Globally Important, Ingenious Agricultural Heritage Systems (GIAHS)
First Stakeholder Workshop and Steering Committee Session
Rome, 5-7 August 2002

Meeting structure and activities

The meeting formed part of the first phase of the GIAHS programme, under UNDP/GEF[1] and FAO cost-sharing project GLO/02/G41/A/1G/12.

The meeting consisted of a Stakeholder Workshop, 5 August to 7 August a.m., and an initial Steering Committee meeting, 7 August p.m. The Agenda is given in Annex 1, the list of participants in Annex 2.

After introductory remarks by partners and a summary of project concept, the project goals and the objectives of the meeting were outlined:

- Discussion and agreement on a conceptual framework of GIAHS;
- Exploring partnerships and institutional mechanisms for the GIAHS programme;
- Identifying criteria for identification and selection of pilot GIAHS for the PDF-B project;
- Discussing aspects of a PDF-B strategy;
- Establishment of a Steering Committee for the PDF-B and following project phases.

The objectives, strategy and expected outcomes of the full GIAHS project were made available to the meeting in the PDF-A Project Document. Several background papers on GIAHS had been distributed before the meeting, such as: two scientific background papers by Prof. Miguel Altieri and Prof. P.S. Ramankrishnan on the GIAHS concept and its relevance for development; a paper on the experiences of the People Land Management and Environmental Change (PLEC) initiative; a paper by Dr. Rossler on UNESCO World Heritage, as well as several case studies and other documents.

The meeting was informed about a number of land-use systems that appeared to have GIAHS characteristics, and about several approaches followed by other institutions that contained elements or had had experiences relevant to the present project. The project documents, papers, case studies or presentations provided by the authors will be made available on www.fao.org/landandwater/giahs

Workshop participants used each presentation as a basis for wide-ranging discussions on the concept of GIAHS, on their potential to survive and support livelihoods in a rapidly changing global or local context and on the threats they face due to increasing population pressure, from competing, less diverse or less environmentally sound land use systems with higher immediate returns, environmental change or from inappropriate legal and policy environments. The discussions also touched on various possible criteria that might be relevant for the selection of GIAHS drawing from the multitude of land-use systems in existence.

One discussion period focused specifically on the conceptual aspects of GIAHS subsumed under each of the letters of its acronym: Globally important - Ingenious - Agricultural Heritage Systems. There was a tendency to favour a shorter acronym such as Agricultural Heritage

[1] All acronyms are listed at the end of the text.

Systems. However, no agreement was reached during the meeting on an alternative name/acronym.

The parallel working group sessions on the second afternoon allowed more in depth attention to the systematic identification of criteria for the identification and selection of GIAHS for the Pilot project. The groups considered socio-cultural, biological and physical and economic criteria and it was agreed that some criteria were cross-cutting. Some specific criteria were also identified for the selection of the pilot sites for the PDF B phase of project development.

The results of the working group discussions were summarised and briefly discussed in the final plenary workshop session. A Technical Advisory Group was established for the next stage of the GIAHS project, which should include a somewhat wider membership than that represented in the workshop, to ensure inclusion of other representative bodies that were not able to attend..

In her closing address to the Stakeholder workshop, Dr Louise Fresco, Assistant Director-General of the Agriculture Department, emphasised that the GIAHS project and programme were conceived and were being implemented at the right time, when many such systems are under threat, and that the approach was one of the most innovative and would build major new concepts on the foundations of ongoing, related endeavours.

The initial, constitutive session of the Steering Committee for the PDF-B phase of the GIAHS programme discussed its draft Terms of Reference and clarified its role in relation to the tasks of the GIAHS secretariat and those of the Technical Advisory Group, and discussed the selection process of the first pilot sites.

Summary of workshop discussions and conclusions

Over the last four decades, there has been an increased, but by no means universal, recognition of the value of traditional and new sustainable agricultural systems, and of the range of local and wider benefits of traditional systems. Many of these are in danger of disappearance for several reasons, including the increasing effects of globalisation on even remote areas, and the unprecedented population and short-term economic pressures on a number of traditional systems.

Small farmers in traditional agricultural[2] systems are custodians of significant plant and animal genetic resources and associated diversity of importance to food and agriculture at genetic, species and ecosystem level. In their support, in 2001 GEF approved a long-term Operational Programme (OP13): Biodiversity of importance to agriculture, to complement existing Operational Programmes on Arid and semi-arid (1), Coastal, marine and freshwater, forest (3) and mountain (4) ecosystems. Several earlier projects, such as the ones on oases, and transhumance in the High Atlas are also relevant to GIAHS. FAO has been actively supporting agricultural biodiversity conservation for several decades, with a focus on conservation through sustainable use of plant and animal genetic resources, through its field programmes and inter-governmental standard-setting processes and agreements. These include the Global Plan

[2] In this report the terms farmer and agriculture or agricultural are used in their wide sense, including forestry, fishery and aquaculture, herding and grazing systems and particularly, systems involving their integration. The term fish in this report includes shellfish and other aquatic fauna.

of Action for the Conservation and Sustainable Use of Plant Genetic Resources, which emanated from a global, country-driven assessment, and the ongoing global assessment of the state of the worlds' domesticated Animal Genetic Resources, and culminating with the adoption in November 2001 of the International Treaty on Plant Genetic Resources. The CGIAR system, too, is actively involved in the conservation and sustainable use of such resources, through the specific focus of its different centres and more recently in the context of their inter-centre challenge programs, and have confirmed their interest to participate in the present programme. The experience of UNESCO with the identification of World Heritage sites and landscapes, particularly the category of continuing, organically evolved landscapes, will be useful in formulating the criteria and procedures for site selection. This category would need to be complemented with a more agricultural focus and a land-use system approach. The desirability and possibility of the inclusion of agricultural systems under existing cultural landscape categories or the eventual creation of a new category of World Heritage can jointly be explored. IUCN, too, has defined several categories of protected areas. IPGRI is promoting institution building and linkages among ministries, NGOs, women animators and communities to help communities use crop diversity as a development tool with a range of benefits. The experience of the UNU project on People, Land Management and Environmental Change (PLEC) – particularly its recognition and promotion of expert farmers and of community institutions conserving natural resources– is also useful to the GIAHS project.

The *concept of GIAHS* is distinct from, and more complex than a conventional heritage site or a protected landscape. A GIAHS is a living, evolving system of human communities in an intricate relationship with their territory, cultural or agricultural landscape or biophysical and wider social environment. The humans and their livelihood activities have continually adapted to the potentials and constraints of the environment and also shaped the landscape and the biological environment to different degrees. This has led to an accumulation of experience over generations, an increasing range and depth of their knowledge systems and generally, but not necessarily, a complex and diverse range of livelihood activities, often closely integrated. Examples of GIAHS might include multi storied home gardens, oases, certain rice fish systems, qanat[3]-based agro-forestry in arid areas, or transhumant livestock systems.

GIAHS have an array of value elements or benefits, both local and national or global, which is much wider than the immediate economic return including an array of social, cultural, environmental and food security and risk management benefits. The aim of GIAHS is, in today's local and global context, to identify ways to support their continued biodiversity conservation, sustainability and productivity. Promoting knowledge and understanding of GIAHS and wide recognition of their benefits, particularly positive externalities, may be enough to help some of these systems survive. Some GIAHS may need more specific support, for example through brand creation and promotion and the development of niche markets for certain produce, or through the creation of institutions that enable returns to communities for environmental services that are by-products of their land-use system. Other GIAHS may need enabling legal and policy environments that allow for their maintenance and socio-economic (self-) sustainability. There may even be some that will be served by more classical sustainable development initiatives that lift barriers and address root causes of some of the threats they face.

A characterisation and labelling approach to GIAHS may be more practical, even if complex, than attempts towards their systematic classification, because they have a dynamic process

[3] Horizontal, tunnel-type well

oriented nature rather than being static. Labelling a product from a GIAHS in order to increase its visibility and marketing potential would be less complicated than characterising or labelling a process, but there are successful examples of process labelling as well – for example, the FSC certification that wood or wood products have been produced without destruction of forest biodiversity.

The boundaries of a selected instance or site and of the whole GIAHS that it represents should be clearly identified. They may be cadastral, geographic, based on landscape or land use, or they may be social, defined by the groups of people that are included, as in the case of transhumant grazing systems. The conceptual boundaries of each GIAHS, too, should be clearly defined. There is a great variation of Asian rice-fish systems, for example, not all of which would be GIAHS.

One session of the plenary discussions following the presentations dealt with the substance underlying each of *the terms of the GIAHS acronym*. Two aspects of *Global importance* were highlighted: a system might be geographically or socially important, providing the livelihood of many people with few, if any, local alternatives, or conceptually important, regardless of geographic extent, for example as the custodian of an irreplaceable natural resource or containing valuable knowledge systems. The term globally important itself is useful to attract widespread attention to the selected system and to leverage additional resources for its continued development and adaptation to changing conditions.

Ingenious was seen in terms of an adaptive response to environmental conditions, especially a very fragile or severe biophysical context, or an adaptation or change of the environmental conditions through innovative practice. The term would apply not just to individual households or to technological aspects of the agricultural system, but also to social structures and cultural practices adapted to long-term societal needs and ecological dynamics. Low external inputs were not considered essential to the GIAHS concept, although in practice, many GIAHS will have low external inputs. While many GIAHS would probably be complex systems, ingenious systems can be found at any level of complexity or diversity. In some instances they may stand out in simplicity.

The term *agricultural systems* was seen in its broad sense, including forestry; fishery and aquaculture (fish, crustaceans and other aquatic fauna); herding and grazing systems; and particularly, integrated systems. The term system was recognised to cover social, cultural and institutional aspects as well as biophysical, agronomic and management aspects. The system needs to be considered at a variety of spatial and temporal scales to reflect the complex management of resources by different members of the farming community, from an individual parcel or field to communal resources to landscape level and from one growing season to a several year rotation.

The term *heritage* was seen as highlighting the biophysical, technical, social and cultural manifestations of long lasting, continually evolving relations of people and their communities with the land. It was emphasised that the heritage aspects should be integral parts of a living, evolving system, not fossil or existing in a museum-like context. They should include consideration of resources, agro-ecological interactions and knowledge and culture that has evolved and been passed down from one generation to another.

Indeed, all the above terms reflect different aspects of the ingenious knowledge systems that have evolved and been developed by the local society alongside the agricultural land use systems.

The workshop discussed two important distinctions –in legal and knowledge structures– between customary systems and the current, globalised environment with its formal institutions and knowledge system, and some of their implications for the continued functionality of GIAHS. In many countries, customary law and informal institutional arrangements and negotiation procedures have been and/or continue to be de-legitimised by uniform national legislation that does not take them into account despite their local relevance, specificity and value. A pluralist approach will be needed, in which there is space for self-governing structures and other customary arrangements within a national legal framework. In many cases, mainstream formal science has been using reductionist approaches, separating knowledge from the knowing subject and focusing on sectoral approaches. Traditional, customary knowledge is based on continual social interaction, it builds on the complex and dynamic interaction between society and its environment and is embedded in formal and informal indigenous institutions. Once the nature, value and substance of traditional knowledge systems are recognised by scientists involved in issues pertaining to GIAHS, this can lead to fruitful co-operation between communities and scientists, with a view or identifying ways and means to increase the resilience, adaptability and innovative capacity of the agricultural systems.

There are concrete, practical reasons for embarking on supporting GIAHS, and hence the proposed project, above all in view of the threat of decline or disappearance of diversity in flora, fauna, landscape, land use, culture, knowledge systems, and institutions. At all scales, from household to global, diversity is a survival factor in the face of uncertainties, economic or environmental changes, hazards, shocks or disasters. The several kinds of diversity cannot be safeguarded or preserved in isolation, as in an archive, gene bank or museum, but only within living, evolving livelihood systems.

The GIAHS project should start with sound concept formulation, characterisation and selection of a number of remarkable GIAHS, and promoting widespread knowledge and understanding of their diverse qualities and of their multiple benefits to society at large. This is particularly important because increasing urbanisation has distanced millions of people from direct experience of agricultural systems, which impacts on development policies and priorities. The project and programme should be oriented toward action plans and concerted action by networks of local communities, NGOs, governments and international partners to enhance the economic basis of GIAHS, their social stability, resilience and facility to adapt to new and rapid changes, and hence their chances of survival: their sustainability.

GIAHS selection process aspects

Before focusing on selection criteria for GIAHS, the workshop discussed process aspects, highlighting the need for a framework approach, and the question of how to effectively include local partners already at the site selection stage. The process would include nominations of potential systems, labelling and characterisation, and once selected, the development and implementation of a community-driven action plan for the specific GIAHS, with the leverage of human and financial resources, as required. . Partners deciding to join the GIAHS programme would preferably be associated in the action planning process, they would adhere to the adopted action plan to guide their participation in the activities. During the PDF B methodology and project development phase, the first few sites would need to be selected with a view to their wide visibility and potential to fire the imagination of the general public,

including the significant urban component as well as policy makers, and covering a diversity of environments and land-use systems, while satisfying the criteria specified for GIAHS. In the full project phase, the public information aspect would also play an important role, particularly the potential of a GIAHS to promote a favourable policy environment, but the relative importance of providing actual support to the continued existence and sustainability of these systems would be bigger.

If GIAHS are to capture widespread interest and support, their characterisation should highlight their specific value elements, such as their contributions to local and perhaps national food security; economic benefits both locally and to a wider area; soil and water conservation; regulation and quality assurance of downstream water supplies; local and global biodiversity; or carbon sequestration as well as social and cultural stability and risk and poverty alleviation. It is of key importance that these services are recognised as being of essential value to the functioning of agricultural ecosystems and economies at all levels and should therefore be considered in all decision making affecting these systems. If their values can be quantified in a sound and convincing manner, institutional arrangements could be found to facilitate payment and other types of returns by external beneficiaries to the local communities or land users for such benefits. In other instances, GIAHS communities and the wider socio-economic environment may not be served by such financial rewards to rendered ecosystem and other services, but rather by enabling legal and policy environments, as well as sustainable development efforts that ensure the continued existence, functioning and sustainability of GIAHS, and provide other opportunities for their further development.

The discussions on the basis of the case studies resulted in the identification and systematic listing of strengths and weaknesses or needs of traditional agricultural heritage systems. These will be of use as a checklist in the characterisation of GIAHS. It was found useful to consider five kinds of capital in the discussions, as identified in the sustainable livelihoods approach (SLA): natural (resources); physical (infrastructure); human (skills and knowledge); social and institutional; as well as economic and financial.

Selection criteria for GIAHS

Three small working groups discussed which criteria should be considered in the selection of GIAHS, with a focus on biophysical and landscape aspects, social and cultural aspects, and economic aspects, respectively. There was a significant overlap among the reports of the groups, since several important criteria cannot be fully captured in any one of these subdivisions and an intersectoral approach was strongly advocated.

The discussions of the working group on biophysical and landscape aspects resulted in an annotated table of significant criteria and their benefits, subdivided by the scale at which they, or their benefits, would be most clearly expressed.

The working group on social and cultural aspects concluded that valuation of potential GIAHS should be done through devising a participatory process, to insure the inclusion of the perspectives and values of the different stakeholders. The working group concentrated on identifying indicators rather than criteria. It was noted that indicators would be useful in monitoring rather than in site selection. For the selection of the initial sites their contribution to cultural and knowledge diversity was mentioned as one of the major criteria, as well as the appropriateness and efficiency of their customary arrangements for the management and use of natural resources.

The working group on economic aspects identified criteria that overlapped in part those that were formulated by the working group on biophysical and landscape criteria, but with a different emphasis and viewpoint. The group focused on criteria for the full project phase, while recognising that, in the PDF-B phase, the potential to raise widespread interest and support might be a dominant criterion.

Among the important local economic criteria, resilience against biophysical and economic shocks and changes was seen in terms of ability to mobilise assets, and in terms of the range of economic benefits of the system (including quantitative and qualitative nutritional aspects, health aspects, and diversity of productive activities). The efficiency of use of critical resources – which might be land, water, energy, plant nutrients, biological resources, human resources– was also recognised as a major criterion. The issue whether or not to include a criterion that a GIAHS should be accepted and supported by the younger generation was not resolved.

Global relevance was considered important, but could be manifested in several different ways, for example, stewardship over irreplaceable resources, or proven effectiveness in counteracting climate change. The number of people supported by the system, or the integration of different resource uses was considered to be important descriptive characteristics, but not criteria for selection. The group advocated that the site selection process would use a hierarchy or sequence of criteria, from local to global.

During the plenary discussions after the working group reports, it was noted that both sedentary and mobile systems should be considered; that the relevance of a system with respect to the UN Conventions on biodiversity, desertification and climate change would be an underlying criterion. Other issues discussed and not to be overlooked were: whether a system would play a key role in an ecoregion, the inclusion of the human element in the ecosystem, which should be seen as a functional rather than a spatial entity, and the provision of amenities..

The systems are generally not self-contained, but have multiple functional links with the outside world – for example, the support through remittances from community members working elsewhere. Also, the facility with which ideas would flow into and out of a system would be an important aspect of flexibility and adaptability. Currently, possible candidate GIAHS may be marginal, isolated or under threat of disappearance; the project should consider their potentials, including aspects of access to niche or wider markets. However, some of these systems are currently surviving because of their isolation or remoteness: they might disappear or change drastically once there would be easy access to and from the outside world.

In the discussion on selection, estimating comparative importance and structuring of the many suggested criteria and indicators, those cutting across social, biophysical and economic aspects were seen as the primary ones. The GIAHS project should focus on the linkages among the socio-cultural and economic conditions and institutions and the biophysical environment, rather than viewing them in isolation; it should also include the national policy environment in its considerations. Equitable sharing of benefits at different scales was considered important; land tenure and other rights should be considered; and the question whether human rights should be included among the criteria was discussed, but not resolved.

To widen the sampling frame of candidate sites for the selection process, it was suggested that the GIAHS initiative would link into ongoing initiatives by GEF and other partner projects that

address closely related issues, such as: PLEC, the *in situ* conservation activities of IPGRI and UNESCO's Man and the Biosphere (MAB) and World Heritage programmes.

A summary of common criteria for site and system selection was presented, based on commonalties in the discussions of the three working groups, and modified in plenary discussion (Table 1). An overview of criteria and indictors that were brought forward in the working group and plenary sessions is given in Table 2. On the basis of the discussion in the workshop FAO will formulate, in further consultation with the stakeholders, a set of criteria, indicators and a procedure for the selection of the pilot sites and for the sites to be included as GIAHS in the stages that follow.

General plenary discussion
The PDF-B phase of the project would develop a project methodology through ten pilot sites, followed by the implementation of action programmes and possibly the extension of the number of sites during execution of the full project. It would be of crucial importance that the initial sites are successful, and capture widespread interest. They should cover a variety of environments and land-use systems, and a range of cultural diversity. The pilot sites should be remarkable and also important they should be representative for larger areas and other existing systems.. The local people should be directly involved from the start and express a clear interest in being part of the GIAHS initiative, as well as be dedicated to the continuation of their system. The degree to which the local society is already sufficiently empowered for action may be a criterion for selection of the pilot sites. The direct economic benefits of the system should not be a prime criterion, since the World Bank rather than GEF would be an appropriate funding agency for a clearly economically viable agricultural system.

GEF has requested a focus on national projects in the next few years, but a transnational site could be of importance as well. In a first instance the GIAHS project should be open to include important existing transboundary sites. FAO has a comparative advantage at transnational level. Moreover, for some donors it might also be a positive factor for mobilising regional funding, for example, the Government of Belgium is particularly interested in transnational projects; A range of donors is potentially interested in the GIAHS programme, and some national governments might also wish to support sites in their countries. A range of donors is essential for project planning, since 50 percent co-financing is needed for any GEF funding of projects. and should not be bound by donor policies.

After a short briefing on the results of the Workshop discussions by the Chair, Ms. Fresco, Assistant Director-General, Agriculture Department, addressed the meeting during the closing session of the Stakeholder Workshop and made the following substantive remarks.

She considered the GIAHS programme approach among the most innovative in the area, placing agriculture on a par with culture. This was particularly important because the rapidly expanding urban populations have been losing touch with the values and functions of agriculture. The project would help restore agriculture on the map of public opinion.

The project is scientifically and technically relevant at this time, when many of such land-use systems are under threat. They should also be documented in their technical, economic, social and other aspects, both qualitative and quantitative. Many older descriptions of such systems were mainly ethnographic and did not encompass these wider aspects. Possibly, universities could be induced to do longitudinal studies on the evolution of a selection of GIAHS and on their potential for continued change.

There would be a risk of idealisation of the systems in this project. They should be seen objectively, as livelihood and economic systems of coping with a specific social and biophysical environment. These systems should not be seen as the only model, but as examples showing how *in situ* conservation can work. This GIAHS project approach will also help focus the debate at global level, and make it less abstract and more operationally relevant.

Partnerships will be needed, both horizontal and vertical, from local communities to national and global partners and mechanisms, rather than a top-down approach. Some of the UNESCO Heritage Sites, for example, have great value because of their associated agricultural system – such as Machu Pichu, which harbours an intensive and complex potato-based agricultural system.

In *the closing discussion*, it was noted that this programme's time had come, but that some guidance was needed on how to tread warily between historic developments and the various international treaties and conventions. A moral stance would need to be avoided, but the systems should be characterised as clearly and objectively as possible, as landmarks in the evolution and range of agriculture. The pilot sites should capture the imagination of donors and of the wider public. Informed consumers might also guide a development towards survival and sustainability of GIAHS.

It was noted that FAO had paid much attention to good agricultural practices, and that links with this part of its programme would be maintained. Also, there were already good consultative relations established between FAO and UNESCO.

A new scientific paradigm would be needed, linking traditional, experiential knowledge systems and formal -often reductionist- science, to the benefit of both. Such a paradigm would need to move away from the extraction of traditional knowledge from individual farmers and farmer communities and should be supportive of the social and cultural processes and practices through which such knowledge is produced and held. Moreover, it should be sensitive to the needs and rights of those that hold, produce and pass on such knowledge.
The next steps after the present Stakeholder Workshop would be a brief constitutive session of the Steering Committee for the PDF-B phase of the project, which would discuss, *inter alia*, operational aspects of the PDF-B, funding and partnerships; setting up a technical advisory committee; drafting and distribution of a brief report of this workshop and the Steering Committee session; and the organisation of other consultations with a range of partners including indigenous peoples and NGO's, and the compilation of a project document for consideration by GEF, OECD and other donors.

Constitutive session of the Steering Committee – summary and conclusions

After a brief introduction of draft Terms of Reference for the Steering Committee of the PDF-B project, the proposed composition of the committee was discussed. It was proposed that GEF, FAO, UNDP, UNESCO, IUCN, UNU, IPGRI, ISNAR, GTZ and COMPAS/ILEIA be represented, and that following pilot site selection, the Governments representing the selected pilot sites should be invited to participate..

FAO is to be the secretariat of the Steering Committee. The composition and the Terms of Reference of the Steering Committee, secretariat and Technical Advisory Group for the PDF-B

project will be modified or drafted along the lines discussed and will be circulated among all members.

The Steering Committee will be responsible for the technical and partnership arrangements of the PDF-B phase of the GIAHS programme.

While the project should not be donor-driven, it was considered useful to involve them through a donors meeting before final site selection. Substantial co-funding will be needed for the PDF-B phase. It is therefore advisable to arrange such a donor meeting before the submission of a PDF-B proposal. Governments, NGO's as well as indigenous peoples should be included in the Steering Committee. GEF requires Government endorsement, and one of the project's objectives is to promote government policies supportive of GIAHS.

The pilot area selection process is expected to be split in two parts: selection of the ten core sites, possibly accompanied by the selection of several related partner sites, even in the PDF-B phase. Each of the ten core sites would need to be a kind of project on its own, under the umbrella of the PDF-B. This would need time, with an initial stakeholders meeting in each of the countries. One proposal is presently in hand: the project proposal for the Carpathian region, with a proposed budget of $ 75 000. It would be very difficult to bring together at least nine more such proposals within about four months. It was initially suggested that there should be a competitive element in the selection, with a larger number of proposals, from which ten would be chosen. Those who submit proposals for candidate sites would need to invest effort and time themselves, with help if needed, or an interactive procedure, to elicit good proposals or improve their quality.

Following these considerations, it was decided that the selection process should be directed for the ten pilot sites for the PDF-B phase, and more open and possibly competitive in the full project phase. Nonetheless, before the selection process, the Steering Committee will be invited to review the final selection criteria.

The Steering Committee recognised that the level of funding to be requested from GEF for the PDF-B would depend on the demonstrated needs and the co-funding to be mobilised. In Latin America, for example, government funding possibilities would depend on whether issues of their core interest would be addressed (for example, maize-based systems). Different donors would need different approaches. for example, once the process and the goals are very clearly presented, the Government of Belgium might be willing to consider programmatic co-funding. Less conventional funding possibilities should also be considered: for example, the food distribution industry (supermarket chains). National co-operative movements might also be willing to support a site. Guidelines will be needed if private sector involvement is envisaged; FAO, GEF and others have such guidelines.

The Steering Committee was informed that the PDF-B proposal, once completed, would need to be cleared by several technical reviewers in UNDP before submission for a decision by UNDP Senior Management.

Finally, the wealth of information and insights shared in the presentations and discussions during the Stakeholder Workshop and the Steering Committee session and as summarised in this report will be a major support to the building of the PDF-B phase and will improve and enrich the envisaged GIAHS project.

Table 1

Common Criteria for Site/System Selection

- **Food and livelihood security**
- **Contribution to CBD, CCD and International Treaty on PGR**
- **Diversity/complexity: biophysical + social/cultural**
- **System efficiency / minimise -ve (maximise + ve) externalities / health: actual/potential / fluxes – resources/knowledge**
- **Maximise benefits (economic, social, global environmental, livelihood)**
- **Flexibility / resilience / adaptive capacity – change / opportunities,**
- **Cohesion / solidarity / sense of belonging**
- **Remarkable (NR dimension and Intrinsic knowledge of global benefit)**
- **Integrativeness and complexity of interrelations**
- **Demonstration effect…Value to society**

Other Key Criteria

- **Ingenious solutions to critical constraints - adaptation**
- **Subsidiarity- empowerment, participatory process**
- **Human rights respected (also IPR/local knowledge)**
- **Decentralised and functioning decision making/ management system**

Other considerations

- **Financial viability and long term sustainability**
- **Ecosystem approach**
- **International public good / heritage (valuation -costs and benefits; global society)**
- **Co-funding (GEF, other donors +national interest)**
- **Outstanding (range from sedentary or mobility)**
- **Trans boundary site/system (NR interest + support)**
- **Exemplary cases of specific systems (across AEZ, mountains, range lands)**
- **Build on existing projects (philosophy/approach)**
- **Maintain valuable knowledge (landscape, GR, people, society)**
- **Process: multi-partner and multiple social actors**
- **Programmatic approach:**
  - **phase I – develop and test approach**
  - **Phase II- build global consensus**
- **Added value for global benefits of global heritage recognition: labelling, WH category**

Table 2.. Criteria and indicators for site selection

Representativeness of the 6 pilot sites

- Geographic : one in each continent
- Ecoregional and Ecosystem: mountain, humid, arid, coastal, etc.
- Systemic: at least one in each of main production systems (Livestock, Crop, Fish, Forest based) and range from sedentary (e.g. terraces; oases) to mobile system (mobility of people and resource use e.g. flood recession, trans-humance, altitude) - By choosing main production systems in main ecoregions, systems are representative of large number of group of people depending on like-system
- Socio-cultural : representative of cultural diversity
- Range of threats within the system : i.e. system under threat, but a viable option (potential available to replicate within that site)
- Extend of impact (surface covered and number of beneficiaries) : replicable (dissemination of experience and lessons learnt, transfer of knowledge, technology and others interesting elements for replication) or uniqueness adapted to specific constraints, contribution to diversity (worth preserving, value of uniqueness, global heritage to preserve, potential lessons for future)

	CAPITAL **SCALE**	**Biophysical**	**Social and Cultural** **Political**	**Economic and Financial**
		• **Taking into account existing projects and build on it (with participatory and ecosystem approaches)** • **Willingness to integrate GIAHS (national and local level)** • System under threat (trend to specialisation, standardisation, globalisation and global changes) within the site selected, but with a viable option (+potential available to draw from others sites)		
GLOBAL		• **Contribution to environmental restoration, protection and enhancement** • **Contribution to global diversity (biophysical, socio-cultural)** • **Contribution to food (health and nutrition) and livelihood security, to poverty reduction and equity** • **Remarkable (NR and landscape dimension and indigenous/local knowledge of global benefit)** • **Demonstration effect, value to society (replicable or uniqueness)** • **Production of Public good / Aim to enhance positives externalities**		

	Global / Ecoregional	**Contribution to Ecosystem health – Environmental restoration, protection and enhancement** Minimise natural resources degradation and pollution, maximise ecosystem resilience (reduce vulnerability to change as drought, flood; climate change, etc.): • Reduce GHG/ Increase C stocks • Maintain or increase water availability on sustainable basis • Maintain or improve air, water and soil quality • Maximise energy efficient System built on natural biodiversity and interspecific dynamic, and enhancing it : • Existing of high (diversify, genetic potential) and/or significant (endemism, keystone or endangered race/species/varieties) biodiversity (wild and domesticated ; vegetal, animal and microbiological ; inter and infra specific)	• Contribution to global socio-cultural and linguistic diversity • Contribution to knowledge diversity / uniqueness of knowledge systems	• Economic value of preserved genetic resources, potential value of local / indigenous knowledge and technology to • Contribution to food and livelihood security, to poverty reduction and equity • Global benefit of ecosystem services
	National	• **Ratification of CBD, CCD and International Treaty on PGR** • **Respect of collective and individual Human rights** ***needs more discussion***		
			• Commitment to decentralised decision making and participatory process (stake and rights holders) • Willingness for interdisciplinary co-ordination (agriculture, environment and social) • Willingness to empower farmers communities and indigenous people • Appropriate policy and legal support for diverse agricultural systems	• Economic policies and incentives to support local economy

LOCAL	**(Farming system / terroir or community / household)**	• **Strong and lasting relation of people with the land (traditional land use system, but possible integration of innovations)** • **System built on natural biodiversity (wild and domesticated) and enhancing it** • **Sustainable of the system (biophysical, socio-cultural, economic)** • **Large contribution of the system to food (health and nutrition) and livelihood security, to poverty reduction and equity, at individual, household, community and regional level :** food and livelihood security ensured (actual/potential) by the system (home consumption + production of good for the market), range of livelihood options, multipurpose and productive system (diverse productions, including by-products and non-food goods for domestic or other uses), providing diversify food and food source • **Efficiency use and minimising degradation of resources, especially critical resources (human, natural, economic)** • **Minimise negative externalities (actual/potential)** • **Trend to maximise benefits (economic, social, environmental) and equity of share (gender, disadvantaged groups)** • **Risk management : robustness / flexibility / resilience / adaptive capacity (creative or mimic; open to innovations -without loosing the ''identity'' of the system ; use of opportunities)** • **Opportunistic environmental adaptation using natural process and capital (biodiversity, habitat heterogeneity, etc.)** • **Integrativeness and complexity of interrelations (socio-cultural and biophysical elements of the system)** • **Ingenious (not necessarily complex) management response to critical constraints (social, demographic, biophysical, economic, etc.)**

		• Accessible site • Outstanding landscape (not necessarily diverse, complex and/or associative) • Organically evolved landscapes and / or constructed landscapes • Wild-domestic integration **Contribution to Ecosystem health –Environmental restoration, protection and enhancement** Minimise natural resources degradation and pollution, maximise ecosystem resilience (reduce vulnerability to change as drought, flood; climate change, etc.): • Maintain or increase water availability on sustainable basis • Maintain or improve air, water and soil quality • Maximise energy efficient • Increase cycling of organic materials • Preferred use of biological ways for pest management and control • Promote renewable inputs and recycling of natural resources • Low external input (minimise chemical inputs) • Contribution to microclimate • Contribution to wild species habitat System built on natural biodiversity and interspecies dynamics, and enhancing it : • Existing of high (diversify, genetic potential) or significant (endemism, keystone or endangered race/species/varieties) biodiversity (wild and domesticated ; vegetal, animal and fungi ; inter and infra specific) • Efficiency of household use and consumption of natural resource and products • Appropriateness of building and settlement	• Minimising exodus and rural migration - Maintained sustainable livelihoods in rural areas • Level of integration (appropriateness) of social organisation and culture with agroecosystem • Relevance of concepts and cosmovisions for integrated system's management • Group awareness and value for sustainable management of NR for future generations • Functionality of rituals and spirituality for sustainable management of natural resources • Appropriateness and wealth of indigenous / local knowledge functional to systems management (including innovative capacity) • Institutions (including customary law and other arrangements) for regulation, access and use of natural resources appropriate for their sustainable management • Richness of artistic heritage and knowledge related to the agricultural system • Local cohesion (either through diversification, specialisation, collectivism) / solidarity / sense of belonging and identity • Capacity to adapt social organisation / institutions to changing environmental / socio-economic circumstances including social response to uncertainty / disasters • Codified or non codified arrangements maximising equitable share of benefit (Increase gender equity ; increase income, wealth and/or status for disadvantaged groups) • Effectiveness of responses to deal with excess population and other demographic changes / Effectiveness of measures to control demographics • Ingenuity of settlement and housing patterns functional to agro-ecological and social dimensions	**Contribution to economic development :** • Economic viability and long term sustainability • Diversity of activities and integration of different resource use systems • Multiple benefits • Profitability of non–food goods for domestic utilisation • Proved capacity of economic actors to use opportunities - Ex : identification and development of new market opportunities • Employment generation • Provision of recreative areas for revenue

Acronyms

CGIAR	Consultative Group on International Agricultural Research
COMPAS	Comparing and Supporting Endogenous Development, an international programme of ETC Ecoculture
FAO	Food and Agriculture Organisation of the United Nations
FSC	Forest Stewardship Council
GEF	Global Environment Fund
GIAHS	Globally important, Ingenious Agricultural Heritage System(s)
GTZ	Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation Society)
IPGRI	International Plant Genetic Resources Institute
ISNAR	International Service for National Agricultural Research
IUCN	International Union for the Conservation of Nature
NGO	Non-Governmental Organisation
PDF	Project Development Facility (-A, -B: first, second phase)
PLEC	People Land Management and Environmental Change
SLA	Sustainable Livelihoods Approach
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNU	United Nations University

Annex 1. workshop agenda

Final Agenda

Stakeholder / Steering Committee workshop of globally Important Ingenious Agricultural Heritage Systems (GIAHS), GEF-PDF Project, Rome, 5-7 August 2002

Day 1
Morning: 9:30-10:30

1. **Opening**
   - Welcome address by Mr. Kenji Yoshinaga, Director AGL
   - Introductory statements by:
   - Mrs. Maryam Niamir-Fuller, UNDP-GEF
   - Mr. Stein Bie, ISNAR

2. "**GIAHS - from concepts to action", chair: Parviz Koohafkan**
   - Aims and objectives of GIAHS project
   - Objectives of the workshop
   - Presentation of workshop programme
   - Expected outcomes of the workshop

coffee break 10:30-11:00

11:00-13:00

3. **Definition, components, importance and functions of GIAHS: Chair Maryam Niamir-Fuller, UNDP-GEF**

   The characteristics and uniqueness of GIAHS will be discussed through a systems approach and the presentation of case studies highlighting the evolution and dynamics of these systems and the inter-linkages between food security; biodiversity and socio-cultural issues. This will include consideration of and linkages among: *in situ* conservation of agricultural biodiversity, inter-species dynamics, cultural diversity and agricultural heritage, social organisation and management, access and rights to natural resources – land, water and biological resources - and their ingenious management systems, indigenous knowledge, innovations and practices, benefit sharing and farmers' rights issues, sustainability, resilience, risk management and mitigation of threats to GIAHS. It will also address possible avenues for up scaling from a range of sustainable GIAHS case studies. Case studies will be presented from various candidate GIAHS sites:

   - Oasis case study by Aude Verwilghen
   - Rice-Fish case study by José Furtado
   - Discussion ....

lunch 13:00-14:30

Afternoon 14:30 – 15:30

Session 3 continued: Definition, Components, importance and functions of GIAHS:

- Carpathian case study by Jan Brindza
- Qanat case study by Taghi Farvar
- Mananara case study by Jean Bedel
- Discussion .....

15:30-17:30

4. Approaches to GIAHS, experiences and lessons learned from other approaches to agricultural heritage: Proposed Chair: Taghi Farvar, IUCN

Expanding lessons to GIAHS; specific needs and opportunities of *agricultural* heritage systems, strengths weaknesses of existing approaches: lessons learned in terms of institutional settings and conducive policy environments, participatory processes, decision making and community/national ownership, maximising and sharing benefits, etc.;

- Presentation by Prof. P.S. Ramankrishnan on existing approaches of UNESCO and their appropriateness for GIAHS.
- Presentation by Devra Jarvis (IPGRI): tools for the assessment and adaptive management of agricultural biodiversity in agro-ecosystems.
- Presentation by Luohui Liang (UNU): experiences from the People, Land Management and Environmental Change (PLEC) project.
- Indigenous Peoples issues of land management and agriculture, David Boerma, FAO
- discussion
- sum up and conclusions**.**

Day 2.
Morning 9:00- 13:00

9:00-11.00

5. Evolutionary dynamics of GIAHS: Dynamic conservation and revitalisation of agricultural heritage; biodiversity, indigenous/local knowledge and innovation, use of technology, and development opportunities. Chair: Maryam Niamir-Fuller, UNDP-GEF

11.00 – 13.00

6. Establishing criteria and indicators for selection of GIAHS sites; proposal for working groups and themes: Chair: Parviz Koohafkan

Three working groups will be set up to discuss criteria and indicators for selection of GIAHS focusing on three sets of possible inter-related criteria and indicators. These indicators might be grouped under biophysical, economical and socio-cultural indicators, each set to be analysed at farm, community, national and global levels.

6.1 Working groups sessions:

Working group 1, biophysical and landscape management criteria and indicators: Resource endowment (e.g. quantity, quality, uniqueness); Biodiversity (quantitative, qualitative endemic species, functional biodiversity and inter-specific dynamics and management thereof); Physical components of agricultural systems (structures and engineering, infrastructure, technology, water efficiency, soil fertility management,..) Landscape diversity, complexity and uniqueness, etc.	farm / household level
	local/community level
	national level
	global level
Working group 2. Social and Cultural criteria and indicators: Basis of value system, life philosophy and cosmovision; rituals and sacred sites, cultural heritage, language and arts; Social organisation and users associations, adaptability and sustainability of social structure (e.g. locally adapted ingenious legal and other institutions for management of natural resources), conflict resolution mechanism; leadership, representation and decision making; division and specialisation of labour; health and population dynamics. Indigenous/local knowledge, knowledge transfer and education; transfer of heritage; equity, benefit sharing, roles of gender and inter-generation relations;	farm / household level
	local/community level
	national level
	global level
Working group 2:Economic criteria and indicators: Food self sufficiency (e.g. food and feed production, population dynamics) and food security (stock and reserve); importance of marketable goods and services; economic viability (adaptation to needs and market demands); economic sustainability and economic importance of sustainable resources management systems (e.g. land and water resources use efficiency; aesthetic values) Ecosystem services (e.g. drought and flood mitigation, land and water quality, medicinal and other health related attributes,..); Associative and other culturally specific values and preferences.	farm level
	local/community level
	national level
	global level

Afternoon

14:00 – 17.00

6.1 Working group sessions

Day 3:

Morning
9:00-10:00

6.2 Report of working groups and establishment of GIAHS criteria.

In the plenary session the outcomes of the proposals of the working groups will be discussed and combined into one matrix of criteria and indicators for GIAHS.

Conclusions on criteria and indicators for GIAHS

10.00-13.00

7. Conclusions, recommendations and issues for further consideration: Chair: Stein Bie, ISNAR

7.2 Plenary session discussion

7.3 address by Dr. Louise Fresco, ADG-AG, FAO (11.00 hours)

7.4 Organisation of a GIAHS technical advisory group and follow up

7.5 Closing of stakeholder meeting

lunch

Afternoon 14:00-17:00

8. Steering Committee session: Chair Maryam Fuller, UNDP

1. Establishment of mandate and role of Steering Committee
2. Roles and responsibility of partners
3. Development / approval of work plan
4. Project strategy (PDF-B and/or full project)
5. Communication strategy
6. Resource mobilisation strategy
7. Further planning / organisation of work

9. Closing of GIAHS workshop: Chair Kenji Yoshinaga and Parviz Koohafkan

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