Food and Agriculture Organization of the United Nations

Globally Important AGRICULTURAL HERITAGE Systems

GIAHS Designation: Potential and Challenges

International Seminar on Globally Important Agricultural Heritage Systems and Sustainable Development Goals: Pathways to Cooperation

International Forum Relevant Territories for a Sustainable Food Systems

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Disadvantageous Conditions
Fragile Ecosystems: Limited Natural Resources:
Extreme Climate Conditions: Geographic Isolation
Farmers' Attempts for Overcoming Difficulties
Farmers' Wisdom for Skillful Resource Uses (crop yield increase, etc.)
Remarkable and Unique Agricultural Systems with Global Value = GIAHS
Food and livelihood security
Enriched Agro-biodiversity
Local and Traditional Knowledge Systems
Cultures, value systems, social organizations
Remarkable Landscapes and Seascapes Features
GIAHS Selection Criteria

Five Criteria for GIAHS Designation

1. Food and livelihood security

The proposed agricultural system contributes to food and/or livelihood security of local communities.

2. Agro-biodiversity

Agricultural biodiversity, as defined by FAO as the variety of animals, plants and micro-organisms that are used directly or indirectly for food and agriculture, including crops, livestock, forestry and fisheries.

3. Local and Traditional Knowledge systems

Maintain local and invaluable traditional knowledge, ingenious adaptive technology and management systems of natural resources, including biota, land, water which have supported agricultural

4.Cultures, value systems and social organisations

Cultural identity and sense of place/Social organizations, value systems and cultural practices associated with resource management and food production

5. Landscapes and Seascapes Features

GIAHS sites represent landscapes or seascapes that have been developed over time through the interaction between humans and the environment, and appear to have stabilized or to evolve very slowly

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57 sites in 21 countries

Countries	Name of sites/systems	Year
Algeria	Ghout System (Oases of the Maghreb)	2011
Bangladesh	Floating Garden Agricultural Practices	2015
Chile	Chiloé Agriculture	2011
China	Rice Fish culture	2005
	Wannian Traditional Rice Culture	2010
	Hani Rice Terraces	2010
	Dong's Rice Fish Duck System	2011
	Pu'er Traditional Tea Agrosystem	2012
	Aohan Dryland Farming System	2012
	Kuajishan Ancient Chinese Torreya	2013
	Urban Agriculture Heritage - Xuanhua Grape Garden	2013
	Jiaxian Traditional Chinese Date Gardens	2014
	Xinghua Duotian Agrosystem	2014
	Fuzhou Jasmine and Tea Culture System	2014
	Diebu Zhagana Agriculture-Forestry-Animal Husbandry Composite System	2017
	Zhejiang Huzhou Mulberry-dyke & Fish-pond System	2017
	Traditional Mulberry System in Xiajin's Ancient Yellow River Course	2018
	Rice Terraces in Southern Mountainous and Hilly Areas, China	2018
Egypt	Dates production System in Siwa Oasis	2016
India	Saffron Heritage of Kashmir	2011
	Koraput Traditional Agriculture	2012
	Kuttanad Below Sea Level Farming System	2013
Islamic Republic of Iran	Qanat Irrigated Agricultural Heritage Systems, Kashan	2014
	Grape Production System in Jowzan Valley	2018
	Qanat-based Saffron Farming System in Gonabad	2018
Italy	Olive groves of the slopes between Assisi and Spoleto	2018
	Soave Traditional Vineyards	2018
Japan	Noto's Satoyama and Satoumi	2011
	Sado's Satoyama in Harmony with Japanese Crested Ibis	2011
	Managing Aso Grasslands for Sustainable Agriculture	2013
	Traditional Tea-grass Integrated System in Shizuoka	2013
	Kunisaki Peninsula Usa Integrated Forestry, Agriculture and Fisheries System	2013
	Ayu of the Nagara River System	2015
	Minabe-Tanabe Ume System	2015
	Takachihogo-Shiibayama Mountainous Agriculture and Forestry System	2015
	Osaki Kodo's traditional water management system for sustainable paddy agriculture	2017
	Nishi-Awa Steep Slope Land Agriculture System	2018
	Traditional Wasabi Cultivation in Shizuoka	2018
Kenya	Oldonyonokie/Olkeri Maasai Pastoralist Heritage	2011
Kingdom of Morocco	Oases System in Atlas Mountains (Oases of the Maghreb)	2011
	Argan-based agro-sylvo-pastoral system within the area of Ait Souab-Ait and Mansour	2018
Mexico	Chinampas Agricultural System in Mexico City	2017
Peru	Andean Agriculture	2011
Philippines	Ifugao Rice Terraces	2011
Portugal	Barroso Agro-Sylvo-Pastral System	2018
Republic of Korea	Traditional Gudeuljang Irrigated Rice Terraces in Cheongsando	2014
	Jeju Batdam Agricultural System	2014
	Traditional Hadong Tea Agrosystem in Hwagae-myeon	2017
	Geumsan Traditional Ginseng Agricultural System	2018
Spain	Malaga Raisin Production System in Axarquia	2017
	Salt production system of Añana	2017
	The Agricultural System Ancient Olive Trees Territorio Sénia	2018
Sri Lanka	The Cascaded Tank-Village System in the Dry Zone of Sri Lanka	2017
Tanzania	Engaresero Maasai Pastoralist Heritage Area	2011
	Shimbue Juu Kihamba Agroforestry Heritage Site	2011
Tunisia	Gafsa Oases (Oases of the Maghreb)	2011
UAE	Al Ain and Liwa Historical Date Palm Oases	2015

Case 1: Floating Garden in Bangladesh

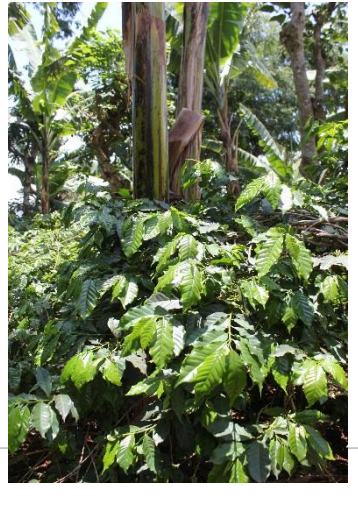
- Use invasive plants and other organic material to produce the floating bed-garden
- Multi-crop production and use of the degraded floating bed as fertilizer
- Require low energy input

Result of adaptation by the farmers to the floods and arable land pressure

Case 2: Agroforestry on the slope of Mt. Kilimanjaro

- Mix cropping system featured with several layers of vegetation
  - Endemic timbers, banana, coffee/fruit trees as well as staple crops

Provide sun shades and micro-climate for favourable conditions to all crop production and soil management



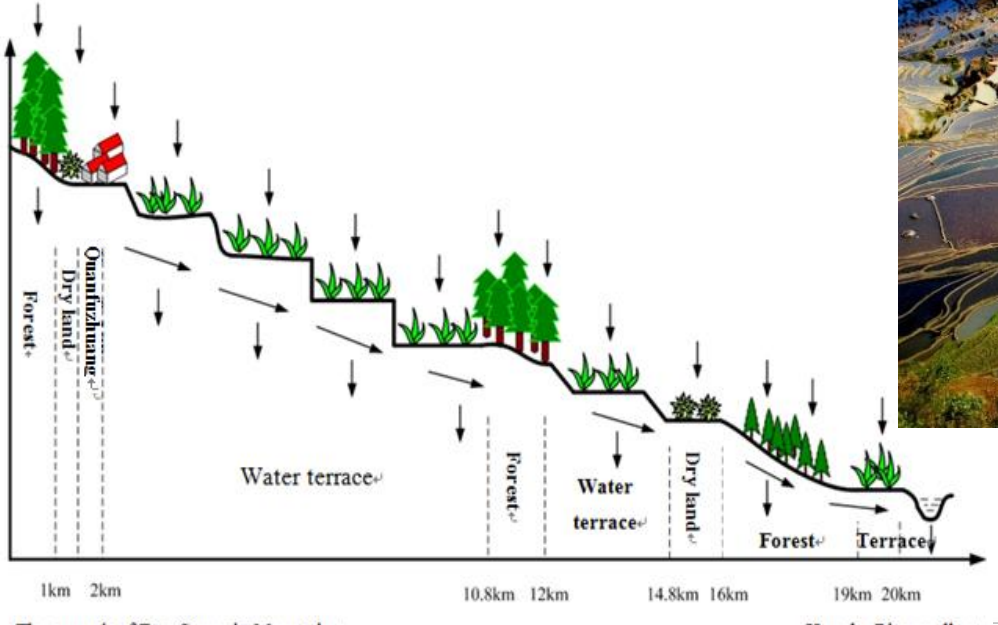
Case 3:Maasai Pastoral System: Kenya and Tanzania

- Ingenious local traditional knowledge includes;
  - Rain fall and pasture growth pattern
  - Types of grass to be used for feeding different kinds of animals (cattle, sheep, goat, etc.) and for other uses (such as medicine)
  - Sustainable use of natural pasture
  - Movement of wild animals
  - Animal breeding

Case 4: Hani Rice Terrace (China)

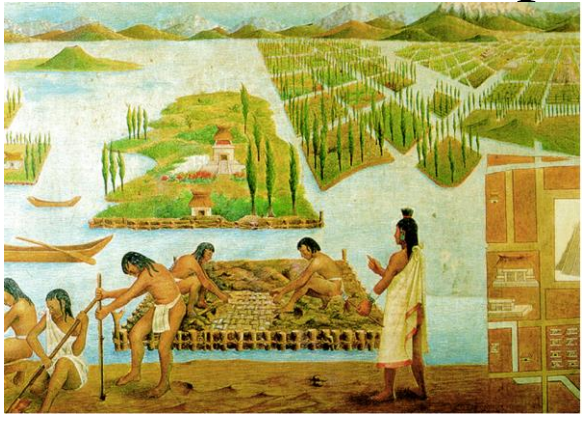
- Magnificent landscape
- Land management with integration of forests, habitations and rice paddy fields = highly adapted water management in dry season threatened area
- Maintenance of locally adapted rice varieties

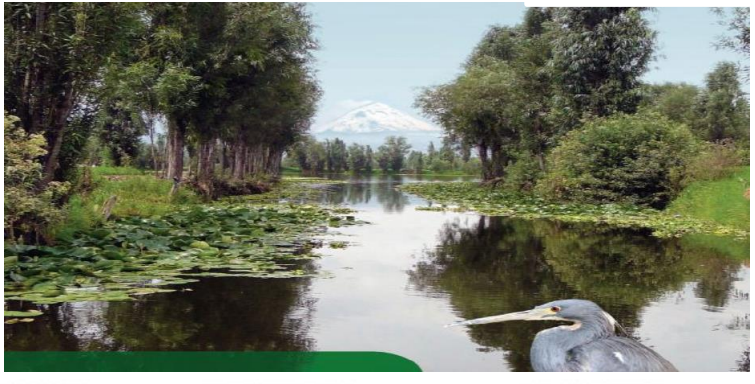
Adaptation to harsh dry season and mountainous areas into highly productive and sustainable production system

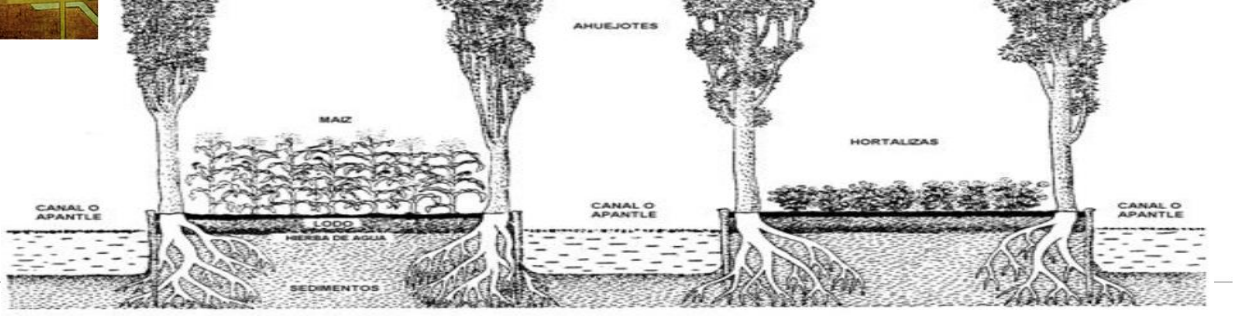

Forest
Quanfuzhuang
Dry land
Water terrace
Forest
Water terrace
Dry land
Forest
Terrace
1km 2km
10.8km 12km
14.8km 16km
19km 20km
The summit of East Guanyin Mountain
Honghe River valley

Case 5: Salt Production System of Añana, Basque Country, Spaın

Case 6: Chinampas in Mexico



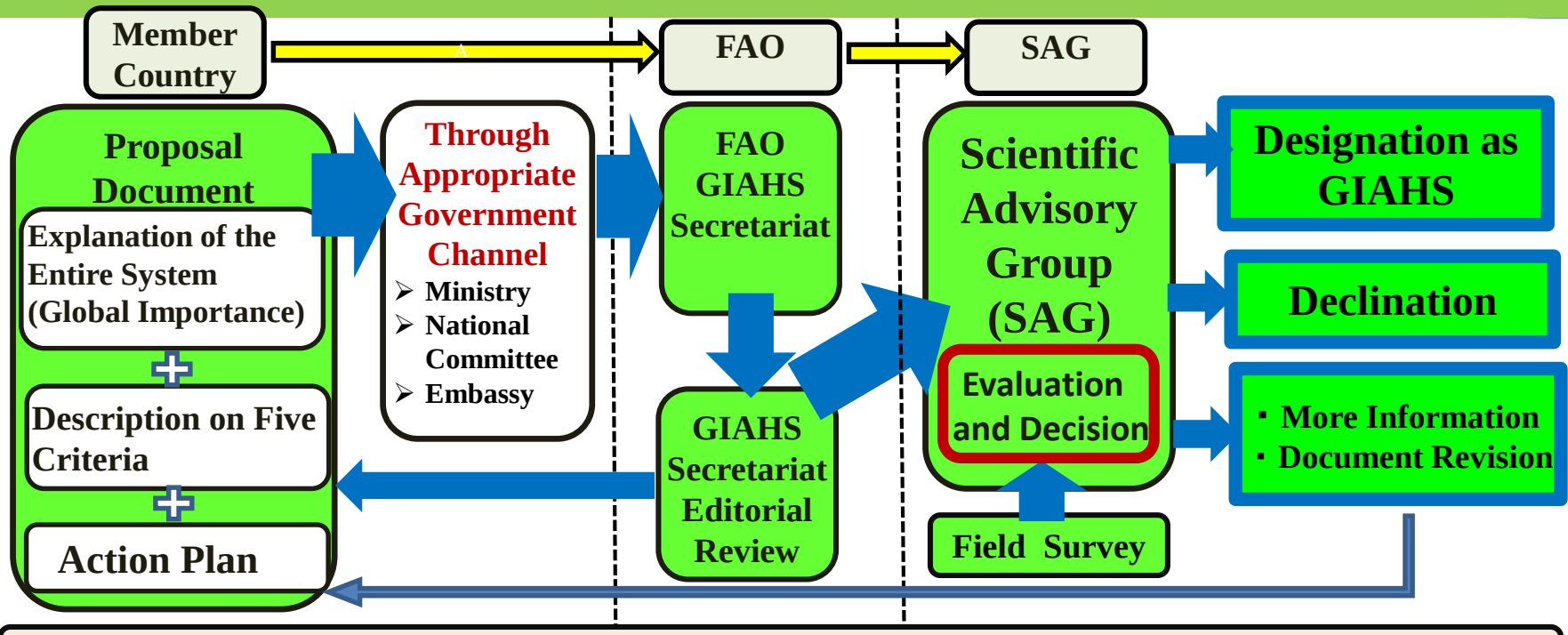




Case 7: Agro-biodiversity in Chiloe Island (Chile) and Andean Agriculture (Cusco-Puno Corridor, Peru)

- Many endemic varieties of potatoes, garlic and sheep
- Unique Andean crops maintained with traditional technologies
- Famers' long term efforts for risk reduction against fluctuation of climate conditions
- Contribution to food security and biodiversity conservation

GIAHS Designation Process



Application Template/Criteria/Guidelines for GIAHS Designation Procedures

Scientific Advisory Group (SAG)

Region	Country	Name	Title and Institute/Office/University/Ministry
Africa	Kenya	Helida Oyieke	Chief Research Scientist at National Museums of Kenya
Asia/Pacific	China	Min Qing Wen	Professor of Center for Natural and Cultural Heritage Institute of Geographic Sciences and Natural Resources Research, CAS
Asia/Pacific	Japan	Kazuhiko Takeuchi	Senior Vice-Rector of United Nations University (Tokyo)
Europe	Italy	Mauro Agnoletti	Associate Professor of University of Firenze
Latin America and Caribbean	Brazil	Patricia Goulart Bustamante	Researcher of EMBRAPA (Brazilian Agricultural Research Corporation)
Near East	Tunisia	Slim Zekri	Associate Professor, Head of the Department of Natural Resource Economics, College of Agricultural & Marine Sciences, Sultan Qaboos University
North America	Canada	Anne MacDonald	Professor in Sophia University Graduate School of Environmental Studies (Japan)

What GIAHS Programme aims at?

These systems are threatened by;

- **Social, cultural, environmental, economic changes (modernization, globalization, market economy)**
- **Accelerated process of Urbanization**
- **Neglect of diversified systems and local knowledge**
- **Low community involvement in decision-making**
- **Inappropriate policy, legal and incentive frameworks**

Designation as GIAHS

Dynamic Conservation

Dynamic Conservation

- Farmers, Local Communities
- National and local Government
- NGOs, Local Business Societies
- Academia, Researchers

Making Action Plan for Dynamic Conservation

All possible Measures for Dynamic Conservation

- New Measures
- On-Going Measures

Action Plan Implementation

Conservation of Core Elements of GIAHS

- Adaptation to the Contemporary Conditions
- Development

FAO technical support/advice

Monitoring

Evaluation

Correction

Possible Measures for Dynamic Conservation and their Expected Impacts

1. Dissemination of GIAHS and the GIAHS site
2. Awareness Enhancement of the GIAHS site values
3. Establishment of Framework for Action Plan Implementation
4. Improvement of Agricultural Resources and Infrastructures
5. Enhanced participation of rural residents in decision making process
6. Empowerment of women in the rural community
7. Promotion of Agrobiodiversity and Sustainable Use of Genetic Resources
8. Sales Promotion of the Agricultural Products
9. Promotion of tourism/cultural activities/local cuisine/exchange programme

Expected Impacts

Positive mind set changes of local farmers

Promotion of agricultural production in the site

Increased Incomes and welfare of family famers

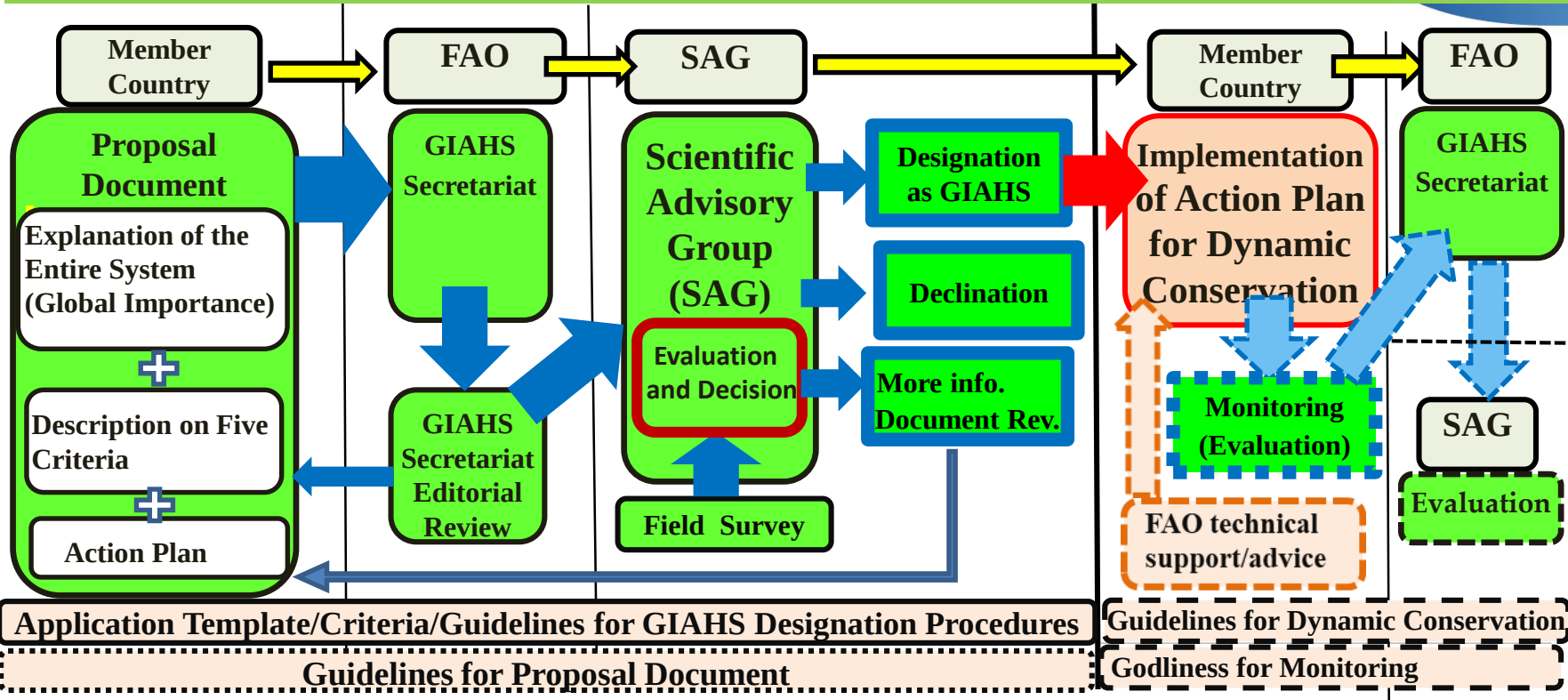
Enhanced Values of agricultural products

Conservation of agrobiodiversity/biodiversity

Further promotion of harmonization of agriculture with the environment

Development of value changes for GIAHS site farmers

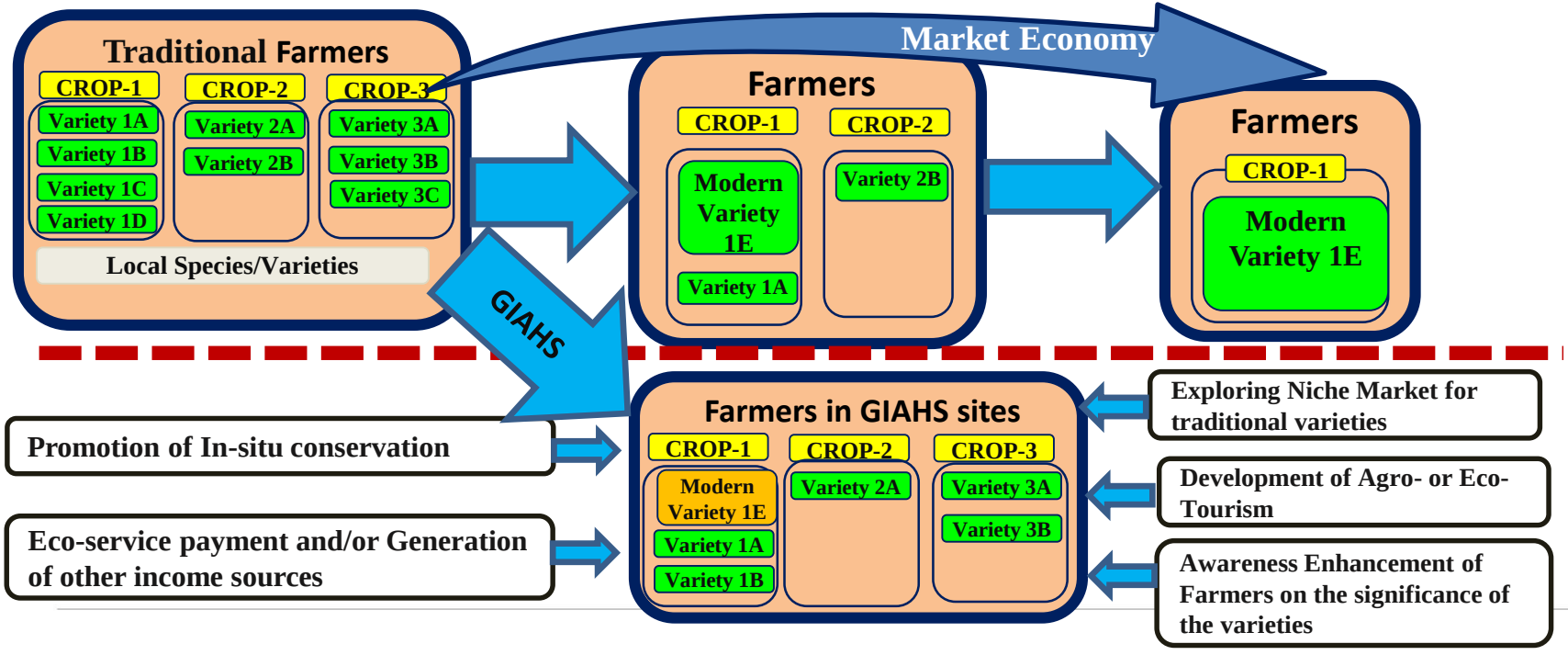
Challenges: The Entire GIAHS Operational Framework



Possible Measures of Action Plan

1. Dissemination of GIAHS and the GIAHS site
2. Awareness Enhancement of the GIAHS site values
   (mind set changes of farmers and local community)
3. Establishment of Framework for Action Plan Implementation
4. Improvement of Agricultural Resources and Infrastructures
5. Enhanced participation of rural residents in decision making process
6. Empowerment of women in the rural community

7. Promotion of Agrobiodiversity and Sustainable Use of Genetic Resources



8. Sales Promotion of the Agricultural Products

Marketing Strategy: Branding, Labelling, Quality improvement

<Examples of Designs of Voluntary Labelling in some GIAHS sites>

Development of Niche-market

Establishment of value-chain to involve farmers (e.g., famers market)

Market Values of Agricultural Products from GIAHS sites–Attempts for Comparison with GI

Market Values Arising from GI

Example

- Parmgiano Reggiano
- Radiccio Rosso in Treviso

- Uniqueness linked with the geographic conditons and histroy
- Guranteed Quality due to Well-Managed Produciton Process/Methods
- Scaricity due to the limited production area
- Positive Impacts on Biodiversity and Envirment due to regulated produciton methods

Consumers' recognition and evaluation

Values of Agricultural Products in GIAHS sites

- Positive Impacts on conservation of biodiversity, landscapes, traditional knowledge and cultures
- Scaricity due to to the limited production area

- Traditonal knowledg
- Agrobidiversity
- Culture
- Landscapes
- Histrical Background

Consumers' recognition and evaluation

On the other hand, the current GIAHS System itself does not have the following rules/structures

- Quality Assurance Mechnisms
- Products Coverage Rules
- Common Framework for labeling

9. Promotion of tourism/cultural activities/local cuisine/exchange programme

Background: Effective utilization of the values arising from GIAHS designation to generate income sources for continuation of the agriculture in the site

Promotion of Tourism/Agro-tourism/Eco-tourism/exchange with urban residents

Suggestion: Need for Development of Specific Type of Tourism for GIAHS

- Many types of tours; sightseeing, relaxation, adventure, study tour, ecotour, etc.
- Study tour may be one of the suitable styles of tour for GIAHS.

Caution: Promotion of Tourism should not be the purpose.

- Tourism should not damage agriculture in GIAHS sites

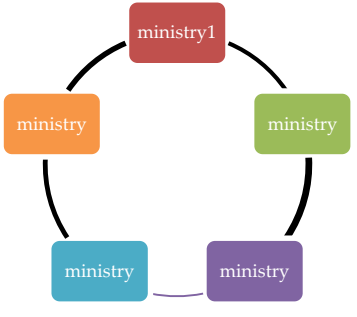
Promotion of cultural events/traditional cuisine/activities in the sites

Nationally Important Agricultural Heritage Systems (NIHAS)

- **Several countries established NIAHS (China, Japan, Korea, Ecuador);**
- **Some countries (Chile) are planning to introduce it;**
- **NIAHS is useful to draw national attention of sustainable agriculture, traditional knowledge, agroecology and agrobiodiversity.**

GIAHS National Committee

- Several countries have established GIAHS National Committee as a management body of GIAHS activities, consisting of such bodies as;
  - Relevant ministries
  - Research institutes
  - Representatives of farmers



- Several countries have established GIAHS Expert Committee to nominate a proposed GIAHS site

Regional Partnership

ERAHS (East Asian Research Association for Agricultural Heritage Systems)

- Association for researchers and other stakeholders in Japan, China and Korea to exchange research activities and other expreices from GIAHS site management
- Since 2014, annual meeting has been held on a rotational basis among three countries.
- GIAHS Secretariat was invited to attend this meeting for the past 3 years.

Thank you!