice production system. Younger Ifugaos look at terracing as too labor intensive but with low economic returns. The low regard for culture is separating the younger generations from their cultural roots leading to commercialization and abuse of resources.

E. Land-Use Conversion/Abandonment

Built-up areas are slowly eating up portions of the rice terraces. Woodlots are also cleared to give way to residential areas and agriculture. Terraces in some parts are converted to commercial vegetable farms. Other terraces are abandoned in favor of more lucrative employment within or outside the province. The problem and objective tree analysis is presented in Annex F and G, respectively.

3.2 Past and Current Initiatives in the Restoration and Conservation of the Ifugao Rice Terraces

The national recognition to protect the IRT started way back in 1973, when the late President Ferdinand E. Marcos issued Pres. Decree No. 260 identifying the Ifugao Rice Terraces as a national landmark having a high value from the viewpoint of world culture and are considered irreplaceable treasures of the country. Later in 1978, Presidential Decree No. 1501 amended PD. 260 by inserting a provision that penalizes the modification, alteration, repair or destruction of the original features of any national landmark. On a global scale, President Marcos signed in August 25, 1985 the instrument of ratification by the Philippine Government to the Convention for the protection of Cultural and Natural Heritage of Outstanding Universal value otherwise known as the

World Heritage Committee. During the 19th session of the World Heritage Committee in Berlin, Germany on December 3, 1995, the IRT were inscribed upon the World Heritage List as living cultural landscape. On September 14, 1999, the IRT was included in the list of 100 most endangered sites of the World Monument Watch.

Cognizant of the need to coordinate efforts of government in the restoration and conservation of the rice terraces President Fidel V. Ramos issued Executive order No. 158 on February 18, 1994 creating the Ifugao Rice Terraces Commission to act as advisory body on matters affecting the rice terraces. Included in the coverage of the ITC were the municipalities of Banaue, Hungduan, Kiangan and Mayoyao. The ITC coverage was further expanded in May 3, 1994 when Executive Order No. 178 was issued to include the municipalities of Hingyon, Asipulo, Aguinaldo, Lagawe and Tinoc.

Pursuant to the provisions of EO 158, former President Ramos approved on September 3, 1995 the ITC three and six year master plans for the restoration and preservation of the Ifugao Rice Terraces and immediately issued a directive to all agencies to realign their budgets in consonance with the approved plans. Every year thereafter, the ITC solicited the commitments of the member agencies through a directive issued by the Executive Secretary.

Upon assumption of the Estrada Administration, Executive Order No. 77 was issued in March 4, 1999 abolishing the ITC and creating the Banaue Rice Terraces Task Force (BRTTF). The BRTTF assumed the function of the old ITC to restore, preserve and develop the rice terraces. The BRTTF is also mandated to prepare a development plan for the Ifugao Rice Terraces.

Following the change of government from Estrada to Arroyo, the Arroyo Administration issued Exec, Order no. 89 on February 11, 2002 abolishing the BRTTF under the office of the President and transferred its responsibilities, assets and functions to the Ifugao Provincial Government. The National Commission for Culture and the Arts (NCCA) approved 50 million pesos for the implementation of the 3 year master plan. Having accepted the responsibilities for the restoration and preservation of the Ifugao Rice Terraces, the Ifugao Provincial Government established the Ifugao Rice Terraces Cultural and Heritage Office (IRTCHO) by virtue of Sangguniang Panglalawigan Resolution 2002-679 to coordinate, follow-up and monitor the implementation of projects and act as secretariat. IRTCHO is now renamed Ifugao Cultural Heritage Office (ICHO).

As envisioned, over a 10 year period (2003-2012), an amount of P 930,722,750.00 will be needed to finance the program components of the New Ifugao Rice Terraces Master plan. For the first 3 years from CY 2003-2006, the Ifugao provincial government was able to implement projects along the nine program component amounting to P224,150,000.00 which accounted for only 16.73% of the total investment requirement. The amount included the cost of implemented projects of the NGA's, LGU's, ITC and funds sourced out from UNESCO and other organizations.

The cost of implemented projects from NGA's are part of the regular budget of the agencies concerned and are not dedicated funds for the restoration and conservation of the Ifugao Rice Terraces.

Under the old IRT Master plan covering the period of 2002-2004, UNESCO provided an emergency financial assistance of US Dollar 75,000 for the enhancement of the conservation and management of the rice terraces. The outputs of the financial package was the preparation of the 5 year IRT conservation plan which defines the first five years implementation of the 10 year IRT master plan. The preparation of the 5 year IRT conservation plan includes activities such as stakeholders' workshops, preparation of proposals and piloting of the Community Based Land-use Zoning and Physical planning in the municipalities of Hungduan, Mayoyao and Kiangan.

To implement the first 3 years of the old Master Plan, a Php 50 million grant was given to the province by the National Commission for the Culture and the Arts (NCCA) to implement, review and update the old master plan. The projects implemented and completed under this grant are:

Table 4. Projects Undertaken by the LGU under the IRT Master Plan

Program/Project	Budget Allocation
1. Water Management - Irrigation and water system Development	P 16,250,000.00
2. Agriculture and Forestry - Fruit trees seedling production	400,000.00
3. Hazard Mitigation - stabilization of roads and Pathways, creek stabilization	2,862,000.00
4. Transportation and Access - Road repair, road construction and opening, trails and food path, bridges	
4. Spatial restructuring and facilities - development of native village at the provincial capitol grounds	650,000.00
6. Tourism - pilot project on tinawon rice production -support to completion of municipal tourism facility	6,550,000.00
7. Conduct of cultural festivals	1,000,000.00
8. Livelihood Assistance	900,000.00
9. Other Support Services including researches and social services	4,383,000.00
10. Support for municipalities (2 nd release)	6,000,000.00

The Local Government Unit (LGU-Ifugao) at present has no specific program dedicated to the restoration and conservation of the Ifugao Rice Terraces. Some efforts are being undertaken by the Save the Ifugao Rice Terraces Movement (SITMO) a non-government organization implementing small scale pilot projects in some of the municipalities. Project implemented by SITMO includes: dojo production in Hungduan and the System for Rice Intensification (SRI) in Lamut and Hingyon. A project on indigenous knowledge systems documentation and transfer in partnership with DepEd, the academe and the knowledge holders was also completed by SITMO.

Restoration efforts by the local government unit under the old mater plan have been impaired by social and technical problems. Although various government agencies participated in the restoration effort, it is purely an LGU driven effort with the least participation of primary stakeholders, the farmers. As a result, the LGU failed to implement a comprehensive program that would have addressed if not all but at least one or two of the major issues affecting the rice terraces. The LGU effort failed to establish a path toward long-term sustainability particularly in the areas of enhancing productivity, conservation of agricultural biodiversity, marketing, technical assistance and training. In the implementation of the NCCA fund assistance for the conservation and restoration of the rice terraces, the LGU lacks the appropriate tools for effective interagency collaboration at the provincial level and at the same time maximizing the participation of local communities in the planning and implementation of conservation and restoration activities in the Ifugao Rice Terraces.

3.3 Policy Analysis

A. National Level

The process of policy formulation in the country had been guided by macroeconomic concerns that favored the interests of big markets which more often than not are detrimental to the development of traditional systems. In the forestry and agricultural sector, the plethora of policies has been inspired by the Regalian doctrine vesting ownership of all lands to the state. This system of policy formulation by and large automatically put all sustainably managed indigenous system under government regulation and control. This situation created a conflict situation where state law failed to recognize customary laws in legal jurisprudence.

In spite of the growing number of international instruments recognizing the role of indigenous people in conserving biodiversity (CBD art. 10 and MAB program of UNESCO), the Philippine government was overdue in recognizing customary rights of indigenous people to their ancestral domain. Government officials point to the constitutional endorsement of the Regalian doctrine as justification and cite other laws all of which have their roots in Philippine colonial history and have uncritically carried over into the Philippine constitution, national laws and decrees.

The introduction of the land titling system and private ownership intruded into the commonly shared areas within ancestral domain and the process of land ownership as

defined by customary law is now in competition from a system of governance introduced by the state. There were instances however, when the interactions between the two legal system results in the regularization of customary practices into the structure of national or state law, just as state law would every now and then be used to buttressed or undermine the customary system vis a vis the nurturing and protection of land and its resources. In order to cope with the challenges of state law and larger economic forces, indigenous villages had to creatively strengthen or develop appropriate mechanism to safeguard their cultural and ecological tradition. If actual biodiversity management is integrated into the customary system, in time the state would gradually include the elements of the traditional system. Given the nature of interaction between customary and state law, what kind of biodiversity conservation model can be integrated in the GIAHS pilot site. Given the dominant economic forces operating within the traditional system, in which the traditional system tend to be assimilated within the modern governance structure, it would benefit most if the complementation between the traditional and barangay system under the New Local Government Code shall be maximized in the implementation of GIAHS Philippines Pilot project initiatives.

The passage of Republic Act 8371 or otherwise known as the Indigenous Peoples' Rights Act (IPRA Law) in 1997 was a big milestone in the recognition of ICC's/IP's rights over their lands. However, the law is still in its early stages of implementation and there is a need for it to be harmonized with other national laws that conflict with the interest of ICC's/IP's in their territorial domain. Mainstreaming the operational requirement of GIAHS with RA 8371 will help strengthen its recognition and inclusion in national policies and programs.

Presidential Decree 705 otherwise known as the Forestry Reform Code of the Philippines is one decree that put so much pressure on members of ICC's/IP's. It states that no land of the public domain 18% in slope or over shall be classified as alienable and disposable nor any forest land fifty percent in slope or over as grazing land. Since vast majority of ICC/s /IP's inhabit hilly lands which are more than 18% in slope, this decree makes ICC's/IP's squatters in their own land. The operation of the IPRA law can not be fully realized unless PD 705 is amended to exempt areas which are considered ancestral domains.

Proclamation No. 573 is another law which put the whole province of Ifugao as a watershed area for the Magat River Multipurpose Project. The proclamation automatically prohibits any sustainable timber utilization within the GIAHS-IRT pilot site since it is a part of the watershed. In line with this, the extraction of timber within the watershed is covered by special permits. In Ifugao it is called the Muyung Resources Permit (MRP). The issuance of MRP is already harmonized with the IPRA law such that a certification from the NCIP is required before the approval and issuance of MRP's by the DENR.

Executive order no 263 otherwise known as the Community Based Forest Management Program (CBFMP) with its implementing order under Administrative Order No. 29, considers upland communities as partners of government in the conservation and

management of forest resources. It provides tenurial agreement between the forest occupants and the DENR for a period of 25 years renewable for another 25 years through the issuance of a Community Based Forest Management Agreement (CBFMA). Again, the operation of the CBFMA can not be fully realized in Ifugao unless Proc. No. 573 and PD 705 are amended.

Recognition of the significance of Globally Important Agricultural Heritage Systems (GIAHS) is the key to the assessment of the right policy environment and the development of appropriate policy to support its operation and institutionalization. Although its elements have by and large been recognized (add-hoc) and developed into policy at the national and global levels, their constitution into a GIAHS framework and advocacy is a relatively new subject for policy development and harmonization.

B. Local/Community Level

At the local level, at least two policy frameworks dominate in relation to governance, project development and implementation. First is RA 7160 or the New Local Government Code (NLGC) of 1991 and second is RA 8371 or the Indigenous Peoples Right Act (IPRA) of 1997. The latter is based on the fact that the province of Ifugao host to the IRT is an indigenous people's territory. Under the NLGC, development planning prescribes the bottom-up approach. At the community or barangay level is the formulation of the Barangay Development and Investment Plans (BDPs and BDIPs) that are to be integrated into the Municipal Development and Investment Plans (MDPs and MDIPs) of municipalities. The MDP's and MDIP's) are integrated in the Provincial Development and Investment Plans (PDP and PDIP) of the province and moves on to the regional level up to the national level of government. Development plans are normally 3 year multi-sectoral plans conforming to the terms of elected officials while the Development Investment Plans cover multi-years broken down into annual investment plans. Long term plans are in the form of Comprehensive Land-use Plans (CLUP) enacted through zoning ordinances at the municipal level and the Provincial Physical Framework plan (PPFP) at the provincial level.

On the other hand, the IPRA prescribes the preparation of domain-wide Ancestral Domain Sustainable Development and Protection Plans (ADSDPP) under Administrative order No. 01 series of 2004 of the National Commission on Indigenous Peoples (NCIP). The plan aims to ensure the protection, promotion and recognition of rights of IPs and ICCs. It may also facilitate the conduct of Free and Prior Informed Consent (FPIC) of IPs and ICCs as it provides a checklist of development programs and projects identified by the IPs/ICCs themselves. Unfortunately, the preparation of domain wide ADSDPP had been hamstrung by various technical and financial problems of which NCIP and local government unit can not provide on their own.

These two policies parallel each other as they cover one and the same territory and people. For the GIAHS-IRT, one harmonizing concept is the community based land-use zoning and physical planning that builds on indigenous land-use, zoning and physical planning (CLUPZPP) very much apparent in the IRT landscape. Prioritized as one

component in the IRT master plan, it was piloted by the Provincial Government and the Save the Ifugao Terraces Movement (SITMO) of Ifugao.

Under the NLGC, the outputs of the Community Based Land-use Zoning and Physical Planning (CBLUZPP) were successfully enacted at the Barangay level at the heritage cluster in the Municipality of Kiangan, Ifugao and approved by the municipal government for integration into the Comprehensive Land-use Plan (CLUP) and municipal zoning ordinance. The outputs were likewise offered as inputs to a better spatially defined Ancestral Domain Sustainable Development and Protection Plan (ADSDPP) for the Kiangan ancestral domain under the National Commission for Indigenous People (NCIP). Compared to each other, the Local Government development plans are guided by national planning standards while the ADSDPP were more sensitive to the indigenous knowledge systems and practices and other rights of the IP's. Properly harmonize with the GIAHS-IRT initiative would provide a stronger basis for participatory planning and implementation.

In terms of governance structure and system, the New Local Government Code (NLGC) provides a more systematic and hierarchical structure as compared to the relatively loose nature of customary governance by indigenous communities. However, a downside of the modern government system is its lack of appreciation on customary laws. Between these two legal systems, the local government system through local legislation and policy initiatives sought to recognize and strengthen customary arrangement and practices to bridge the gap. By and large, the local government systems are already well established. The IPRA law and how it will take shape in terms of operationalization remains largely a work in progress as it integrates with the New Local Government Code and other pertinent laws.

At the community level, a common feature of both is the community assemblies or barangay assemblies. Yet in some barangays there may be small distinct indigenous groups with defined territories and therefore separate decision making especially as it relates to the production and management of their respective territories which are normally distinct micro watersheds. In these instances, separate management had to be upheld with the barangay local government unit limits itself to higher and common concerns.

An interesting sidelight to the local governance system is the evolution of the barangay into the basic unit of government. In the 1960's mainly through the efforts of the Philippine Rural Reconstruction Movement (PRRM) organizing efforts on the rural peasants and other rural sectors such as women and youth resulted to the establishment of village councils. Building on the experience, village councils were then institutionalized by the national government into barrio councils which later became barangays that have been integrated into the local government system.

In rural areas like the IRT, barangays are dominated by the farmer sector being predominant in these rural communities. Even as they are fully integrated in the local government system, elections for barangays are separate from the local and national

elections and are officially non-partisan to emphasize their distinct nature as the grassroots government.

In the IRT, barangays average a hundred households with average population of 500. As the government of the rural poor they are in need of capacitation. In the local governance system, they continue to be the weakest link even as they are the frontline in the delivery of government services.

To institutionalize the GIAHS-IRT conservation initiative and sustain the initiative at the community level, the barangay has to be capacitated to be able to initiate and institute the community level policy and development framework. Policy and development initiatives at the barangay level will trigger the institutionalization process at the next level of government.

From the series of multi-stakeholder workshops on the GIAHS-IRT pilot project, the main policy issues and actions recommended are as follows:

3.4 Recommendations and Proposed Intervention

A. National Level

At the national level, mainstreaming GIAHS into existing national policies and programs is needed to remove barriers for its recognition and acceptance. Policy reforms may include introducing amendments to existing laws and the enactment of new laws and policies (Republic Acts, Executive Orders, Administrative Orders and others) in support to the recognition, acceptance and institutionalization of GIAHS.

Once recognition of GIAHS is in place, GIAHS principles and concepts can be expanded into the other regions throughout the country. Eligible candidate systems should be evaluated for their inclusion and designation as GIAHS. The expansion of GIAHS will further strengthen the country's resolve for the dynamic conservation, adaptive management and sustainable development of important agricultural heritage systems around the country.

The replication of GIAHS will be facilitated by the tools and methodologies and lessons learned through the implementation of conservation and adaptive management of the initial GIAHS system. In line with this, the designation of other GIAHS systems and sites shall be decided based on the global GIAHS criteria and guidelines, modified under Philippine condition. The designation of local and national GIAHS shall be done in a participatory manner.

In the Philippines, the National Technical Working Group (NTWG) together with representatives from various government agencies making up the National Steering Committee (NSC) shall develop a

GIAHS national criteria (based on the internationally accepted criteria) for identifying and evaluating candidate systems for GIAHS designation.

B. Local and Community/Site Level

It is at the local and community/site level where specific tasks and work plans are formulated and implemented for the dynamic conservation and adaptive management of GIAHS. GIAHS intervention shall leverage local stakeholders' participation at the local and community level in accordance with these work plans. Lessons learned at the site level shall be properly documented as an input for the national designation and/or replication of GIAHS.

The need for institutionalization, strengthening and building capacities of local communities to actively participate and promote the project are the key strategies for the long term conservation and management of GIAHS. Particular attention shall be given to the more disadvantage and vulnerable sectors and communities of the IRT community keeping in view the religious and sociocultural sensitivities of these people.

4. Project Goal, Objective, Development Objective, Outcomes/Outputs and Planned Activities

A. Project Goal

The overall project goal is to “protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements [(cf.CBD article 10 (c)] specifically within agricultural systems”

B. Project Objective

The development objective is to promote the dynamic conservation and adaptive management of globally significant agricultural biodiversity harbored in Globally Important Agricultural Heritage Systems (GIAHS).

C. Development Objective

To ensure food security, sustained livelihoods and reduce poverty of traditional farmers through dynamic conservation of agricultural heritage systems and promote sustainable use of agricultural biodiversity for sustainable agriculture and rural development.

The development objective is derived from the overall goal of the Global GIAHS program that promotes the “dynamic conservation and adaptive management approach” that:

- Allows farmers to nurture and adapt the systems and biodiversity they have developed while still earning a living;
- Support government policies and incentives while working for in-situ conservation of biodiversity and traditional knowledge;
- Recognizes cultural diversity and the achievements of local communities members and indigenous peoples;
- Integrate in-situ conservation of genetic resources with traditional/indigenous knowledge and local technologies to ensure continuous co-adaptation of GIAHS to changing environments and human pressures by maintaining the evolutionary dynamics of agricultural biodiversity in the human and agro-ecological sites in which they have evolved.

D. Specific Objectives

The specific objectives of the GIAHS initiatives are:

1. Enhance the national understanding and recognition of GIAHS by raising awareness and mobilizing recognition of the national and global significance of GIAHS through local and national stakeholders and the public, also leveraging sustained institutional, financial and national policy incentives and support for their continued evolution;
2. Demonstrate dynamic conservation in identified local GIAHS through development and testing of strategies and participatory methods for their dynamic conservation and sustainable management;
3. Building the capacity of GIAHS farming communities and populations including local and national institutions to strengthen food security, reduce poverty and enhance environmental sustainability. i.e. engage in constructive dialogue focusing on appropriate strategies to reduce poverty in rural areas, encourage and strengthen rural farmers and traditional communities confidence to conserve and promote traditional agricultural systems and their biodiversity, associated biodiversity and landscape; improve and support livelihood activities, crop diversification on income sources by exploring farm and off-farm opportunities; create institutional mechanisms geared toward sustainability and self-reliance of the GIAHS and its communities;

4. Documentation, identification and assessment of indigenous agricultural systems and technologies and the creation of national databases including their publication;
5. Develop appropriate national and local intervention strategies for implementing GIAHS dynamic conservation to strengthen and empower indigenous farmers and traditional farming communities who nurture GIAHS.

E. Expected Impacts

1. The project will generate multiple ecological, social and economic benefits at the local, national and global levels contributing to ecological stability, food and livelihood security, poverty alleviation and improve well being of indigenous farmers and their communities;
2. Through the dynamic conservation and adaptive management of the IRT, the project will facilitate the mainstreaming of GIAHS and its agricultural biodiversity conservation in national policy frameworks, ordinances and programs, thereby improving the capacity of local and national stakeholders to promote the sustainable use of agricultural biodiversity and landscapes taking into consideration the real and potential contribution to income and food security;
3. Expected local and national benefits will arise from the conservation and adaptive management of globally significant agricultural biodiversity and their knowledge systems. Benefits that can be generated includes: soil health and soil biodiversity (soil quality, fertility and resilience), climate mitigation (resilience to climate change and carbon sequestration), water quality (recharge, purity, availability), air quality (reduce air pollution) and human and animal benefits.

5. Expected Outcomes/Outputs and Planned Activities

The project will be implemented over a period of 6 years with the expectation to generate the following outcomes and outputs.

- A. Outcome 1: Nationally accepted system for recognition of GIAHS is in place.

Output: Through this outcome, the project will aim to raise awareness at the national, local and community levels of the intrinsic value of GIAHS the need to promote their long term sustainability. The underlying strategy for identifying and managing GIAHS will be to avoid or reverse the loss or degradation of

essential features and attributes of these systems especially their biodiversity while allowing their necessary evolution and enhancing the socioeconomic development of resource users and national benefits. This will require careful consideration of the critical issue of how to meet often conflicting goals of conservation and development, for instance avoiding creating “ethno-museums” where preserving the key characteristics of the systems might extinguish their human vitality. This is a challenge that requires innovative and adaptive approaches, which the project will devise, develop and demonstrate in the pilot sites.

Planned Activities to achieve project outcomes/outputs.

1. Establishment of a national GIAHS secretariat within the DENR (as lead agency) to coordinate the preparation of GIAHS criteria and procedure for its national recognition and endorsement at the global level.
 2. Dissemination of GIAHS concepts and principles through local and national seminars and workshops.
 3. Formulation of GIAHS criteria and procedure for local and national GIAHS designation and for nomination to FAO global GIAHS recognition..
 4. Development of guidelines and indicators for the dynamic conservation of agricultural heritage systems.
 5. Inventory of documented and undocumented agricultural systems throughout the country.
 6. Review and assessment of policies to support GIAHS national recognition.
 7. Establishment of a sustainable financing mechanisms and innovative institutional support for consolidating and expansion of pilot systems and sites.
- B. Outcome 2: The conservation and adaptive management of globally significant agricultural biodiversity harbored in the GIAHS is mainstreamed in sectoral and inter-sectoral plans and policies in the Philippines.

Output: The focus of this outcome will be on ensuring that key sectoral and intersectoral policies, ordinances and intersectoral plans and programs (on agriculture, environment, water, protected areas, tourism, cultural heritage, in-situ conservation of genetic resources, public participation, Indigenous peoples, IKSP, land tenure and access to natural resources and market development) take explicit account of the significance of GIAHS. Sectoral and intersectoral policies

and plans can be improved to support the conservation and adaptive management of GIAHS through official recognition of GIAHS in national policy documents.

Planned Activities to Achieve Project Outcomes/Outputs

1. Review of existing plans, policies, ordinances and regulatory frameworks affecting or relating to the dynamic conservation of GIAHS.
2. Harmonization of national policies and actions and amendments to key sectoral policies and plans in agriculture, forestry, water, environment, land-use, culture and tourism to support GIAHS dynamic conservation.
3. Integration of national and local policies to capture new opportunities arising from GIAHS designation that includes incentives and benefit sharing system for agricultural biodiversity conservation, access to market, payment for environmental services, green fees, end user fees and others.
4. Review and improve local institutions and norms governing access and use of resources, decision making and peoples participation with a view to empower GIAHS communities and further mobilizing their positive contributions and providing incentive packages to enable them to conserve and sustain their agricultural biodiversity and systems.

- C. Outcome 3. Globally significant agricultural biodiversity in the GIAHS is being managed effectively by indigenous and other traditional communities.

Output: The project will address the barriers to ensuring long-term conservation and adaptive management of the GIAHS pilot site. The strategy is to identify and maintain the essential ingenious, remarkable and sustainable characteristics of these systems, while at the same time preserving the internal processes that allow their necessary evolution to adapt to changing circumstances, enhancing the socioeconomic development of resource users and capturing the related national, local and global benefits. In the same manner, the outcome recognizes that change in traditional, political, social and economic processes is inevitable; they can not be frozen or recreated. Consequently, it adopts the “adaptive management” approach to explore and develop novel technical, political, social and economic processes that strengthen the existing management systems and which generate the same biodiversity outcomes as much as possible that is, conserve races, species and agro-ecosystem goods and services. Thus, the process may be different and contain new and modern elements but the way they interact with the biophysical and socioeconomic world will maintain the biological and cultural values of these agro-ecosystems. To test this new approach, the project identified initially the Ifugao Rice Terraces as its pilot site. This will be further expanded to cover other regions in the country where globally significant and remarkable agricultural heritage systems are found.

Planned Activities to Achieve Project Outcomes/Outputs

For this outcome, the design and implementation of program activities shall be based on the following activities which have been identified during the stakeholders consultation phase.

1. Biodiversity restoration and conservation

In line with the continuing loss of biodiversity in the Ifugao Rice Terraces (IRT) it is relevant to develop strategies and mechanisms geared toward the enrichment of biodiversity both in the forest and rice terraces. The forest management system should further enhance agricultural diversity and have to adapt to the changing demand for timber, food and livelihood activities of owners. The component biodiversity enhancement program includes the following:

- 1.1 Baseline biodiversity information and establishment of IRT biodiversity monitoring and evaluation system
- 1.2 In-situ conservation of flora and fauna
 - Propagation of indigenous trees with commercial values
 - Enrichment planting/Assisted Natural Regeneration of muyung
 - Reforestation of open areas below, above and in between the rice terraces.
 - Agroforestry (pomelo-rattan based agroforestry)
 - Development of fruit based plantations
 - Crop diversification in the terraces
 1. Re-cultivation of tinawon rice varieties
 2. Intensification of Rice-fish-shell and vegetable culture in the terraces.
 3. Contract growing of tinawon rice
- 1.3 Policy formulation on the use pesticides
- 1.4 Creation of special protected areas/ zones in the GIAHS site

2. Watershed Rehabilitation

- 2.1 Earthworm population control and management
- 2.3 Reforestation of critical areas in the GIAHS sites.
- 2.4 Identification of critical erosion areas and setting up hazard mitigation structures
- 2.5 Repair and rehabilitation of damaged terraces and slopes
- 2.6 Repair of irrigation canals and setting up other appropriate irrigation facilities
- 2.7 Construction of small water impounding structures.

3. Enhancement of Labor and Productivity in the Terraces

To enhance a steady source of farm labor in the cultivation of rice terraces, the following are the proposed GIAHS-IRT activities.

- 3.1 Institutionalized a Rice Terraces labor sharing agreement at the community level.
- 3.2 Established a sustainable trust fund for re-investment in the maintenance of the rice terraces
- 3.3 Develop a niche marketing network (local to national) for Tinawon Rice and other organic products.
- 3.4 Product standard development and eco-labelling so that all products from GIAHS shall bear the GIAHS label.
- 3.5 Established a marketing center and trading post for organic products
- 3.6 Develop a system for the Payment of Environmental Services and create enabling policies at the local and national level.
- 3.7 Develop a policy on tourism taxation system (green fees) and a sharing scheme so that farmers have a share of the taxes.

4. Cultural Restoration and Agricultural Revitalization in the Rice Terraces

In response to the need for cultural restoration and agricultural revitalization in the rice terraces, the following options are proposed for GIAHS to undertake.

- 4.1 Documentation and patenting of IKSP
- 4.2 Continuing program and institutionalization of cultural festivals and shows, trade fairs and others.
- 4.3 Agro-Eco Tourism development
- 4.4 Integration of IKS in formal and non-formal education
- 4.5 Strengthening of the School of Living Tradition (SLT)
- 4.6 Development of IKSP and cultural learning center in the province
- 4.7 Develop a multi-level forum among stakeholders for the promotion of the GIAHS site from the community to the global level. (i.e. inter GIAHS farm visits)
- 4.8 Capacity building and Continuing Education Program

5. Land Management, Utilization and Infrastructure

To minimize the problem of land conversion and abandonment, the following measures are proposed for the GIAHS.

- 5.1 Community-based Land-use Planning and Zoning
- 5.2 Creation of enabling policies to strengthen the implementation of Zoning program and land conversion
- 5.3 GIS Mapping and setting-up a GIS laboratory
- 5.4 Full implementation of the IPRA law in the GIAHS site.

- 5.5 Infrastructure development
- 5.6 Hazard Mitigation

The problem and objective tree describing the various activities and issues is shown in Annex F and G, respectively.

- D. Outcome 4. Lessons learned and best practices from promoting effective management of pilot site are widely disseminated to support expansion and upscaling of the GIAHS network.

Output: The outcome will address the obstacles for long-term sustainable management of GIAHS and will help people living in and around GIAHS to be self sufficient in food (productive), culturally and politically mature in the governance of agricultural heritage systems and socioeconomically engaged (marketing and alternative livelihood) that will help them cope up with the challenges of modern living, while at the same time maintaining the remarkable values (co-evolving) of their agro-ecosystem.

Planned Activities to Achieve Project Outcome/Output

1. Dissemination of successful experiences of pilot sites/systems through various channels. e.g. academic forums, local newsletters, cultural festivals and trade fairs.
2. Integration of GIAHS in the curricular academic programs and the conduct of short training courses that includes valorization of GIAHS.
3. Preparation of a national GIAHS newsletter and other scientific reports and publications on lessons learned and best practices emerging from GIAHS sites.
4. Conduct of interdisciplinary researches on the adaptive management and conservation of GIAHS.
5. Establish GIAHS network to facilitate information exchange, dialogue and cross visits of project sites.
6. Creation and maintenance of a web-based information system that will include database of existing and potential GIAHS. The system will provide an electronic forum for the exchange of information and experiences across all GIAHS systems and sites and connected to the main GIAHS webpage

6. **Project Management. Institutional and Implementation Arrangement**

A. Organization and Management Arrangement

The DENR shall be the lead government agency for the project implementation and shall also serve as the National Focal Point Institution (NFPI). A National Project Director (NPD), with at least the rank of at least Assistant Secretary or higher shall be designated by DENR to oversee the overall coordination and implementation of the project and in close collaboration with the various Bureaus and Offices of the central, regional and provincial levels, other participating government agencies, NGOs, LGUs, community organizations and other stakeholders. Assisting the NPD is the National Project Coordinator (NPC) who would oversee and manage the day-to-day coordination of project implementation activities at all levels. The NPD, assisted by the NPC and supported by the Technical Working Group (TWG) shall be responsible for the following:

- Be responsible for the overall project management and supervision of the project activities
- Be responsible for ensuring that the government counterpart contribution and support arrangements are provided in a timely and expeditious manner;
- Initiate the formation and subsequent convening of the national steering committee and act as its member-secretary as well as the formation of National Technical Working Group;
- Coordinate and supervise preparation of the project inception report and detailed project work plan;
- Organize and participate in project meetings and workshops;
- Establish and maintain close working relationships with relevant project stakeholders;
- Coordinate and supervise the preparation of technical reports, field documents and action plans;
- Help organize the study tour, whenever required;
- Coordinate the identification and related activities regarding other planned GIAHS initiatives in the Philippines;
- Coordinate and supervise the preparation of project terminal report;

Overall, the NDP and NPC shall ensure the project activities are implemented in accordance with the approved Work and Financial Plans and would be responsible to the National Steering Committee for the accomplishments and required outputs. They shall maintain close working relations with the FAO on policy, technical and administrative related matters.

The Food and Agriculture Organization (FAO) of the United Nations would provide worldwide experience and good practices in GIAHS that would be beneficial to the DENR and to the Project in particular. Through its country

office, FAO would assist the project and DENR strengthen linkages with donor organizations and international aid institutions.

Under the existing structure of the provincial local government, the office of the Provincial Governor is the Chief Executive Office which shall oversee the overall implementation of the project in their respective areas. The Provincial Governor shall designate a Provincial Coordinator, who shall head the Provincial Technical Working Group (PTWG) to be established under the Office of the Governor, to supervise the implementation activities of the Municipal Area Coordinating Teams and Barangay sub-project Management Committees.

B. Project Coordination and Implementation Mechanism

a. National Steering Committee

At the national level, a National Steering Committee (NSC) shall be established to coordinate the national inter-agency support for GIAHS-IRT initiatives. It shall provide overall policy directions and guidance as well as supervision of the progress of implementation activities of the project. The NSC would be responsible for the review and approval of the multi-year Work Plan and the rolling Annual Work and Financial Plans. It shall be chaired by the DENR and Co-chaired by the Bureau of Soils and Water Management (BSWM) with the members composed of the Regional Directors of DENR, DA, DOT, Provincial Governor of Ifugao and FAO Representative. The National Steering Committee has the power to enter into LOA/MOA with other government agencies and other sectors to contract out the implementation of special projects in support to the GIAHS-IRT initiatives. The terms and conditions of implementation shall be clearly spelled out in the LOA/MOA to be signed and approved by both parties. Special projects may include researches, product development and eco-labelling, land-use planning and zoning, survey and mapping, GIS mapping, and other activities.

b. National Technical Working Group

Serving as Secretariat to the NSC, is the National Technical working Group (NTWG) which shall be constituted by the DENR and Vice-Chaired by BSWM. Its members shall consist of representatives from PAWB, FMB, NCIP, UNESCO, DOT and FASPO. The NTWG shall also serve as the primary workforce under the supervision of the NPD and NPC in providing technical assistance, coordinative and administrative support to project implementation including consolidation of progress reports from the LGU for submission to other government oversight agencies and the GIAHS headquarters in Rome. It shall also be responsible for consolidating a national data base on GIAHS and developing a web-based reporting and information exchange system at the national level.

c. Provincial Coordinating Committee

A Provincial Coordinating Committee (PCC) shall be created and chaired by the Provincial Governor with members from the DENR, BSWM, Provincial Board and Municipal Mayors and representatives of the Municipal Council where the GIAHS pilot site is located. It shall coordinate financial, technical and inter-agency effort at the local level and provide overall policy and administrative direction to project implementation at the local community level.

The PCC shall closely coordinate with the Ifugao Cultural Heritage Office (ICHO) to ensure the proper integration and institutionalization of the IRT Master Plan with that of the GIAHS-IRT initiative. Close collaboration shall also be made with other established structures under the Local Government Code (local Development Councils [PDC and MDC] and Sangguniang Panlalawigan and Sangguniang Bayan)

d. Provincial Technical Working Group

A Provincial Technical Working Group (PTWG) shall be organized to provide technical backstopping to the PCC and assistance to project implementation at the local and community level. It shall be chaired by the PG-ENRO with the DENR-PENRO as Co-Chair. (The Governor may designate the Provincial Planning and Development Officer as Chair). Its members include representatives of PENRO, BA-BSWM/SWAC, LGU, PPDO and ICHO. The PTWG shall assist municipalities and barangays in project development and implementation (i.e. preparation of work plans and budgets) consolidating a provincial data based on GIAHS and establishing a web-based reporting system connected to the national level. It shall also be responsible for consolidating and submitting periodic reports to the NTWG through the PCC.

e. Municipal Area Coordinating Teams

The Municipal Area Coordinating Teams shall be established for each municipality where GIAHS is located to assist the PTWG in overseeing project implementation including delivery of necessary support services at the municipal and community levels. The Office of the Municipal Mayor for each GIAHS site shall designate the staff compliment from among the municipal line department. Each of the MACT shall be headed by the Area Team Leaders and two (2) support staff. The MACT for each municipality may not be necessarily have a designated office but function as such in their respective areas. The GIAHS-IRT provincial operation center located at the provincial office shall also serve as the operation center for MACT. The MACT shall assist in the identification, development and prioritization of sub-project components, as well as in the community organization and setting up of financial management system at the

barangay/community level. It shall consolidate project accomplishment reports at the barangay level for submission to the PCC through the PTWG.

f. **Barangay Subproject Implementation Team**

The Barangay Subproject Implementation Team (BSIT) shall be created at the barangay level under the Office of the Punong Barangay (Barangay Chair) to oversee the identification, prioritization, development, implementation of subprojects in the community. It shall be chaired by the Punong Barangay with heads of subprojects implementing teams as members. The BSIT shall prepare project accomplishment reports at the community level and forward to their respective MACTs for consolidation.

C. *Organizational Structure*

The organization and management structure of the GIAHS-IRT pilot project is indicated in Fig. 3 and 4.

The functions of each level in the organization and management structure of GIAHS-IRT are as follows:

National Steering Committee (NSC)

1. Provide overall policy direction and guidance in the implementation of the GIAHS-IRT pilot project
2. Coordinate financial, technical and other interagency effort at the national level for the effective implementation of the GIAHS-IRT pilot project.
3. Review and approve Annual Work and Financial Plan based on the project document
4. Work for the harmonization of existing laws and policies with that of the IPRA Law and GIAHS.

National Technical Working Group (NTWG)

1. Serve as the national secretariat for the GIAHS.
2. Delivery of Technical Assistance to the GIAHS
3. Monitoring and Evaluation
4. Consolidate a national data base on GIAHS and develop a web- based reporting and information exchange system at the national level.
5. Consolidate periodic reports from the LGU and submit periodic reports to GIAHS headquarters in Rome.

Provincial Coordinating Committee (PCC)

1. Coordinate financial, technical and interagency effort at the local level.
2. Provide overall policy and administrative direction to project implementation at the local and community level.

Provincial Technical Working Group (PTWG)

1. Serve as the provincial secretariat for the GIAHS pilot project.
2. Local monitoring and evaluation
3. Provide technical assistance to municipalities and barangays in project development and implementation (i.e. preparation of work plans & budgets)
4. Consolidate a provincial data based on GIAHS and a web-based reporting system connected to the national level.
5. Consolidate and submit periodic reports to the national secretariat.

Municipal Area Coordinating Team (MACT)

1. Coordinate GIAHS implementation at the municipal and barangay level.
2. Assist BSIT in the identification, development and prioritization of subprojects components.
3. Assist BSIT in community organization and setting-up of financial management system at the barangay/community level.
4. Provide technical assistance to the community in the implementation of subproject components.
5. Consolidate project accomplishment report at the barangay level and submit to the provincial secretariat.

Barangay Sub-project Implementation Team (BSIT)

1. Assist the community in the identification, prioritization and development of subprojects in the community.
2. Assist the community in the institutionalization of fund management mechanism for identified sub-project components.
3. Provide overall assistance in the implementation of community sub-project
4. Prepare project accomplishment report at the community level and forward it to the MACTs for consolidation.

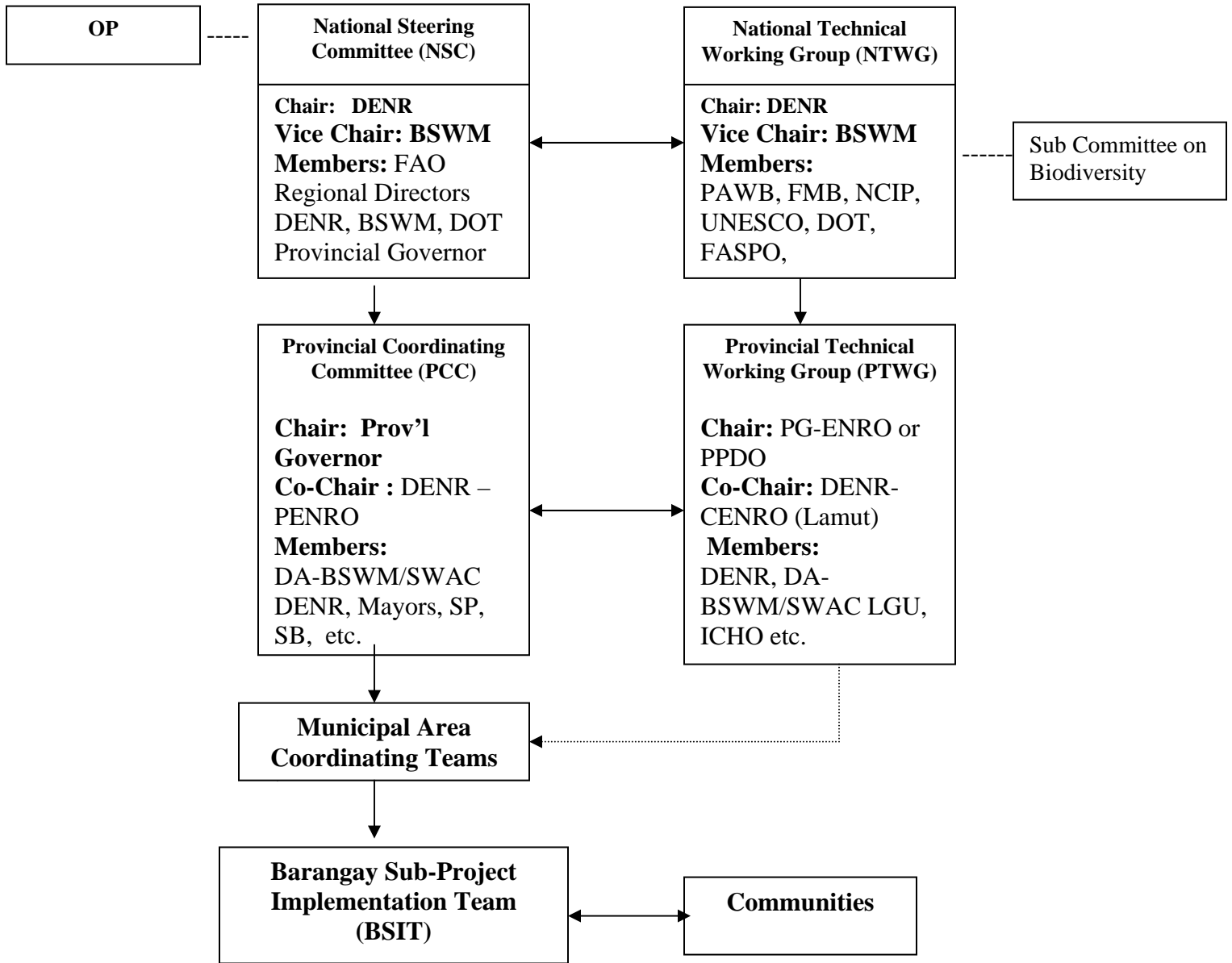


Fig. 2 Proposed Organization and Management Structure of the GIAHS-IRT

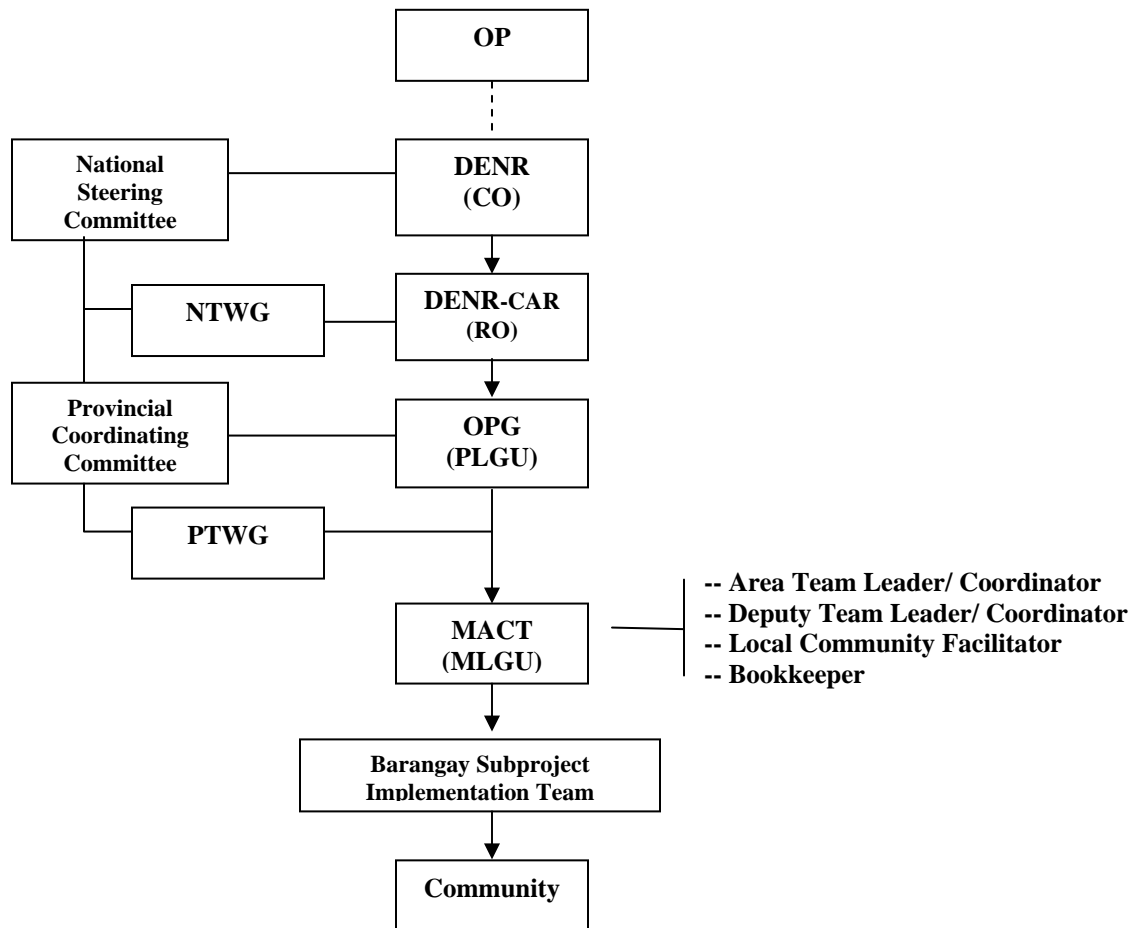


Fig. 3 Proposed GIAHS Implementation Structure

7. Financial Management Structure of the GIAHS Philippines Pilot Project

The GEF through FAO shall released Multilateral investment funds for the GIAHS Philippines Pilot site to the accounts of the Republic of the Philippines through the Department of Environment and Natural Resources (DENR) identified as the National Focal Point Institution. The NFPI in turn download portion of GIAHS investment fund to the account of DENR Regional Office. The DENR Regional Office shall execute MOA with the concerned Local Government Unit for the funding of specific components of the GIAHS-IRT pilot project at the local/provincial level.

8. Sustainability Plan

8.1 Institutional and Financial Sustainability

Institutional sustainability shall be attained through the participation of all stakeholders (community, local and national) in the planning, development, capacity building and co-management of the GIAHS. In line with this, the project shall establish institutional mechanisms (policies, technical, cultural) that will bring together customary and state institutions for shared management of GIAHS. The community, the local government units, national government agencies, business and private sector including other non-government organizations and the international community have substantial role in fostering long-term support and assistance to the institutionalization of GIAHS in the country. At the community/site level, the added economic value and the resulting income generated by local communities through improve market access for agricultural produce will provide the input for the long-term continuation of these systems. However, a formalize system for shoring up a trust fund derived from the Payment for Environmental Services (PES), green fees and end user fees shall be integrated within the GIAHS implementation modalities and shall continue even after project life cycle to generate additional reserve fund for the long-term conservation and management of the rice terraces and its agricultural biodiversity and associated biodiversity.

8.2 Ecological Sustainability

The Ifugao Rice Terraces is a typical example of GIAHS having rich agricultural biodiversity that enhances agriculture. IRT demonstrates the viability between production (socioeconomic) and sustainable use (ecological) objectives.

The centuries old rice terraces evolved primarily from organic agriculture. With organic agriculture as its roots, the rice terraces shall continue to persist on organic systems and practices. The organic system can be expanded and intensified to demonstrate the viability of organic systems vis a vis synthetically based agriculture that is detrimental to the growth of agricultural biodiversity and human health. Synthetic products that do not sustain the organic system must not be allowed to be practice or use in the rice terraces.

In doing this, technological complementation (between indigenous/traditional technology with introduced technology that sustains the organic system) can help uplift the current deteriorating condition of the IRT toward a more sustainable income source for farming families and a more visual landscape for agro and eco-tourism development.

9. Monitoring and Evaluation Plan

The National Steering Committee together with assistance from the Provincial Steering Committee (PSC) shall prescribe the guidelines for the monitoring and learning systems to be operationalize at the community, local, national and global level. The Project Monitoring and Learning System (PMLS) shall allow the integration of all on-going project operation of the GIAHS pilot project and other associated pilot systems. It includes regular monthly submission of reports on projects accomplishments at all levels, regular meeting at all levels and general assemblies at the barangays, and periodic evaluation and learning write shops to wit:

Activities	Frequency
<ul style="list-style-type: none"> •Regular Meetings <ul style="list-style-type: none"> PSC PTWG MACTs BSMCs MACTs with PTWG BSMCs with MACTs Barangay Assemblies 	<ul style="list-style-type: none"> monthly monthly monthly weekly quarterly monthly As often as necessary
<ul style="list-style-type: none"> •Annual Evaluation <ul style="list-style-type: none"> PSC and NTWG 	<ul style="list-style-type: none"> yearly
<ul style="list-style-type: none"> •Learning work and write shops 	<ul style="list-style-type: none"> two per barangay two per cluster two per municipality
<ul style="list-style-type: none"> FAO Mission 	<ul style="list-style-type: none"> 3 times in 5 years (Project inception, Midterm and Final Evaluation)
<ul style="list-style-type: none"> Project Reports 	<ul style="list-style-type: none"> Monthly

Parallel to the PMLS to be instituted by the NSC and PSC are the 3 review missions (project inception, mid-year and project conclusion/phase-out) which shall be organized by FAO and other global partners to conduct a thorough assessment of the overall implementation of the GIAHS-IRT pilot project. The team shall be composed of professionals with interdisciplinary background so that all the different program components of GIAHS-IRT pilot project shall be properly and objectively evaluated. Before submission of the FAO mission's final report, an exit conference shall be organized for them to present their findings and recommendations for the improvement of project implementation. The final report of the review missions shall form part of the official document of GIAHS Philippines.

Toward the end of project, a draft project terminal report shall be prepared by the National Steering Committee with overall supervision of FAO (through the country

office) and submitted to the FAO GIAHS-GPIU in Rome 6 months before its termination. The report should include an assessment of overall project technical and financial performance, outputs produced and progress toward the achievement of project objectives and recommendations for future action arising out of the project. Upon completion of the project, a national project phase-out conference shall be organized to present the outputs of the project for the 5 year project cycle and to introduce the sustainability plan.

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Glossary of Local Terms

Ala	Communal forest owned by the whole community.
Boble	Settlement district/hamlet
Habal	Swidden farms
Hakdol di boble	Trees planted for the protection of settlement areas from erosion
Liteng	Water
Muyung	Woodlot or private forest owned by families/clans
Payo	Rice terraces

ANNEX 1 Physical and Financial Targets

OUTCOME	ACTIVITY	Yearly Physical Targets					Cost
		2008	2009	2010	2011	2012	
Outcome 1. A nationally accepted system for recognition of national GIAHS and for endorsement to GIAHS is in place.	1.1 Formulation of GIAHS criteria and procedure for local and national GIAHS designation						8,300
	-Data gathering	4					4,400
	-meetings	4	2				1,900
		2	1				600
	-workshops/consultations						1,000
	- Meetings						400
	-Consultations						
	1.2 Establishment and operationalization of the Steering Committee, the national GIAHS secretariat and other committees						9,750
		12	12	12	12		
	-Conduct of Meetings						1,000
	-National Steering Committee	2	2	2	2	2	1,750
	-National TWG	12	12	12	12	12	4,500
	- Provincial						2,500
	1.3 Development and adoption of criteria, guidelines and indicators for the dynamic conservation of agricultural heritage systems						10,000
	-Conduct Meetings	1					500
	-Conduct of field visits and surveys						
	- Final Drafting of the Criteria and Guidelines	1					1,000
-Conduct of consultation for validation of the draft final C and G.	1					100	
-Issuance of EO/AO for the adoption of the Criteria, Guidelines and indicators	1					400	

-Prepare IEC and promotional materials for organic agriculture, biodiversity conservation practices and IKSP (for consideration under component 4).	1	1	1	1	1	2,500
- Monitoring of the compliance						1,500
- Meetings	1	1	1	1	1	4,000
1.4 Inventory of documented and undocumented traditional agricultural systems throughout the country						6,500
-Conduct inventory and data gathering	1	1	1	1	1	
-Prepare Listings of all traditional agricultural systems in the Philippines	1	1	1	1	1	
-Identify and designate of new GIAHS sites						
1.5 Establishment of GIAHS networking system						10,000
-Develop systems and procedures for networking	1					5,000
						2,000
-Conduct meetings, workshops and symposium or national conferences (to be sourced from other funding)	1					2,000
-Identify appropriate GIAHS networks		1		1		1,000
1.6 Review and assessment of policies to support GIAHS national recognition						2,000
-Conduct of Meetings	1	1	1	1	1	
-Conduct multi-sectoral consultation		1				
-Conduct writeshop		1				
1.7 Establishment of a sustainable financing mechanism and innovative institutional support for consolidating and expansion of pilot systems and sites in the country.						3,000
-Review existing financing mechanisms for GIAHS		at least 5				
- Assess and identify available financing options for GIAHS		at least 3				
-Establish the financing mechanisms including institutional support to sustain and support GIAHS sites		At least 3				

3.3.b Farm Diversification	4	8	16	16	20	
-Rice Fish Culture						
3.3.c Develop a niche marketing network (local to national) for tinawon rice and other organic products	4 has	4 has	4 has	4 has	4 has	8,000
- Meetings						10,000
-Market for organic products developed	1	1	1	1	1	
3.4 Cultural Restoration and Agricultural Revitalization in the Rice Terraces		1	1	1	1	
3.4.a Continuing program and institutionalization of cultural festivals and shows, trade fairs and others						
-Conduct of trade fairs/cultural festivals						
3.4.b Agro-Eco-Tourism Development	1	1	1	1		10,000
-Development of ecotourist destination	1	1	1	1	1	
3.4.c Develop a multi-level forum among stakeholders for the promotion of GIAHS site from the community to the global level (i.e., inter GIAHS farm visits	1	1	1	1	1	10,000
3.5 Land Management and Infrastructure Development	1	1	1	1	1	10,000
3.5.a Community-Based Land-Use Planning and Zoning						
-Workshops to review/update existing land use plan						25,000
Preparation of Land Use plans	4	1	1	1		
-Meetings	4					
3.5.b Creation of enabling policies to strengthen the implementation of zoning programs and land conversion	4	1	1	1		
-Workshops						
-Meetings						
3.5.c GIS Mapping and setting-up of a GIS laboratory	4	1	1	1		
-Trainings						5,000
Setting up of GIS Laboratory	1	1				10,000
3.5.d Infrastructure Development		1				
Establishment of Footpath						
	2 km					7,000

Outcome 4. Lessons learned and best practices from promoting effective management of pilot site are widely disseminated to support expansion and upscaling of the GIAHS network	4.1 Publication of local and national newsletter and the conduct of cultural festivals and academic forums						10,000
	-Local publication	1	1	1	1	1	
	Conduct of academic For a	1	1	1	1	1	
	Conduct of cultural festivals	1	1	1	1	1	
	4.2 Provide research grants to partner agencies for researches on the dynamic conservation and adaptive management of GIAHS	1	1	1	1	1	13,500
	4.4 Creation of a web based information system						4,000
	-Training	1	1	1	1		6,000
	-Creation of Web Page		1				
	4.5 Monitoring and evaluation (midterm and final review mission)		1			1	
	5. Project Management and Supervision						
	National Coordinator						30,000
	supplies						10,000
	DSA/Travel/Hon						12,500
	equipment						7,500
	meetings						2,500
	workshops						3,000
	TOTAL						500,000.00

Annex 2

TERMS OF REFERENCE

National Project Coordinator (NPC)

Language: English and local dialects.

Duration: 60 months

Duty Station: DENR Central Office, Manila, with considerable travel to project areas.

Under the operational supervision of the Department of Environment and Natural Resources and in close collaboration with the FAO country office for the Philippines, the National Project Coordinator (NPC) will assist the DENR to supervise project activities in the Philippines. More specifically the NPC will:

- Be responsible for the overall project management and supervision of the project activities
- Be responsible for ensuring that the government counterpart contribution and support arrangements are provided in a timely and expeditious manner;
- Initiate the formation and subsequent convening of the national steering committee and act as its member-secretary as well as the formation of National Technical Working Group;
- Coordinate and supervise preparation of the project inception report and detailed project work plan;
- Organize and participate in project meetings and workshops;
- Establish and maintain close working relationships with relevant project stakeholders;
- Coordinate and supervise the preparation of technical reports, field documents and action plans;
- Help organize the study tour, whenever required;
- Coordinate the identification and related activities regarding other planned GIAHS initiatives in the Philippines;
- Coordinate and supervise the preparation of project terminal report;
- Assist as may be required in other matters related to the project.

Terms of Reference

Provincial coordinator

Under the direct supervision of national project coordinator, the provincial coordinator will undertake the following duties and responsibilities:

- Assist the National Project Coordinator and the FAOR in the coordination of the various financial, technical and material support provided by the project at the provincial level;
- Be responsible for the overall day-to-day coordination of all project activities at the provincial level in collaboration with LGU;
- Assist in the formation of the provincial coordinating committee and provincial technical working group and actively participate in all its activities;
- Be responsible for the smooth project coordination, in collaboration with the LGU, including contribution for the preparation of a detailed work plan, assuring timely provision of inputs and liaising with concerned persons at central and provincial levels of DENR and other partner agencies and bureaus;
- Coordinate and assist in the organization and facilitation of workshops, training sessions and other project activities in collaboration with the LGU and other participating agencies;
- Coordinate and assist in the preparation of technical progress and financial reports at the provincial level as required by Government, FAO and the donors;
- Assist the NPC in coordinating the preparation of the final project terminal technical report; and
- Perform other functions as may be required by the NPC.

Duty station: Ifugao Province, Philippines

Duration: 60 months