

## REVIEW:

# Planning sustainable tourism for agricultural heritage landscapes

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### Abstract

The globally important agricultural heritage systems (GIAHS) initiative has a mandate to promote mutual support and synergy between agriculture and tourism through public and private sector involvement for sustainable tourism. It emphasizes the role of education and capacity building as facilitators of sustainable tourism development in agricultural heritage landscapes. This research examines the role of GIAHS in tourism as a practical tool to promote sustainable tourism development in agricultural landscapes by all the stakeholders involved in tourism and agriculture. Tourism in GIAHS sites can help with the diversification of livelihood strategies. Maximizing the number of tourists or tourism revenue does not necessarily enhance people's livelihood in rural areas unless there is a proper consideration of the sustainability aspects in tourism development as well as of local priorities. Sustainable GIAHS tourism requires a significant role for local people in decision making for tourism development with emphasis on local needs and agricultural heritage. A participatory approach would allow local people to determine their main concerns and expectations based on which GIAHS tourism development policies and guidelines should form. In this approach, GIAHS tourism development is part of a broader concept of GIAHS development and must be integrated within the development plan of GIAHS sites. GIAHS landscapes at present face different problems such as inadequate facilities and economic capitals in less developed countries, and depopulation and aging communities in developed countries like Japan; however, tourism is expected to introduce new jobs and development opportunities to GIAHS destinations by enhancing the attraction of rural lifestyles in GIAHS communities.

**Keywords:** Agricultural heritage, Agritourism, Globally important agricultural heritage systems (GIAHS), Rural community development, Sustainable tourism.

### Introduction

Agriculture and tourism are both important sectors of the world economy and contribute to the livelihood of many people by providing food and jobs. In comparison with the agricultural sector, tourism is a new and rapidly growing industry, and creating synergies between the two can be a challenging process. The tourism industry has turned into one of the most important and fastest-growing economic sectors worldwide. The World Tourism Organization (WTO) reported that 'international' tourism in the year 2012 for the first time reached one billion international arrivals with a growth rate of at least 3% (WTO 2012). However, the real significance of tourism in the local economy and its impact on the livelihood of communities lies in a much more important form of tourism, namely the 'domestic' travel market, which is about 10 times bigger.

Travel to natural areas in order to conserve natural and cultural resources and contribute to the well-being of local communities was the main objective of the alternative tourism movement called 'back to nature' in the late 1980s. This concept was suggested to counter the exploitative commercialization of natural and cultural resources in the form of mass urban-based tourism that could lead to the displacement of local people from their traditional livelihood, often agriculture. But for the alternative form of rural-based tourism to be effective, the demand for tourism in agricultural landscapes, both by domestic and international tourists, is especially important. Rural tourism can support sustainable socio-economic

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development and with proper planning and management may contribute to environmental conservation. However, when tourism development is not integrated into the overall development plan of local areas, it may result in negative repercussions on the natural environment and associated cultural aspects, including agricultural systems and landscapes.

The history of recreation and tourism centered on farming goes back a long way (Sznajder et al. 2009; Sidali et al. eds. 2011). The term agritourism means different things to visitors and service providers, depending on the types of activities and facilities that exist on the site and the expectations of the customers ((Mwaijande 2007; Torres et al. 2011). Agritourism ranges from traditional visits to the countryside to enjoy agricultural landscapes to more modern commercialized recreation on agricultural land, which has become a dynamic business sector in many countries. However the importance and level of the contribution of tourism to the economy of agricultural landscapes varies in different sites according to the livelihood priorities of the local residents. From this point of view, traditional rural landscapes with predominantly small scale farming may be in need of agritourism to support their economies, as agriculture by itself may not always provide a sufficient and sustainable livelihood (Edgell 2006; Swarbrooke 1999; WTO1998).

Agriculture and tourism can therefore coexist as two major livelihood strategies. However a rural livelihood based on agriculture alone is often not sustainable. Problems may include the overuse of natural resources and outmigration from the local community. Tourism can contribute to the rural economy in many ways by utilizing available resources within the limits of the carrying capacity of the site. For this reason, ecotourism planning has to be integrated with conservation activities.

The process of tourism development should be managed to prevent the dominance of tourism itself by diversifying local livelihoods and observing the limits of carrying capacity (Capriello et al. 2008). Responsible tourism requires the use of local products and involvement of the local community in tourism activities. Traditional agricultural systems can often attract significant numbers of travelers and thus help create a market for agritourism. Therefore, keeping the right balance between the conservation of agricultural systems, biodiversity and tourism planning and development is a key concern for local, national and international institutions (Contini et al. 2009).

Globally important agricultural heritage systems (GIAHS) are an initiative by FAO (Food and Agriculture Organization of the United Nations). The concept aims to conserve natural resources and agricultural landscapes, and promote traditional knowledge through a focus on agricultural systems and their associated biodiversity (Koohafkan 2009). Outstanding agricultural landscapes from different countries are selected and proposed for inspection. This FAO initiative was first presented at the World Summit on Sustainable Development (WSSD 2002). The initiative aims to enhance awareness about the importance of such systems and facilitate their protection. It also calls for safeguarding and ensuring the sustainability of agriculture and livelihood of agricultural communities in the GIAHS landscapes.

Contribution to the GIAHS initiative has been high among many countries from different parts of the world. The program aims to select 100 to 150 GIAHS sites in the near future in order to promote conservation and management of agricultural heritage sites. According to the official website of GIAHS initiatives, there have been 10 countries from which GIAHS pilot sites have been selected since 2000 (Koohafkan 2009). The pilot sites are located in the Philippines, Chile, Kenya, Tunisia, Peru, China and Japan. There are currently also 9 candidates from Mexico, Italy, India, Poland, Iran and Sri Lanka that are in the process of GIAHS selection. The GIAHS program has also resulted in some local initiatives with similar aims, such as Satoyama and Satoumi initiatives in Japan, to join GIAHS and became part of the

international community for promoting agricultural heritage. Selection of the Satoyama sites of Noto Peninsula and Sado Island as GIAHS in May 2011 is a clear example of the leading role of the GIAHS initiative in agricultural heritage development (Nakamura 2010).

This study utilizes the experience of the author gained through research in the IFUGAO Rice Terrace (IRT) GIAHS site in the Philippines in 2011 in order to provide a general case for similar applications and experiences in any GIAHS sites. The IFUGAO Rice Terrace (IRT) is listed both as a world heritage and GIAHS site and considered by travelers as a heritage tourism destination located in agricultural landscapes; the site has attracted international tourists from different parts of the world (UNESCO 2008). GIAHS however, emphasizes living agricultural livelihoods and traditional agriculture systems and is more about present and future than the past. Tourism services such as accommodation, food, and recreational and health facilities can thus use the example of the IRT as both a world heritage site and a GIAHS site in order to meet the current expectations of visitors, and ensure the sustainability of the tourism business itself.

The use of the agricultural heritage of GIAHS for sustainable tourism can support agriculture and tourism through the involvement of both the public and private sectors. By investment in education and capacity building, they can facilitate the development of sustainable tourism in agricultural heritage landscapes (Vafadari 2012). Therefore, practical guidelines are needed to enable all stakeholders who are involved in both tourism and agriculture to act effectively. Long term education and capacity building is essential to ensure their effectiveness. The guidelines utilize the gained experience to provide a practical case for similar applications and experience in other GIAHS sites.

Several guidelines and manuals have been prepared for community tourism development in rural landscapes with protected areas and biodiversity, and for the associated natural resources such as wetlands and agricultural landscapes with historical and heritage significance (Eagles 2001; CBD 2004). However, there is no guideline on tourism development in GIAHS sites. Eagles (2002) emphasizes visitor management through the techniques of limiting impact on natural resources while trying to maximize the benefits of tourism within the carrying capacity of the site. Such guidelines usually introduce some definitions and concepts of management for common issues in protected areas, and describe ways of enhancement of quality tourism development with examples.

Therefore, this paper demonstrates the significance of technical assistance, training and data collection in research on tourism and in the development of indicators of sustainable tourism for its proper management. The satisfaction of customers and local residents is a prerequisite for sustainable tourism management. Details of satisfaction levels provide the local decision makers with indicators and management tools to ensure the sustainability of the tourism industry as part of rural development.

## **Methodology**

This study employed an interdisciplinary approach with a variety of disciplines such as sustainable rural livelihood, agricultural heritage, local revitalization, rural tourism and resource management on which the arguments and field studies were grounded. Our approach viewed sustainable tourism in a broader aspect as a development strategy for GIAHS sites rather than as an industry; we studied the role of sustainable tourism activities as a rural livelihood strategy for revitalization of *Ifugao* Rice Terraces (ITR) GIAHS sites and the local community. The same method could be applied for future research on tourism in other globally important agricultural heritage systems (GIAHS) sites and associated local communities.

Primary data were collected through in-depth interviews and direct observation. The author began fieldwork with local communities during 2010, participating in research activities, local events and other programs in order to build up the necessary information networks and to ensure local participation in the study to increase the quality of data collection. The main research activities were conducted during 2011, through direct funding and support by the United Nations Food and Agriculture Organization (FAO), Land and Water Division. Consultative and participatory workshops with local government units and communities were used to gather primary data. In general, the field studies for this research relied on qualitative research methods based on direct observation to assess the rural natural, human, social and physical capital of the *Ifugao* Rice Terraces (ITR) GIAHS site, using the ‘sustainable livelihood’ approach, which is the basic method of research at GIAHS sites. To ensure the maximum support of the residents, local community members were asked and given the chance to participate in the research, not just as input providers but also for taking advantage of the educational and training aspect of the research initiative.

Preparing a strategic plan for tourism requires basic information on local facilities and livelihood assets. The key point is in whether tourism officials and other key persons from local government units have all the information required to develop strategic plans for sustainable tourism development with a focus on diversifying the livelihoods of local communities. Local communities, local government units and the local tourism industry should be included as they represent the three main players in sustainable tourism development. They are also the most important providers of survey information on developmental needs and the existing situation. Information on visitor satisfaction and community attitudes toward tourism are considered as a tool and criteria for building indicators of sustainability.

A potential method to assess the situation of tourism and the assets that can be used for community-based sustainable tourism is direct observation and surveying of a focused group of experts and authorities. This can help to determine and analyze what is already known about tourism in the area including the use of agricultural landscapes as a main attraction and tourism destination. A situation analysis and understanding of developmental needs of tourism facilities such as accommodation, attraction and transportation should also be done. The study examines the attitude and role of local government units (LGU) toward the evaluation of developmental projects and tourism events by asking about the history and existing systems for such evaluations. This emphasizes the role of LGUs as key players and brings more insights for sustainable tourism development.

Tourism resources, stakeholders, policy and management frameworks are therefore considered as the main areas of data collection; the results can be used to define sustainability objectives and issues related to human, social, cultural, economic and institutional capital (see Table 1). Local tourism should capitalize on its rich natural resources, landscapes and agricultural systems to attract tourism. However, it should be noted that tourism in those agricultural landscapes chosen for GIAHS differs somewhat with agritourism elsewhere because of its importance as both a living agriculture landscape and a GIAHS site. Therefore, it is necessary to define to what extent the tourism attractions are based on heritage tourism (to educate visitors about the uniqueness and importance of the site) and how they can be utilized for agriculture/agritourism activities at the same time. In the assessment report the major tourist attractions can be listed for a better understanding of the role and importance of each category of attraction (Table 2).

**Table 1:** Situation analysis for GAIHS sustainable tourism planning

<i>Tourism assets and resources</i>	<i>Key stakeholders and partners</i>	<i>Planning, management and policy frameworks</i>	<i>Development and sustainability objectives</i>
- Assets (SLA) - Attractions Unique/distinguishing features - Comparative advantages - Strengths	- Government ( LGUs) - Private sector - Community - NGOs - Development agencies - Others	- Strategies - Plans - Regulations - Procedures - Coordination structures - Revenue generating, and sharing schemes - Existing development plans	- Human - Environmental - Social - Cultural - Economic - Institutional - Attraction

**Table 2:** Assessment of GIAHS tourist attractions

<i>Type of attraction</i>
Agricultural parks or complexes /entertainment facilities
High agriculture (agricultural museums or related art)
Agricultural heritage sites and historic farmhouse/ ancient agriculture systems
Agro-economy and local agricultural products (dried fruits, winery, dairy farms)
Authenticity and indigenous cultural experiences associated with agriculture
Agricultural festivals and religious activities
Natural (mountains, caves, rivers, irrigation canals, lakes, etc.)
Nature based tourism facilities (zoos/wildlife/aquaria)
Public facilities and Transport (railway, port, airport, etc.)
Other:
Forest
Waterfalls
Geoparks
Dams
Cooking festivals
Historical events
Cultural villages
Burial tombs and caves

Source: *Stakeholder workshop in IRT and personal interview* (2011)

The process of data collection and documentation in any industry is usually a costly and time consuming one that needs a systematic approach and coherent public policy towards sustainable data collection and monitoring systems. Tourism is no exception. Educating and awareness building at the community level is necessary in order to implement and sustain a tourism data collection system. The more people know about the benefits of tourism the better they will cooperate; this can result in high quality data at low cost. Government and policy makers use tourism data and information for detailed planning; however, the private sector that usually seeks higher revenue and target marketing can also take advantage of tourism information (Table 3).

**Table 3:** Key tourism information for local authorities and stakeholders

<b>Information</b>
Visitor number and profile to the site
Tourism income and other economic benefits
The capacity and variety of tourist accommodation and associated facilities in GIAHS destination
Diversity of tourist attractions and activities in the area
Estimation of GIAHS tourism demand and forecasting market size in the area for the next planning years
The impact on accommodation and the attraction requirements from the forecast visitor increases/decreases
Level of visitor satisfaction and the quality experience survey of GIAHS destination
Level of resident satisfaction in respect to the current levels of tourism in the area
Level of resident satisfaction in respect to the forecast levels of GIAHS tourism in response to destination branding
The capacity of current infrastructure and services to cope with existing and future demand from visitors
Environmental impact assessment of GIAHS tourism
The level of satisfaction of tourism service providers with maintenance and development of tourism infrastructure

Source: *Stakeholder workshop in IRT and personal interview* (2011)

Information is needed on the size and trends of tourism, and on travel motivation and length of stay (Table 4). There should be a data collection system to trace visitors within an area while they stay and move between sites including day trips and site visits. Tourism planners and policy makers need to know the length of stay for several reasons, including tourist demand for local facilities and services, water and solid waste management, security of travel and risk management, and planning for distribution of travel load and benefits among different localities based on the carrying capacity of each site, to avoid from overuse or under management of resources.

**Table 4:** Information on Visitor profile and Behavior

<b>Information</b>
1. Inbound and domestic tourism trends
2. The size of international and domestic tourism and their profile
3. The country of origin for international tourist arrivals
4. The origin of domestic travelers
5. The reason for travel to the destination
6. Means of transportation and alternatives
7. The type and level of accommodation they are staying in
8. The attractions and activities undertaken by visitors in the area
9. Length of stay for both domestic and international visitors
10. The number of day trips to the area as distinct from those who stay overnight
11. Seasonality of visitor profile for the area
12. Demand forecasting for both international and domestic market

Source: *Stakeholder workshop in IRT and personal interview* (2011)

Direct income and employment are immediate economic benefits of tourism development. Tourism revenue could be simply calculated by knowing the number of travelers in an area and more detail about how much money they spend while staying there. Total tourism revenue could be calculated as the number of visitors and trend of travel to the area. However, the economic impact is not limited to revenue and it is necessary to take into account other key information such as the number of jobs, direct employment and economic leakage for policy making and economic planning. Table 5 outlines the needed data on the economic contribution of tourism.

**Table 5:** Economic contribution of tourism

<i>Key information</i>
1. The number of travelers to the area
2. Visitor expenditure and main items
3. Tourist enterprise in the site and categories
4. Tourism employment and total number of jobs related to tourism
5. Tourism benefits for other industries and local government
6. Tourism multiplier effect and economic leakage
7. Marketing, competition and regional tourism market share

Source: *Stakeholder workshop in IRT and personal interview* (2011)

Surveys of the local community about tourism related issues are needed from the officials. Knowing the extent to which a local community is aware of the economic benefits of tourism can pave the way for further community-based tourism promotion planning. The local community cannot be expected to support tourism development without a basic knowledge about the potential impacts of tourism, both positive and negative. Any development plan cannot be implemented without the support of the local community. Therefore, the role of community in the tourism development process should be considered and integrated with the development plan for tourism. Community attitudes toward tourism need to be estimated (Table 6).

**Table 6:** Community support to tourism

<i>Key criteria</i>
1. How do people describe benefits of tourism development?
2. How is tourism represented by different social groups within local community?
3. What concerns do people have about tourism impacts on natural resources and cultural heritage?
4. What are general points and concerns about tourism development by the local community?

Source: *Stakeholder workshop in IRT and personal interview* (2011)

GIAHS designation will open the door for the international community to the area, which means that the possibility for external funding and investment will rise. Local authorities should have a specific process to evaluate the impacts of external projects and to maximize the benefits of the projects for local communities. Local tourism authorities are supposed to have their own policy to evaluate external projects on tourism development in order to take advantage of these projects and integrate them into local

development objectives. In this respect, the role that local government can play in integration and balancing the benefit of local people and external investor is significant. Table 7 shows the need to develop an area's own evaluation policy in this matter.

Event tourism can be a tool for managing the effects of seasonality on tourism revenue and reduces the vulnerability of the tourism business if well organized. In the case of agricultural landscapes with a long non-farming season, organizing events related to agricultural heritage can utilize the extra labor of agriculture and satisfy the demand for heritage tourism in agricultural landscape by diversifying tourism activities. Municipalities usually hold cultural events in rural communities. Specific research on the role of cultural events in tourism promotion for each GIAHS site is needed to determine the best season and theme for event. The type of event might be different in GAISH sites based on their potentials and geographical locations, and usually local authorities can fund them. Therefore in participatory tourism development, a system to evaluate the success of events in meeting the objectives of local authorities and event organizers need to be well defined, as implied in Table 8.

**Table 7:** Tourism project evaluation

<i>Key criteria</i>
1. What are the priorities of local government for accepting external projects?
2. What are evaluation criteria of local government for external projects and related cost benefit analysis
3. Assessment of external projects supported by the local authority and their success in gaining support of local

Source: *Stakeholder workshop in IRT and personal interview* (2011)

**Table 8:** Event evaluation

<i>Key criteria</i>
1. What are the key policy issues for selecting organizer and funding events by local government?
2. What are the processes for evaluating the relevance and the potential benefits of proposed events?
3. Level of satisfaction and participation of local community for supported events by the local authorities

Source: *Stakeholder workshop in IRT and personal interview* (2011)

## Findings and Results

The demographic situation in rural areas and its consequent human resource management problem is one of the main challenges of the 21<sup>st</sup> century for both developed and developing countries. Abandonment of rural facilities and agricultural landscapes in the rich rural societies of Europe and Asia such as in Japan results from an aging society unable to continue farming. This is similar to less developed countries where the agriculture-based livelihood does not attract people to stay on their farms. The results are the same: outmigration and abandonment of agricultural land in rural areas. The difference is that young people in poor countries seek better jobs while old people in rich societies look for better social and medical care in cities. Many farmers migrate to nearby provinces for a better livelihood. Good health and the capacity for labor are considered as human capital for pursuing livelihood strategies.

Nevertheless, the majority of residents in an agricultural site may be native to the region with a long history of living in harmony with nature. Their traditional knowledge, skills and lifestyle itself can be made attractive for visitors from outside. It is very important to remind and educate the younger generations that they are associated with the famous sites in the eyes of visitors and the fact that the unique environment

could not last without people. Tourism and human development are interrelated and well-educated human resources can improve tourism and also benefit from tourism development at the same time. The most important of these resources are:

#### ***Human capital for tourism development***

Human resources at tourist destinations are a powerful tool to attract travelers and entertain visitors. Host and guest relationships should be managed in a sustainable way to preserve the authenticity and cultural values of the local community while they are utilized as tourist attractions. Therefore, keeping a balance between tourism development and agriculture as basic means of livelihood is the key point in attainment of the carrying capacity of tourism and preserving the authentic environment of rural communities.

#### ***Social capital for tourism development***

The evaluation of social capital is based on women's status, trust and social networks which most local households rely on to obtain a better livelihood. Community leadership plays a significant role for utilizing social capital in the local community. Many potential communities are not yet ready in terms of capacity to take the responsibility of community based tourism and to integrate it with their current agriculture livelihood. Communities need a fundamental understanding of the tourism business notably capacity building, to ensure maximum benefits and a minimum negative impact of tourism on local communities and the sustainability of tourism itself.

The organization must search for local facilities with a good potential for tourism such as local houses in good condition with the standards to accept guests or serve in home stay programs. A limited training service may be provided for the owners of new guesthouses in need of development. Collaborations between local communities to develop their own CBT model based on local priorities are a very good possibility.

#### ***Natural capital for tourism development***

According to the Sustainable Livelihood Approach (SLA) methodology, natural capital refers to the natural resources that are accessible to local communities for use as livelihood strategies. This can be either by direct use like planting rice in the rice terraces or indirectly as a source of cash income. GIAHS natural resources that are utilized by the local community for tourism are basically in 3 categories such as residential areas, farmland and agricultural sites and mountain forests as well as rivers.

There may be various kinds of rural tourism activities such as mountain trekking, camping, and collecting edible mountain plants. The nature may be subject to damage by deforestation and construction in farmlands. Taking the wood for the carving industry and craft making which demand large amounts of specific types of wood and mismanagement of residential development are the main factors in damage to valuable natural resources.

#### ***Economic capital for tourism development***

Infrastructure and access to the site are the two main economic capitals and the most important livelihood assets requiring development. Both physical and financial capitals are considered important for local communities and LGUs to reach their tourism development goals.

The income portfolio includes both farming and non-farm business. Agriculture and forestry are the main livelihood sources. Recognition as a world heritage site and GIAHS is also an economic asset. Decentralizing tourism by promoting community based tourism and nature based tourism activities will bring more economic benefits to local communities especially the farmers who are living in rice terraces.

Agriculture should remain the main source of livelihood as it has been the case throughout the history. With agriculture as the most basic and popular household livelihood, tourism can provide extra revenue and play a role in income diversification to promote agriculture and provide direct income for conservation of natural resources.

### ***Institutional capital for tourism development***

Tourist market access and the system under which the community shares the benefit of tourism enterprises play a major role in sustainability of tourism. It also depends on the extent to which local people are willing to participate in tourism policymaking and actually take part in the development process due to awareness of tourism benefits and related training. 'Institutional capital' can be evaluated by interviews and direct observation. The market sharing process is through organized tourism business with people and may not be well distributed.

Community leaders usually play the role of coordination for community-based tourism. They also provide consultation and training services when demanded for the community tourism service providers. Without a systematic and organized community service, guesthouse owners may not be able to access the market without business mediators such as wholesalers or through a travel agency and accordingly a charge may be imposed on the farmer by the travel agency reducing the benefit of CBT.

Direct marketing and contact may be done by some guesthouse owners which makes the job more profitable. The number of direct contacts is a good indicator for evaluating the level of institutional capital as well as the quality of guesthouse service because the customer is either a repeater or introduced through another customer.

### ***Attraction capital for tourism development***

All livelihood assets must work together to satisfy visitors in any destination. Therefore, all the livelihood assets such as human, social, natural, economic and institutional capitals function to attract visitors and can be utilized as tourism resources for GIAHS landscapes. Accordingly, local communities should capitalize on authentic resources among the five livelihood assets in order to utilize 'attraction' as a livelihood asset for GIAHS tourism. Tourists can bring insights for people in rural communities about the attraction capitals and the extent to which they can be presented as tourist attractions. In this context tourism development itself enhances the attraction capital of GIAHS destinations.

Visualizing sustainable livelihood assets with live examples from GIAHS destinations provides a realizable tool to educate local communities about what they have in their locality, a situation analysis for better use of SLA assets, as well as tourism applications of all resources and possibilities for generating additional income and employment through GIAHS tourism. In this concept, GIAHS itself can be utilized as a brand to attract a niche market among both the domestic and international travel markets with special interest in agricultural heritage.

### ***The vulnerability context***

Relying on tourism livelihoods should be within the limits of vulnerability and risk management for tourism development in a GIAHS site. The first and most important livelihood vulnerability is the concern over 'natural capital' and 'human capital'. More education may be needed about sanitation and nutrition provided for people in the villages. Many young people may have left the place with no hope to come back in the near future to continue farming. Concerns about preservation of natural resources are another vulnerability issue that goes back to the lack of economic and human capital. Agriculture and forestry work in tiny

farmlands are highly labor intensive and it is impossible to keep the situation managed as in the past without new manpower and a strong will especially from the younger generation to continue farming. In this context, volunteers who visit the farm to help with planting or harvesting rice have been considered by the farmers as a big help with financing their agriculture through tourism revenue but this might not be a sustainable or reliable solution yet. Local people may also raise many concerns over the lack of public transportation services that are categorized as 'physical capital'. The elderly may be concerned about financial support from the national government to develop transportation systems especially access from outside. The fear of being left alone under a landslide with no help on one hand and better job opportunities and income available for young people in urban areas on the other hand encourages local people to leave and move to neighboring urban areas.

Vulnerability concerns are not only the results of depopulation and out migration; there are also shocks from natural disasters such as floods and landslides and seasonality effects. In this context, if GIAHS tourism can provide enough economic benefit for creating a rural sustainable livelihood strategy, it could be a 'savior' of GIAHS resources to some extent.

## **Discussion**

The outlines of proposed guidelines for GIAHS tourism suggested by the results of this study are:

### ***Local satisfaction with tourism***

Sustainable tourism in any destination does not happen without local support and GIAHS destinations are not any exception. Therefore, it is necessary to build up a database on the level of community satisfaction from tourism, which provides a powerful tool for evaluation of sustainability once the data is accumulated. Guidelines for tourism development should provide sample tools (questionnaire) to be modified by each GIAHS destination for the purpose of enhancing the level of local satisfaction and support for tourism. Key factors in the assessment of local satisfaction with tourism include but are not limited to employment and livelihood opportunities, resource allocation, conservation and management, cultural heritage management and host-guest relations, and community control of tourism development.

### ***Tourist satisfaction***

Regular surveys should be conducted with tourists in GIAHS sites to ensure the reliability of data on tourist satisfaction. The attitude toward research and quality data collection on tourist satisfaction provides an indicator of sustainability of tourism by local community and needs to be included in the education and human resource development plan for GIAHS tourism development. Local communities should be able to conduct surveys on sustainability and tourist satisfaction on a regular basis through interview, direct observation or questionnaire based research activities. It is often the case that tourist perception about the value of money and percentage of repeaters are taken as strong indicators to measure the satisfaction level of travelers.

### ***Tourism impacts on local communities***

Conducting tourism within the carrying capacity plays a key role in the community impact management of tourism. One of the key factors is the ratio of tourists to locals in average and in high seasons. There is no specific criterion as a fixed number or limit as an optimum ratio of tourists to residents; so it depends on the

capacity of the community in managing tourism activities and in ensuring the sustainable access of local community to social services and natural resources.

The public sector in most countries is expected to carry out tourism policy and planning at national, regional and/or local levels as an integrated part of development planning. As a part of the development process, tourism development needs to be considered in respect to resource allocation and more importantly the role that tourism is expected to play in the development of a destination. Basic information on these questions is necessary in order to picture the existing situation of tourism and to investigate the potential to achieve the development functions of tourism.

#### ***Vulnerability context and tourism seasonality***

Tourism is not supposed to be the main livelihood activity in GIAHS sites because the nature of GIAHS is based on agriculture and sustainable livelihood based on agricultural heritage. However in order to minimize the negative impacts of seasonality of tourism, local authorities and community leaders should be supported with powerful indicators to direct them with seasonality and vulnerability of tourism in GIAHS sites such as detailed trends and number of tourists arrivals by month or quarter based, trends for accommodations occupancy rate and number of part time and permanent tourist jobs.

#### ***Economic benefits and impact assessment of tourism***

The most tangible economic impact of tourism at the local level is the number of local people employed by tourism including the ratio of male and female employment as well as the ratio of tourism employment to total jobs. Insufficiency of agricultural revenue and products as the main source of livelihood is a common problem of rural life in GIAHS sites and the role that tourism can play in income diversification is significant. In this respect, the revenue of tourism in community compared with total revenue is also a good indicator for measurement of the economic impact and importance of tourism.

#### ***Water availability and conservation***

Water management is considered as a general need of agricultural landscapes and their local communities. In the case of GIAHS sites, there is no doubt about the important role of water as a vital element for agriculture livelihood. Therefore it is very important to consider water use and demand of tourism in a GIAHS site in order to keep the business sustainable without conflict or competition between tourism and agriculture for using water. The total volume of water consumed by tourists and percentage of recycled water are examples of important indicators for water resource management in GIAHS tourism.

Also, waste water if not managed can cause sanitary problems for tourists, local community and even the agriculture. Local governments and municipalities need to check whether the tourism establishments and community have a proper water treatment system. The number or percentage of sanitary toilets per households is considered as an indicator.

#### ***Development control***

Local authorities and LGUs are the agents that usually decide to what extent tourism is expected to grow and what are the limits of tourism. Total land use and development process including the tourism sector should be considered to clarify the share of tourism. Zoning provides a tool to control land use and allocate resources for tourism and other applications especially in the case of agricultural heritage systems with need for special care and protection. Any action for tourism development should give priority to local communities in access to the means of livelihood while developing tourism facilities.

Agricultural landscapes in GIAHS tourism are more sensitive than agricultural facilities used in agritourism as explained earlier. GIAHS landscapes are human heritage that demand careful use as tourist destinations as they are not originally created for tourism. The number of tourist arrivals and number of tourists per square meter of the site should be considered along with other indicators based on characteristics of the site to prevent overusing and intensive use of GIAHS landscapes for tourism.

The sustainability of the tourism industry requires keeping a certain level of satisfaction among all stakeholders, importantly among the host community, tourists and service providers who are the three main players. In the case of rural tourism, GIAHS and tourism in natural areas with a focus on agriculture as the main attraction, satisfaction level depends on the quality of natural resources as the main component of agricultural heritage system. Therefore acquiring and updating data on satisfaction level is necessary to sustain tourism regardless of the type and geographical location of GIAHS sites. It is also necessary to document the satisfaction level of visitors and the likelihood of them recommending it to other potential tourists as well as the improvement they would like to see or their comments on the things that spoil their visit during their stay at specific areas within the destination.

Access is one of the biggest challenges not only for sustainable tourism development in an area but also for the local people when they travel. Any decision to develop a transportation system depends on national policy and is unlikely to change in the short term. The limitations of transportation facilities should be considered in any tourism development plan and policy due to the importance of access to the destination and the potential travel market size. The destination may be attractive enough to have a certain number of travelers despite an inconvenient transportation, due to its unique landscape and other travel attractions.

### ***Participatory planning for tourism and collaboration potentials***

Identifying the prerequisites and potentials of collaboration at the community level is the key issue in participatory planning for tourism development in agricultural landscape. Promoting collaboration among people in a local community will result in enhanced social capital and accordingly increase the chances for community-based tourism development without which it might be impossible to access and utilize tourism potentials of GIAHS sites. All chances for collaboration between community members on the sustainable use of natural resources specially water and waste management should be considered.

Participatory planning can help find shared activities to improve access to the agricultural landscape and design activities to improve the overall outlook and impression of tourists from the site. According to the situation of each GIAHS site, there should be collaboration chances using a participatory approach at the community level. The overall result of participatory approach on tourism development would be enhancement of social capital, which means the promotion of the culture of collaboration among community members.

## **Conclusion**

Tourism is considered as one of the important functions of rural studies, which can contribute to the wellbeing of local people and improve the livelihoods of the local communities. This study is significant because it provides complementary information on the above-mentioned issues. Also the results of this study introduce a model of sustainable tourism development in GIAHS sites as a tool for conservation and

rural livelihood diversification. This research explains the situation and conditions under which tourism can improve the rural livelihood of GIAHS destinations and conserve natural and cultural resources.

This paper brings insight into the challenges of rural communities in some of GIAHS landscapes in order to conserve resources and the significant role of tourism as a tool for development. Guidelines for sustainable tourism provided in this study are expected to promote collaboration on tourism related developmental issues between GIAHS communities.

Guidelines for sustainable tourism development in GIAHS landscapes can provide technical advice and support for stakeholders in GIAHS destinations to collaborate on building a pathway in which they can work together and benefit from tourism activities and at the same time ensure that the tourism itself is sustainable and contributes to the conservation of natural and cultural resources of a GIAHS destination. In this context, local community is aware of the role and capacity of tourism in the development of rural agricultural livelihood within the limits of carrying capacity for tourism development itself. Therefore, the risk for dominancy of tourism in agricultural heritage landscape would not be significant in the case of GIAHS tourism development.

In summary, local communities, local government units and the local tourism industry are the three main players in achieving sustainable tourism development. The level of reliable information on visitor satisfaction and local community attitudes toward tourism are vital as indicators of sustainability. The current situation and developmental needs of tourism facilities such as accommodation, attraction and transportation must be surveyed. The attitude and role of local government units toward the evaluation of developmental projects and tourism events must be considered and the role of LGUs as key players emphasized to bring more insights for sustainable tourism development. The results may define sustainability objectives and help better understand the range of issues with the human, social, cultural, economic and institutional capitals in relation to the development of GIAHS-based sustainable tourism.

Tourism can be adopted as a common development strategy in rural areas with potentials for job creation and generating additional income for farm-based livelihoods. However, the impacts of GIAHS tourism development may vary between rural communities in GIAHS sites. We cannot generalize either positive or negative experiences from one place to another and GIAHS destinations are not an exception in this concept.

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