



Frequently Asked Questions

Globally Important Agricultural Heritage Systems (GIAHS) Initiative

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This information material (FAQs about the GIAHS Initiative¹)

is for all those who would like to know more about GIAHS Initiative and for all those who would like to contribute to answering the many questions pertaining to a holistic approach such as an initiative like the global GIAHS project.

How can we reconcile the objective of development with that of maintaining a high level of agricultural biodiversity and the solid ecological, economic, social, and technical sustainability of natural resources management in the face of growing globalization and climate change/variability? What is "dynamic conservation" and how can it be judged? The five assets: natural capital, social capital, human capital physical capital and financial capital of rural systems as the basis of GIAHS? What are the factors that most frequently form the basis of sustainable land management at the rural community level?

This document contains some of the answers to the above questions and readers are invited to contribute to answering the following questions or provide additional explanations. The basic questions and answers are synopsis of the GIAHS concept. More detailed information is available at the GIAHS Project webpage (<http://www.fao.org/sd/giahs/>).

Our Common Heritage

Worldwide, specific agricultural systems and landscapes have been created, shaped and maintained by generations of farmers, herders and forest peoples, based on diverse natural resources, and using locally adapted, distinctive and often ingenious management practices and techniques. Building on traditional knowledge and experience, these Globally Important Agricultural Heritage Systems (GIAHS) embrace rich and globally significant agricultural biodiversity, resilient ecosystems, valuable cultural inheritance, but, above all, in the sustained provision of multiple goods and services, food and livelihood security for millions of small scale, resource-poor farmers and indigenous communities.

Question 1: What does GIAHS stand for and what are GIAHS?

GIAHS stands for "Globally Important Agricultural Heritage Systems":

GIAHS are defined as "Remarkable land use systems and landscapes which are rich in globally significant biological diversity evolving from the co-adaptation of a community with its environment and its needs and aspirations for sustainable development".

This is the current definition, but of course, this definition can be revised further to describe the dynamic nature of GIAHS.

Examples of GIAHS include the following types:

- **Outstanding rice based systems.** This type includes remarkable terraced systems with integrated forest use such as rice terraces and combined agro-forestry and diverse rice-

¹FAQs *about the GIAHS Initiative* is originally prepared as "GIAHS in 20 Questions" - a concept note written by Mr Parviz Koohafkan and some notes from Mr Jean Bedel in 2002. The contents and information was updated by Ms Jane dela Cruz in July 2008.

fish systems with numerous rice and fish varieties/genotypes and other integrated forest, land and water uses, like the rice terraces in south east Asia and the Himalayas.

- **Maize and root crop based agro-ecosystems** developed by Aztecs (Chinampas in Mexico) and Incas in Andes (Waru-Waru around lake Titicaca in Peru and Bolivia), with ingenious micro-climate and soil and water management, adaptive use of numerous varieties of crops to deal with climate variability, integrated agro-forestry and rich resources of indigenous knowledge and associated cultural heritage.
- **Taro based systems** with unique and endemic genetic resources in Papua New Guinea, Vanuatu, Solomon Islands and other Pacific small islands developing countries.
- **Remarkable pastoral systems** based on adaptive use of pasture, water, salt and forest resources through mobility and herd composition in harsh non-equilibrium environments with high animal genetic diversity and outstanding cultural landscapes. These include highland, tropical and sub-tropical dryland and arctic systems such as Yak based pastoral management in Ladakh, high Tibetan plateau, India and parts of Mongolia; Cattle and mixed animal based pastoral systems, such as of the Maasai in East Africa; and Reindeer based management of tundra and temperate forest areas in Siberia, such as Saami and Nenets.
- **Ingenious irrigation and soil and water management systems** in drylands with a high diversity of adapted species (crops and animals) for such environments: ancient underground water distribution systems (Qanat) allowing specialised and diverse cropping systems in Iran, Afghanistan and other central Asian countries with associated homegardens and endemic blind fish species living in under-ground waterways; and integrated oases in deserts of North Africa and the Sahara, traditional valley bottom and wetland management, e.g. in Lake Chad, Niger river basin and interior delta (e.g. floating rice system) and other ingenious systems in pays Bamileke (Cameroon), Dogon (Mali) and Diola (Senegal).
- **Complex multi-layered homegardens**, with wild and domesticated trees, shrubs and plants for multiple foods, medicines, ornamentals and other materials, possibly with integrated agro-forestry, swidden fields, hunting-gathering or livestock, such as homegarden systems in China, India, the Caribbean, the Amazon (Kayapó) and Indonesia (e.g. East Kalimantan and Butitingui).
- **Hunting-gathering systems**, such as harvesting of wild rice in Chad and honey gathering by forest dwelling peoples in Central and East Africa.

Based on these classification of agricultural heritage, a number of systems is being piloted for dynamic conservation, these are:

- Andean agriculture - Peru
- Chiloé agriculture - Chile
- Ifugao rice terraces – the Philippines
- Rice –fish system – China
- Oases of the Maghreb – Algeria and Tunisia
- Maasai Pastoralism – Kenya and Tanzania

Question 2: When was GIAHS concept formulated?

FAO presented GIAHS as a Partnership Initiative at the occasion of World Summit on Sustainable Development (WSSD, Johannesburg, 2002) and benefited from Project Development Facility (PDF) of the Global Environmental Facility (GEF) for initial conceptualization of GIAHS and subsequent funding of the Full Scale Project Implementation. Main partners include UNESCO, CBD, UNU, IFAD,

IUCN, UNDP, The Christensen Fund, Bioversity International, the Federal Republic of Germany, and governments of the pilot countries.

Question 3: What is the goal and objectives of the GIAHS Initiative?

GIAHS is a Partnership Initiative, aims to establish the basis for global and national recognition, dynamic conservation and sustainable management of agricultural heritage systems and their associated biodiversity, knowledge system and culture.

The fundamental aim of GIAHS Initiative is development, in the sense of improving income capacity, well-being and outlook of the local communities, especially as regards young generation, instilling pride and identity on their own agricultural heritage, knowledge systems and culture.

But the kind of development GIAHS Initiative hopes to encourage is not development at any cost. It also promotes maintenance and conservation of a high level of goods and services derived from the ecosystem, of supported endogenous tried and tested ways of natural resource management (which have already proved their sustainability, based on a wide array of diversity and highly ingenious management practices.

International recognition is not the main objective of the GIAHS Initiative, but it is a way of further ensuring continuity of the support work and funding in aid of these remarkable systems.

Question 4: What are the intervention strategies of the GIAHS Initiative?

In order to provide systematic support to the conservation and adaptive management of GIAHS, the chosen project strategy is to make interventions at three distinct levels:

1. At the **Global level:** it will facilitate international recognition of the concept of GIAHS wherein globally significant agricultural biodiversity is harboured, and it will consolidate and disseminate lessons learned and best practices from project activities at the pilot country level.
2. At the **National level:** in pilot countries, the project will ensure mainstreaming of the GIAHS concept in national sectoral and inter-sectoral plans and policies.
3. At the **Local/Site level:** in pilot countries, the project will address conservation and adaptive management at the community level.

Question 5: What is dynamic conservation approach?

The term "agricultural heritage" in GIAHS acronym is sometimes misunderstood by many readers as for creation of museum. The Initiative does not promote creation of museums nor aim to maintain unchanged the existing landscape and natural resource management methods. On the contrary, GIAHS Initiative supports enhancement and capacity development of the local communities and indigenous peoples to react to ecological, economic, social, and cultural changes using endogenous mechanisms. For these reasons, GIAHS Initiative is promoting "dynamic conservation of living and evolving agricultural systems", through:

- Conservation without fossilization;
- Strengthening "what is there", the human management systems and cultures that underpin the sustainability and resilience of GIAHS;
- Improving people's livelihoods and viability;
- Farmer centred, proactive participation and community driven;

- Creating better policy and options for regulatory environments and incentive structures at all levels;
- Integrating indigenous knowledge and wisdom with the modern agro-ecological knowledge for effective natural resources management;
- Enhancing viability and risk-aversion;
- Synergizing local-level activities and enabling policy and legal environments that provide incentives and share benefits; and
- Bring about the recognition of these systems at the regional, national and international level, in particular of the capacity of these systems to satisfy the needs of the populations concerned, the biodiversity of global significance, the quality landscapes that they produce, constitute an essential contribution to the world's agricultural heritage.

Question 6: How is GIAHS initiative trying to achieve both its development and sustainability goals in the face of globalization and global climate change/variability?

GIAHS supports local small holder/traditional family farming communities and indigenous peoples who are pro dynamic progress as regards managing the five types of rural assets.

The idea of « **supporting** » should be understood in the sense of accompanying the initiatives taken by the local small holders/traditional family farming communities and indigenous peoples – not in the sense of substituting them or taking decisions on their behalf.

In the face of growing climate change/variability, growth in food and agricultural production would need:

- 1) sustainable intensification and diversification
- 2) environmental and friendly technologies
- 3) maximizing resource use and efficiency

Given this, GIAHS Initiative promotes an "**adaptive management**" approach to explore and develop novel social, economical and governance processes that strengthen the existing livelihood and management practices that generate sustainable agriculture and rural development – that is, enhance the ecosystem goods and services and provide other globally important outcomes such as cultural diversity and indigenous knowledge systems. Thus, the development processes may be different from the ones presently promoted and contain new and modern elements that maintain the functionalities and principal values of these agro-ecosystems. The GIAHS Initiative ultimately, assist the traditional and family farming communities living in and around GIAHS, to establish strengthened socio-political (governance) and economic processes (eco-tourism, niche markets and new employment opportunities) that help them address the challenges of globalization and let them to take advantage of the opportunities of modern living, while at the same time maintaining the agro-ecosystems of global importance.

Question 7: What do we mean by five assets of rural systems?

GIAHS will try to be consistent in its approach which distinguishes five assets of rural systems, defined as follows:

Natural capital: nature's goods and services (waste assimilation, pollination, storm protection, water supply, wildlife)

Human capital: skills, knowledge, capability to work, and health. At the level of the production unit it is the work available in a quantity and of a quality that mainly depends on health.

Social capital: vertical (benefactor/beneficiary) and/or horizontal (between people sharing the same interests) networks that increase people's capacity for working together and can facilitate access to larger institutions (in particular political institutions). Social capital also includes relationships of trust which can reduce transaction costs and serve as a basis for informal credit and/or solidarity networks. Solid groups from civil society can help influence political decision-makers and guarantee that their interests will be taken into account in legislation;

Physical capital: infrastructure i.e. changes made to the physical environment to enable people to satisfy their basic needs and to be more productive (mainly tools). Infrastructure includes roads, markets, housing and work buildings, water supplies and sanitary systems, and equipment for accessing information;

Financial capital: financial resources that people use such as savings and regular money income.

Question 8: What are the criteria for judging adaptive management and dynamic progress?

Current thinking suggests the following criteria for judging adaptive management and dynamic progress:

- A production systems that meet the essential food requirements of the rural families and even produce surpluses to be sold on external markets,
- A high level of livestock and crop diversity for both wild species and, above all, for cultivated species (cultivars and races of domestic animals). This biodiversity must not be judged only by the number of species (quantitative biodiversity) but also by the endemic or rare nature of certain species (qualitative biodiversity).
- Resiliency against climatic risks, this resistance or ability to restore has been acquired with the ingenious and patient work of the farmers concerned. This is the result of continuous knowledge building based on local experience and skills which result to minimized effects of the most severe local climate constraint (droughts, waterlogging of the soil, seasonal crop/livestock infestation, etc);
- Certain flexibility in natural resource management and landscape management systems to allow permanent changes to be made to take into account the economic parameters and the development of local social structures (balance of power between the social groups involved, de-localisation, de-valorisation of socio-culture, large-scale immigration, etc.).
- Agricultural and production systems, one of the characteristics of which is a rich, diversified, pertinent and ingenious set of local knowledge and skills.

GIAHS initiative as an international Initiative, considers that progress has been made if it sees an improvement in meeting food security requirements, enhanced agricultural biodiversity, greater resilience, maintenance of ecosystems goods and services.

Question 9: At the rural community level, what are the factors that are most frequently at the base of the sustainable management of land and natural resources?

To be sustainable, management of the land within community territory must be based on a wide social consensus on the ways to access natural resources (and land) and on how land will be allocated. It is the community and the community alone that must be responsible for decisions and indispensable collective actions to ensure the continuity of the management efforts made by individuals (farmers, herders, fishermen, hunters and gatherers, etc.). Individual practices for exploiting natural resources (equipment and management techniques) are part of a consistent and continuing collective system piloted by the community as a whole.

Furthermore, the community must be well aware that natural resources are fragile and that they can be exhausted and it must demonstrate its firm intention to ensure sustainable management and be a «good father» to the resources within its territory:

It is crucial that the community has a sense that it is:

- A community with a destiny: the men and women living in the community must feel responsible for the future of the natural resources within their territory;
- A community with a clearly defined territory. The community feels involved in what goes on within its territorial limits. These limits must be recognized by neighbouring communities so as not to create conflict which is highly prejudicial to sustainable methods of natural resource use. This sense of responsibility could be termed as a sense of heritage.

The State cannot replace the local and traditional family farming communities' determination to act.

Question 10: Why intervene in situations where the people concerned are already practicing ingenious and sustainable land and natural resource management techniques?

International cooperation organizations working in developing countries usually intervene in:

- Emergency situations (natural catastrophes especially drought, wars resulting in the displacement of people who become refugees, accepted to a greater or lesser extent in the receiving countries, etc.);
- Situations where there has been serious degradation of the natural resources, with the aim of rehabilitating the soil by various means with a certain degree of help from the local people who, if asked to participate, will usually do so especially when they receive food aid in exchange;
- When the actions most frequently involve sectorial projects (reforestation, cash crop production, intensification of agricultural production, creation or rehabilitation of an irrigated area, rehabilitation of a protected area, water and soil conservation, etc.). In recent years we have been able to witness a movement towards greater pluridisciplinarity and a better understanding of the needs and desires of local peoples. This is particularly true for land management projects, natural resource management projects, and local development projects. But these projects are often run in difficult situations, where unsuitable practices have undermined the production capacity of the local environment and where the people concerned find themselves in increasingly precarious conditions.

We may certainly wonder why it is necessary to intervene in situations where things are going rather well! Nevertheless, these systems are often threatened by numerous elements which may vary from one situation to another. Examples of development drivers and challenges are:

- population and urbanization
- natural resources and climate change (mitigation and adaptation)
- science and technology
- markets and commercialization
- policies out of step and institutions
- information and knowledge
- globalization and migration
- land degradation

Question 11: What kinds of local partners will GIAHS work with?

As with most of the Initiatives run by agencies of the United Nations, GIAHS Initiative collaborates and work with national governments as lead national focal institutions and with proactive participation of the local and national organizations with stake to GIAHS, such as local civil society organizations, traditional authorities, youth organization, women's organization, research and academes, producer groups and cooperatives, truly representative professional agricultural organizations, and more importantly, the local farming communities. There is no limit as to how many stakeholders or organization the GIAHS Initiative will work. Since it is a Global Partnership Initiative, it encourages multi-stakeholder, participatory and bottom up, integrated across sectors and enhances positive externalities and reduces negative externalities.

Question 12: What are good policies for dynamic conservation of GIAHS and sustainable agriculture and rural development?

- Be centred on people and based on rights
- Adopt an integrated, territorial perspective
- Redress power disparities through good governance
- Build capacity to manage and adapt change
- Build self-reliant institutions at local and national levels
- Reorient development policies at the national level
- Realize a new international economic order at the global level

Question 13: What are the advantages of using traditional agricultural knowledge systems?

There are advantages and reasons why traditional agricultural knowledge systems are desirable than any of the modern technologies, as follows:

- knowledge-based and draws on local resources
- provides effective alternatives to western know-how
- mainly qualitative and experiential
- has an intuitive component
- holistic
- spiritually based on a distinct cosmology
- incorporates a local ethic and social values
- based on empirical observations and accumulation of facts by trial and error
- based on data generated by resource users themselves
- based on long-time data series on one location

Question 14: How are the GIAHS sites and candidate systems chosen?

Based on the above examples or classification of GIAHS, there are a number of criteria and guidelines that must be met. Selection of GIAHS is made based on various criteria, some of the major criteria for selection, are as follows:

Systems criteria:

1. systems ingenuity and remarkability
2. outstanding characteristics (biodiversity and ecosystem functioning; landscape and land and water resource management characteristics; food and livelihood security; social organisation and culture; knowledge systems and farmers' unique technologies including cosmovisions and associated value systems)
3. proved history of sustainability (economic viability and sustainability; adaptive capacity, human-ecological sustainability)
4. global significance

Contextual criteria:

5. representation
6. external threats
7. policy and development relevance

Project implementation criteria:

8. project integration: country eligibility (FAO member countries) and country driven-ness
9. co-finance potential: endorse by the Government
10. project approach

Detailed description of the criteria and guidelines can be browsed at the [GIAHS webpage](#).

Question 15: Will GIAHS Initiative work on sites in industrialized countries?

GIAHS Initiative does not exclude industrialized and well developed countries, however, for the purpose of granting financial resources, only developing countries and FAO member states are eligible.

In countries with a long agricultural systems tradition such as Japan and European countries, there are numerous «**constructed landscapes, cultural heritage, sacred landscapes**», which qualifies for GIAHS designation and recognition. GIAHS Initiative is working for technical collaboration on these sites and systems and would promote exchange of information, sharing of experiences and lessons learned from their landscapes and heritage management.