



Globally Important Agricultural Heritage System (GIAHS)- An Overview

Amit A. Shahane

Assistant Professor (Agronomy), College of Agriculture (CAU, Imphal), Kyrdemkulai, Meghalaya- 793105

Corresponding author: amitiari89@gmail.com

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Agriculture does not have single and simple origin and different practices were developed across globe based on natural resources available, climatic condition and human interventions. These practices were modified across the generation to make them more productive. Hence these practices were time tested and hold promise over long time. These practices were related with land use change, land configuration, irrigation system, selection of plant material and diversity, etc. FAO (2010) reported that agricultural heritage system may fall in mountain rice terrace ecosystems, understory farming systems, multiple cropping/ polyculture farming systems, nomadic and semi-nomadic pastoral systems, ancient irrigation and soil and water management systems, complex multi-layered home gardens, below seas level systems, tribal agricultural heritage systems, high value crop and spice systems and hunting and gathering systems. These practices were different from modern day agricultural practices as were lasted over long duration, sustainable and will be role model for further development. Therefore their conservation is essential. The United Nations food and agricultural organization initiate the programme for conservation and sustainable use of such heritage site and called as Globally Important Agricultural Heritage System (GIAHS). This programme was initiated during World Summit on Sustainable Development at Johannesburg, South Africa in 2002. In order to create awareness and spread knowledge about the concept of GIAHS, the FAO organizes different seminars, conferences and different meeting since its inception. Some of such attempts were executed in different countries such as China, Japan, Italy, Argentina and Buenos Aires.

As per FAO, GIAHS is defined as the outstanding landscapes of aesthetic beauty that combine agricultural biodiversity, resilient ecosystems and a valuable cultural heritage. The GIAHS witness very complex relationship between human being living in distinct territory, cultural, agricultural landscape and social environment (Figure 1). Since 2005 FAO designated 86 sites in 26 countries as GIAHS (Table 1) and provide the guidance for proposing a site for be enlisted as GIAHS and this list will be again increases. The major aims of this programme is to identify, support and safeguard agricultural systems that sustain and conserve our biodiversity and genetic resources for food and agriculture, rural livelihoods, knowledge systems, cultures and remarkable landscapes. The GIAHS also aims at providing technical assistance, improve understanding of the value of keeping alive sustainable agricultural knowledge, promotion of agricultural products, market incentives and

market opportunities. This programme is one the best attempt to conserve ancient agricultural knowledge/ heritage sites and bring in notice of whole world. The GIAHS should have unique story of development, adaptation to the surrounding environment leading to development of specific knowledge and techniques over the time. The contemporary relevance of GIAHS was indicated by its present and future capacity to contribute to food and livelihood security as well as capacity to generate economical and environmental goods and services.

Characteristics and features of GIAHS: The characteristics and features plays important role in selection a site as GIAHS as well as defining the functions and overall impact of GIAHS at local, regional and global scale. It is also useful in determining its global importance and act as selection criteria of site to be GIAHS.

- High level of biodiversity that plays key roles in regulating ecosystem functions and also in providing ecosystem services of local and global significance.
- Agro-ecosystem nurtured by traditional knowledge systems and farmer's innovation and technologies.
- Indigenous systems and technologies of biodiversity, land and water resource management and conservation that can be used to improve management of modern agro-ecosystems.
- Diversified agricultural systems that contribute to local and national food and livelihood security.
- Farming system that exhibit resiliency and robustness to cope with disturbances and changes minimizing the risk in the midst of variability.
- Systems that provide local, regional and global ecosystem services.
- Systems regulated by strong cultural values and collective forms of social organization including customary institutions for agro-ecological management, normative arrangements for resource access and benefit sharing, value systems, rituals, etc.

Significance of GIAHS:

- The GIAHS is not mare a well maintained landscape, but contributes significantly to the food and nutritional security of local stakeholders.
- The GIAHS helps in conservation of biodiversity occurring in any particular landscape or production system.
- The GIAHS are point of ecotourism attraction and hold a potential of new non-conventional source of income to local stakeholders.
- The conservation of GIAHS will helps in conservation, utilization and dissemination of traditional knowledge about particular landscape.
- The GIAHS helps in bringing awareness among the people and stakeholders about their importance.
- The GIAHS are classical example of sustainable ecosystem management. It will act as role model for planning of natural resources at agro-ecosystem level.

The FAO also started a global partnership initiative for conservation and management of GIAHS with three major objectives- a) Leverage global and national recognition of the importance of agricultural

heritage systems and institutional support for their safeguard, b) Capacity building of local farming communities and local and national institutions to conserve and manage GIAHS, generate income and add economic value to goods and services of such systems in a sustainable fashion and c) Promote enabling policies, regulatory and incentive environments to support the conservation, evolutionary adaptation and viability of GIAHS.

Guidelines for submitting GIAHS: The guidelines for submitting proposal for GIAHS is depends on features and action plan. The criteria are based on the conformity of landscapes and seascapes to meet food and livelihood security, agro-biodiversity, local and traditional knowledge system, cultural and social values and organization. The main components of GIAHS action plan as mention by FAO are given below:

- Dissemination of GIAHS concepts and awareness-raising of the value of GIAHS sites
- Establishing and/or strengthening the framework to implement the Action Plan
- Better resource management and improved agricultural practices
- Regulations to manage development in and near the site
- Management of agrobiodiversity, biodiversity conservation and sustainable use
- Marketing and promotion of agricultural products from the sites
- Promotion of agro-tourism, eco-tourism, cultural activities and local cuisine
- Involvement of local famers in decision making process
- Empowerment of women in the rural community

Features of GIAHS:

- Agricultural systems that contributes to food and livelihood security.
- Rice and unique agro-biodiversity.
- Traditional knowledge and technologies
- Strong cultural values and collective forms of social organization and value systems for resource management and knowledge transmission.
- Remarkable landscapes and seascape stemming from indigenous systems and technologies of land and water management.

Table 1. List of present Globally Important Agricultural Heritage System.

Country or Territory	Globally Important Agricultural Heritage System (GIAHS)	Year
Kenya	Oldonyonokie/Olkeri Maasai Pastoralist Heritage	2011
Tanzania	Engaresero Maasai Pastoralist Heritage Area	2011
Tanzania	Shimbwe Juu Kihamba Agro-forestry Heritage Site	2011
Bangladesh	Floating Garden Agricultural Practices	2015
China	Kuancheng Traditional Chestnut Eco-Planting System in Hebei Province	2023
China	Tongling White Ginger Plantation System in Anhui Province	2023
China	Xianju Ancient Chinese Waxberry Composite System in Zhejiang Province	2023

China	Qingyuan Forest-Mushroom Co-culture System in Zhejiang Province	2022
China	Ar Horqin Grassland Nomadic System in Inner Mongolia	2022
China	Anxi Tieguanyin Tea Culture System	2022
China	Shexian Dryland Stone Terraced System	2022
China	Rice Terraces in Southern Mountainous and Hilly areas	2018
China	Xiajin Yellow River Old Course Ancient Mulberry Grove System	2018
China	Diebu Zhagana Agriculture-Forestry-Animal Husbandry Composite System	2017
China	Huzhou Mulberry-dyke and Fish Pond System	2017
China	Jasmine and Tea Culture System of Fuzhou City	2014
China	Xinghua Duotian Agrosystem	2014
China	Jiaxian Traditional Chinese Date Gardens	2014
China	Kuaijishan Ancient Chinese Torreya	2013
China	Aohan Dryland Farming System	2012
China	Pu'er Traditional Tea Agrosystem	2012
China	Dong's Rice Fish Duck System	2011
China	Hani Rice Terraces	2010
China	Wannian Traditional Rice Culture	2010
China	Rice Fish Culture	2005
India	Kuttanad Below Sea Level Farming System	2013
India	Koraput Traditional Agriculture	2012
Islamic Republic of Iran	Ancient Traditional Gardens of Qazvin Bāghestān	2023
Islamic Republic of Iran	Traditional Walnut Agricultural System in Tuyserkan, Hamedan Province	2023
Islamic Republic of Iran	Estahban Rainfed Fig Orchards Heritage System, Fars Province	2023
Islamic Republic of Iran	Grape Production System in Jowzan Valley	2018
Islamic Republic of Iran	Qanat-based Saffron Farming System in Gonabad	2018
Islamic Republic of Iran	Qanat Irrigated Agricultural Heritage Systems, Kashan	2014
Jammu and Kashmir	Saffron Heritage of Kashmir	2011
Japan	Fallen Leaves Compost Agroforestry System in Musashino Upland, in the peri-urban area of Tokyo	2023
Japan	Integrated Farming System for Harmonizing People and Cattle in the Mikata District	2023
Japan	Fruit Cultivation System in Kyoutou Region, Yamanashi	2022
Japan	Biwa lake to land integrated system	2022

Japan	Traditional Wasabi Cultivation in Shizuoka	2018
Japan	Nishi-Awa Steep Slope Land Agriculture System	2018
Japan	Osaki Kôdo's Traditional Water Management System for Sustainable Paddy Agriculture	2017
Japan	Kunisaki Peninsula Usa Integrated Forestry, Agriculture and Fisheries System	2013
Japan	Takachihogo-Shiibayama Mountainous Agriculture and Forestry System	2015
Japan	Minabe-Tanabe Ume System	2015
Japan	Ayu of the Nagara River System	2015
Japan	Managing Aso Grasslands for Sustainable Agriculture	2013
Japan	Traditional Tea-grass Integrated System in Shizuoka	2013
Japan	Sado's Satoyama in Harmony with Japanese Crested Ibis	2011
Japan	Noto's Satoyama and Satoumi	2011
Philippines	Ifugao Rice Terraces	2011
Republic of Korea	Jeju Haenyeo Fisheries System	2023
Republic of Korea	Sonteul (hand net) Fishery System for gathering Marsh Clam in Seomjingang River	2023
Republic of Korea	Damyang Bamboo Field Agriculture System	2020
Republic of Korea	Geumsan Traditional Ginseng Agricultural System	2018
Republic of Korea	Traditional Hadong Tea Agrosystem in Hwagae-myeon	2017
Republic of Korea	Jeju Batdam Agricultural system	2014
Republic of Korea	Traditional Gudeuljang Irrigated Rice Terraces in Cheongsando	2014
Sri Lanka	The Cascaded Tank-Village System in the Dry Zone of Sri Lanka	2017
Thailand	Thale Noi Wetland Pastoral Buffalo Agro-ecosystem	2022
Andorra	The subalpine pastures of Andorra	2023
Austria	Traditional Hay milk Farming in the Austrian Alpine Arc	2023
Italy	Olive Groves of the Slopes between Assisi and Spoleto	2018
Italy	Soave Traditional Vineyards	2018
Portugal	Barroso Agro-sylvo-pastoral System	2018
Spain	Agrosilvopastoral system Mountains of León	2022
Spain	Historical Irrigation System at l'Horta de València	2019
Spain	The Agricultural System Ancient Olive Trees Territorio Sénia	2018

Spain	The Agricultural System of Valle Salado de Añana	2017
Spain	Malaga Raisin Production System in La Axarquía	2017
Brazil	Traditional Agricultural System in the Southern Espinhaço Range, Minas Gerais	2020
Chile	Chiloé Agriculture	2011
Ecuador	Andean chakra: an ancestral agricultural system of Kichwas Cotacachi Communities	2023
Ecuador	Amazonian Chakra, a traditional agroforestry system managed by Indigenous communities in Napo province	2023
Mexico	Ich Kool: Mayan milpa of the Yucatan peninsula	2022
Mexico	Chinampa system in Mexico	2017
Peru	Andean Agriculture	2011
Algeria	Ghout Oasis system El Oued	2011
Egypt	Siwa Oasis	2016
Morocco	The ksour of Figuig: oasis and pastoral culture around the social management of water and land	2022
Morocco	Argan-based agro-sylvo-pastoral system within the area of Ait Souab-Ait and Mansour	2018
Morocco	Oases System in Atlas Mountains	2011
Tunisia	Ramli agricultural system in the lagoons of Ghar El Melh	2020
Tunisia	Hanging gardens from Djebba El Olia	2020
Tunisia	Gafsa Oases	2011
United Arab Emirates	Al Ain and Liwa Historical Date Palm Oases	2015

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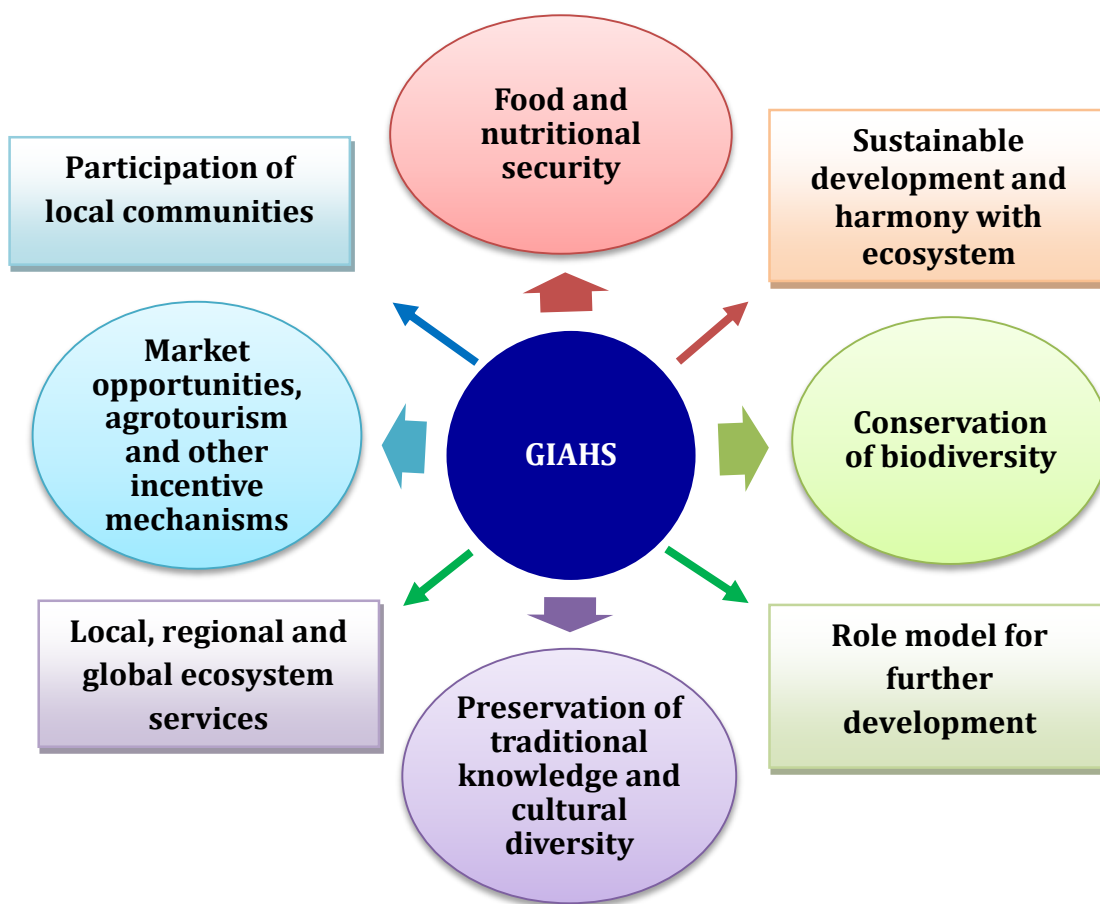


Figure 1. Globally Important Agricultural Heritage Systems