

Nature-Culture Interaction at the Rice Terraces of Ifugao Province, Philippines

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Abstract

The Ifugao Rice Terraces (IRT) in the Philippine Cordilleras are the epitome of nature and culture interactions in a heritage site. They showcase how the Indigenous peoples of Ifugao harmoniously co-exist with nature. As a World Heritage Site and a Globally Important Agricultural Heritage System (GIAHS), the IRT are a living cultural landscape and an agro-biodiversity haven. Management of these cultural and natural treasures should be done in tandem to optimize efforts and resources. The changes being experienced at the IRT and the corresponding responses should all be documented in an Ifugao Rice Terraces Assessment, which will help in scenario planning for the sustainable conservation of the Ifugao Rice Terraces.

KEY WORDS: Ifugao Rice Terraces, Nature-Culture Linkages, UNESCO World Heritage Site, GIAHS, Ifugao Rice Terraces Assessment

1. Introduction

The Philippines has three main islands: Luzon, Visayas, and Mindanao and is divided into 14 regions. The Province of Ifugao is in Northern Luzon,

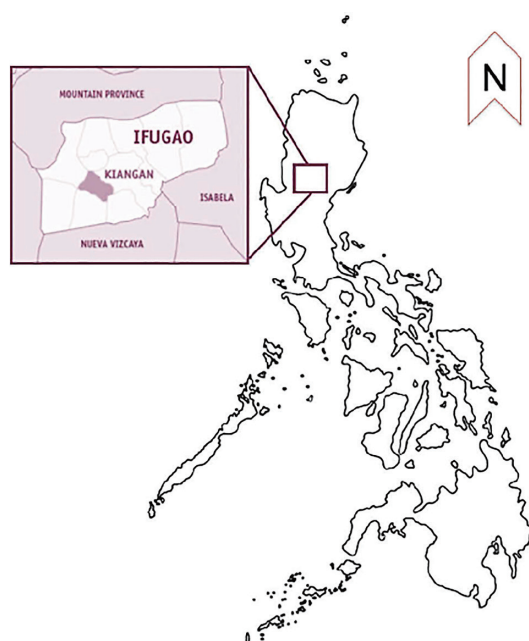


Figure 1: Location of Ifugao, Philippines
(Source: Camacho et al. 2016)

and the central part of the Cordillera Administrative Region [Fig. 1]. It has 11 municipalities spread over a land area of 251,778 hectares, 23% of which is forested land. Nine of these municipalities have rice terrace clusters (Department of Environment and Natural Resources 2008). Most of these municipalities are in the uplands, with 81% of the land area having slopes of over 18 degrees (SITMO 2008). The elevation is high, and the identified highest point in the Philippine highway system is in Tinoc, Ifugao, measuring 2,428.66 meters above the sea level.

The history of Ifugao was succinctly described by Hanyuan Jiang (2016) as follows:

“Unlike the lowland areas, Ifugao was not conquered by the Spanish regime in the 16th century and was only accessed by outsiders after the American occupation of the Philippines in 1898. Over this long independent time, the Ifugaos cultivated their Indigenous culture, which makes them unique and proud today.”

Indeed, Ifugao's distinction is in its people's culture exhibited through its Indigenous knowledge, systems, and practices. They observe customary laws that lay the foundation for justice, unity, and peace within their tribes (Camacho, Gevaña, Carandang, and Camacho 2016). As one of the ethnic-cultural communities in the Cordillera region, the Ifugaos are rice terrace owners. Ownership of rice terraces is through families and clans with an area ranging from a few square meters to 5 hectares. 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 (DENR 2008).

■ 2. Significance of the heritage place including natural and cultural values

2.1 Significance

The Province of Ifugao is valued, among other things, for its rice terraces, famous for its beauty and marvelous landscape. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) designated five rice terrace clusters (located in four municipalities) as World Heritage Sites, describing the areas as living cultural landscapes of unparalleled beauty [Fig. 2]. The IRT demonstrated outstanding Universal Value, with the World Heritage Committee declaring the IRT as a priceless contribution of Philippine ancestors to humanity.

The Food and Agriculture Organization of the United Nations (FAO) values the rich biodiversity of the IRT, designating it as a Globally Important Agricultural Heritage System (GIAHS). It valued the socio-ecological production landscapes for its ecosystem services. In identifying the landscape, GIAHS is not limited to just the rice terraces. The landscape includes the forests in the mountain tops, as well as the village and the community. The Ifugao Rice Terraces are 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*). Each of these components are harmoniously interrelated but may perform unilateral functions within the landscape (DENR 2008).

The stakeholders with the most significant interests are the ones at the grass-root level – the farmers who till the land. How do they value the land? While they might not share the tourists' aesthetic appreciation of the landscape, they look into the productivity of the IRT, for its intrinsic value of providing food, water, and shelter.

For the Indigenous peoples of Ifugao, the IRT symbolizes their affinity to the land. Despite not having any formal organization in the olden days, the Ifugao passed on this unique socio-ecological system from one generation to the other through a system of family inheritance and customary laws



Figure 2: Part of the Ifugao Rice Terraces in the Municipality of Mayoyao, Ifugao, Philippines (Photo credits: Harley Palangchao)

(DENR 2008). The passage of Republic Act No. 8371, otherwise known as the Indigenous Peoples' Rights Act (IPRA Law) of 1997, was a significant milestone in the recognition of Indigenous peoples' rights over their lands. However, currently, most Ifugaos still do not own land titles since most of their lands are more than 18 degrees. This inability to own their land is in relation to Presidential Decree No. 705 (Revised Forestry Code). The decree states that no land of the public domain eighteen percent 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 the vast majority of Indigenous peoples inhabit hilly lands which are more than eighteen percent in slope, they are considered squatters on their own land (DENR 2008)

For domestic tourists, the rice terraces constitute their identity and a badge of pride. They represent the Filipino society that also claims the Ifugao heritage as a Filipino legacy.

2.2 Designations

Two Presidential Decrees (260:1973 and 1505:1978) have declared the IRT as National Cultural Treasures, having a high value from the viewpoint of culture and therefore are considered irreplaceable treasures of the country. Moreover, the terraces are protected by Republic Act No 10066 of 2009 (National Cultural Heritage Law), providing for the protection and conservation of National Cultural Heritage.

In December 1995, these rice terraces were inscribed on the UNESCO World Heritage List during the 19th session of the World Heritage Committee held in Berlin, Germany. The justification for its inscription is that the Rice Terraces are an outstanding example of living cultural landscapes, and represent and illustrate the traditional techniques and remarkable harmony between humankind and the natural environment (UNESCO n.d.).

Later in 1997, the American Society of Civil Engineers unveiled their marker at a vantage point overlooking the town of Banaue, in recognition of the Ifugao terraces as an "engineering marvel" (Gonzalez 2000).

In 2004, the FAO inscribed the IRT as GIAHS, recognizing its "remarkable land-use systems and landscapes rich in globally significant biological diversity..." (DENR 2008). FAO defines a GIAHS as "a living, evolving system of human communities in an intricate relationship with their territory, cultural

or agricultural landscape or biophysical and wider social environment" (DENR 2008).

Overall, these designations are cognizant of the cultural and natural richness of the IRT. As a living cultural landscape, the rice terraces are the epitome of the nature-culture interaction. It is an "enduring testimony to how the Ifugao people can exploit the resources around them without causing irreparable damage to the environment" (Martin 2017). The respect of the Indigenous communities to their land is evident in how they personify the landscape, performing rituals, and rites before activities are done. For instance, the "*hongan di page*" or agricultural cycle ritual is a series of rituals done before any of the rice culture tasks are done, to appease the gods. The Rice-Giver gods from the Skyworld, the Rice-Giver god from the Underworld, the deities, and the fairies are pacified through the sacrifice of chickens and/or pigs in specific rituals. During land preparation, a ritual is performed to placate gods who might be disturbed. Before a stone wall is constructed, rituals are completed to protect the workers from accidents. After the stone walls are in place, rituals are done in thanksgiving and to request the permanence of the structure. Before seedbeds are prepared, this is announced to the gods. A ritual is also performed to ensure that the seedlings will sprout and grow. Thus, it continues until harvest, and even before storing the harvested grains. Camacho et al. (2016) said that Ifugaos believe that many endemic trees, such as *Ficus spp.* are associated with spirits (*anito*), so they conserved them. Through these Indigenous practices of personifying nature, one could see the intimate relationship of nature and culture in the rice terrace landscape. While the IRT falls under the cultural heritage category of the World Heritage List, the socio-cultural aspect is founded on nature. Namely, the communal system of rice production depends on the use of water from the forest mountain. Moreover, rice production activities follow the seasons of the year. Farmers time their activities with the lunar calendar, deciding on the auspicious time to plant, to weed, or to harvest. Ifugao farmers look into natural indicators to move to the next agricultural activity. For example, the flowering of the *hablang* plant is the signal of the beginning of summer, and thus, the water in the terraces will become scarce.

Water from the mountains, through the use of bamboo and other such flumes, are skillfully channeled to the catchment basin which are the rice terraces. Ifugao farmers know the relationship between forest and rice field cultivation; thus, they

ensure intensive Indigenous practices on watershed protection.

As explained above, and as the World Heritage Committee has recognized it, the Ifugao is a community producing a landscape based on the sustainable use of natural resources for generations, such that one (culture) is nothing without the other (nature).

■ 3. Management

3.1 *Who helps out?*

The management of the IRT can be seen at different levels. International organizations, such as UNESCO, wields its influence to ensure the integrity and authenticity of the IRT as a World Heritage Site. Through its recommendations, Conservation Master Plans were crafted, and its implementation regularly monitored through the required State of Conservation Reports submitted annually by the State Party. The master plan has bio-physical interventions as well as socio-cultural responses to ensure a holistic conservation plan.

Given that the country is party to the Convention on Biological Diversity (CBD), the IRT was also designated as GIAHS. This designation provides 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 (DENR 2008). FAO provided technical and financial support for the IRT's conservation, which ranged from Indigenous plant nurseries to ecotourism development.

The State Party, through its many levels of government units, influences the IRT management as it tries to address the myriad problems that a living landscape faces, such as pests and diseases attacking the rice plants to natural catastrophes. Since its designation in 1995, an agency was created to oversee the welfare of the IRT. It has changed names from one national administration to another (from Ifugao Terraces Commission to Banaue Rice Terraces Task Force and IRT Cultural and Heritage Office) until finally, the Ifugao Cultural Heritage Office (ICHO) was settled upon by the provincial local government. The ICHO primarily administers the implementation of the IRT Master Plan (2015-2024).

Prominent in the conservation movement in Ifugao is the Save the Ifugao Terraces Movement

(SITMO), a non-governmental organization. SITMO's vision is to be an organization with competent, committed workers and core volunteers to advance the campaign for the protection and rehabilitation of the rice terraces of the province of Ifugao, including the non-designated heritage municipalities. The organization implemented small scale pilot projects that were relevant in their advocacy for the IRT conservation, from community-based tourism to weaving, rice terraces stonewall restoration to community archaeology.

Then there is the Ifugao State University (IFSU), the only higher education institution in Ifugao province. Since 2014, IFSU did its level best to involve itself in the management of the IRT. It established the GIAHS Research and Development Center, which focuses its research direction on the conservation of the IRT. Through collaboration with the Kanazawa University, and with assistance from the Japanese International Cooperation Agency (JICA), IFSU strengthened its IRT research program. Training several community members on research methods, the GIAHS Research and Development Center enabled non-academics to study the problems in their rice fields, in the community, and in their work areas. Through research, they get a better understanding of how to handle the challenges they encounter in the rice fields or in their community. In 2018, IFSU partnered with the National Chengchi University of Taiwan, and established an International Innovation Center on Indigenous Studies. This Center conducts a series of training workshops that promote Indigenous knowledge, systems, and practices, especially through the Indigenous Peoples' Education. This is in recognition of the fact that loss of Indigenous knowledge will lead to the detriment of the IRT.

3.2 *Concerted Efforts*

The stakeholders of the IRT regularly collaborate on the management of the site. When the UNESCO World Heritage Committee inscribed the IRT on the List in Danger in 2001, the stakeholders had to get their acts together to save the IRT. Through concerted efforts, the stakeholders managed to remove the IRT from the List in Danger in 2012.

The provincial local government has ensured the continued utilization of the Rice Terraces Conservation Fund (RTCF), which comes from the revenue of the 200 kw Ambangal Mini Hydroelectric Plant in Kiangang, Ifugao. Proceeds from the fund are being used for the development of irrigation as well as culture-related interventions.

The support that the property receives from local, national, and international sources is very encouraging. At the local level, the municipal local governments have allocated funds for conservation-related activities. National agencies, such as the National Irrigation Authority, Department of Agriculture, and the Department of Environment and Natural Resource, have also allocated funds for the conservation of the rice terraces. There have been companies that have provided financial resources for the rehabilitation of the rice terraces, such as Universal Harvester Inc., Carmeldre, Toshiba Corporation, Mitsui & Co, Ltd. and Black Pencil. The JICA continues to be a major supporter, with its investment in the Forestland Management Project and the Ifugao Satoyama Meister Training Program. Other countries have also given financial support, such as Italy (*Muyong* Project), Taiwan (Center for Taiwan-Philippines Indigenous Knowledge, Local Knowledge, and Sustainable Studies), and The Netherlands (Netherlands Funds –in Trust).

■ 4. Current State of Conservation and Challenges for Continuity

A study done by Ngidlo (2013) disclosed five drivers of change impinging on the integrity of the rice terraces as an agricultural system. The drivers of change are education, tourism, modern agricultural technologies, Christianity, and climate change. Five scenarios are taking place in the rice terraces as the foregone effects of these drivers of change. These are: diminishing culture, vanishing varieties and breeds, shifts in economic activities and outmigration, physical degradation of the rice terraces, and urbanization. These drivers of change are either acting singly or in combination with each other to reduce the overall integrity of the rice terraces (Ngidlo 2013).

There have been numerous responses to the changes observed in the landscape. Government programs ranged from direct assistance (i.e., stonewalling projects in response to erosion problems) to irrigation construction and/or rehabilitation, reforestation, and many more. Local, regional, and international institutions have given their share in trying to solve issues and challenges. These resulted in a variety of interventions. There is a need to put all these together in a coherent manner, to better understand the interrelations between the different ecosystem services (both culture and nature) and their interrelationships with the landscape. A research project called Ifugao Rice Terraces Assessment, funded by the International Partnership for the Satoyama Initiative through its Satoyama Development Mechanism, proposes an

inventory and assessment of all components of the IRT, especially on the ecosystem services from its rich biodiversity. The project will use the Millennium Ecosystem Assessment (MEA) framework from the United Nations with the attempt to collectivize all conservation efforts among organizations to provide agreeable and scientific information as the basis for political (legislative) and societal (cognitive) measures anent to the significance of the Ifugao ecosystem services and resiliency for sustainable development.

■ 5. Recommendations

For sustainable management of the IRT, the following are recommended:

- 1) Development of an adaptive co-management scheme for the conservation of the rice terraces. UNESCO and FAO should collaborate and coordinate more often with each other for optimum management of the IRT. Both organizations have mutual interests in IRT conservation. However, they have separate strategies that probably confuses the IRT stakeholders or grassroots who are implementing UNESCO and FAO recommendations at the ground level. Joint and parallel actions by both organizations will unite the end-users, the Ifugao communities, in understanding the values/criteria of the two organizations, ensuring the sustainability of the IRT; and
- 2) Support, involvement, and participation of the local government units in the conduct of an Ifugao Rice Terraces Assessment, using the MEA framework. Carrying out such an assessment will help in identifying the changes experienced in the IRT, the responses taken, and it will make possible the setting of scenarios for the future of the IRT. The results and findings of the assessment will serve as a blueprint of the state of the Ifugao Rice Terraces that can be utilized for the next 50 to 100 years as it analyses the current trends and conditions of biodiversity, ecosystem services, and human well-being since 50+ years back while proposing plausible scenario responses. Additionally, the project output will support policy and decision-makers in the province and municipalities. Recommendations of such an assessment could be adopted in comprehensive development plans, conservation plans, and executive-legislative agenda.

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