GIAHS
Globally Important Agricultural Heritage Systems

proceedings

INTERNATIONAL FORUM ON GLOBALLY IMPORTANT AGRICULTURAL HERITAGE SYSTEMS (GIAHS)

THEME: DIALOGUE AMONG AGRICULTURAL CIVILIZATIONS

Beijing, China
9-12 June 2011

Cover photograph:

©FAO/Min Qingwen

GIAHS
Globally Important Agricultural Heritage Systems

proceedings

INTERNATIONAL FORUM ON GLOBALLY IMPORTANT AGRICULTURAL HERITAGE SYSTEMS (GIAHS)

THEME: DIALOGUE AMONG AGRICULTURAL CIVILIZATIONS

Beijing, China
9-12 June 2011

FAO FIAT PANIS

gef
www.theGEF.org

Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz

IFAD
Enabling poor rural people to overcome poverty

Contents

About GIAHS
About the GIAHS Forum
Executive Summary
List of Acronyms

PART I
Opening Session

Welcome Address
Mr Cheng Shengkui
Vice Director, IGSNRR/CAS, China

Ms Yao Xiangjun
Vice Director, Department of International Cooperation, Ministry of Agriculture, China

Mr Percy Wachata Misika
FAO Representative, China

Keynote Address
Hon. Hong Fuzeng
Former Vice Minister, Ministry of Agriculture, China

Hon. Mme Jiang Zehui
Deputy Director of Committee of Population, Resources and Environment, CPPCC; Co-Chair of INBAR Board of Trustees; President of China Eco-Culture Association; Director-General of China Forest Society

Personal Messages
Dr Ahmed Djoghlaf
Executive Secretary, Convention on Biological Diversity (CBD), Canada (video)

Dr M.S. Swaminathan
Chair (and Awardee), MSSRF, Chennai, India

Dr Parviz Koohafkan
Director, Land and Water Division and Global Coordinator for GIAHS, FAO, Rome

PART II
Summaries of Keynote Presentations

Day 1: Values of GIAHS, a basis for food security, sustainable agriculture and rural development

The Dynamic Conservation of the Globally important Agricultural Heritage Systems
Dr Parviz Koohafkan

Director, Land and Water Division and Global Coordinator for GIAHS, FAO, Rome

The significance and extent of GIAHS
Prof. Miguel A. Altieri
University of California,Berkley, USA

Traditional knowledge systems: oases as models for rural landscapes
Pietro Laureano
IPOGEA, Italy

The amazing performance and scientific "secrets" of some traditional agricultural practices in China
Prof. Luo Shiming
South China Agricultural University (SCAU), China

Conservation and management of traditional agricultural systems
Prof Jeremy Eades & Malcolm Cooper
Asia Pacific University, Japan

Cultural landscapes from the World Heritage perspective
Ms Beatrice Kaldun
Programme Specialist for Culture, UNESCO, Beijing

China's Traditional Agri-Culture and the New Countryside Building
Prof. Cao Xingsui
China Agricultural Museum, China

La Agricultura Andina: Peru como patrimonio agricula mundial
Mr Alipio Canahua
Coordinador Nacional SIPAM, Peru

GIAHS: Progress and Perspectives in China
Prof. Min Qingwen
IGSNRR, CAS, China

Oases systems in Morocco mountains
Mr Seddik Saidi
INRA, Morocco

Conservation et Gestion Dynamique des Systèmes Ingénieux du Patrimoines Agricoles Mondial, Cas du Système Oasis Ghouts D'El-Oued Algérie
Mr Achour Adbellatif-Fatah
INRA, Algeria

Outstanding Farming Systems of Global Heritage Importance in Kenya
Mr Philip Ole Sironka
Kenya

Outstanding Farming Systems of Global Heritage Importance in Tanzania: Maasai Pastoralism
Mr Marco Arpakwa
FAO, Tanzania

Outstanding Farming Systems of Global Heritage Importance in Tanzania
Ms Grace Mwaigomole
Ministry of Fisheries and Livestock Development, Tanzania

A Strategy for the identification of Globally Important Agricultural Heritage Systems in Sri Lanka
Prof. Paranavithana Ganila
CECB, Sri Lanka

Saffron Heritage of Kashmir
Prof. Firdos Ahmad Nehvi
HEADS, India

Dong's Rice Fish Duck System
Prof. Min Qingwen
IGSNRR, CAS, China

Day 2: Rural Landscapes and Ecosystem Goods and Services: Opportunities and Challenges

Satoyama and Satoumi Initiatives for Conservation of Biodiversity and Reactivation of Rural Areas in the Noto Peninsula: Kanazawa University's role in GIAHS
Prof. Koji Nakamura
Kanazawa University Japan

Tourism Application of Globally Important Agricultural Heritage Systems (GIAHS): Spotlights from Satoyama landscapes of Japan
Prof. Kazem Vafadari
Asia Pacific University, Japan

Satoyama and Satoumi for GIAHS in Japan
Mr Akira Nagata
Ministry of Agriculture, Forestry and Fisheries, Japan Senior Programme Coordinator, United Nations University Institute of Sustainability and Peace

Ms Anne McDonald
Director, UNU-IAS, Ishikawa/Kanazawa, Japan

Preserving GIAHS through Connecting to the Marketplace: The Role of Branding and Technological Adaptation
Ms Alia Malik
Co-founder Shangrila Farms, China

Day 2: Afternoon Parallel Session

Summary of Open Forum Discussions

Steering Committee Meeting

Day 3: Awarding Ceremony and Closure

Day 4: Field Visit to Potential GIAHS Site: The Xuanhua Traditional Grape Garden

Annexes

1. **Beijing Declaration**
2. **Agenda of the Forum**
3. **List of Participants**

About GIAHS

The dynamic conservation of Globally Important Agricultural Heritage Systems (GIAHS) was conceptualized and introduced during the World Summit on Sustainable Development (WSSD) in 2002 and was registered in the Partnerships for Sustainable Development of the Commission on Sustainable Development (CSD) in 2004. The overall goal of the partnership is to identify, support and safeguard Globally Important Agricultural Heritage Systems and their agricultural biodiversity and associated biodiversity, knowledge systems, landscapes and cultures, through catalyzing and establishing a long-term programme to support such systems and enhance global, national and local benefits derived through their dynamic conservation, sustainable management and enhanced viability.

As an FAO Initiative, it operates through technical cooperation and grants. The first global project involving 6 pilot countries (Algeria, Chile, China, Peru, Philippines and Tunisia) is funded by the Global Environmental Facility (GEF), the second regional project (Kenya and Tanzania) is funded by the Federal Ministry of Food, Agriculture and Consumer Protection (BMELV) of Germany, and additional grants involving Morocco, India and Sri Lanka are provided by the International Fund for Agricultural Development (IFAD), with a total budget of over US$18 million. On top of this budget, additional resources are coming from the local and national governments of the participating countries.

While these technical cooperation projects are ongoing, the Land and Water Division (NRL) secretariat of the GIAHS Initiative, is continuously mobilizing resources for expanding GIAHS as much as possible. A recent addition to the GIAHS family is the FAO-Turkey Partnership Programme for Turkey and Azerbaijan, and the government of Japan. At country levels, there is a growing interest and acceptance, for example in China, within 3 years' time, the number of sites has increased from one to five systems, and several systems are lined up.

The commitments and dedication of professionals, scientists, and experts in the implementation of GIAHS research and development activities have efficiently and effectively demonstrated the fundamental value of ingenious, traditional agriculture where social, economic and environmental goods and services provided to small-scale farmers, indigenous peoples, traditional and family farming communities are immeasurable. In addition, it is a central component of many systems or linkage to rural development. In most cases, the concept of GIAHS can penetrate easily and inspire people thanks to its direct relevance to food security and nutrition, development of alternative livelihoods and potential source of additional incomes, culture diversity and richness in agriculture, adaptation and mitigation capacities against climate change, and resilience and sustainability.

Throughout this process, the FAO GIAHS Initiative has contributed to, and witnessed tremendously successful achievements in internalizing the concept of dynamic conservation of agricultural heritage in many local government programmes. GIAHS has created awareness of the important role of farmers and women in the conservation and utilization of biodiversity. In addition, any development activities should strike a balance between *conservation, adaptation*

and socio-economic development. This is a motto to remind everyone, that on top of all the conservation efforts, we should let small farmers address the challenges of today's world and let them take advantage of the opportunities of modern living, while at the same time conserving the functionalities of the ecosystem.

In terms of international gathering, sharing of experiences and lessons learnt, three International Forums on GIAHS have taken place so far. The first one was convened in Rome from 24 to 26 October 2006. The second one was a special side event at the World Forestry Congress (WFC, Buenos Aires, Argentina, from 21 to 23 October 2009). The Third International Forum on Globally Important Agricultural Heritage Systems: *Dialogue Among Agricultural Civilizations*, held from 9 to 13 June 2011 in Beijing, China, was a formal designation ceremony held by the International Steering Committee bringing together international, national and local partners, policy makers, farming communities, research institutions and intergovernmental and development cooperation agencies to exchange knowledge and best practices on evolving agricultural systems in different countries. As an outcome of the Forum, the participants adopted a *GIAHS Declaration*, a pledge of further commitment to support and safeguard GIAHS objectives. The declaration is annexed to this report. The forum also served as a very special occasion to welcome Japan (the first developed country who joined in the GIAHS family), Kenya, Tanzania, India, Sri Lanka and the new sites in China. Furthermore, the Forum served as a venue for the Fourth Steering Committee Meeting of the project.

This proceedings feature summaries of most of the presentations held during the Third International Forum on Globally Important Agricultural Heritage Systems. In the concluding section, there is also a summary of the discussions of the Steering Committee.

Finally, the forum was embedded in the annual workplan of the project in China. I thank the local governments of the GIAHS sites in China, for their hospitality and generous financial support to the forum. I wish to thank all the guests, participants, our partners and friends for having worked together to make this important forum possible, meaningful, truly memorable, and indeed, an inter agri-cultural dialogue, in particular I wish to express my gratitude to the Institute of Geographic Sciences and Natural Resources Research- Chinese Academy of Sciences for co-organizing the forum, the volunteer professors and young students. FAO looks forward to continue to work with these and other partners so as to enhance our understanding of our culture in agriculture, and to safeguard Globally Important Agricultural Heritage Systems all over the world.

Parviz Koohafkan

Director, Land and Water Division
Natural Resources Department, FAO
and
GIAHS Global Coordinator

About the GIAHS Forum

Globally Important Agricultural Heritage System (GIAHS) project was launched with the objective of contributing to the conservation of agricultural biodiversity, knowledge of natural systems in which food production is the dominant element, also related to livelihood assurance and culture maintenance. Agricultural heritage systems are ingenious systems that reflect the evolution of human settlement in harmony with nature, and the rich biodiversity and cultural diversity in the agricultural heritage systems are preserved unconsciously in the local community's traditional way of life, which makes the conservation of agricultural heritage very important to the sustainability of local livelihood and regional development.

It has been 10 years since the GIAHS initiative was launched by the Food and Agriculture Organization of the United Nations (FAO) in 2002. After the common efforts of different international organizations, and supported by Global Environmental Facility (GEF), many countries are involved in the activities of agricultural heritage systems conservation. From the first 6 to the current 16 pilot sites in different continents and countries, more and more agricultural heritage systems were designated by FAO and started their exploration of how to conserve the precious traditional agricultural techniques and knowledge under various threats from modernization and urbanization in different context. It is no doubt to conclude that the rich achievements of the GIAHS project in the last decade will bring more countries and pilot sites into this arena.

As the largest developing country with thousand years of agricultural history and over 50% of the population still living in countryside, China is a country with typical agriculture practices and activities, such as the Rice-fish System in Qingtian County of Zhejiang Province, which was designated as the first GIAHS pilot system in China, the Hani Rice Terraces System in Honghe Prefecture of Yunnan Province, which is in the tentative list of the World Heritage List of UNESCO and also has many similar features as the Ifugao Rice Terraces in Philippine to some extent. There are 4 agricultural heritage systems in China are listed by FAO as the GIAHS pilot systems and several traditional agricultural practices are in the GIAHS candidate list already. Obviously, the traditional agricultural systems are now under severe pressure from globalization and inadequate government intervention in China, which needs more attention from all stakeholders at global level, national level and the local level. International cooperation and experience exchange would be crucial for the agricultural heritage system conservation.

The International Forum on Globally Important Agricultural Heritage Systems with the theme of Dialogue among Agricultural Civilizations was organized by FAO in collaboration with the Institute of Geographical Sciences and Natural Resources Research of the Chinese Academy of Sciences (IGSNRR,CAS) and other partners at Crab Island, Beijing from 9-11 June 2011 to exchange knowledge and experiences of the significance of globally important agricultural heritage systems from different countries, and to take stock of the lessons learned. There is no doubt that the conference was a big success and even a mile stone in the history of agricultural heritage system conservation. It has gathered partner

governments, representatives from international organizations, university and scientific community, farmers and local communities' representatives, donors' community to discuss strategies for mainstreaming the 'Agricultural Heritage' concept at local, national and international levels. Experience on agricultural heritage system conservation were exchanged, several new GIAHS pilot systems were launched by FAO, and the approval of Beijing Declaration of GIAHS conservation: a Ten-point Charter to promote dynamic conservation of Globally Important Agricultural Heritage Systems will definitely contribute to the agricultural heritage conservation at all levels for the long run.

Li Wenhua

Academician, Chinese Academy of Engineering
Professor, IGSNRR, CAS
Chair, GIAHS International Steering Committee

Executive Summary

Traditional agriculture constitutes a cumulative legacy of humankind, initiated in the Neolithic Ages, of fundamental importance. Modern agriculture constantly threatens the sustainability of this humanity's common heritage. Inherent to the concept of traditional agriculture is an acknowledgement that indigenous knowledge has intrinsic merit, and holds development potentials. Fortunately, in many parts of the developing world, there still exists a diversity of local and traditional practices of ecosystem management such as biodiversity management, soil and water conservation, farming systems or integrated farming systems. Many resource-poor rural peoples, are inventively self-reliant, and continuously experimenting, adapting and innovating their conditions, as agriculture is their way of life.

The GIAHS framework acknowledges these multi-dimensional characteristics of traditional agriculture, and that there are real opportunities for building on ecosystem and livelihood diversity, and investing in local communities and their resources, indigenous knowledge and institutions, to eradicate hunger and poverty in rural areas, rather than relying on excessive external inputs that are often inappropriate and unsustainable technologies. In relation to sustainability, during the 16th Session of the UN Assembly on the Human Rights Council, the *Agro-ecology and the Right to Food* report gave emphasis on small scale farming practices, which significantly provide and raise farm productivity, thereby reducing rural poverty, increasing genetic diversity, improving nutrition in local populations, and more importantly, building a resilient food system in the face of climate change, by utilizing more locally available resources, empowering farmers and creating job opportunities. The report even stated that small-scale sustainable farming systems would even double their food production within 5 to 10 years in places where the most hungry people on the planet live. This interesting report is an encouragement for all GIAHS supporters, friends and advocators for small scale and family farming agriculture to go forward into the future. While recognizing that this traditional agriculture cannot compete with modern and conventional farming, GIAHS' dynamic conservation emphasizes the many important dimensions of agricultural heritage and ecosystems goods and services, thanks to which farmers can potentially increase production and diversify food systems.

The increase in food production, although necessary to meet the food demand, is not a guarantee of improving food security, nutrition and livelihoods of the rural population. GIAHS are unique, traditional agricultural, resilient farms, and constitute a system that is continuously enhancing the sustainability of agroecosystems.

The GIAHS Initiative Progress

Since the launch of this Global Partnership Initiative in 2002, a wide range of development activities has been implemented in more than 10 countries to support the dynamic conservation of Globally Important Agricultural Heritage Systems. The awareness raising and promotion of the international recognition of GIAHS is a big task for all the pioneering partners, however, despite difficulties in competing with modern

agriculture, still, many scientists, professionals, and even policy makers, once understood the concept, are starting to think about their agriculture system as a heritage, not only because of its heritage value, but also for its dynamic conservation approach. A major outcome of the GIAHS Initiative is the contribution to the implementation of the Convention on Biological Diversity (CBD) Article 10c, specifically within agricultural systems, and Article 8j on traditional knowledge and practices. At the international level the initiative has been recognized, so far by a growing number of institutions and organizations of global relevance such as the GEF, BMELV, IFAD, ISESCO and other UN agencies. Specific references are made to GIAHS in official UN documents and declarations, including the recent CBD COP10, held in Nagoya, which recommends to "strengthen approaches which promote sustainability of agricultural systems and landscapes such as, but not limited to, the Globally Important Agricultural Heritage Systems (GIAHS) of the Food and Agriculture Organization of the United Nations".

Chinese Agricultural Heritage Systems – a showcase of the Forum

The International Forum on Globally Important Agricultural Heritage Systems with the theme of *Dialogue Among Agricultural Civilizations*, was held from 9 to 13 June 2011 in Beijing, China. The selection of the host country for the forum was agreed during the previous forum in Buenos Aires. Having the Forum in China was a meaningful and significant experience for all the participants, both for local and international ones. Recalling the experience of the introduction of GIAHS in China, way back in 2005, when the Rice-Fish Culture (Longxian Village, Qingtian County, Zhejiang Province) was selected, nobody would have imagined that "a new vision and understanding of traditional agriculture" would be borne in this very remote countryside. A few years later, this remote traditional agriculture system had inspired the neighbouring provinces and begun to make people think about their agriculture systems. Thanks to the commitment and support of the national focal point institution, the Institute of Geographic Sciences and natural Resources Research at the Chinese Academy of Sciences, and the Ministry of Agriculture, the concept of GIAHS has now expanded and awareness has reached many remote localities. Articles on the importance and values of agricultural heritage systems have been published in scientific journals, newspapers, magazines and a series of books. Lessons learned and best practices have been disseminated through academic institutions with workshops, agricultural fairs and trade exhibits, and including commentaries and national television broadcastings of traditional agriculture. Within the pilot GIAHS sites, local governments have set up leading groups, developed conservation plans and formulated management regulations to conserve their agriculture heritage. There has also been a growing interest by scientists, researchers and the media about GIAHS and their values. Indeed, GIAHS from a "nobody knows" has become a nationwide accepted concept. Proud of their agricultural heritage, proud of their culture, the Chinese national counterparts offered to witness and experience the richness of culture in agriculture, and shared their wisdom, and experiences on how they managed to foster socio-economic development in the GIAHS sites, regardless of physical conditions and remoteness.

Objectives of the Forum

Since its launch, the Secretariat of the GIAHS has held international meetings or forums every other year to facilitate

sharing of knowledge and experiences. The theme of the forum held in Beijing from 9 to 13 June 2011 was *Dialogue Among Agricultural Civilizations*. The Forum was organized by the GIAHS Initiative (supported by GEF, BMELV, IFAD and FAO) in partnership with the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.

The Forum was designed to: (1) bring together national and local partners, policy makers, representatives of civil society and farming communities, scientists and academics, research institutions and intergovernmental and development cooperation agencies to exchange knowledge and best practices, and take stock of lessons learned; (2) provide elements for the preparation of a GIAHS Consortium Document for the upscale of GIAHS sites, promoting effective partnerships and networking with relevant organizations, institutions and related initiatives; (3) present the newly identified GIAHS sites and award certificates to their custodians; (4) pave the way for the inclusion of the GIAHS concept in the Rio+20 process for sustainable development; and (5) visit China's agricultural heritage site, the Xuanhua Traditional Grape Gardens, an epitome of GIAHS. The Forum served as a venue for the Fourth Steering Committee Meeting of the Project: *Conservation and adaptive management of GIAHS (GCP/GLO/212/GFF)*.

Acronyms and abbreviations

ASM	Association pour la Sauvegarde de la Médina (Tunisia)
BMELV	Federal Ministry of Food, Agriculture and Consumer Protection (Germany)
CAASS	Chinese Association of Agricultural Science Societies
CAS	Chinese Academy of Sciences
CBD	Convention on Biological Diversity
CECB	Central Engineering Consultancy Bureau (Sri Lanka)
CET	Centro de Educación y Tecnologia (Chile)
CISNAR	Commission for Integrated Survey of Natural Resources
COP10	Conference of the Parties 2010
CPPCC	Chinese Peoples' Political Consultative Conference
CSD	Commission on Sustainable Development
DENR	Department of Environment and Natural Resources (Philippines)
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environmental Facility
GIAHS	Globally Important Agricultural Heritage Systems
HEADS	Hari Environment and Development Society
IFAD	International Fund for Agricultural Development
IGSNRR	Institute of Geographic Sciences and Natural Resources Research
INBAR	International Network for Bambu And Rattan
INRAA	Institut National de la Recherche Agronomique d'Algérie
IOG	Institute of Geography
IPOGEA	Institute of Historical and Artistic National Heritage
IPSI	International Partnership for Satoyama Initiatives
ISESCO	Islamic Educational, Scientific and Cultural Organization
JSSA	Japan Satoyama and Satoumi Assessment

MDG	Millennium Development Goals
MDGAF	Millennium Development Goals Achievement Fund
MSSRF	M.S. Swaminathan Research Foundation, India
SCAU	South China Agricultural University
SIPAM	Systèmes Ingénieux du Patrimoine Agricole Mondial (French)
SIPAM	Sistemas Ingeniosos de Patrimonio Agrícola Mundial (Spanish)
TEK	Traditional Ecological Knowledge
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNU-IAS	United Nations University- Institute of Advanced Studies
WFC	World Forestry Congress
WHC	World Heritage Convention
WSSD	Word Summit on Sustainable Development

PART I
OPENING SESSION

Welcome to the International Forum on Globally Important Agricultural Heritage Systems
热烈欢迎参加全球重要农业文化遗产国际论坛的各位嘉宾

热烈欢迎参加全球重要农业文化遗产国际论坛的各位嘉宾

Welcome Address

Mr Cheng Shengkui
Vice Director, IGSNRR/CAS, China

After opening the meeting, Dr Shengkui gave a brief introduction on the mission and genesis of the Institute of Geographical Sciences and Natural Resources Research (IGSNRR/CAS).

The Institute was established in 1999 through a merger of two former CAS institutes: The Institute of Geography (IOG) and The Commission for Integrated Survey of Natural Resources (CISNAR), and is committed to research on man, nature, and the environment. Targeted at national ecological security and significant national scientific and technological needs, it carries out research in the fields of utilization of natural resources, regional sustainable development, ecological and environmental management, and information sharing. Its main focus is on solving the major problems the nation is facing in sustainable development, providing scientific basis for the government's information science, and cultivating a large number of scientific talents.

The Institute currently focuses on physical geography and global change, human geography and regional development, natural resources and environmental security, geo-information mechanisms and system simulation, water cycle and related land surface processes, ecosystem network observation and modelling, and agricultural economy and policies.

Furthermore, the Natural and Cultural Heritage Research Center is an important part of the Institute. Since its establishment in 2006, with the leadership of Academician Li Wenhua, the Center has been giving full play to its multi-disciplinary advantage, working on natural and cultural heritages, especially agricultural heritage, and gaining notable results. The close collaboration with FAO and UNESCO has promoted the pilot work on agricultural heritage protection, and relatively systematic research has been done in cultural heritage value analysis, multifunctional agriculture and sustainable development. Cooperation with Zhejiang, Yunnan, Jiangxi, Guizhou, Inner Mongolia, Hebei and other provinces and regions has contributed to the exploration of dynamic conservation protection and adaptive management of different types of agricultural heritages. In closing, Dr Shengkui pointed out that agricultural heritage research has become a new growth driver of the Institute in scientific research and that, as always, it needs attention and support.

Welcome Address

Ms Yao Xiangjun

Vice Director, Department of International Cooperation, Ministry of Agriculture, China

After congratulating the successful opening of the Forum and welcoming all the guests, Ms Yao Xiangjun recalled that China was one of the first countries involved in the Globally Important Agricultural Heritage Systems Initiative, and that over the past few years, the Ministry of Agriculture and the Chinese Academy of Sciences, together with relevant local governments of China, have positively promoted the implementation of the project, and delivered the rice-fish co-growth technique and further agricultural heritage protection ideas and experience to other regions, producing favourable ecological, economic and social benefits in the pilot areas. Several examples of Globally Important Agricultural Heritage Systems pilot sites were listed, along with other regions that have expressed their desire to join the Initiative.

Ms Yao explained that China is an ancient and large country of agriculture with thousands of years of agricultural civilization. Chinese people have accumulated rich experience in production and created a diverse agricultural heritage system with significant characteristics and highly uniform economic and ecological values, which not only play a vital role in the country's sustainable agricultural development and new socialist countryside construction, but will also influence the international sustainable agriculture movement. These models and techniques created by ancestors are no longer confined to the general scope of production, but have become a heritage and a kind of wealth of great significance to the present and future of mankind.

Finally, Ms Yao pointed out that China, as a large agricultural country, needs to actively participate in the GIAHS Initiative, playing a very important role in promoting the sustainable agriculture and rural development of its country and the rest of the world. In this respect, the Chinese Ministry of Agriculture will continue to cooperate with FAO and other organizations as well as other countries, in order to positively promote the protection of Globally Important Agricultural Heritage Systems.

Welcome Address

Mr Percy Wachata Misika
FAO Representative, China

After greeting all the participants of the Forum and thanking the Chinese counterpart institution, Dr Misika stressed the value of multi-collaboration from local governments, institutes and academes for providing an impartial platform to promote better understanding and sharing of information, and to better appreciate the richness of agricultural and cultural diversity.

In closing, Dr Misika congratulated China, Japan, India and Morrocco for their new Globally Important Agricultural Heritage Systems sites and pointed out the need to look forward to further recognition of GIAHS sites and their dynamic conservation.

Keynote Address

Hon. Hong Fuzeng
Former Vice Minister, Ministry of Agriculture, China

Hon. Hong Fuzeng explained that China is a large agricultural country with a long agricultural history and culture. In the long course of historical development, Chinese working people have accumulated a wealth of experience in agricultural production, formed ecologically harmonious and, environmental-friendly agricultural techniques and knowledge systems with local characteristics. These ancient agricultural production systems still boast practical significance, and the rich ecological, economic and cultural values therein constantly show. According to Hon. Hong, we must not allow these systems to be destroyed. Instead, we should positively explore their essences so as to enable them to serve the modern ecological agriculture. The GIAHS project provides a platform for the protection and utilization of these traditional agricultural systems, and points out the orientation for the development of traditional agriculture.

The Chinese Association of Agricultural Science Societies (CAASS), officially established in 1917, is one of the earliest academic groups of the country, and also an academic society specializing in agricultural work. Since the founding of the People's Republic of China, and especially since the reform and opening-up, CAASS has been adhering to the mission of "dedication, innovation, pragmatism, and cooperation", aiming to unswervingly promote agricultural science, boosting agricultural and rural modernization, and vigorously developing academic exchange and scientific popularity. With the leadership and support of the China Association for Science and Technology and the Ministry of Agriculture, CAASS attentively implements a strategy for rejuvenating the nation through science and education, and a strategy for sustainable development, focusing on hot issues and difficulties concerning agriculture and farmers. Hon. Hong provided a description of the activities CAASS has been carrying out to popularize science, enhancing farmers' ability to become rich through science and technology, and explained that it has become a bridge between the party and the government, and an important driver to promote agricultural and rural economic development.

At present, the protection of traditional agriculture has aroused the attention of international organizations, Chinese Ministries and Commissions, research institutions, universities, academic groups, and the media. Progress has been made, however, further efforts should be made in order to enable more people to understand the values of these systems, and include more systems into the protection system to form a larger network. In concluding, Hon. Hong pointed out that under the joint efforts of various experts, scholars and governments in the regions where the heritages are located, traditional agricultural systems should continue to be effectively protected.

Keynote Address

Hon. Mme Jiang Zehui

Deputy Director of Committee of Population, Resources and Environment, CPPCC and Co-Chair of INBAR Board of Trustees; President of China Eco-Culture Association; Director-General of China Forest Society

Passing Down Agricultural Heritage, Cultivating Ecological Civilization with Joint Hands

Mme Jiang Zehui initiated her speech by explaining that forest is the cradle of human civilization, its heritage is as rich as agricultural heritage, and agricultural civilization lives and flourishes together with ecological civilization.

I. Long history of China's forestry heritage

Chinese ancient forest cultivation, with a long history, has been ranking among the top ones worldwide during a rather long period of time, leaving rich heritage to the descendants. China fir is an endemic tree species of China. According to textual research, artificial plantation of China fir approximately began in China's Qin and Han dynasties, over 2,000 years ago. The ancient *Yue* people in South China took the lead to create such breeding technologies as "coppice shoot fir", "cutting fir" namely "vegetative propagation technology" or "clone technology" nowadays. The cultivation system of "fir and crop mixed cropping", was created by our ancestors in fir producing areas reputed as the origin of the agro-forestry system which is now still widely applied in developing countries.

In the Eastern Han Dynasty (1,800 years ago), Cai Lun invented paper by using barks of paper mulberry, becoming a forerunner of wood pulp papermaking in the world. A book entitled Important Arts for the People's Welfare (known as *Qi Min Yao Shu* in Chinese) in the Northern Wei Dynasty had a full record and narration of forestry theories and technologies, and put forward agro-forestry and the forest rotation method for the first time, which is 800 years earlier than that of Germany.

The rich heritage of China's ancient forestry is the result of the harmonious integration of the simple ecological concept of "unity of heaven and human beings" and the advanced technology concept of "intensive cultivation". These rich forestry heritage and simple ecological civilization ideas have a profound impact on forest cultivation and ecological construction for the decedents.

II. Diversity of Chinese bamboo culture

Forest culture is an important integral part of human civilization. In the time-honoured forest culture system, bamboo culture has developed its own unique style and exerted positive influence on Chinese civilization.

Bamboo has been winning the favour of Chinese people through all ages, and China is also the earliest country to research into, cultivate and utilize bamboo in the world. The symbol

of “bamboo” found on the pottery ware unearthed in the site of the Yangshao culture, approximately 6,000 years from now, shows that bamboo has already formed a close relationship with people’s life during the long period of primitive society.

The cultural heritage of bamboo has a rich and distinctive connotation, which affects the aesthetic view, aesthetic consciousness and moral principles of Chinese people. The invention and application by Chinese ancestors of bamboo pen, scroll and paper several thousand years ago endow Chinese culture with vigorous life force. We can, therefore, come to the conclusion that, no plant can exert such a profound impact on Chinese civilization as bamboo.

As the Co-chair of INBAR Board of Trustees, I am so gratified to see, after 14 years of rapid development, INBAR together with 37 member countries, through improving the protection, cultivation and utilization of global bamboo and rattan resources, exerted important influence on and played significant role in protecting environment, alleviating poverty and promoting trade etc, and meanwhile has made positive contributions to the richness of bamboo and rattan cultural heritage, and the development of agricultural civilization.

III. Bright future of Chinese ecological civilization

As an important national policy for the sustainable development of China’s economic society, “Developing ecological civilization”, points out the way forward for the development of Chinese ecological agriculture in the new era, and meanwhile shows clearly the development direction of China’s modern forestry.

As early as in the beginning of the century, the Chinese sustainable development forestry strategy research, presided by me with the participation of nearly 300 cross-disciplinary and cross-departmental experts, clearly puts forward “three ecology” overall strategic frameworks for forestry development to advance the development of “ecological construction, ecological security and ecological civilization”, and was incorporated into the policy documents for national forestry development and ecological construction. It initiates the construction of the three systems as “sound forestry ecological system, developed forestry industrial system and prosperous ecology culture system”, and promotes the construction of a society of ecological civilization with harmonious coexistence of human beings and nature.

Today’s human society, having walked out of agricultural civilization which completely depends on land resources, and being about to walk out of industrial civilization which depends on natural resources, is now standing on the threshold of ecological civilization. Ecological civilization, over-passing agricultural civilization and industrial civilization, represents a more advanced form of human civilization.

The ancient simple eco-philosophical views of “the unity of heaven and human beings” and “Tao follows nature” etc. which has been influencing China for thousands of years are the rudiment of the doctrine of “sustained utilization of forests” (highlighting reasonable development and utilization of mountain forest resources) or the present theory of

“sustainable operation of forest”, and an important thought source of the development of Chinese ecological agriculture in the future as well.

After entering the 21st Century, the simple historical viewpoint of “the unity of heaven and human beings” is endowed with a new connotation, that is, that human beings must fully recognize and respect the law of nature, go back to nature, and develop a highly harmonious and uniform relationship between human beings and nature. The Globally Important Agricultural Heritage Systems (GIAHS) of FAO, through establishing an exchange platform for agricultural heritage and agricultural civilization, deepens people’s understanding and recognition in the importance of GIAHS, drives South-South cooperation between China, other Asian, Latin American and African countries, and also creates favourable conditions for the development of GIAHS in China.

I am deeply convinced that, through joint efforts of FAO and us, and the inheritance and innovation of agricultural heritage and agricultural civilization, human society will certainly stride forward to a new era of ecological civilization from agricultural civilization and industrial civilization.

Special Message (video)

Dr Ahmed Djoghlaf
Executive Secretary, Convention on Biological Diversity (CBD), Canada

Good Morning Ladies and Gentlemen,

Last month China hosted a Regional Workshop for Asia and the Pacific to translate the Aichi Target into national strategies and action plan. Today, here we are in Beijing, the capital of China with another contribution of China for translating the Aichi target into vibrant reality through the Globally Important Agricultural Heritage Systems. Since its launch in Johannesburg Summit in 2002, this unique partnership launched by FAO has made a unique contribution to furthering the implementation of the United Nations Convention on Biodiversity (CBD) and especially, of course, it's a provision related to the protection and conservation of the traditional knowledge of indigenous people and communities, known as article 8j of the Convention, which aims to protect and encourage customary use of biological resources in accordance with the traditional culture and practices that are compatible with conservation or sustainable use requirements. Moreover, the Partnership launched by FAO has made a unique contribution, of course, in the implementation of the World Programme on Agri-culture, Agro-biodiversity of the CBD and we have renewed our partnership with our sister Organization, FAO, and I am very pleased to note that very soon designated staff of FAO will be with us here in Montreal to implement this strategic Programme of work that will also determine the success of many provisions of the Aichi Target.

In Nagoya, last October the 18 000 participants attending the Nagoya Summit on Biodiversity adopted a new strategic plan with 20 ambitious but realistic targets and committed themselves to translate this into national strategies and action plans. Among these Targets there is, of course, the Agriculture target that was also launched in Nagoya and another important Initiative was launched, named Satoyama Initiative. We think that this partnership with FAO will complement and build on the Satoyama Initiative launched in Nagoya in October, last year.

Let me finish, by quoting Confucious that said: "let the state of equilibrium, harmony exist in perfection and happy order will prevail throughout Heaven and Earth and all things will be nourished and will flourish." I think this is a perfect example of the slogan of the Aichi Nagoya Summit "Living in harmony with nature into the future" and this is also in harmony with the slogan of the UN Decade of Biodiversity in 2011-2020, and we look forward, of course, to the contribution of this unique event in the life of the biodiversity family in China and with our sister organization FAO.

I wish you a very successful meeting.

Special Message (video)

Dr M.S. Swaminathan
Founder and Chair, MS Swaminathan Research Foundation and Father of the Green Revolution in India

Good morning to all the distinguished participants in this very significant meeting: the Global Forum on Globally Important Agricultural Heritage Systems. We have many heritages in the world, but this particular heritage system, namely, which helps to feed the human kind over the ages is the most important one because food is the first among the hierarchical needs of the human beings and what is being discussed at this Forum is the celebration, as well as the conservation, of Globally Important Agricultural Heritage Systems.

I want to pay a tribute to the Food and Agriculture Organization of the United Nations, Dr. Parviz Koohafkan, Dr. Jane Dela Cruz and all the others connected with this moment to celebrate and preserve our agriculture heritage systems.

I would like to say on this occasion, that in the context of today's contemporary problems, problems related to environment degradation, global climate change, economic recession, political turmoil, what is most important is the work leading to sustainable food and livelihood security. This is what the Globally Important Agricultural Heritage Systems Network is trying to achieve. I therefore congratulate you, applaud you and wish you well in your achievements.

On this occasion a book entitled “Towards an Era of Biohappiness” is being released. This particular book shows how we can convert - when I say we I mean the local communities, mostly women and men living in remote areas - the bio resources into jobs and income in an environmentally sustainable and socially equitable basis. Biohappiness comes when bioresources lead to income security, job security and then livelihood security. We all want happiness in our life, and happiness can come. The foundation for happiness is food and livelihood security, and that is why families who are primary conservators often are poor. The biodiversity areas in our world are also areas characterized by poverty and hunger and malnutrition. This is irony because they are conserving nature for public good but on the other hand they themselves remain poor.

How can we disengage or separate the poverty of the primary conservers with the prosperity of nature? How can we make them also prosperous by using nature in an equitable and sustainable manner? This is the purpose of the agriculture heritage systems, they show us the pathway, how in the past and how today, many local communities have conserved natural resources, managed them sustainably. But whether it is the Island of Chiloé or the great Terraces of the Philippines, we get so many messages from which we can learn today.

Please work for converting natural resources in an environmentally sustainable manner into jobs and income, so that you spread biohappiness all around where you are living, because

biohappiness is the pathway for income security, health security and livelihood security. And this is the pathway through which societies, which are in the heritage sites can remain happy and content. We are all transformational agents, transforming nature for the betterment of human food security and human quality of life.

I wish you all the best in this great meeting.

Special Message

Dr Parviz Koohafkan
Director, Land and Water Division, FAO and GIAHS Global Coordinator

Friends, colleagues, ladies and gentlemen, a very pleasant good morning.

I am very pleased to see and to welcome you all in this important occasion. It is overwhelming to know that our GIAHS family is getting bigger every year. It is at occasions like this that we can share and exchange ideas and experiences, face to face, about our work and advocacy for promoting recognition of valuing agricultural heritage, and to appreciate the uniqueness of our own sites and systems.

The problem of food insecurity and malnutrition, in many developing countries are increasing. And many organizations and research institution, just kept thinking how to increased food production? Increased food production does not guarantee food security and nutrition while it is necessary, but in what terms and to what extent can natural resource base can produce food? While we are advocating for the small scale sustainable agriculture for quite some time, there are believers, productivists, who thinks the very people behind conservation of biodiversity, managers of nature, the small farmers - are unproductive because of their low food production. Little they know and they understand about traditional agriculture. Little they understand the uniqueness of their agricultural systems, wealth of knowledge, of culture embedded in agriculture of traditional family farming systems. Traditional agricultural systems are based on practices and knowledge systems and rich cultures of people, which have evolved and adapted to harsh environments. They are repositories of intergenerational wisdom that exists because of their capacity - to deal with change and to ensure food security and nutrition. Traditional agriculture has its own merits in boosting food production where the majority of the world's population, poor people lives, without increasing climate change and biodiversity loss. I would like to say on this important occasion, that on the context of today's contemporary problems, problems related to environmental degradation, global climate change, economic recession, political turmoil, what is most important is the work leading to sustainable food and livelihood security. This is the reason why FAO has been investing in the dynamic conservation of the Globally Important Agricultural Heritage Systems. This initiative was launched several years ago with few pioneering partners and model agricultural systems. But since then a wide range of development activities have been implemented. Here in China, you would see how fast the GIAHS sites have expanded. Thanks to the dedication and commitment of our national and local partners.

But what makes this initiative unique in the world – GIAHS Initiative was the first global initiative that brings the link between agriculture and cultural heritage to the forefront and a holistic approach to sustainable development. It is unique and relevant, not only because of the great heritage value of outstanding agricultural systems, but in view of their historic, current and potential future contribution to Food Security, Sustainable Development, green economy – all critically important topics, that we need to put forward to the Rio+20 conference agenda next year.

Let's remember that **conservation, adaptation, socio-economic** development – they all go hand in hand. And together, we stand before the challenge to develop a sustainable development agenda that will value and safeguard the world's agricultural heritage while allowing their continued evolution in the face of ever-changing socio-economic and environmental circumstances.

We are partners for sustainable development, we are partners for GIAHS. We hope through the GIAHS Partnership, which is more strengthened in FAO, and through your support, it will be a fertile ground for future co-operation and that it will contribute to the welfare of family farming communities and human kind.

During this 3-day gathering, I invite everyone to be proactive and take opportunity to interact with each other, with other GIAHS sites. Myself and my team is available, we would be happy to have discussion to each one of you.

Again, thank you for coming over to China and I wish you all with a very pleasant and fruitful stay here in Beijing.

PART II
SUMMARIES OF KEYNOTE PRESENTATIONS

The Forum featured presentations of the keynote speakers on best practices and experiences on dynamic conservation and management of GIAHS.
This part of the Proceedings includes summaries of the presentations held during the first two days of the Forum.

Day 1: Values of GIAHS, a basis for food security, sustainable agriculture and rural development

The Keynote Presentations of the first day provided an overview on the major contributions of agricultural heritage to food security and rural livelihoods with a particular focus on China. Challenges in various countries of the world were presented, as well as GIAHS strategies and approaches to promote dynamic conservation.

Dynamic Conservation of Globally Important Agricultural Heritage Systems

Parviz Koohafkan

Director, Land and Water Division, FAO and GIAHS Global Coordinator

Keywords: GIAHS, food security, biodiversity, family farmers

Our world is confronted with 1.2 billion undernourished people, high domestic food prices, low incomes and economic crisis and global agriculture challenges – additional pressure on natural resources (land, water and biodiversity), as well as with climate change. The increased scarcity of natural resources and the loss of biodiversity affect our ability to cope with unexpected crisis. FAO estimates that about three-quarters of the varietal genetic diversity of agricultural crops have been lost over the last century. Just twelve crops and fourteen animal species now provide most of the world's food. This erosion of agricultural biodiversity severely compromises global food security. FAO's mandate and vision is to help build a food-secure world for present and future generations. FAO fulfils the fundamental role of addressing food insecurity through coping with the global agriculture challenges. To address this and for FAO to contribute to achieving the post 2010 vision and objectives of the Convention, FAO is actively promoting the sustainable management of natural resources, of which one of the important components is the critical role of biodiversity and ecosystem services for food security and poverty. One very important work of the Organization supports the enhancement of sustainable agricultural systems and management practices is through the dynamic conservation of Globally Important Agricultural Heritage Systems.

What are GIAHS?

Globally Important Agricultural Heritage Systems 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".

A Heritage for the Future

Around the world a myriad of family and community managed agricultural systems that are humanity's common heritage. Over centuries, generations of farmers and herders have

developed complex, diverse and locally adapted agricultural systems, managed with time-tested, ingenious combinations of techniques and practices that lead to biodiversity conservation and food security. Coping with chronically variable yields of food crops is critical for the survival of family farmers and smallholders in marginal environments where agro climatic conditions are challenging due to ever-increasing effects of climate change. Ecologically-designed agricultural systems provide a buffer against extreme events, and the diversity of these systems, and the creativity and knowledge of indigenous communities are assets of great value for solving the daunting problems affecting global agriculture in the 21st century.

The GIAHS Partnership Initiative

FAO's **Globally Important Agricultural Heritage Systems (GIAHS)**, is an international partnership initiative that aims to identify, revitalize and promote international recognition of unique traditional agricultural systems around the world together with their agricultural biodiversity, associated landscapes, knowledge systems and culture, and the contribution they can make to food and livelihood security of family farmers and indigenous communities. The dynamic conservation of Globally Important Agricultural Heritage Systems is an innovative strategy to empower small holder farmers, indigenous peoples and local communities and thus enhance the local and global benefits derived from such systems for the benefit of humankind. The GIAHS Initiative introduces the need to promote public understanding and international recognition of the Globally Important Agricultural Heritage Systems, in which multiple goods and services are provided small-scale farmers, indigenous peoples, traditional and family farming communities are distinct in many ways. The importance of this initiative is highlighted against the background of issues related to food security and nutrition in the face of climate change, adaptation, mitigation, resilience and limited natural resources. Overall, the GIAHS approach recognizes the crucial importance of the well-being of family farming communities while directing activities towards sustainable agriculture and rural development.

GIAHS Initiative operates at three levels:

1. At Global level by identification, selection and recognition of GIAHS
2. At National level by capacity building in policy, regulatory and incentive mechanisms to safeguard these outstanding systems and use them as sustainability bench mark systems
3. At Local Level by empowerment of local communities and technical assistance for sustainable resource management, promoting traditional knowledge and enhancing viability of these systems through economic incentives.

Development Activities: GIAHS initiative with its innovative, integrated and holistic approach to look at the well-being of the family farming, to support and strengthen the underlying ecological and cultural processes of heritage agricultural systems have created awareness, interest and enthusiasm from the wider audience both from local and international bodies leading to a paradigm shift and policy change with regards to small holders, family farmers and indigenous communities. GIAHS intends to include more systems and sites, covering more farming communities, in order to scale up innovative ways for conservation of agricultural biodiversity, adapting agriculture to climate change, while at

the same time creating economic benefits or conversion of goods and services into marketable products, to support livelihoods and so that nature and people can prosper together. The initiative has made significant contributions in revitalizing ecosystems for biodiversity conservation and sustainable rural livelihoods of family farmers and indigenous communities in developing countries. Current development activities are on-going in Algeria, Azerbaijan, Chile, China, India, Iran, Japan, Kenya, Morocco, Peru, Philippines, Sri Lanka, Tanzania, Tunisia and Turkey.

The significance Significance and extent Extent of GIAHS

Miguel A. Altieri
University of California, Berkeley, USA

Keywords: agroecology, traditional faring systems, resiliency, sustainable agriculture

For millennia, communities of farmers, herders, fishers and forest people have developed complex, diverse, and locally adapted agricultural systems. These systems have been managed with time-tested ingenious combinations of techniques and practices that have usually led to community food security, and to conservation of natural resources and biodiversity. Agricultural heritage systems can still be found throughout the world covering about 5 million hectares, which provide a vital combination of social, cultural, ecological and economical services to humankind.

The existence of numerous GIAHS around the world testifies to the inventiveness and ingenuity of people in their use and management of finite resources, biodiversity and ecosystem dynamics, and ingenious use of physical attributes of the landscape, codified in traditional but evolving knowledge, practices and technologies. Whether recognized or not by the scientific community, these ancestral agricultural systems constitute the foundation for contemporary and future agricultural innovations and technologies. Their cultural, ecological and agricultural diversity is still evident in many parts of the world, maintained as unique systems of agriculture. Through a remarkable process of co-evolution of Humankind and Nature, GIAHS have emerged over centuries of cultural and biological interactions and synergies, representing the accumulated experiences of rural peoples. Agroecological systems managed by GIAHS farmers are deeply rooted in the ecological rationale of traditional small-scale agriculture, representing long established examples of successful agricultural systems characterized by a tremendous diversity of domesticated crop and animal species maintained and enhanced by ingenuous soil, water, and biodiversity management regimes, nourished by complex traditional knowledge systems. Such systems have fed much of the region's population for centuries and continue to feed people in many parts of the planet (Koohafkan and Altieri 2010).

Furthermore, the presentation highlights and assesses the sustainability and resilience of GIAHS agroecosystems to climate change.

To view the full presentation, please refer to the GIAHS website.

The Traditional Knowledge System: Oases as models for Rural Landscape

Pietro Laureano
IPOGEA, Italy

Keywords: Traditional knowledge, oasis, sustainable agriculture, water techniques, ecosystem management

The presentation highlights the value of traditional knowledge in the area of natural resources and rural management. The significance of the practical and cultural dimensions of knowledge based on a systemic vision of the human-nature interactions, taking into account the environmental, economic and socio-cultural aspects of agricultural production is underlined. An emphasis is placed on traditional water management techniques and local knowledge considered as part of cultural history. Special attention is given to the Oasis Model, described as a sustainable development alternative to the hydraulic civilisations model based on an abusive exploitation of water resources.

Furthermore, the presentation provides a definition of oases and a synthesis of their geneses and characteristics in relation to water production and distribution systems. The Oasis Model, interpreted as an appropriate ecosystem management, is proposed as an example for the realization of sustainable projects in arid zones and all round the world.

The study of Traditional Knowledge is described as a contribution to developing a new water management paradigm more in line with the sustainable development approach and integration of technical, ethical and aesthetical aspects. Using Traditional Knowledge does not mean directly reapplying the techniques from the past but understanding the logical reasoning underlying the knowledge system and reapplying it in a creative way: today's appropriate innovations constitute tomorrow's traditional knowledge.

To view the full presentation, please refer to the GIAHS website.

The amazing performance and scientific "secrets" of some traditional agricultural practices in China

Luo Shiming
Institute of Tropical and Subtropical Ecology, South China Agricultural University, Guangzhou, China

Keywords: intercropping, fish pond and dike system, rice fish, rice duck, allelopathy

The history of Chinese agriculture can be traced back to the ancient agricultural sites of more than 10,000 years in the Hunan and Guangdong Provinces, more than 8,000 years along the Yellow River watersheds, and more than 7,000 years in the lower reaches of the Yangzi River watershed. Due to the innovation of Chinese characters, printing techniques and paper making techniques, a rich ancient agricultural literature began to accumulate at least 5, 000 years ago in China (Chen Wenhua, 2005). Chinese agriculture practices had gone through a long historical period. Those agricultural practices, which could not adapt themselves to the fluctuation of the natural environment and social economic environment were eliminated and disappeared. Those practices, which could survive after countless shocks, exerted by natural disasters and social changes, must have some "secret" behind them. Agricultural research in China is gradually discovering those "secrets".

This presentation introduces examples of traditional Chinese agricultural practices, including the Yuanyang terraces in the Yunnan Province, the intercropping system in Northern China, the fish pond and dike system in the Pearl River Delta, the fish-rice system in the Zhejiang Province, and the fish-duck system in South China.

To view the full presentation, please refer to the GIAHS website.

Conservation and Management of Traditional Agricultural Systems

Jerry Eades and Malcolm Cooper
Ritsumeikan Asia Pacific University, Beppu, Japan

Keywords: agriculture, landscapes, conservation, tradition, development

In order to consider the question of the conservation and management of "traditional" agricultural systems, we first have to consider the nature of "tradition," sometimes historical but often recently invented (Hobsbawm 1983). This presentation looks at the social construction of tradition in relation to history, landscapes and agricultural systems, with examples from Europe, Japan and Australia.

Given that traditional agricultural systems are often located within historical landscapes, the problem becomes one of deciding which of a number of superimposed historical landscapes to conserve, restore, or manage, and who is going to pay. Even if a landscape is restored to some previous state, it can only be maintained if the resources are available: otherwise it will decay or be transformed once more.

To take an obvious example: in the case of Britain, is it the pre-Roman Celtic landscape, the Roman landscape, the Anglo-Saxon landscape, the Norman or Medieval landscape, the early modern landscape, or the post-industrial revolution landscape which should be restored, given that each may be worthy of preservation? The answer usually depends on the power and money available to particular politicians, bureaucrats, landowners, entrepreneurs, civil society groups, or international organizations.

To view the full presentation, please refer to the GIAHS website.

Cultural Landscapes from the World Heritage Perspective

Beatrice Kaldun
UNESCO, Beijing, China

Keywords: Cultural landscapes, UNESCO, World Heritage Convention, management, sustainability

This presentation explores the concept, meaning and challenges of cultural landscapes within the framework of UNESCO World Heritage.

The world plays host to an array of different landscapes, which represent the long relationships and interactions between nature and humankind. Throughout history, people have interacted with their natural environment in various ways. As a result, specific regions around the world illustrate land use techniques that sustain and guarantee biological diversity and others exhibit a unique spiritual relationship between nature and people due to their associations with strong beliefs and traditional practices. In order to preserve and promote the diversity that these interactions represent and to protect cultures and the traces of disappearing cultures, cultural landscapes are included under the World Heritage Convention.

Cultural landscapes are cultural properties that represent the "combined works of nature and of man." They reveal and sustain the great diversity of the interactions between humans and their environment, to protect living traditional cultures and preserve the traces of those which have disappeared. This understanding was addressed in UNESCO's first recommendation on landscapes in 1962 – the Recommendations Concerning the Safeguarding of Beauty and Character of Landscapes and Sites. Moreover in 1992, the World Heritage Convention became the first legal instrument to include and address cultural landscape properties. The first cultural landscape sites on the World Heritage List were Tongariro National Park, New Zealand, in 1993, Uluru-kata Tjuta National Park, Australia, in 1994 and the Rice Terraces of the Philippine Cordilleras, the Philippines, and the Cultural Landscape of Sintra, Portugal, in 1995. Since then, numerous inscriptions have been made, and to date, there are 66 cultural landscapes recognised as being of outstanding universal value and included on the World Heritage List.

To view the full presentation, please refer to the GIAHS website.

China's Traditional Agri-Culture and the New Countryside Building

Cao Xingsui
China Agricultural Museum

Keywords: Agricultural heritage, New Rural Construction, China

China is an ancient agricultural country with a great number of important agricultural heritage systems and, at the same time, a developing country with the characteristics of swift change almost every day in rural areas. In this improving process, how to protect our agricultural heritage systems is the main problem we must face to. There are some new measures for the agricultural heritage systems conservation.

Firstly, differing with other production sectors, agriculture is a complex sector with a lot of functions, such as food security, livelihood, trade, eco-environmental services and so on. As to the agricultural heritage systems, we should pay much attention to their eco-environmental and cultural heritage functions.

Secondly, owing to its different natural conditions, China's agricultural culture changes in different areas. In other words, agriculture is the most primitive and the most vital culture which is formed in the process of human civilization development.

Thirdly, one is the status quo of China's agricultural heritage systems conservation. It includes four protection methods: (1) Protecting the village as a whole. In order to protect the whole system, we always protect the whole village to keep its cultural, social and ecological systems. (2) Developing the production customs and the species resources. Such as the Wannian Rice Culture System, it owns the special rice which is rich in all kinds of minerals, so we must keep the traditional species for human's living. (3) Protecting the rural folklore. The folklore has a deep relationship with the agricultural production and it is the precipitation of one nation's history. (4) Conservation of the agro-processing and eating habits. In some areas especially the minority areas, they have some traditional food processing and eating habits which is consistent with the scientific principles and good for human's health.

Nowadays, agricultural heritage is not only the heritage we are still utilizing these days but also includes four styles: (1) Agricultural historical relics, such as the special rice species which we found in archaeological activities. (2) The writing experience in agricultural works which has been handed down for thousands years need to be protected. (3) Agricultural landscape, such as the Hani terraces landscapes in Yunnan Province and the thousands years' water conservancy. (4) Conservation on agricultural products processing and local living custom. These years our government pays more attentions to the conservation of the agricultural landscape and the local eating custom.

To these may be added that we must balance the relationship of the rural construction and agricultural heritage conservation. Firstly, to insist on the government's guide. In the village, the local farmers always can not aware the importance of their tradition technology and experience, so the government needs to held some training courses to help them to raise their awareness about the importance of their heritage conservation. Secondly, to deal with

the relationship with the exploitation and development of the agricultural heritage, especially the balance of economic and social development, such as the tourism exploitation. Thirdly, to regulate the relationship between the folk tradition and the times. We must keep taking the essence and discarding the dregs as the principle to keep and protect the real agricultural heritage system.

Protecting the agricultural heritage systems do not mean we must keep the outmoded production capacity or out-date management styles, we need to improve the traditional culture to service for our modern life. Development and exploitation of agricultural heritage can ease China's "three rural" problems, such as solving the employment and increasing farmers' income in the rural areas. Facilitating the agricultural heritage conservation can strengthen and expand the relationship between rural society and the outside world. I believe with the development of our cultural heritage conservation, our rural area can know more about the world, and meanwhile we can let the world know more about China's rural areas.

To view the full presentation, please refer to the GIAHS website.

La Agricultura Andina: Peru como Patrimonio Agricola Mundial

Alipio Canahua
Coordinador Nacional SIPAM, FAO-Ministerio del Ambiente, Lima, Perú,[1]

Keywords: Agricultura Andina, agrobiodiversity, SIPAM

Since 2,500 B.C., the prehispanic cultures in the route of the basin of the Vilcanota River (Cusco) and Lake Titicaca (Puno) have been creating ingenious agricultural systems based on the knowledge of the environment and the organizational culture for access and space management in different ecological grounds. According to historic sources, thanks to these systems, they achieved food security for a growing population and governance of the expanding Inca empire. As a result, this region is one of the centers of origin of the main cultivations, which are nowadays important food for humanity, such as potato, maize, kiwicha, tomato, papaya, zapallo, peanut and others potentially importante for the immediate future, such as quinua, kañihua, tarwi, llacon, aguaymanto, sachatomate, alpaca and llama. For this reason, the region conserves a rich genetic variability known as agrobiodiversity, wild species and traditional knowledge of its food attributes and response to climate alternations. They are all important for development of resilience and overcoming latent threats such as climate change, desertification and food crisis.

FAO and the Ministry of Environment, supported by the regional governments and the regional municipalities of Cusco and Puno, implemented the "Globally Important Agricultural Heritage Systems – GIAHS" project, with the objective of revaluating systems with sustainable social management of ingenious agroecosystems in the high mountains, and agrobiodiversity and rural knowledge, as the basis for a sustainable agricultural development, while promoting at a global level the recognition of these ingenious systems as part of humanity's heritage.

The presentation points out that, with appropriate technologies based on Andean agricultural systems, biodiversity use and traditional knowledge, it is possible to safeguard crops and achieve food security, and generate excesses to secure modern market niches with an increasing demand of nutritious and ecological products.

To view the full presentation, please refer to the GIAHS website.

[1] In collaboration with: Jazmine Casafranca, Asistente de Programa de la Oficina de FAO en Perú, Lima, Perú; Mary Jane Dela Cruz, Technical Officer GIAHS, FAO, Rome; Walter Humani, Ministerio del Ambiente, Lima, Perú

GIAHS: Progress and Perspectives in China

Min Qingwen
IGSNRR, CAS, China

Key Words: GIAHS, progress and perspectives, ecological agriculture, traditional agriculture, China

Until now, the GIAHS implementation in China can be divided into two periods, including the preparation part, from 2005 to 2008, and the official implementation part, from 2009 to now. In the first period, what we have done can be summed up in three aspects: (i) the selection of China's First GIAHS Pilot System. The Qingtian Rice-Fish Culture system (abbreviated as RFC) in Zhejiang Province was designated as the pilot system by FAO in 2005. (ii) The start of related scientific research and public recognition. The Center for Natural and Cultural Heritage (CNACH), established in 2006 in the Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, is to promote this project in China and carry out researches on GIAHS. (iii) Completion of China project framework and the master plan for RFC conservation.

In the second period, since 2009, our work is focused on three parts. Firstly, the exploration and experience extension of GIAHS conservation in pilot site. To better conserve GIAHS, Qingtian People's Government have set up leading groups, established the Qingtian County's GIAHS protection office, a fixed management department, developed conservation plans and formulated management regulations. This office has three levels, including Qingtian County, Fangshan Town and Longxian Village. In June, 2010, Qingtian government and IGSNRR have set up a joint center to carry out technical research and promotion and develop the agricultural products market. One work of this center is to spread the calendar with the GIAHS information on it. This helps local farmers realize the values of RFC and feel proud that they are making contributions to the country and the world. The Rice-fish System Museum started construction in 2010. The achievements are prominent:(i) Qingtian's Medium- and Long-term Development Plan paid much attention to the rice-fish agricultural production and culture conservation; (ii) Local government issued a temporary legislation to promote RFC conservation and development; and (iii) A niche market of field fish was established and many local farmers obtained much higher profits from RFC system than conventional rice paddy practice. We already made a draft for the package and label Standards for farm products from GIAHS sites in China.

The training and popularization of GIAHS drew the attention of governors and farmers of other places who believe they also own significant traditional agricultural systems. They eagerly show their desire to be named as the GIAHS pilot site. Until now, Hani Rice Terraces System in Yunnan province and Wannian Rice Culture System are designated as the pilot sites. There are more and more candidate sites, such as Congjiang Rice-fish-duck System, Pu'er Tea Agrosystem, Aohan Dryland Farming System and Xuanhua Traditional Grape Gardens System.

The second one is systematic scientific research. Researchers gathered under the umbrella of GIAHS have been eager to explore this new field. The past five years have witnessed rapid

increases in numbers of both researchers and academic and popular science publications. The research includes agrobiodiversity, adaption to climate change, ecological environment effect, ecosystem services and sustainability evaluation, eco-agriculture and multifunctional agriculture development, the potentials of tourism development and sustainable tourism in GIAHS sites and law for GIAHS conservation. A lot of the academic exchanges activities were carried out as well.

The third one is promotion of public recognition and awareness. Several television stations, such as CCTV-9, CCTV-7, CCTV-News, Hong Kong Cable TV and local television stations, reported on the agricultural heritage systems. CCTV-7 filmed the documentary series on the Agricultural Heritage Systems in China and DVD copies were made for wider dissemination. In June, 2010 (China's National Cultural Heritage Day is in the second Saturday of every June), the documentary series on the Agricultural Heritage Systems in China were played in CCTV-7(Agricultural Channel). Wannian became the beginning of The Rice Road, shot by NHK; Rice-and-Fish Means Good Harvest became one of the special feature films of To Find Dragon Cultures of Hong Kong Cable TV. These media presentations will greatly increase the impacts of the Chinese experiences in agricultural heritage conservation abroad.

In general, the research on GIAHS is still on the primary stage. According to work experience of the last few years, we believe that the objective of GIAHS conservation is to promote local economic growth and increase the income of farmers and give support to modern agriculture development under the condition of agrobiodiversity and agri-cultural diversity well preserved. Without this, it is hard to conserve GIAHS sustainably. Agricultural heritage sites should become the platform for scientific research of agriculture, the window to show the brilliant achievements of traditional agriculture, the manufacturing base for developing agricultural products with ecological and cultural characteristics and the destination of agri-cultural tourism.

At present, there are two misunderstanding of GIAHS conservation. The one is to equal traditional with backward. The other one is to set conservation against development. The key of GIAHS conservation is to set up multi-stakeholders mechanism. The leading role of government is very important in China as well as the community involvement and support of science and technology. We also should pay attentions to the business involvement and media promotion. I believe if farmer can be happy like this, the GIAHS will be sustainably conserved and well developed.

For the recent work, we need to set up the globally GIAHS network as soon as possible. Meanwhile, we should carry up the general survey of agricultural heritage in China; accelerate the designation work of nationally important agricultural heritage sites; and strengthen the establishment of the academic organization of agricultural heritage. China is a big agriculture country with a long history. We have plenty of agricultural heritage except paddy rice culture, such as Dike Pond System, Dry Land Agricultural System, kariz, Silt Dam System, Traditional Nomad and Fishery Systems, etc.

To view the full presentation, please refer to the GIAHS website.

Oases Systems in Morocco Mountains

Seddik Saidi
INRAA, Morocco

Keywords: Oasis Systems, Khettara, biodiversity

The Imilchil-Amellagou site is located on the oriental High Atlas within the provinces of Midelt and Errachidia. Through an accumulation of knowledge, work and ingenuity the tribes of Ait Hdidou and Ait Marghad made the cold oases and the Agdal (management system of sylvo-pastoral resources) of Imilchil-Amellagou a model of sustainable development despite the adverse conditions of their natural environment.

Indeed, the inhabitants of those tribes managed to integrate the oases and arid paths of the mountains into a food cropping system and developed community practices oriented towards solidarity and discipline. Thus, over the years, they acquired a rich and diverse know-how. Moreover, this oasis system encompasses a rich agricultural diversity: the site is composed of a landscape that contains various mountain lakes, valleys, highlands, oases, caves and desert.

The site also ensures food security to local populations and contributes to fill their needs in terms of water, wool, medicinal plants, fire woods and others.

Despite its various opportunities, this system is threatened on the institutional, physical and environmental sides. The implementation of its conservation plan would offer the possibility to transform the system into a development model for mountain environments at local, national and international levels.

To view the full presentation, please refer to the GIAHS website.

Conservation et Gestion Dynamique des Systèmes Ingénieux du Patrimoines Agricoles Mondial, Cas du Système Oasis Ghouts D'El-Oued, Algérie

Achour Abdellatif-Fatah
INRAA, Algerie

Keywords: date palms, ghout, oases, groundwater, sand

This project was designed to support the safeguard and conservation of an agricultural, cultural and historical heritage: the ghout system. The latter is above all an ingenious unique agricultural system, which lays on date palm cultivation.

The Souf region is a vast dune area located in the Grand Erg Oriental. This desert area is marked by green crevasses, which constitute the ghouts: vast depressions dug in the dunes where date palms are planted and where fruit trees, vegetable and forage cropping, as well as domestic breeding (goat and sheep farming) can be found. Overall, the ghouts comprise a variety of crops and are characterized by a genetic diversity, which has been maintained over the centuries.

The ghouts, whose land area varies according to the capacity of their owners, were dug a long time ago by farmers using the speed and direction of wind (the final work was done manually). Thousands of cubic meters of sand were displaced to plant palms just above the groundwater surface. In reality, water is not coming up at the surface to irrigate plants: it is the plants themselves that are going down towards the water. There is thus no irrigation needed. Through this ingenuous system, the Soufi (inhabitants of the Oued Souf region) have been able to feed their populations, sell the surplus to local markets and even export their Deglet Nour dates outside the country.

Today, this system is threatened by an increase of groundwater levels in the ghouts surrounding urban centers, and by a decrease of groundwater levels in the ghouts located far from urban areas. GIAHS is therefore highly justified as a mean to support local development.

Along those lines, the State has recently started to implement a vast sanitation plan totalising 20 million dollars. The overall objectives are to preserve biodiversity and environment within the ghouts while allowing them to develop, grow, and feed local populations.

To view the full presentation, please refer to the GIAHS website.

Outstanding Farming Systems of Global Heritage Importance in Kenya

Philip Ole Sironka, Ivan Lagat, Simeon Sigilai, and *David Boerma*
Kenya

Keywords: Maasai Pastoral System, Oldonyonyokie and Olkeri

In 2002 FAO initiated a world-wide programme on Conservation and Adaptive Management of Globally Important Agricultural Heritage Systems (GIAHS) aiming to establish the basis for the identification, recognition, conservation and sustainable management of such systems and their associated landscapes, biodiversity, knowledge systems and cultures. Food and livelihood security of local populations, depending on these systems, will be enhanced by empowering local communities and their social organizations, and by introducing policy changes, incentive mechanisms and innovative market access such as eco-labelling and payment for environmental services.

In 2008 the FAO GIAHS Initiative extended its focus to East Africa, particularly Kenya and, for its potential Maasai Pastoral System and Upland Agro-forestry Systems. During the inception workshop, a few highly potential systems were proposed which were the Maasai pastoralism for the Livestock system and the Chagga home garden, ndiva and ngoro farming systems for the upland agro-forestry systems.

The presentation provides a detailed description of the Maasai Pastoral System (Oldononyokie/Olkeri) and of the Maasai people, their economy, their diet and the features of the system.

To view the full presentation, please refer to the GIAHS website.

Outstanding Farming Systems of Global Heritage Importance in Tanzania: Maasai Pastoralism

Marco Arpakwa[2]
FAO, Tanzania,

Keywords: Tanzania, Maasai Pastoral System, Engaresero

In 2002 FAO initiated a world-wide programme on Conservation and Adaptive Management of Globally Important Agricultural Heritage Systems (GIAHS) aiming to establish the basis for the identification, recognition, conservation and sustainable management of such systems and their associated landscapes, biodiversity, knowledge systems and cultures. Food and livelihood security of local populations depending on these systems will be enhanced by empowering local communities and their social organizations and by introducing policy changes, incentive mechanisms and innovative market access such as eco-labelling and payment for environmental services.

In 2008 the FAO GIAHS Initiative extended its focus to East Africa particularly Tanzania, for its potential Maasai Pastoral System and Upland Agro-forestry Systems. During the inception workshop, a few highly potential systems were proposed which were the Maasai pastoralism for the Livestock system and the Chagga home garden, ndiva and ngoro farming systems for the upland agro-forestry systems.

The presentation provides a detailed description of the Maasai Pastoral System (Engaresero) in Tanzania, the project site, the people and human-wildlife synergies.

To view the full presentation, please refer to the GIAHS website.

[2] In collaboration with: Grace Mwaigomole, Ministry of Livestock and Fisheries Development, Tanzania; Firmat Banzi,Ministry of Agriculture & Food Security, Tanzania; David Boerma, Technical Officer, FAO, Tanzania.

Outstanding Farming Systems of Global Heritage Importance in Tanzania

Grace Mwaigomole[3]
Ministry of Livestock and Fisheries Development, Tanzania

Keywords: Tanzania, chagga home gardens, Kihamba, upland agroforestry system

The presentation provides a detailed description of the geographical area of Tanzania, and explains how the country exhibits varied physiographic and climatic conditions. A large central plateau covers most of the mainland (between 900m and 1800m) and the mountain ranges of the Eastern Arc and the Southern and Northern Highlands cut across the country to form part of the Great Rift Valley. It also exhibits diverse agro-ecological conditions, which are potential for a wide range of agricultural (and livestock) production activities. Traditional agricultural systems (farming and livestock keeping) have evolved with human race and have been in use for several generations. Farmers and pastoralists used their local knowledge and experience to identify and earmark land for different uses. They underscored the interrelations between forest, farm, and pasture, accumulated ecological knowledge about specific micro-environments, and developed dynamic practices to manage their systems.

These farming systems are still highly contributing to the national food security and rural economy although most national programs have often neglected them in favour of conventional production technologies. Several age-old systems exist in Tanzania under different socio-cultural conditions. They include the Chagga home gardens (Kihamba), the Pare ndiva system, the Matengo ngoro system, the Haya Kibanja system, the spice gardens of Zanzibar and Tanga, the Luguru ladder terraces, the Maasai Pastoral system, the Hadzabbe system, the Sukuma agro pastoral system.

In 2002 FAO initiated a world-wide programme on Conservation and Adaptive Management of Globally Important Agricultural Heritage Systems (GIAHS) aiming to establish the basis for the identification, recognition, conservation and sustainable management of such systems and their associated landscapes, biodiversity, knowledge systems and cultures. Food and livelihood security of local population depending on these systems will be enhanced by empowering local communities and their social organizations and by introducing policy changes, incentive mechanisms and innovative market access such as eco-labelling and payment for environmental services.

In 2008 FAO GIAHS extended its focus to East Africa particularly Kenya and Tanzania, for their potential Maasai Pastoral System and Upland Agro-forestry Systems. During the inception workshop, a few highly potential systems were proposed; Maasai Pastoralism for the Livestock system and the Chagga home garden, ndiva and ngoro farming systems for the upland agro-forestry systems.

[3] In collaboration with: Firmat Banzi,Ministry of Agriculture & Food Security, Tanzania; David Boerma, Technical Officer, FAO, Tanzania.

Site selection was conducted following the GIAHS set criteria (uniqueness, integrity, resilience, agro-biodiversity, ecological significance, geological and cultural value). The Engaresero village was selected to represent Maasai pastoral system and the Shimbwe juu village to represent the Chagga Home Garden Upland Agro-forestry System.

To view the full presentation, please refer to the GIAHS website.

A Strategy for identification of Globally Important Agricultural Heritage Systems in Sri Lanka

Paranavithana Ganila
CECB, Sri Lanka

Keywords: Sri Lanka, Wewa, GIAHS

The presentation highlights that Sri Lanka, with a recorded history of over 2500 years and a pre-historic experience of several millennia, retains a rich heritage in culture as well as in nature. There are nearly 40,000 villages in Sri Lanka today, and some of them date back to the very beginnings of history. Agriculture has been the main source of living among the Sri Lankan people even before the dawn of recorded history, and a unique culture based on farming has evolved over the centuries. Thus, through continuous interaction with nature, and the relentless struggle for survival, some of the most idyllic agricultural landscapes came into existence. Nevertheless, the forces of modernization, commercialization and globalization have changed most of these landscapes beyond recognition. However, some of them continue to remain with age-old practices, demonstrating their resilience to climatic, environmental and historical vicissitudes.

The rapidity of change particularly in land use across the Island is threatening to erase many age-old agricultural heritage systems. 'Green Revolution' technologies since the 1960s, despite their contributions to increase agricultural production, have unleashed a sweeping wave of change, not only on biodiversity, but also on human health and well-being as exemplified by the rampant kidney diseases that have now reached epidemic proportions in some agricultural areas. Modern agricultural technologies such as the 'combined harvester' (nick-named tsunami), while making field operations less cumbersome and tedious have also unwittingly resulted in the destruction of some aspects of age-old agrarian cultures (e.g. The disappearance of the Kamata or threshing floor).

The ancient Sri Lankan cultural trinity, symbolized by the tank, rice field and the religious monument had come under serious challenge. Without this, the very national identity may be at stake. Gama or Village formed the anchor of Sri Lankan culture since ancient times and still nearly 70% of people live in rural areas earning their living from agriculture. Given the above setting and unfolding scenarios, it appears that some concerted effort would be needed to conserve the remaining heritage systems sustainably for posterity, while preventing the dissipation of an ancient culture and its norms and value systems altogether.

To view the full presentation, please refer to the GIAHS website.

Saffron Heritage of Kashmir in India

Firdos Ahmad Nehvi
HEADS, India

Keywords: Pampore, Saffron Heritage, Kashmir, India

One of the legacies of time honoured agricultural heritage is saffron farming, practiced for centuries in and around the Pampore Karewas of Kashmir in India. This old but functional farming system continues to inspire family farmers and local communities through their livelihood security, providing for more than 17,000 farm families.

The presentation reflects upon the potential of good agricultural practices for the dynamic conservation and adaptive management of this unique and Globally Important Traditional Agricultural Heritage System adopted and adapted over 2,500 years. The Kashmiri village women are the heroines of this agricultural heritage site, devoted from immemorial time to activities ranging from traditional tilling to flower picking in the over 3,200 hectares dedicated to the legendary saffron crop cultivation in Pampore.

However, this site has been facing grave challenges of sustainability and livelihood security with urgent need to adopt appropriate technologies, inter-alia, to address water vagaries, productivity loss and market volatilities. Thanks to the GIAHS initiative, appropriately innovative scientific and technical approaches are being tested and adopted at the pilot site for adapting to changing environment with due stocktaking and awareness raising.

To view the full presentation, please refer to the GIAHS website.

Dong's Rice Fish Duck System

Prof. Min Qingwen
IGSNRR, CAS, China

Key Words: Dong Minority, Rice-fish-duck system, Congjiang County of Guizhou Province

Congjiang County is located in the Southeast Guizhou Miao and Dong Autonomous Prefecture, Guizhou Province. It is on the transition belt from the Miaoling Mountains to Guangxi upland and close to the southeast edge of the Yunnan-Guizhou Plateau. Its total population is around 328 thousand, of which the agricultural population accounts for 93.8%, mostly are Dong and Miao groups.

The traditional Dong's Rice-Fish-Duck Agroecosystem has high species richness. There were 277 rice varieties with local characteristics, of which 261 are locally traditional varieties. There are still existing 45 local rice varieties, including 29 Xianghe glutinous rice varieties and 1 black glutinous rice variety, which are both rare and valuable. Except for rice, there are also fish, ducks, wild hydrophytes and plants in the same paddy field. The fish is mainly carp (procypris merus, pouch carp, fire carp), with crucian carp, grass carp next to it. The ducks are mainly Water Duck and Sansui Spotted Duck, which are endemic species. Wild hydrophytes include spiral Shell, clams, shrimp, crab, loach, finless eel, Amyda sinensis, Lampetra mori, etc. Wild plants include cane shoots, lotus root, water pack, oenanthe stolonifera, etc.

In such a complex agricultural system, ecological benefits are significant. First, no pesticides and fertilizers are needed in the whole process. The number of insects greatly drops off when ducks are stocked in the field and fish also helps deduct weeds. Then, emissions of CH_4 in the rice field are significantly reduced. In comparison with the conventional rice field, the Rice-Fish-Duck agricultural mode can reduce CH_4 emissions by 34.6%. Further, the rice field can keep water and prevent soil loss. The height of the rice field of Dong is about 40-50 cm. Therefore, when the rain comes, a rice field serves as a 45 cm depth of flood water storage reservoir. Finally, Rice-Fish-Duck agro-system can improve the soil aeration and redox conditions, increase the soil fertility, and promote the rice uptake of nitrogen, phosphorus, and potassium.

This remarkable agroecosystem also provides multiple goods and services for the local residents. In such an agricultural model, the contradiction between human and land has been effectively alleviated. The Rice-Fish-Duck model serves as an adequate source of nutrition of both plant protein and animal protein within the same production process for the local residents. With little contamination of chemical fertilizers and pesticides, glutinous rice also ensures food safety and human health. Rice, fish and ducks are commonly used in many traditional folk activities. For example, in the sacrificial activities, villagers must use the new harvested rice, fish and duck to offer sacrifice to ancestors. Dong also use glutinous rice, fish and duck to show hospitality to honorable guests. Other traditional festivals like Chixiangsi must have glutinous rice, fish and duck as the main ingredients of the banquet.

Now, the traditional Dong's Rice-Fish-Duck Agroecosystem is facing both threats and opportunities. Such factors as obsolete policies, modern agro-technologies, excess use of pesticide and fertilizer, and undervaluation of traditional agro-wisdom, have caused the loss of traditional glutinous rice that cannot be retrieved.The young people who are greatly affected by the modern ideas incline to give up their traditional culture and to work outside in modern cities. Thus, the Rice-Fish-Duck Agro-system and other valuable traditions are hard to pass on and tend to be lost. Finally, apart from small production scale and low standardization, the level of niche market and processing is low. Therefore, it is hard to enter marketplace and expand market shares for the local production in the context of globalization.

However, there are also existing many opportunities for the development of this traditional system. For example, people begin to reconsider the development of the modern agriculture, as environmental problems have received more and more concerns. Developing ecological agriculture has become a consensus. People also begin to explore the production of green food and organic food, as food safety is becoming increasingly important. The Rice-Fish-Duck Agroecosystem has greatly reduced the utilization of pesticides and chemical fertilizers by taking full advantage of the symbiosis of rice, fish and ducks. Thus, it has the potential for producing safe and healthy food that meet the high requirements for food safety. In addition, as an important agricultural heritage system, the traditional Dong's Rice-Fish-Duck Agroecosystem has caused widespread concerns, which will turns to an excellent opportunity for the local development.

There are already good foundations and conditions for protecting such an area. There is a relatively perfect natural-human system (including species, landscape and culture). Then, the local government and the local residents attach great importance to the GIAHS project and have strong desires to participate in it. Through the past few years, we have a very good accumulation in the related work and have obtained some success in scientific research, protection and development planning.

To view the full presentation, please refer to the GIAHS website.

Day 2: Rural landscapes and ecosystem goods and services: opportunities and challenges

The Keynote Presentations of the second day of the Forum were mainly centred on the role of tourism in GIAHS sites and on the specific characteristics of GIAHS, with particular focus on developed countries such as Japan.

Tourism, when locally managed and with the participation of local communities, appears to play an extremely important role in the sustainability of GIAHS sites. It can be used as a tool for catalysing dynamic conservation and for disseminating information on how farms contribute to food security and quality of life, as guardians of the ecosystem, particularly in developed countries where urban dwellers are losing their understanding of the countryside. The importance of proper marketing and the production of GIAHS products to help ensure sustainability is also part of the dynamic conservation activities.

In Japan, as well as in many other countries, people are moving from the countryside to the cities. GIAHS is helping to reverse this trend by attracting young professionals to stay and work, or even move to the countryside.

In summary, this session highlighted how GIAHS can contribute to a better urban-rural balance in the 21st century as part of a pro-poor green economy.

Satoyama and Satoumi Initiatives for Conservation of Biodiversity and Reactivation of Rural Areas in the Noto Peninsula: Kanazawa University's role in GIAHS

Koji Nakamura
Professor, Deputy President, Kanazawa University,
Chairman, The Satoyama Satoumi Project, Kanazawa, University, Japan

Keywords: Satoyama and Satoumi, Noto GIAHS, JSSA, reactivation of rural communities, capacity building of young leaders

This presentation highlights the importance of two kinds of Japanese landscapes: the managed rural lands and coastal areas, known as Satoyama and the Satoumi landscapes, respectively. These landscapes have been formed through the local people's usage and management over a long period.

The focus of the presentation is on the Noto Peninsula in the Ishikawa Prefecture, Hokuriku region, located on the Japanese Sea side of central Japan. The region is highly rich in traditional culture and biodiversity. In June 2011, "Noto's Satoyama and Satoumi" were designated as Globally Important Agricultural Heritage Systems (GIAHS) Sites. Today, the ecosystems of these landscapes are under threat for various environmental and social issues, including under-management of the land, a shrinking rural population, declining agriculture and an ageing society.

The present conditions and problems of Satoyama and Satoumi in the Noto Penisula are discussed from the point of view of the Japan Satoyama and Satoumi Assessment (JSSA). The activities of Kanazawa University to conserve the rural landscape and biodiversity and to reactivate the local communities in the Noto Peninsula are also mentioned.

To view the full presentation, please refer to the GIAHS website.

Tourism applications of Globally Important Agricultural Heritage Systems (GIAHS): Spotlights from Satoyama landscapes of Japan

Kazem Vafadari
Ritsumeikan Asia Pacific University, Beppu, Japan

Keywords: heritage tourism, agricultural heritage, rural development

The presentation highlights how agriculture and tourism are two major human activities and both play a significant role in the livelihoods of people around the globe. While agriculture is an old industry with a long history, tourism is a rather new and growing one that can compete with agriculture in utilizing natural resources (Lichtfous, 2011). Agriculture not only has been a strong livelihood strategy for human societies but also contributed to their identity and lifestyle, and this is what many tourists now want to see. Forms of agriculture are perhaps the most popular images of the 'rural' however this has been changing recently, due to the outmigration of the rural population and the urbanization phenomenon in many countries. In fact the world rural and urban populations became equal for the first time in 2010, bringing more attention from social scientists to the causes of rural depopulation and its possible solutions, including tourism (Lichtfous, 2011).

The roots of rural depopulation go back to the inadequate means of livelihood in rural landscapes that encourage rural populations to leave their place seeking for jobs in urban areas. This situation can be different in different countries or even different regions within same country, implying that each locality requires its own management system (Chang, 2012). A major reason behind the out-migration of rural populations in some countries is limited agricultural land and resources that that are not enough to support bigger families and growing populations. The higher value added by other industries in comparison with agriculture is the cause for outmigration in some areas, especially in the industrialized world. Development of industry itself and technological advances are also responsible for rural depopulation where advanced machinery has replaced human labour. Use of technology and agricultural machinery has led to higher productivity of agriculture and attracted farmers, but in many cases has also destroyed agricultural heritage and traditional agriculture by changing lifestyles and taking way farmers' jobs.

Less biological diversity is also a 'byproduct' of the industrialization of the agricultural sector as a result of utilizing chemical fertilizers and pesticides instead of traditional ones to feed concentrated urban population. In the era of climate change and global warming, the need for education and awareness on the values of natural ecosystems and biological diversity is seen to be necessary in order to support sustainable life for human beings. Therefore, the key point of rural revitalization and conservation of biological diversity is how to encourage and create a new demand for life in harmony with nature, that used to be the lifestyle of majority of people and the heritage of the past (Huang, J., & Gale Group. 2012).

Developing systematic and sustainable rural urban contacts can bring awareness and more interest in rural lifestyles among urban populations and raise sensitivity about values of nature. There is also nostalgia in visiting hometowns that generates more demand for rural-

urban contacts and communication, but this is stronger among the older generations who once used to live in the countryside before migration and the adoption of urban lifestyle. Many people have considered visiting the countryside and spending time with agricultural families for rest and recreation as their regular tourism activity. Tourism applications in agricultural systems and landscapes with global importance and uniqueness as a source of heritage tourism are the focus of this paper. Examples of agricultural heritage tourism development in the Japanese GIAHS sites of Satoyama landscapes are utilized to bring more insight to the discussion. Furthermore, the presentation discusses the extent to which tourism in agricultural landscapes can contribute to the rural economy and livelihoods and can provide direct benefits for conservation, environmental management and of biological diversity.

To view the full presentation, please refer to the GIAHS website.

Satoyama and Satoumi for GIAHS in Japan

Akira Nagata
Senior Programme Coordinator, United Nations University Institute of Sustainability and Peace
Anne Mc Donald
Director, UNU-IAS, Ishikawa/Kanazawa
Professor, Sophia University Graduate School of Global Environmental Studies

Keywords: Agriculture, Biodiversity, Culture, Satoyama, Satoumi

With the loss of biodiversity occurring at an unprecedented rate—up to 1000 times the natural rate of extinction, and climate change a global reality, business-as-usual is no longer an option. As human societies across the globe explore potential local solutions to reverse the loss of biodiversity and build resilience to the negative impacts of climate change, integration of traditional knowledge and other resource management practices of the past are being sought as workable solutions to future sustainability.

The presentation highlights how, amidst this movement, Japan is looking to *Satoyama*, managed "socio-ecological production landscapes" commonly defined as dynamic mosaic of habitats and land uses that have been shaped over the years by the interactions between people and nature in ways that maintain biodiversity and provide humans with goods and services needed for their well-being. *Satoyama*, along with the nature views, lifestyles, cultural values, traditional knowledge and resource management practices embodied in the term is used in differing contexts, including policy making initiatives by local and national bodies, has become for many a symbol of human-managed landscapes where humans and nature coexist in a harmonious symbiotic relationship. *Satoyama* and its marine counterpart *Satoumi* have gained momentum and are leading the paradigm shifts to sustainability founded in the traditional cultural heritage of rural communities in Japan.

Satoyama gained international recognition at the 10th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP10 Nagoya) when the *Satoyama* Initiative, jointly developed and proposed by the Ministry of the Environment of Japan and UNU-IAS at COP10 Nagoya, was adopted in a decision on the Sustainable Use of Biodiversity and globally recognized —as a potentially useful tool to better understand and support human-influenced natural environments for the benefit of biodiversity and human well-being. Under the *Satoyama* Initiative, Japan is reaching across borders to communities around the globe to work together to enhance understanding and raise awareness of the importance of socio-ecological production landscapes for human well-being and to support the cultural heritage and diversity of socio-ecological production landscapes globally.

To view the full presentation, please refer to the GIAHS website.

Preserving GIAHS through Connecting to the Marketplace: The Role of Branding and Technological Adaptation

Alia Malik
Co-Founder of Shangrila Farms, China

Keywords: GIAHS, marketing, branding, new technologies

Globally Important Agricultural Heritage Systems (GIAHS) are agricultural systems and landscapes maintained for generations with locally adapted management practices.[4] While some of these systems remain competitive providers of multiple goods and services, many are threatened by the need for income generation and lack of awareness of the value of preserving, protecting and learning from them. GIAHS represent a profound ecological, agricultural, anthropological and cultural resource.

The presentation explains how a key way for GIAHS to be protected is through ensuring their economic sustainability for the communities and finding them a place in the global context. Protection can only go so far and a range of alternative ways must be used to support these systems. There is huge scope to make better use of these existing resources through adaptations that reinforce the synergies of a GIAHS. The range of options to make GIAHS more sustainable through enriching complimentary activities and direct livelihoods include eco tourism, production of primary agricultural products, production of handicrafts, and other forms of local enterprise.

In addition to the production of saleable GIAHS goods and services, they should be connected to the marketplace in order to make them sustainable. If a system's goods or services are highly demanded by external markets, there is a strong foundation for the survival of that system. This demand can be created through branding, marketing, advertising, geographical indications, organic and other certifications and positioning exercises. All of these tools will generally not be easily accessible to GIAHS communities and are likely to need to be subsidized or provided through external forces.

Looking at systems featured in the "International Forum on Globally Important Agricultural Heritage Systems (GIAHS)," they generally involve remote communities living below the poverty line, subsistence agriculture, and out migration of working age men or both men and women. Featured GIAHS are diverse and from all parts of the globe, including Ifugao Rice Terraces in the Philippines, Rice-Fish Agriculture in China, Pastoral and Upland Agroecosystems in Kenya and Tanzania, Andean Agriculture in Peru, and Oases of the Maghreb. As rich as these systems are in cultural heritage, biodiversity, and ecological and anthropological resources, they are often marginal and threatened, and rely on income from remittances, tourism and other sources.

By connecting GIAHS communities to branding and marketing tools or appropriate intermediary groups, there is a path to preserving and reinforcing GIAHS. This presentation presents a brief case study of a marginal, remote community in the Diqing Tibetan

[4] FAO, "Globally Important Agricultural Heritage Systems," available online at www.fao.org/nr/giahs/en/

Autonomous Prefecture, Yunnan Province, China (commonly known as Shangri La) of subsistence agriculture and solutions to support its vitality. These solutions include encouraging complimentary practices and provision of supportive technologies to reinforce existing cultivation and the role of marketing and branding to create demand in support of this system.

To view the full presentation, please refer to the GIAHS website.

Day 2: Afternoon Parallel Session

Building Partnerships and Networking for GIAHS: A Consortium

Facilitators: Dr. Parviz Koohafkan / Dr. Maharaj Muthoo

The challenges of sustainable agricultural development and poverty reduction are great, however nowadays there is greater human capacity and ingenuity than at any time in our common history. With the right policies, investments and political will to reach into poor communities, the formidable challenges of our century will be met. FAO – GIAHS, over the past eight years, has raised awareness of the importance of traditional and evolving agricultural systems in promoting sustainable agricultural development.

The objectives of the Parallel Session are to facilitate understanding of GIAHS and the need for continued awareness-raising, the building of partnerships and alliances, and to discuss and provide recommendations on how the implementation of GIAHS' dynamic conservation can be sustained, up-scaled and enhanced in order to contribute to achieving the MDGs Targets, Nagoya Protocol and provide support to other global development agendas.

During this session, the participants met in an Open Forum to discuss the actual status of the GIAHS Initiative, partnerships and networking, and awareness raising strategies.
Following on, the Steering Committee Meeting took place with one representative per country.

Summary of Open Forum Discussions

The meeting focused on the representatives of Pilot Countries, who put the spotlight on the outcomes, challenges and difficulties faced at the time of the implementation of the GIAHS project.

Prof. Sangji Pei, of the Chinese Academy of Sciences, explained that what the GIAHS Initiative is trying to promote is a sort of internationally recognized heritage that is really unique. Firstly, it's important to diversify the GIAHS sites, but it is necessary to have some common criteria to identify them, because, for example, in China the diversity of agricultural systems from big to small areas is substantial. These criteria could be very useful for the identification of new sites. Secondly, a capacity building network could be organized in each site. According to Prof. Pei, this needs to be done as teamwork; it must come together for a common understanding. Each country will propose and develop new sites therefore a strong GIAHS network needs to be established so that the communities can communicate. As a first step, national networks could be created and then regional networks as well, with the help of more experts' groups. There is already a guideline for nature sites, which is important and useful. These kinds of sites not only have a historical memory but also constitute a contribution for the present. For this reason he concludes that GIAHS need to have usable guidelines not only for the present but also for the future. It is not a matter of immediate identification or new sites (they will certainly become more) but the challenge is to create specific guidelines for GIAHS sites.

Dr Parviz Koohafkan, Global Coordinator of the GIAHS Initiative, pointed out that the GIAHS Initiative has a capacity building programme and guidelines. The pilot countries are supposed to discuss this issue, as it has been done in other pilot countries.
Regarding the establishment of common criteria, he explained that the project has gone through all this in the last years and has come up with the five specific criteria:

1. Food security: how the system provides food security to its community.
2. Biodiversity: biodiversity richness needs to be found in all systems, and in all cases there are have which are outstanding.
3. Indigenous knowledge: for example the techniques of water management, farms, etc.
4. Cultural richness related with agriculture
5. Landscape and beauty of the systems

Some countries are rich in certain sectors more than other areas. The criteria should not be made so complicated so as to encourage more stakeholders but there should bea minimum standard that has to be respected. Also, to put in mind that in this "system", we are talking of dynamic system and humanities.
Before a site becomes a GIAHS the biodiversity and specific background of the sites need to be evaluated.

Regarding the creation of GIAHS networks, Dr Koohafkan stated that in the established systems there is a national coordinating unit (inception workshop, experts' group, technical

unity and scientific unity) with this specific objective. As for tourism, dynamic conservation is a keynote for GIAHS, but each system needs to develop an action plan, which is through multi-stakeholder participatory processes, and respects the criteria for GIAHS in development systems.
Dr Koohafkan concluded by stating that agricultural patrimony or Agricultural Heritage can be used for attracting tourism, but a capacity to manage the systems needs to be built and the tourism must not alter the systems or the goods and services.

Dr Alipio Canahua, Ministry of Environment/GIAHS Peru, stated that at present, in an era of globalization, there is an urgent need to find options for the dynamic conservation of these systems as they constitute a heritage for the future. In the case of Peru agro-tourism could be a good possibility but we need to be careful with tourism and select the areas that have to remain isolated or protected.
Strategies or plans and development challenges should be considered, and these principles must correspond to the establishment of a dynamic conservation plan, good use of agricultural biodiversity (for example gastronomic tourism); cultural heritage management (Macchu Picchu is facing several risks that need to be evaluated).
Finally Dr Canahua explained that is fundamental to evaluate the risks and prepare the people before turning to tourism. After considering all this issues new strategies can be designed in this matter.

Dr Fatah Achour, INRA, Algeria illustrated the example of Algeria where it is important to make evident that in all kind of circumstances the issues that encountered for all GIAHS projects are different in each country. In the Oases water needs to be found; farmers as the owners of the land need to understand that they must pay attention to the agricultural heritage and many questions need to be addressed to them. Parameters and indicators have been developed to determine the size that needs to be found in food processing and agriculture. Dr. Achour concluded that as the government is not giving much the farmers need to be mobilized. The main solicitude is that government takes the lead, looking at the benefits first.

Dr Seddik Saidi, INRA, Morocco pointed out that seems it seems that GIAHS in Morocco are not playing an important role. They have to be considered as an industry that encounters challenges and opportunities of the future. National resources, special resources, immigration seem to be the main issues and sometimes seem more important than agriculture. Consequently, for Dr. Saidi, an important role needs to be built, demonstrating that this is a cross functional system.
As for the limitation of tourism, he points out that it needs to be balanced as the communities have to be trained for this new market that is driving the development of Agricultural Heritage Systems.
Dr. Saidi concludes that the criteria and guidelines should be improve and upgraded.

Atef Dhahri, Association pour la Sauvegarde de la Médina de Gafsa, Tunisia, points out that for Tunisia, it would be convenient to proceed with a dynamic conservation plan for GIAHS sites for which stronger action plans need to be created as there is still lack of certain techniques. Investments have been made in the site, but policies and research studies on

the Oases should also be conducted. Probably this plan could be endorsed by the government, including the Oases in the agricultural heritage policies.

The Representatives of GIAHS-China from IGSNRR, stated that agriculture needs to be examined. In China 20 years ago a concept for Chinese eco-agriculture was proposed on the basis of environmental degradation. Consciousness of this issue still needs to be raised, as it is not mainstreamed in the agriculture development. GIAHS encompass food security, biodiversity, landscapes and agriculture, therefore, when it comes to agricultural heritage the rural areas and farmers should be included as well, and China is being very active in this.

They explained that at the moment, there are 5 systems that would like to become GIAHS Sites and the issues highlighted by our colleagues are very important for them. Up to now many goals have been achieved but in the process of institutional management the rules still have to be improved. They suggest that these rules be created in order to improve the whole project and concept. For this, the Institute of Geographical Sciences and Natural Resources Research (IGSNRR) has created a panel that is carrying on a research in this area.

However, there are some issues that are not clear. For example, in the identification of sites: the different systems have special features, how can they be chosen? For those sites with limitations, if we they are not protected, they will collapse just like the extinction of species. Many ethnic groups are at the borderline of their life. For this reason the criteria are needed. Developing tourism is important but the problem is how to establish the capacity to receive tourists. They concluded that while developing the economy research activities can be conducted at the same time but how can capacity knowledge be addressed?

Dr Koohafkan answered the raised questions by explaining that it would be difficult to manage too many systems at the time, because we are still in a critical phase of implementation in some of the Pilot countries. The regulations need to be strengthened however there are some of these tools already. Maybe this is not the right moment to include new sites. Also, in India there are many initiatives that are posing the same questions and that are trying to take care of these unique systems. They call them “tribal agricultural heritage”, “heritage crops”, etc.

Prof. Miguel Altieri highlighted that one of the main objectives of the GIAHS Initiative is to preserve the agricultural heritages in the world. The ones that form part of the initiative at present were selected because of their features that were common and unique and should be preserved according to the dynamic conservation concept. Awareness on the local basis needs to be raised providing measures to protect those features, developing local benefits at the same time, and tourism is an interesting mechanism to promote them.
As they have tested the time, the features that made them become GIAHS need to be protected, and to achieve this objective, according to Prof. Altieri, policy mechanisms that preserve the features of the GIAHS need to be found.

Dr Yohana Budeba, Ministry of Agriculture, Tanzania, pointed out that they are here to discuss about the contribution to agriculture of this cultural heritage. It is important to help GIAHS in assisting others. This is why the research activities, policy recommendations, enable policies are so important. He explains that they are at different levels of

implementation and hope the programme will assist them in moving to the same platform. For example, in Tanzania there are have 5 sites waiting to become part of the GIAHS Initiative.

Dr Parviz Koohafkan responded that with reference to the specific case of Tanzania and Kenya, it is the government of Germany that has been funding this initial scale therefore they need to believe and accept that this is a priority. This, should be also accepted by the policy actors and each country should establish this issue as a priority. However, he points out that this is a national job, the programme can assist the countries but the first step towards the recognition of the importance of Agricultural Heritage must be done at national level.

Mrs Coosje Hoogendoorn, Director General, INBAR, Beijing, explained that as we are moving from an agricultural to an industrial- ecological civilization we should think about preserving but at the same time moving towards the new era, which is different from the agricultural civilization. She also stressed the fact that the Rio +20 Summit will be held next year and GIAHS fits exactly with the sustainability development approach launched by the Rio Convention 20 years ago therefore it is a forefront initiative.

Dr Walter Huamaní, Ministry of Environment of Peru, stated that in Peru the GIAHS Project has been developed in 2005 and has moved forward because of the Peruvian agricultural tradition and has also created big expectations among the people. GIAHS is a tool that can help the country to protect traditional farmers, because at the moment the products from big scale agriculture are used for export only.
According to Dr Huamaní, an effort should be made to pass from the initial stage (the technical, academic and scientific stage) to the practical application of this knowledge. For example, in Peru, they are promoting policies that support farmers (chacreros) and in the future they would like to give them a legal recognition and a juridical status that will certainly help them to improve their conditions of life and will be important for the dynamical conservation of sites.

Dr Ximena George-Nascimento, Ministry of Environment, Chile, explained that there are important differences regarding the implementation of the project and regarding the different cultures, as well. GIAHS is trying to gather all the systems without trying to uniform them. This is exactly the strength of GIAHS Initiative, the enforcement of sites by focusing on their diversity. He expressed his desire that each country develop GIAHS as an important national programme that will not end.

Dr Maharaj Muthoo concluded the discussion by summing up the main messages of the meeting, which are to ensure the sustainability and criteria and to give indicators as the basis of GIAHS. Culture and agriculture protection by GIAHS is about dynamic conservation and not “preservation”.
At the local level, according to Dr Muthoo, GIAHS needs to work for ownership, stewardship, leadership for reaching dynamic conservation, and needs to promote certification and eco-labelling to achieve this goal. GIAHS should become a global system with local places, so it can include more and more Agricultural Heritage Sites in the world.

Steering Committee Meeting

Introduction

The Fourth Steering Committee of the GEF-Project *Conservation and Adaptive Management of Globally Important Agricultural Heritage Systems (GIAHS)* convened in Beijing, 9-12 June 2011, on the occasion of the Third International Forum on Globally Important Agricultural Heritage Systems (GIAHS). The meeting was attended by members of the six pilot countries, Tanzania, Kenya and Morocco, GEF Operational Focal Point of Chile and Peru, Prof. Miguel Altieri, Dr. Maharaj Muthoo, Dr Parviz Koohafkan- Global Coordinator, Dr Mary Jane dela Cruz from the GIAHS Secretariat, and presided by Chair of the SC, Prof Li Wenhua of China.

The GEF-Project is one of the main vehicles of FAO's Globally Important Agricultural Heritage Systems (GIAHS) Initiative, where Project Outcome 1 deals for the establishment of the foundation for a long term international programme to provide for global recognition and safeguard of GIAHS worldwide. At its fourth session, the Steering Committee considered progress of each country, difficulties, issues and experiences, endorsing the recommendations of the Secretariat to the new candidate sites and recognizing the two new systems of Sado and Noto in Japan as GIAHS sites.

Statement of the status, progress and development

CHILE

The challenges encountered in this country are different based on the evolution and period of the work. Chile is one of the countries that started more rapidly with the implementation of the Programme. First of all, Chiloé meets all the 5 criteria established by GIAHS. There was a meeting in Chile through this Forum the country wants to learn from other countries about their experience in selecting sites that classify as GIAHS. Secondly, it is important to define the actors involved and the role of each actor because this determines a commitment in the public and private sectors (farmers, industry, business, and science academies). The aim is to make GIAHS a sustainable initiative with financial help that can be external, but has to come mainly from the national authorities.

PHILIPPINES

The country is facing issues in passing on the knowledge from one generation to another (e.g the case of the Ifugao Rice Terraces). They are currently seeking help from the Ifugao University to form researchers in agri-cultural heritage.

PERU

Peru is in a particular phase of the implementation of the project and in a particular political context. In January 2011 the Regional and local Governments were elected. In this context the GIAHS project in Peru, FAO and MINAM started with the Inception Workshop, but due to the political elections, the work had to be inverted, starting with the activities and delaying the Inception Workshop to include the new authorities in making it the official start of the project.

In Cuzco-Puno fortunately both governments want to support the Initiative and include GIAHS in their political programme. This could make it easier to determine priorities, activities and the budget. The fundamental support would be the methodological help.

ALGERIA

The GIAHS Project was launched in Algeria in 2009, but the implementation of the activities started in 2010. The actions taken were mainly directed to build awareness of public authorities and farmers, as well. There were no major problems since the local authorities assisted the project. The difficulty was to involve the farmers and to manage their training and convince them about the importance of the heritage they hold. The farmers want to see tangible results and it has been difficult to convince them about the importance of their work for future generations, but in general they are starting to understand what the project can grant.

The initial activities were directed to:

- Bring tourists from Europe
- Enhance breeding activities
- Promote collaborations between different Ghouts
- Create watery itineraries with the financial help of business companies that will contribute to the dynamic conservation of the Ghouts.

Problems encountered:

- Integration of FAO with other associations
- The involvement of women as the project will encourage women to continue producing hand made products for markets and export.

Main activities:

- Preparation of a dossier with all the information regarding the project
- Launch of Ghout website

MOROCCO

Morocco is still in the application phase of the GIAHS Project. After receiving a recommendation a site was chosen and then under the support of GIAHS communication meetings with farmers and local associations were conducted. The main objective of this project is to fulfill their needs and demands, but also to raise awareness of Agricultural Heritage and to explain what GIAHS.
The country is very active in promoting such a challenge as other countries are going in the same direction. The national strategy is to help development and management of natural resources. An action plan with strategies to protect them is being formulated.
Moreover, at the national level there are some other potential sites that could be promoted.
In September there will be a national workshop to introduce and promote GIAHS.

TUNISIA

The Project started in 2005 with an action plan to promote the activities of FAO with three projects in the Oases. The implementation phase started between 2009 and 2010 and in 2011 the dynamic conservation was launched with a 4-axis plan that includes:

- Preparation and implementation of Tunisian oases.
- Water management groups, and “agricultural development groups” that work on water management
- Promotion of employment, thank to private projects on agriculture
- GEF/FAO GIAHS is a biodiversity project so local authorities will be trained on the importance of biodiversity conservation.

TANZANIA

In Tanzania there are many systems. The most important action to be made is to upgrade agroforestry.
The plan is:

- To upscale the GIAHS initiative to other sites.
- To enhance the pastoral system because there have been serious problems of drought.

CHINA

IGSNRR is considering working with a research center and then linking with the government to launch a new GIAHS site.
The central government is providing financial support to build an ecological civilization.
There are two main issues:

1) How can the country really conduct a dynamic management of GIAHS sites?
2) Is there an international organization that can promote GIAHS?

KENYA

In Kenya there are a great number of challenges and issues to face. Also, there was an important loss of animals during the drought in 2008. Almost 1000 people were affected.

The challenges and issues are:

- As a community the projects should be turned into restoring opportunities. There was an action plan to harvest, which was never applied but it is a technical approach that could be useful for the system.
- Capacity building. The institutions often impose something that is not possible for the culture or the environment.
- Time is very short for this project compared to progress.

Problems:

- It is difficult to identify the poor. For example counting the animals that families own or how many children go to school.
- Political environment sometimes is very difficult; some people are left behind by the situation so it is difficult for the communities to access the resources that have been stated for them.

SRI LANKA

The situation in Sri Lanka is not that good as the systems have been modified and damaged especially due to the use of fertilizers on the ground which damage the soil structure. It is a challenge, but people have lost their coexistence with nature. An effort can be made to save

the natural resources that still remain but the government policies must support this challenge.
As for biodiversity: unfortunately the green revolution has promoted fertilizers, etc. and this has lead to the damaging of nature (for example loss of fish). There are very few remaining hotspots in Sri Lanka that need to be protected.

INDIA
The Saffron site is a unique heritage site, which is also in danger. In India there are research activities conducted by Universities that are working for the dynamic conservation of the Saffron GIAHS site and for the conservation of biodiversity and natural resources.

Soon after the country reporting, the Chair of the SC and the Global Coordinator had provided guidance and recommendations. Prof Li briefly accounted his knowledge and understanding about agricultural heritage and in the contexts of China rapid development and increased acceptance from the scientific and local governments. He stressed the valued of demonstrating the intrinsic value of the heritage, and how to achieve its potentials where everybody regardless of profession could contribute to its development and conservation. Mr Koohafkan on his part, talked about the variety and uniqueness agricultural heritage in the world. He emphasized GIAHS – being the source of food, which provides food for the humankind and is the most important one, because food is the first among the hierarchical needs of the human being and what is being discussed and presented in this forum and meeting is the dynamic conservation of globally important agriculture heritage systems. In this important occasion, and in the context of today's contemporary problems, problems related to environmental degradation, global climate change, economic recession, political turmoil, what is most important is the work leading to sustainable food and livelihood security. He reiterated the objectives that FAO is trying to achieve in promoting Globally Important Agricultural Heritage Systems Initiative.

After the short talk, the proposal of Sado Island and the Noto's Satoyama and Satoumi were passed around to all, new proposals received from the Japanese Government, for commendations. After reading the summary and justification as to why the two proposals merit for GIAHS, there was no objection from the body, the new proposals were accepted.

Finally, the SC meeting came to closure. Prof Li thanked everyone for the ideas and opinion. He also congratulated the national focal points, for taking all the efforts to make the individual country project set on the ground and that the GIAHS objectives will benefit the farming communities. In closing, Mr Kookafkan expressed his appreciation to the Chair of the SC and thanked everyone, again, he urged all the countries and members to be more pro-active and to work together to promote GIAHS.

Day 3: Awarding Ceremony and Closure

The formal ceremony of awarding certificates was held during the closing ceremony of the Forum.

Prof. Li Wenhua, Chairman of the ISC, Dr Parviz Koohafkan, Global GIAHS Coordinator, Mr Percy Misika, FAO Representative in China, awarded the certificates to the representatives of all the GIAHS Pilot sites. The awarding was assisted by Prof. Min Qingwen and Dr Mary Jane dela Cruz.

In closing, Prof. Li thanked all the participants for their collaboration during the last three days of the forum. He encouraged everyone to continue exchange of ideas and opinions about GIAHS even if it only through emails. He also encouraged everyone to be more proactive in communication, as communication is a powerful tool and the spirit of collaboration between and among pilot countries or countries in closer region, must continue to communicate and learn from each other's development activities, and promote the noble objectives of GIAHS. In his closing remarks, Dr Koohafkan again thanked all the participants.

Day 4: Field Visit to potential GIAHS site – The Xuanhua Traditional Grape Gardens

Xuanhua is located in the North West of the Hebei Province. It is a transition area between the Mongolia Plateau and the Northern China Plain. It constitutes an important link between the eastern economic belt and the middle-west resources region.

The Xuanhua Traditional Grape Garden has a history of culture and cultivation more than 1300 years old. Known in ancient times as the "Grape Town", the Xuanhua farmers continue to grow and nourish a population of unique varieties of grapes. The grapes have an oval shape that looks like a cow's nipples and an outstanding taste, characterized by thin skin, thick pulp and fragrant sweetness. The quality of the grapes is very high and the size is rather large, the biggest clusters can weigh over 2 kg.

During the Qing Dynasty, the grapes were used as tributes to the royal family. In 1909 they won the Honour Prize at the International Agricultural Products' Exhibition in Panama. Approaching the Grape Town, the traditional Xuanhua Grape Garden shows a magnificent view – funnel-shaped grape trellises along the family backyards. Dynamic conservation of these unique varieties of grapes is part of the Xuanhua farmer's tradition, culture and livelihoods.

ANNEXES

Annex 1. Beijing Declaration on GIAHS

Beijing Declaration: a Ten-point Charter to promote dynamic conservation of Globally Important Agricultural Heritage Systems

An International Forum was organized by the FAO in collaboration with the Institute of Geographical Sciences and Natural Resources Research of the Chinese Academy of Sciences and other partners at Crab Island, Beijing from 9-11 June 2011 to exchange knowledge and experiences of the significance of globally important agricultural heritage systems from different countries, and to take stock of the lessons learned。

FAO's **Globally Important Agricultural Heritage Systems (GIAHS)**, is an international partnership initiative that aims to identify and recognize unique traditional agricultural systems together with their agricultural biodiversity, culture and knowledge systems, and the contribution they can make to guaranteeing security of food and livelihoods throughout the world. The dynamic conservation of Globally Important Agricultural Heritage Systems is an innovative strategy to empower small holder farmers, indigenous peoples and local communities and thus enhance the local and global benefits derived from such systems for the benefit of humankind. Therefore GIAHS program intends to include more systems and sites, covering more farming communities, in order to scale up innovative ways for adapting agriculture to climate change, while at the same time creating economic benefits from the conservation of agricultural biodiversity so that nature and people can prosper together.

The GIAHS Charter

1. The participants in the Forum recognize that the GIAHS Initiative supports countries in achieving their international commitments, in areas such as the conservation and sustainable use of agricultural biodiversity and genetic resources, reaching the United Nations Millennium Development Goals, implementing the Nagoya Strategic Plan for Biodiversity, and providing lessons to ensure food production under scenarios of climate change, energy scarcity and financial crisis.
2. The participants in the Forum recognize the importance the GIAHS Initiative for the Rio +20 summit as an initiative relevant tool for the dynamic conservation for the dynamic conservation of agricultural biodiversity and the protection of the traditional knowledge of local communities, which embodies many principles and techniques for the design and implementation of a more sustainable and resilient agriculture.
3. The participants in the Forum recognize the important role of local communities in maintaining GIAHS sites, participating in the decision-making process as well as deriving benefits arising from the services provided by the indigenous agricultural ecosystems.
4. The participants in the Forum recognize the need to work to design, develop and deliver the means for local communities to benefit as stewards of GIAHS sites,

through mechanisms such as payment for environmental services, rewards from ecotourism, and the marketing and certification of unique organic products.

5. The participants in the Forum recognize the need for national governments, in collaboration with the international agencies, to support the implementation of initiatives which protect globally important agricultural heritage systems.
6. The participants in the Forum, representing globally important heritage sites from Africa, Asia and Latin America, join in conveying their appreciation to the Global Coordination office at FAO, and will work together in sharing information on progress in these sites, and raising awareness of the importance of traditional agriculture locally, nationally and globally.
7. The participants in the Forum will work to support sustainable development of GIAHS through promotion of on-the-ground projects and activities, enhance capacities for maintaining, rebuilding and revitalizing agri-culture, promote leadership, ownership, stewardship, and entrepreneurship across policy makers, academic and research organizations, local communities, small enterprises, and other corporate entities.
8. The participants in the Forum will continue to work in the field of GIAHS as an ever-evolving holistic initiative for the dynamic conservation of the planet's unique agricultural heritage and the promotion of harmony between humanity and the environment, especially in the context of the fragility of our agro-biodiversity, and the challenges of poverty, climate change, urbanization and globalization facing rural communities.
9. The participants in the Forum are committed to supporting the active and informed participation of indigenous and local communities in decision-making at the national and international level in each member country in relation to biodiversity management.
10. The participants in the Forum are committed to supporting ways to conserve, expand and sustain the GIAHS, fostering a dialogue between small farming and scientific communities that will result in the conservation of the agricultural legacy with ecological, social and economic benefit for the local farmers and communities and to whole planet.

Beijing, 9-11 June 2011

Annex 2. Agenda of the Forum

Wednesday 8 June 2011

08:00 – 20:00 Arrival and Registration (Conference Building, Xiedao Eco-Green Resort)
18:30 – 20:00 Welcome Reception (hosted by IGSNRR at Three o'clock Hall)

Thursday 9 June 2011

Morning Session

On the first day of the Forum there will be an opening ceremony and exhibits, and will feature the keynote addresses and presentations on the major contribution of agricultural heritage and its components to food security and rural livelihoods; the nature-cultural links to humanities; the social, cultural and environmental fundamentals and topics on challenges to redress biodiversity conservation, strategies and approaches to sustainable agriculture and rural development.

07:30 – 08:00 **Breakfast (Three o'clock Hall, Buffet)**

9:00 - 10:00 **Opening Ceremony**

Chair: Prof. Li Wenhua
Rapporteur: Prof. Min Qingwen

Film Projection: GIAHS Documentary

Welcome Address

Prof. Cheng Shengkui, Vice *Director- IGSNRR*
Ms. Yao Xiangjun, *Vice Director, Department of International Cooperation, Ministry of Agricolture, China*
Mr. Percy Wachata Misika, *FAO Representative, China*

Keynote Address

Hon. Hong Fuzeng, Former Vice Minister *Ministry of Agricolture, China*
Hon. Mme Jiang Zehui, Vice Chair of Committee of Population, Resources and Environment, CPPCC, Co-Chair of INBAR Board of Trustees; Chair, China Eco-Culture Association

Messages

Mr Ahmed Djoghlaf Executive Secretary *Convention on Biological Diversity (CBD), Canada (Video Message)*

Prof. M.S. Swaminathan *Chair (and Awardee), World Food Prize, described by UNEP as the "Father of Economic Ecology, MSSRF, Chennai, India (Video message)*

Dr Parviz Koohafkan *Director, Land and Water Division and Global Coordinator for GIAHS, FAO, Rome*

10:00 – 11:00	Taking Photos Opening of the Exhibits: "GIAHS: Our Common Heritage" • Book Exhibition • Poster Exhibition • Agriculture Products Exhibition **Tea/Coffee Break**
11:00 – 13:00	Keynote Presentations *Chair:* Dr Parviz Koohafkan *Rapporteur:* Mr. Jean Gault
11:00 – 11:15	*Agricultural Heritage Systems: assessing their resiliency and Sustainability for the future* Prof. Miguel Altieri, University of Berkeley, USA
11:15 – 11:30	*Traditional Knowledge Systems* Prof. Pietro Laureano, IPOGEA, Italy
11:30 – 11:45	*The Amazing Performance and the Scientific "Secrets" of Some Traditional Agricultural Practices in China* Prof. Luo Shiming, South China Agricultural University (SCAU), China
11:45 – 12:00	*Conservation and Management of Traditional Agricultural Systems* Prof. Jemey Eades & Prof. Malcom Cooper, Asia Pacific University, Japan
12:00 – 12:15	*Cultural Landscapes from the World Heritage Perspective* Ms Beatrice Kaldun, Programme Specialist for Culture, UNESCO, Beijing
12:15 – 12:30	*Agricultural Heritage Systems Conservations: View from the European Union* Mr Hans-Christian Beaumond, First Counsellor, Agricultural Affairs, Delegation of the European Union to China and Mongolia
12:30 – 12:45	*China's Traditional Agri-Culture and the New Countryside Building* Prof. Cao Xingsui, China Agricultural Museum, China
12:45 – 13:00	**Discussions**
13:00 – 14:30	**Lunch Break (Three O' Clock Agricultural Theme Park Hall, Buffet)**

Afternoon Session

An overview of agricultural heritage systems will be presented during this session by the pilot and participating countries. This will include their research and development activities, shared experiences and lessons learned, as well as positive impacts and obstacles encountered in achieving their objective of implementing the dynamic conservation of GIAHS. There will be a chance for the participants to have an interactive exchange of experiences, their perspectives and opportunities, as well as to share obstacles and success stories in implementing the GIAHS Initiative. The presentations and discussions aim to identify synergies, local actions and effective implementation mechanisms involved in the dynamic conservation of GIAHS.

14:30 – 18:30	Values of GIAHS, the basis for food security, sustainable agriculture and rural development *Chair*: Dr. Jane dela Cruz *Rapporteur*: Prof. Kazem Vafadari
14:30 – 14:45	*Chiloe Agriculture* Dr Carlos Venegas, Centro de Educación y Tecnologia, CET, Chile
14:45 – 15:00	*Andean Agriculture (Cuzco-Puno Corridor)* Mr Alipio Canahua, Peru
15:00 – 15:15	*GIAHS: Progress and Perspectives in China* Prof. Min Qingwen, IGSNRR-CAS, China
15:15 – 15:30	*Gafsa Oases System* Mr Atef Dhahri, ASM de la Medina de Gafsa, Tunisia
15:30 – 15:45	*Oases System in Atlas Mountains of Morocco* Mr Seddik Saidi, INRA, Morocco
15:45 – 16:00	*El Oued Oases (Ghout System)* Mr Fatah Achour, INRA, Algeria
16:10 – 16:30	*Ifugao Rice Terraces* Mr Clarence Baguilat, DENR, Philippines
16:30 – 17:15	**Tea/coffee break**
17:15 – 17:30	*Maasai Pastoral Heritage System* Mr Philip Sironka, Kenya
17:30 – 17:45	*Shimbwe Juu Kihamba Agro-forestry Heritage Area, Tanzania* Mr Arpakwa Marco Sikorei & Ms. Grace Mwaigomole, Tanzania
17:45 – 18:00	*Ancient Tank Systems* Engr. Ganila Paranvithana, CECB, Sri Lanka
18:00 – 18:15	*Saffron Heritage System of Kashmir* Prof. Firdos Ahmad Nehvi, HEADS, India
18:15 – 18:30	*Dong's Rice Fish Duck System* Prof. Min Qingwen, IGSNRR-CAS, China
18:30 – 20:00	**Dinner and Performance (hosted by Ao'han Government)**

Friday 10 June 2011

Morning Session

07:30 – 08:30 **Breakfast (Three o'clock Hall, Buffet)**

9:00 – 10:30	Rural landscapes and ecosystems goods and services: opportunities and challenges Chair: Dr Coosje Hoogendorn Rapporteurs: Mrs. Ximena George-Nascimento/Mrs. Teresa Aguero
9:00 – 9:15	*Strategies for Traditional Rural Landscapes Management* Prof. Mauro Agnoletti, University of Florence, Florence, Italy
9:15 – 9:30	*Satoyama and Satoumi Initiatives for Conservation of Biodiversity and Reactivation of Rural Areas in the Noto Peninsula* Prof. Koji Nakamura, Kanazawa University, Japan
9:30 – 9:45	*Tourism Application of Agricultural Heritage Systems* Prof. Kazem Vafadari
9:45 – 10:00	*GIAHS: Conservation in Partnership with Tourism* Dr Myriam Jansen-Verbeke, CAS Visiting Professor
10:00 – 10:05	*Satoyama for GIAHS* Mr Akira Nagata, Ministry of Agricolture, Forestry and Fisheries, Japan
10:05 – 10:20	*Sado's Satoyama with Ibis* Mr Koichiro Takano, Mayor, Sado City, Japan
10:20 – 10:50	**Tea/coffee break**
10:50 – 11:05	*Noto's Satoyama and Satoumi* Mr Bumpei Takemoto, Mayor, Nanao City, Japan Ms Anne Mc Donald, Director, UNU-IAS, Ishikawa/Kanazawa, Japan
11:05 – 11:20	Ms Alia Malik, Shangrila Farms, China
11:20 – 12:30	**Discussions**
12:30 – 14:00	**Lunch Break (Three O' Clock Agricultural Theme Park Hall, Buffet)**

Afternoon/Parallel Session

The challenges of sustainable agricultural development and poverty reduction are formidable but there is greater human capacity and ingenuity than at any time in our common history. With the right policies, investments and political will to reach into poor communities, the formidable challenges of our century will be met. FAO – GIAHS, over the past eight years has raised awareness of the importance of traditional and evolving agricultural systems in promoting sustainable agricultural development. The objective of the Parallel session is to facilitate understanding of GIAHS and the need for continued awareness-raising and the building of partnerships and alliances and to discuss and provide recommendations on how implementation of GIAHS dynamic conservation can be sustained, upscaled and enhanced to contribute to achieving the MDGs Targets, Nagoya Protocol and provide support to other global development agendas.

14:00 – 15:45	Building Partnerships and Networking for GIAHS: A Consortium Facilitators: Dr. Parviz Koohafkan/Dr. Maharaj Muthoo
Open Forum	• GIAHS Global Initiative • Innovative Partnerships and networking for a strengthened collaboration • Sustainability and innovation to raise awareness and support to GIAHS Activities
15:45 – 16:00	**Tea/coffee break**
16:00 – 16:30	**Summary of Outcomes**
16:30 – 18:00	Steering Committee Meeting Field Survey in Xiedao Eco-green Resort
18:30 – 20:00	**Dinner and Performance (hosted by Congjiang Government)**

Saturday 11 June 2011

Awarding Ceremony and Closure

07:30 – 08:30 **Breakfast (Three o'clock Boat, Buffet)**

	Master of Ceremony: Prof. Min

9:00 – 12: 30	• Awarding of Certificates Dr. Parviz Koohafkan, FAO GIAHS Coordinator and Prof. Li Wenhua award certificates to the representatives of all GIAHS Pilot Sites. • Wrap up of the Forum and other matters • Closing/Adoption of the Recommendations • GIAHS Declaration
12:30 – 13:30	**Lunch Break (Three O' Clock Boat)**
14:00 – 18:00	Tour of the Cultural and Historic City of Beijing
18:30 – 20:00	**Dinner and Performance (hosted by Honghe Government at Three O' Clock Hall)**

Sunday 12 June 2011

Field Visit to potential GIAHS site – The Xuanhua Traditional Grape Gardens

06:00 – 07:00 **Breakfast (Kaifanlou Buffet)**

07:00 – 09:00	From Xiedao to Xuanhua District by coach
9:00 – 12:30	Field Survey
12:30 – 14:00	Lunch (hosted by the Xuanhua Government)
14:00 – 15:00	From Xuanhua to Badaling Great Wall
15:00 – 17:00	Visit to the Great Wall
17:00 – 18:30	From Badaling to Xiedao
18:30 – 20:00	**Dinner and Performance (hosted by Pu'er Government at Three O' Clock Hall)**

Monday 13 June 2011

07:30 – 08:30 **Breakfast (Kaifanlou Buffet)**

Annex 3. List of Participants

	Name	Position / Organization
1	ABDESSATER Cherif	Engineer, GIAHS-SIPAM, Algeria
2	ACHOUR Abdellatif Fatah	Research Officer, Institut National de Recherche Agronomique, Algeria
3	AGÜERO Teresa	Environmental, Genetic Resources and Biosafety Analyst, Ministry of Environment, Chile
4	ALTIERI Migliel Angel	Professor of Agroecology, University of California, Berkeley, USA
5	BAGUILAT Clarence	Regional Executive Director, DENR, Philippines
6	BEAUMOND Hans-Christian	Functionary, European Commission, Beijing, China
7	BUDEBA Yohana	Ministry of Livestock Development and Fisheries, Tanzania
8	CANAHUA Alipio	Agronomic Engineer, Ministry of Environment, Peru
9	CHEN Bixia	Post-doctoral Fellow, United Nations University, Japan
10	DHAHRI Atef	National GIAHS Coordinator for Tunisia, Association pour la Sauvegarde de la Médina – ASM, Gafsa
11	EADES Jeremy	Professor, Ritsumeikan Asia Pacific University, Japan
12	GEORGE-NASCIMENTO Ximena	Geographer, Ministry of Environment, Chile
13	GONZALES Antonio	Head of International Cooperation Directorate, Ministry of Environment, Peru
14	HOOGENDOORN Coosje	Director General, International Network for Bamboo and Rattan (INBAR) Beijing
15	HUAMANÍ Walter	Specialist on Biological Diversity, Ministry of Environment, Peru
16	ISHIMARU Naruhito	Staff of Ishikawa Prefectural Government, Japan
17	JANSEN-VERBEKE Myriam	Professor, University of Leuven, Belgium

18	JOHN Liana	Environmental Reporter, Camirim Editorial Ltda. Brazil
19	KALDUN Béatrice	Officer, UNESCO Office, Beijing, China
20	KOSHJIIMA Makoto	Director, Ishikawa Prefectural Government, Japan
21	LAUREANO Pietro	Director, International Traditional Knowledge Centre – I POGEA, Italy
22	LILIN Charles Karlfried	Forestry Engineer, FAO Consultant, France
23	MALIK Alia	Shangri-La Farms
24	MAEDA Takeshi	Sub-Leader of the Section of Agriculture and Forestry Marine Products Section, Nanao City Office, Japan
25	MCDONALD Anne	Director, United Nations University- Institute of Advanced Studies Operating Unit / Kanazawa, Japan
26	MISIKA Percy Wachata	FAO Representative, Beijing, China
27	MUTHOO Maharaj	President, Roman Forum, Rome, Italy
28	MWAIGOMOLE Grace	Sociologist, Ministry of Livestock Development and Fisheries, Tanzania
29	NAGATA Akira	Senior Coordinator for Sustainable Agriculture, Ministry of Agriculture, Forestry and Fisheries, Japan
30	NAKAMURA Koji	Dr. of Agriculture, Kanazawa University
31	NEHVI Firdos Ahmad	Professor of Genetics, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, India
32	NILES Daniel	Scientist of The Research Institute for Humanity and Nature (RIHN), Japan
33	NISHIMAKI Takayuki	Manager of Biodiversity Promotion Office, Agriculture, Forestry and Fisheries Division, Sado City Government, Japan
34	PARANAVITHANA Ganila	Research Engineer, Central Engineering Consultancy Bureau, Sri Lanka
35	POLITI Corrado	Professor, China Tourism Academy

36	SAIDI Seddik	Head on Inbreeding and Genetic Resources Conservation, Institut National de Recherche Agronomique (INRA) Morocco.
37	SIKOREI Arpakwa Marco	GIAHS Project Consultant, Field Assistant, FAO, Arusha, Tanzania
38	SIRONKA Philip	Maasai Community of Kenya – GIAHS
39	STAMBULI Mbaraka	Ministry of Livestock Development and Fisheries, Tanzania
40	TAKANO Koichiro	Mayor of Sado City Government, Sado City Government, Japan
41	TAKEDA Tomoko	Staff, Sado City Government
42	TAKEMOTO Bumpei	Mayor of Nanao City, Japan
43	TANAKA Kentaro	Staff, Ishikawa Prefectural Government, Japan
44	UNO Fumio	Director, Noto Operating Unity, Kanazawa University, Centre for Regional Collaboration, Japan
45	VADAFARIMEHRIZI Kazem	Professor, Ritsumeikan Asia Pacific University, Japan
46	VENEGAS Carlos	Regional Director, Centro de Educación y Tecnología – CET, Chile
47	WATANABE Ryugo	General Manager of Agriculture, Forestry and Fisheries Division, Sado City Government, Japan
48	YACHI Hitoshi	Member of the Section of Agriculture and Forestry Marine Products, Nanao Office, Japan
49	YAMAMOTO Yoshinobu	Staff, Ishikawa Prefectural Government, Japan

Chinese participants

1	Li Wenhua	Professor, Chinese Academy of Sciences
2	Hong Fuzeng	Hon. President, Chinese Association of Agricultural Science Societies
3	Jiang Zehui	President, Chinese Society of Forestry
4	Cheng Shengkui	Vice Director/Professor, IGSNRR
5	Yao Xiangjun	Vice Director, Department of International Cooperation, Ministry of Agriculture
6	Luo Ming	Director, Department of International Cooperation, Ministry of Agriculture
7	Dai Weidong	Programme Officer, FAO (Beijing office)
8	Zhang Xiaoming	Project Official, IGSNRR, Chinese Academy of Sciences
9	Zhang Ming	Project Official, IGSNRR, Chinese Academy of Sciences
10	Luo Shimin	Professor, South China Agricultural University
11	Cao Xingui	Professor, China Agricultural Museum
12	Pei Shengji	Professor, KIB, Chinese Academy of Sciences
13	Min Qingwen	Professor, IGSNRR
14	Wang Siming	Professor, Nanjing Agricultural University
15	Wu Wenliang	Professor, China Agricultural University
16	Xu Wangsheng	Professor, China Agriculture Museum
17	Zeng Xiongsheng	Professor, IHNS, Chinese Academy of Sciences
18	Ding Min	NPC Environment and Resources Protection Committee
19	Zhang Lei	Associate Professor, Renmin University of China
20	Dan Wenhong	Professor, Guizhou Normal University
21	Han Yongwei	Associate Professor, Chinese Research Academy of

		Environmental Sciences
22	Shang Honglei	Assistant Professor, Chinese Research Academy of Environmental Sciences
23	Huang Yinan	Master, Jiangxi Agricultural University
24	Tan Binchang	Master, ISSAS, Chinese Academy of Sciences
25	Peng Sitao	Assistant Professor, Guizhou Normal University
26	Geng Yanhui	IGSNRR, Chinese Academy of Sciences
27	Xi Xuesong	
28	Meng Fangqiao	Associate Professor, China Agriculture University