

Globally important Ingenious Agricultural Heritage Systems (GIAHS)

GIAHS Strategic Framework**I. Introduction and Context**

The Paper is intended to set out a strategic vision as an overarching guide for the future policies, plans, and programmes of GIAHS – a unique and innovative initiative to advance the goals of sustainable management of the ecosystems and enhancing human well-being. The agricultural heritage systems to be covered under the GIAHS program are defined¹ by FAO as “remarkable land use systems and landscapes, which are rich in biodiversity evolving from the ingenious and dynamic adaptations of a rural community to its environment, in order to realize their socio-economical, cultural and livelihood needs and aspirations for a sustainable development”. The GIAHS is a relatively recent initiative of the international community, nested in the global endeavors to achieve sustainable development and attain the Millennium Development Goals (MDGs), with the specific goal to identify and safeguard globally important indigenous agricultural heritage systems and their associated landscapes, agricultural biodiversity and knowledge systems through mobilizing global and national recognition and support for such systems. The objective is to support such systems to realize their considerable latent potential for enhancing global, national and local benefits (in terms of increased incomes, reduced poverty, and assured food security and nutrition) -- derived through dynamic conservation, sustainable ecosystems management and enhanced productivity of such agricultural heritage systems. This objective can be realized provided the GIAHS initiative has the support of the concerned national governments and the international donor community to provide resources to support the sustainable development and evolution of these agricultural systems as part of the global development agenda. Without appropriate support structures and resources, such systems would remain trapped in poverty and exclusion. The strategic framework has been prepared with this perspective in view, and discusses the GIAHS program from a developmental perspective of interest to the national and international policy organs and decision makers. A number of other papers exist, or are under preparation, which focus on the conceptual, bio-cultural, scientific and "saliency" perspectives of GIAHS.

The GIAHS program is currently in a preparatory (GEF PDF-B) phase, being executed by FAO, which is expected to lead to a full project to be funded by GEF and cofinanced by other sources. The program has potential of spin off into a much larger international endeavor over the longer term, supported by an emerging strategic partnership of multilateral and bilateral donors, national governments, civil society and CBOs. This section sets out this broader overall context for the GIAHS strategic framework (GSF).

The unique characteristics of GIAHS

The agricultural heritage systems are unique in as much as they represent a fascinating story of the man's ability and ingenuity to adjust and adapt to the vagaries of a changing physical and material environment from generation to generation and leave indelible imprints of an abiding commitment to conservation and respect for their natural patrimony. Their other unique characteristics include their ethical, religious, and aesthetic values, respect for the rights of indigenous and traditional peoples, their relation with biodiversity, the richness of their natural and cultural diversity, and their deep reservoirs of knowledge and experience, all of which are of tremendous importance for human resilience². The globally important ingenious agricultural heritage systems and associated landscapes and communities, dispersed over many countries and regions, represent a microcosm of the larger rural world of land use systems, livestock, pastures, grasslands, forestry and fisheries. They reflect the value of the diversity of agricultural systems adapted to different environments. *The GIAHS have a contemporary relevance, among others, for demonstrating that possibilities do exist for **putting nature and culture back into agriculture**, though much work is needed to get a comprehensive understanding of the processes and issues involved in such evolution.* In this sense they link up with increasingly popular movements in both developing and developed countries which advocate that farming does not have to be disconnected from local rural cultures

and that farms can be productive and farmers earn a decent living while protecting the landscape and its natural resources for future generations³.

GIAH-Systems, though rooted in history, are of contemporary relevance, also since they can be viewed as *benchmark systems* for sustainable agricultural development⁴. . . These systems have a multi-dimensional character and, though traditional in terms of intrinsic values, must be perceived as evolving and dynamic processes.. There is a strong rationale for mainstreaming support of the GIAHS program as part of the global sustainable development agenda. Despite great progress in increasing productivity during the last century, based on intensive agriculture, there is now a growing consensus that sustainable development requires a diversified agro-ecological approach to agricultural development and that modern technology and commodity focus are not for all ecosystems and cultural groups. From *the perspective of poor farmers, a substantial* part of the sustainable agricultural production will continue to rely on traditional agriculture - a sector that has largely been neglected in international development efforts in spite of its contribution to sustainable livelihoods, household food security and biodiversity conservation. Agricultural heritage systems have been developed with low external inputs, without use of mechanized equipment, inorganic fertilizers and pesticides. They mirror a broad range of agri-cultural diversity and a respect for conserving biodiversity, and environment. These production systems have evolved over a long time and have developed *in diverse geographical areas and agricultural sub-sectors ranging from food crops to coastal fisheries, mainly isolated from mainstream agriculture*. They may contain solutions to problems faced by many of the poor farmers all over the world, who still do not have access to modern expensive techniques, or such techniques are not appropriate in their agro-climatic environment, And these solutions may be much more sustainable than many of the modern agricultural techniques, and serve as benchmark in particular for drylands management, *biodiversity conservation, and low cost livelihood patterns. Such adaptations, however, have considerable scope for up-gradation and productivity increases in particular local, socio-economic and environmental contexts*. These agri-cultural heritage systems, with their unique conservation-friendly coping strategies and remarkable resilience, however, have largely escaped the targeted attention of development planners and policy makers. With greater international and national understanding and awareness of such systems and their global dimension, it is expected that the GIAHS program will evolve into a much wider effort to protect, preserve and develop these important *living* world heritage systems aimed at ensuring that GIAHS become part of the global sustainable development agenda.

The threats faced by GIAHS

In the absence of a dedicated global support structure, however, many of these heritage systems and associated communities are threatened with virtual extinction. With the rapid advances in globalization, liberalization of trade and commerce, and revolution in communications, these traditional systems are increasingly being challenged by factors such as: (a) agricultural transformation and loss of traditional agricultural know-how and techniques (b) lack of payment for non-market goods and services, (c) out migration of farmers due to economic crisis or opportunities elsewhere, (d) loss of biodiversity and (e) cultural erosion. The immediate threat of extinction of cultures, habitats, and human-created ecosystems are particularly serious from the perspective of the need to preserve and safeguard the unique characteristics of the agricultural heritage systems -- the importance of these for human resilience, the importance of benefit-sharing in the conservation of biodiversity, the cultural, spiritual, and agro-ecological assets reflected in the goods and services provided by these systems in their diverse local contexts. Unless these systems are assisted to counter these threats, the GIAHS will meet the fate of numerous rural communities which have been dying all over the world in the wake of industrialization and modernization, often without much concern for agro-ecology and environmental sustainability. Thus, strategies to meet these threats have to be conceived in a global context.

II. The GIAHS Strategic Framework.

The Vision. A living heritage makes our civilization come alive. It underscores its diversity, evolution, continuity and resilience to preserve its core values while adjusting to forces

of changing environment, economic and social transformation and scientific and technological advances, a process which still is in a state of transition in the wake of the digital revolution, globalization and instant communication. GIAHS represent a unique component of this living heritage. *GIAHS are “those ethno-ecosystems that are co-produced by local cultures and nature, where domesticated and wild blur along a continuum that is only distinguishable at its extremes. In these landscapes, which persist in so-called ‘marginal’ areas of the North and across much of the global South, fields represent amalgams of a wide range of species, from wild to domesticated. This diversity provides much protection against pests and diseases, climatic vagaries and seasonal food shortages”*⁵. The strategies to safeguard and assist these systems and associated communities need to be sensitive to their evolutionary character, their intrinsic value systems and their contextual peculiarities. The interventions should avoid a cookie-cutter model of development and should be based on informed, caring and nature-and-people-centered participatory approaches which may be time-and-resource intensive, and experimental and flexible in design and content. The GIAHS strategic framework is presented against this backdrop. The framework visualizes a longer-term time horizon for GIAHS to realize their development potential. A related goal is to move GIAHS from the periphery of the development discourse to become a cognizable part of the mainstream sustainable development agenda. Both these goals are realizable, if backed by informed public awareness, in the same way as the elevation in recent years of the issues of environment and poverty. However, this would require building international consensus over time, and forging partnerships of concerned stakeholders at national, and international levels, including international and regional, bilateral and multilateral agencies.

Considering the multidimensional nature and the geo-physical dispersal, bio-ethnic, cultural and sub-sectoral diversity of the GIAH Systems, the **mission** of the GIAHS program may be stated *as protection of distinct agricultural heritage features, preservation of cultural diversity, respect for nature and ecology, conservation of biodiversity, and enhancement of economic and social well-being.*

The strategic framework is based on a holistic concept of sustainable development and human well-being, which rests on the pillars of the millennium development goals, the national poverty eradication and economic growth strategies consistent with the MDGs, adherence to Agenda 21 objectives, and respect for social and cultural diversity and good governance. The World Commission on Environment and Development (Brundtland Commission, 1987) defined **sustainable development** as that which “meets the needs and aspirations of the present without compromising the ability of future generations to meet their own needs.” Sustainability, however, is an evolving concept. It is essentially conceived as a long term process about a society’s ability to enhance well-being over a long term time horizon. Sustainability depends on choices made by individuals, firms, communities, and governments on how to use and transform their wide spectrum of physical, material, social and financial assets⁶.

From a developmental perspective, in the case of GIAHS, the key challenge *lies in setting in motion a transformation and change management process that is participatory and people-centered, and can sustain over the long-term the processes of transition from subsistence agriculture to higher level of agricultural production and/or diversification suited to their agri-cultural diversity and resource endowments, which ensure development of sustainable agricultural and non-agricultural livelihoods to transform their production systems and improve their economic and social well-being.*

22. **Key Areas of Strategic Focus.** The GIAH Systems are quite diverse and complex, with multiple dimensions that can be classified in a variety of ways, depending on the particular perspective from which one approaches the subject. *The main characteristics of the GIAH systems can be summarized in terms of their unique heritage and culture, respect for nature and environment, agriculture as a way of life as well as a source of food and livelihood, and traditional community institutions.* The goods and services provided by these systems, *distinct in many ways from the mainstream production systems, are:*

- Food and livelihood security and quality of life.
- Maintenance of globally significant agricultural biodiversity.
- Resilient and productive ecosystems.
- Valuable knowledge systems and cultural inheritance.
- Diverse and valuable goods and ecological services.
- Outstanding and culturally important landscapes of great aesthetic value.

- Social and community institutions – illustrative of dynamic sociology of culture.

From the stand point of GIAHS strategic framework, we have lumped together the multiple characteristics of GIAHS into four broad categories which are inter-related and even overlapping. Each category includes a number of distinct though inter-dependent aspects requiring often differentiated responses. The four categories, around which the strategic framework is structured, are:

- A. Heritage **and Cultural** dimension
- B. Environmental dimension,
- C. The Socio-Economic dimension
- D. The Institutional and Organizational dimension

A. GIAH-Systems represent a living heritage and culture of outstanding universal value

These systems represent a continuation of the historic tradition of an evolving civilization over the centuries of cultures, settlements, landscapes and habitats, most of which have been obliterated in the wake of industrial and agricultural revolutions and advances of science, technology, commerce and communications in the 19th and 20th centuries. The few that still survive as flag bearers of the earlier tradition are worth safeguarding as a part of the protection of the world cultural and natural heritage. The national and international community has recognized in recent decades need to protect the “world heritage”, both tangible and intangible. The GIAHS landscapes appear to satisfy the objectives of the 1972 UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage, and its associated operational guidelines for the implementation of the Convention adopted in 1992⁷. Paragraph 18 of the Operational Guidelines states that, “States Parties should as far as possible endeavor to include in their submissions properties which derive their outstanding universal value from a particularly significant combination of cultural and natural features”. The agricultural heritage systems, as compared to the other world heritage sites, are not static or frozen in time or space. They represent a living, dynamic, socio-economic, cultural and institutional mosaic of how man has adapted over the centuries to the demands of dramatic advances in human civilization, while preserving and conserving to this day a rich heritage of livelihood patterns and landscapes. It is now widely recognized that an understanding of the interface of cultural and biological diversity and of associated traditional beliefs and land management systems is essential to dealing with the issues of sustainable development and environmental conservation. GIAHS landscapes also represent distinct cases of cultural diversity and sites of considerable aesthetic interest.

The GIAHS agricultural heritage landscapes not only represent important landmarks of historical value but also living and evolving agricultural communities, institutions and ecological and cultural heritage. Collaboration with the World Heritage Center (WHC) is essential to pursue the idea that GIAHS be designated as a distinct category within the criteria of the UNESCO Convention’s *mixed cultural and natural properties*:

“As a continuing landscape, which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress. At the same time it exhibits significant material evidence of its evolution over time”⁸.

GIAHS and preserving cultural diversity. The GIAH Systems embody rich cultural and social diversity of traditional evolving societies across countries and regions in both developing and developed parts of the world. The agricultural heritage systems are part of a wider bonding process of cultural, ecological and spiritual values, which has given birth to movements like *Kwanzaa*⁹ representing values of “Family, Community, and Culture, with origins in the ancient African tradition. Likewise, in islands, such as Mauritius, the *Rastafari Movement*¹⁰ has its spiritual basis in a deep appreciation of natural environment. The historical interaction between culture and agriculture is underscored by the selection by FAO of the theme of Agriculture and Intercultural Dialogue for the 2005 World Food Day (25 October). This would comprise two sub-themes: (i) cultures and agriculture; and (ii) the contribution of civilizations to world agriculture. However, handling “culture” as an area of strategic focus is not easy. One scholar (Robert Borofsky) suggests that attempts to define culture are “akin to trying to engage the wind”¹¹. For our purpose culture may be understood as embracing the entire way of life of a community.

B. GIAHS as stewards of ecosystems.

There is considerable diversity in the GIAH-Systems, but they share a common attribute of functioning broadly in tune with the diversity of ecology, climate, geography, and natural resource endowments in the form of crop land, pastures, forests, fisheries, or irrigation water. The systems operate as conservation-friendly agricultural landscapes or habitats. A remarkable attribute of agricultural heritage systems is the concept of *stewardship* as the driving approach to the use of **natural assets and services** by local communities. The people depending on such landscapes display deeply held historical, cultural, ethical and religious attachment to their habitats. Many indigenous communities attribute spiritual values to the ecosystem as evidenced by community-based rituals and forms of worship. The underlying philosophy of these communities is akin to the spirit which modern naturalists all over the world ascribe to nature and its bounty. The spirit of GIAHS, in a contemporary setting, is captured beautifully in the following lines of late Aldo Leopold¹², a pioneer environmentalist in the U.S.: “*We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect.*”

The GIAHS project should consider an appropriate incentive framework to give recognition for this service with positive environmental externalities to reinforce the spirit of stewardship of ecosystems. Stewardship has relevance to the larger and difficult problem of neglect of the commons. In earlier times, communities developed locally specific rules and arrangements for the care of natural resources. In India, for instance, often named families were the forest guards. In recent decades, common property resources have been in steep decline in India. NS Jodha’s 30 year study of dryland villages shows steep decline in common property resources – community pastures, forests and watersheds, community threshing grounds, village ponds and rivers. He found that the poorest rely on common resources the most, as these annually provide up to 200 days of employment for each household¹³. The stewardship practices followed by diverse GIAHS communities may have some useful lessons for the management of the commons in general. At the level of national and global sustainable development agenda, there may be a case, based on evidence gleaned from the GIAHS field studies, to reinforce the advocacy for restoration or creation of new commons.

GIAHS and Biodiversity. GIAHS also works for preserving biodiversity for agriculture. The on-site conservation of crop-diversity maintains the complex interaction of genetically diverse traditional varieties with their associated pests, predators, and pathogens. Changes to farm practices as a result of incorporation of genetically modified organisms may contribute directly or indirectly to biodiversity losses. In contrast, GIAH Systems significantly contribute to protect biodiversity losses in their agricultural practices. Under the GIAHS project, studies in tandem in the pilot projects and the selected biodiversity projects could help document these practices and related lessons for wider extension. There is a wide ranging debate on these issues and reasoned evidence, rather than emotive arguments are needed to restore some balance to this debate. In the case of GIAHS Plant growth depends not upon chemical fertilizers, but rather upon mulch gleaned from brush, forests and coastlines, and the dung from animals that are grazed and fed fodder that is gathered in ‘wild’ areas. These, in turn, sustain a high diversity of animal and insect life. The ‘wild’ areas, together with the fields and borders and pastures and Home gardens, constitute the productive basis heritage agri-cultural systems. Unless these communities receive assistance as envisaged in the GIAHS project, the biodiversity resources are being eroded. This is another area on which studies in the pilot projects should focus, because “*these landscapes and lives, and their deep reservoirs of knowledge and natural and cultural diversity, are rapidly being lost. GIAHS means exploring and addressing, on a site-by-site basis, and through this, eventually on a global basis, many of the driving forces behind the large-scale erosion of the world’s biological and cultural diversity*”(Patricia Howard¹⁴).

Ecosystems degradation. The preservation of GIAHS is important in a world confronted with a growing phenomenon of land and water degradation¹⁵ and pollution. As the Millennium Ecosystem Assessment (MA) Framework for Assessment points out, the ecosystem services are subjected to severe degradation due to excessive demand for ecosystem services caused by economic growth, demographic changes and individual choices. It is estimated that some 40 percent of agricultural land has been strongly or very strongly degraded in the past 50 years by erosion, salinization, compaction, nutrient depletion, biological degradation, or pollution¹⁶. It is the world’s poor who suffer as a consequence, since they lack

financial and institutional buffers against ecosystems deterioration and imbalances that result in famine, drought, floods, food insecurity and malnutrition. The world fisheries resources too are now declining due to over fishing. Degradation of coastal fisheries resources, for instance, results in protein deficiency, since fishers, like poor farmers and herders, lack access to alternative sources of income. Cumulative loss of biodiversity, below acceptable thresholds, can also lead at localized levels to a loss of resilience of an ecosystem.

While the ecosystems degradation, in its multiple dimensions, poses major *global* challenges, their practical, on-the-ground solutions, by and large, must be found at the *local* level. In this context, a comprehensive understanding of how the GIAH-Systems have successfully adapted themselves to changing environment through pro-conservation and pro-biodiversity practices may well hold the key to promoting viable local solutions needed to reverse the advance of ecosystems degradation. From this perspective, the GIAHS initiative is important to advancing the goal of sustainable development. The pilot agricultural heritage systems, to be covered by the ongoing GIAHS project, perhaps would be useful to acquire a better understanding of ecosystems management strategies pursued by GIAHS communities and the extent to which such strategies are under threat for want of development support¹⁷.

Collaboration Possibilities in the area of environmental aspects. There is a strong case for collaboration between the GIAHS project and the Millennium Ecosystem Assessment aimed at facilitating that the scientists engaged in the MA exercise include, in their research plan of work and studies, the GIAHS pilot projects as relevant ecosystem functional units. Such studies could focus, in particular, on approaches to conservation of biodiversity and genetic resources and the generation of traditional knowledge on sustainable agricultural practices for possible wider adaptation. Such studies would also promote purposeful interface of GIAHS communities with modern science, which might help not only with documentation of traditional knowledge from the perspective of better eco-systems management, but also identify areas of pressure to the eco- stability faced by such systems and how this might be relieved by induction of improved scientific knowledge and technology. Such interface may also trigger a rethinking of agricultural research priorities particularly in the areas of demand-driven applied research, adaptation and extension involving local communities.

There is also considerable scope for **collaboration between GIAHS project and the environmental conventions**, such as the biodiversity convention (CBD), the convention to combat desertification (CCD), and the Agenda 21/WSSD. Such collaboration would be based on elements of complementarities and synergy between these instruments. The collaboration can be given a concrete shape, with manageable transaction costs, within the framework of relevant GEF operational programs related to: (1) "Conservation and Sustainable Use of Biological Diversity Important to Agriculture" (OP-13); (2) "Integrated Ecosystem Management" (OP 12); and, (3) Operational Program on Sustainable Land Management (OP-15). There are possibilities of leveraging other conventions and international agreements to support GIAHS.

12. Finally, efforts need to be made to raise the status of GIAHS in due course into that of a UN convention, though it will entail much spadework to initiate this process. There are a number of U.N. conventions and international treaties and agreements to safeguard the biosphere, biodiversity, plant genetic resources, and animal species. However, the *globally important ingenious agricultural heritage systems* are not yet part of this formal international protection and conservation framework¹⁸ – a lacuna which needs to be appropriately corrected. The GIAHS initiative constitutes the first significant step in this direction.

C. GIAHS communities as economic agents.

A GIAH System is the main source of income, livelihood and food security of the community tending and using its natural resource endowments. The GIAHS households, as producers and users of its goods and services, therefore function as economic agents, but with a unique value system. Agriculture for GIAHS communities is a *way of life* as much as it is a means of economic activity. From their unique perspective, they act rationally in making their production and consumption decisions. These decisions view productivity optimization not in terms of short-term profit maximization, but in the longer time horizon of conserving the natural resource base as the main stay of their survival as a community. Thus, economic decision making in GIAHS intuitively incorporates the *sustainability dimension* in their

production decisions and choice of technology and inputs. Such an approach is compatible with the national and global policy objective of aiming for a balanced development process which seeks to reconcile economic growth and social development with the need for environmental conservation.

More research and thorough situation analysis, based initially on the selected GIAHS pilot projects, is needed to get a better understanding of economic, social and income profile of the GIAHS communities by main agricultural sub-sectors. For the purposes of this paper, it is a good working hypothesis that by and large the populations in the GIAHS are living in poverty and engaged in largely subsistence agriculture. Their poverty is largely the function of their exclusivity, remoteness, lack of empowerment, and absence of constructive drivers of opportunity. The poverty of GIAHS communities is also a consequence of the lack of recognition of these systems at national and international levels. There are of course communities, as in Latin America, which are quite active on issues concerning land tenure and on the social and political marginalization of the Andean farmers. However, these are broad-based peasant movements and not particularly focused on the situation and issues of the agricultural heritage systems. Their interest in GIAHS, however, would help raise the profile of the GIAHS program. Land tenure and user rights are an important issue. Many indigenous communities have encountered problems of dispossession and displacement – a serious issue which has been highlighted by many indigenous leaders during the UN decade for indigenous people (1995-2004)¹⁹. Such negative pressures, if not vigorously countered, would destroy a treasure trove of valuable agri-cultural heritage which has so far managed to survive, but not for much longer, without a global framework to protect, nurture and sustain such systems of abiding universal value.

The GIAHS communities decidedly have a potential to grow, but need technical and capacity development support and financial assistance to attain a higher economic possibility frontier. *This strategic shift is necessary, if such communities do not have to remain trapped in poverty.* Given a sensitive and empathetic support structure, agriculture in GIAHS Systems has a potential to evolve into high value production, based on “conservation agriculture” and diversification based on sustainable livelihood alternatives. This does pose a dilemma for policy makers and communities alike because it may adversely affect their cultural, institutional and spiritual way of life. The strategic focus should be on *value enhancement* in each of above areas, rather than merely on *static preservation*. The emphasis should be on upward mobility, growth and transformation, based on principles of *dynamic conservation*, and *sustainable livelihood* approach. Support to GIAHS for development on these lines, enriches rather than destroys the diversity of associated agricultural and food systems, which are a common heritage to us all. This does not imply putting value on *isolation or exclusion*, but rather on promoting *linkages* – with sub-urban and urban centers, with markets, trade and commerce, and on shifts to high value and organically produced products and ecological services. This approach does not negate the great progress in increasing food production and global food security, which has been achieved by the modern agricultural systems, but implies being conscious of the attendant impacts on the environment, due to *externalities* with serious negative side effects – land degradation, soil erosion, the damage to biodiversity, the pollution of water, the human health hazards. The revival and development of GIAHS, and of traditional agricultural systems in general, suited to the national and local geo-physical and socio-cultural contexts, would generate substantial local and global benefits – stable eco-systems, biodiversity and genetic resource conservation, biological carbon sequestration, household food security, revival of rural life, and poverty reduction. The development of GIAHS has a valid rationale on the criteria of efficiency, when their positive externalities for ecology, biodiversity and culture are incorporated in the cost-benefit calculus.

Availing of trade opportunities offered by liberalization of agricultural trade. In recent years there is a growing interest in organic and health foods – which is part of post modernism trend also gaining ground in arts, music. This could provide a particular market stimulus for GIAHS products and services – a strategy which has worked in the case of Rajasthan desert in India, or the switch to floriculture and eco-tourism which has benefited many marginal areas and raised the well being of many rural households. The GIAHS are by nature evolving systems and the strategy should be to facilitate their social and economic evolution in response to market opportunities. Also individual GIAHS communities have to tap into opportunities which are suitable to their specific contexts. The important point is that the GIAHS program could facilitate their choices and assist them in their pursuit, through promoting linkages

with private sector, public marketing support agencies and other interested actors. Trade options, however, may be open only to GIAHS with open access to markets and private sector intermediaries. But even other GIAHS with marketable surpluses can raise incomes through linkages with urban and sub-urban markets. In many tribal areas the institution of weekly “haats” or bazaars has served small producers to dispose off their fresh poultry, vegetables or fruits, which can be a starting point for deepening marketing links. For relatively more sophisticated trade, however, instruments such as labeling, safety standards compliance facilitation are needed, which require a long-term involvement of competent private and NGO intermediaries. The Grameen Bank in Bangladesh was able to build up the necessary infrastructure to market traditional cloth produced by rural poor households, and this model could be adapted to serve clusters of GIAHS. What is needed is to build upon the “ingenious” attributes of the GIAHS and a strategic and long term involvement of appropriate NGOs as has happened in Bangladesh with BRAC and Grameen Bank, and in India with SEWA micro-finance network. Another interesting example of linkages in the area of organic agriculture is the *World Wide Opportunity on Organic Farms* (WWOOF) – a UK-based organization- that discourages use of chemicals in agriculture and provides first hand opportunities to volunteers to understand and experience the science behind agriculture and to work on farms owned by organic farmers, such as on rural farms in India. Such exchange programs could be encouraged by creative support from the corporate sector interested in social investments. *A company will be able to form a partnership with a group whose mission dovetails with your business.* “A social investment has got to be strategic,” says Doris Rubenstein, author of *The Good Corporate Citizen: A practical Guide* (2004).

Organic foods and exotic agriculture products have a rising demand in industrialized countries. The transformation of GIAHS agriculture, and drylands farming in general, into high value quality products could lead to a quantum jump in their revenue generation capacity. Some evidence of this from an FAO study was cited in an important address²⁰ to the recent *Terra Madre* conference organized by the Slow Food Movement: “*One of the arguments used by the “agricultural industrialists” is that it is only through intensification that we will be able to feed an expanded world population. But even without significant investment, and often in the face of official disapproval, improved organic practices have increased yields and outputs dramatically. A recent UN-FAO study revealed that in Bolivia potato yields went up from four to fifteen tonnes per hectare. In Cuba, the vegetable yields of organic urban gardens almost doubled. In Ethiopia, which twenty years ago suffered appalling famine, sweet potato yields went up from six to thirty tonnes per hectare. In Kenya, maize yields increased from two-and-a-quarter to nine tonnes per hectare. And in Pakistan, mango yields have gone up from seven-and-a-half to twenty-two tonnes per hectare*”.

The working hypothesis is that the GIAH Systems have the potential to link up with the rest of the economy and more particularly with the mainstream agriculture. The challenge is how to help transform the GIAHS agriculture, without compromising the integrity of their unique characteristics. Their economic behavior is sensitive to appropriate policy incentives, though traditional communities may have somewhat uncommon signaling mechanisms that need fine-tuning of utilitarian drivers of change to accommodate consideration for intrinsic values at the core of the heritage systems – a point which is discussed in a later section.

The above approach to agricultural transformation is to some extent close to the approach advocated by the **Slow Food Association**²¹. What Slow Food contributes is its experience in promoting and supporting traditional, high quality products which are in danger of disappearing, through its Presidium project, provided they meet certain conditions²² “As mentioned in the above cited address, “the Slow Food Movement is about celebrating the culture of food, and about sharing the extraordinary knowledge - developed over millennia - of the traditions involved with quality food production”.-.

This approach to agriculture also has a parallel in the underlying philosophy of the Amish farming in the U.S.A, which holds fast to practices which are four hundred years old. Amish farming is highly productive and environmentally stable and represents a profitable way for families to remain in control of rural places. According to Steven Stoll, a serious researcher and agricultural historian, “Amish farming is not modern, but it might be postmodern”²³

Harmonizing traditions, cultural values and ecological ethics with contemporary demands for economic development and greater well-being and open-ness. The GIAHS communities over the generations have demonstrated robust adaptive-ness, resilience, innate ingenuity and ability to evolve in response to changing environment and circumstances. It was never a smooth process and the adjustment to modern forces of globalization, communications revolution, and enhanced prospects in trade, commerce and tourism is bound to be a mixed bag of problems and opportunities. Inaction is not an option, because their very identity is at stake with past coping strategies for survival becoming increasingly unworkable. Many indigenous populations are already facing pressure and may well be on the verge of extinction. Economic desperation has led to serious cases of civil strife and conflict in Latin America and elsewhere.²⁴ Thus, there is need for urgent action to improve the living standards of the GIAHS communities through mainstreaming them into national and international programs for poverty eradication and economic growth.

Harmonization strategies involve (i) multi-disciplinary teams working with GIAHS communities to design actionable responses appropriate to their local contexts and potential; (ii) a major global and national effort at capacity building support; (iii) strengthening of community institutional mechanisms; and (iv) provision of technical and financial support services, sensitive to their intrinsic values and building on traditional knowledge and practices and local customs and decision-making processes.

A holistic approach to local development. The GIAHS communities have a strong claim on the programs and entitlements for development support within the framework of the national poverty reduction strategies. It is not possible to reduce poverty without investing in rural and agricultural development at the grassroots. From this perspective, the GIAHS communities should be treated as local entities deserving special support to promote their access to public goods and services (education, basic health, physical infrastructure, technical support), while preserving their distinct institutional and cultural character. The case for a proactive support to GIAHS by local, national and international organizations is in line with the relatively recent paradigm shift in how the process of agricultural and rural development should be perceived. The so called **territorial development approach** emphasizes focus on territorial, rather than sectoral dimension, recognizing the economic potential of geographic, historical and cultural territorial assets. Important aspects of this approach²⁵ that could be applied also to some countries in Africa, include: i) focusing on the territorial versus sectoral dimension and recognizing the importance of environmental, cultural and social, as well as economic services provided by agriculture; ii) recognizing the links between towns and the surrounding countryside and the relationship between urban and rural development; iii) highlighting the complementarity between agriculture and other employment opportunities; iv) promoting the residential value of rural areas; v) rendering rural areas more competitive in both regional and global markets, thereby emphasizing the importance of territorial competitiveness compared to that of sectors or individual entrepreneurs; vi) recognizing the economic potential of geographic, historical and cultural territorial assets thorough Agri-tourism; vii) encouraging the participation of a range of local stakeholders involved in rural development.

Territorial development concept is the *zeit geist* of contemporary development thinking, already popular with planners of rural and agricultural landscapes in Europe and in Latin America. Its holistic approach is a particularly relevant strategy for agricultural transformation of GIAHS. Another relevant concept relates to **capacity development** as an endogenous course of action that builds on existing capacities and assets, and the ability of people, institutions and societies to perform functions, solve problems and set and achieve objectives²⁶. Another approach which can be easily dovetailed into this concept is the DIFID’s **Sustainable Livelihood Approach (SLA)**, which a number of development institutions, such as IFAD, are incorporating into their poverty alleviation strategies.

Need for a differentiated strategic focus at local, national and global levels. The GIAHS program, to be successful, has to operate at all the three levels. Its approach needs to be appropriately adjusted to the tasks and issues pertaining to each particular level.

- **At the local-level**, the focus should be on: (a) Acquiring a comprehensive understanding of what makes the pilot GIAHS systems tick, their assets base, and what are the areas of their vulnerability. (b) The thrust should be on uncovering the **hidden face of GIAHS** and opening it up to the world at large through a robust *marketing* campaign. (c) The strategy at this level should have a strong operational content which must be demand driven, participatory and result-oriented. (d) The agricultural diversification and transformation should be a matter for specific studies which should explore linkages with external trade and commerce. (e) The ecosystems conservation, biodiversity, land degradation control, and traditional knowledge offer a number of areas, with distinct local as well as global dimensions. (f) Finally, the GIAHS institutions would need capacity building support and should be linked to the local government and decentralized structures, but in a way that their distinct character and autonomy are protected.
- **At the national level**, the focus should be on: (a) Policy dialogue mainly in the countries where pilot GIAHS are located. The main thrust of such policy dialogue should be on mainstreaming GIAHS into the national policy and budgetary allocation processes, so that the decision makers pay attention to the preservation and development of the selected GIAHS through appropriate support structure and incentive framework for their economic revival and growth. (b) Building a network of interested stakeholders, in the public, private and civil society sectors, particularly co-opting NGOs active in the areas of environment, poverty reduction, indigenous populations, basic health and education, and women; (c) contacts with donor agencies present in the country and leveraging funds at their disposal to support GIAHS communities.
- **At the global level**, the focus should be on: (i) Looking beyond the current PDF-B project phase, to put in place a more stable organizational structure to manage, operate and oversee GIAHS against a long-term time perspective, which would provide a common platform for decision makers at levels of governments, international organizations and civil society organizations (see Annex 1). (ii) A communications strategy to enhance the awareness among partners and potential donors of what the GIAHS initiative stands for and why it needs to be supported. (iii) An operations plan on the basis of annual, or perhaps biannual, work plan. (iv) **A program of R&D, comprising essential research and studies, including on some analytical and conceptual issues, (such as the drivers of change, traditional knowledge and its interface with science and technology).** Such serious technical work is crucial to the understanding of the dynamics of the agricultural heritage systems, building upon the research which has already been undertaken. (v) An approach to resource mobilization on a predictable basis, which would preferably be nested within the organizational mechanisms, and would involve both public and private sectors.

III. Focus on the GIAH Systems

Some 200 agricultural heritage systems have been identified by the project so far. They represent a wide diversity, both spatial and sub-sectoral (see Box 1). The GIAHS program should help to spread a diverse view of agriculture: cropping, grazing, forestry, fisheries, with their interactions within and among communities as well as at national and global scales. The program's primary clients are the diverse agricultural heritage landscapes, communities and the poor men and women inhabiting these landscapes. The GIAHS are dispersed spatially all over the globe and need an effective support structure at the national and global levels to provide a common and coherent platform for all the interested stakeholders, in the public, private and civil society sectors, for coordinated and coherent interventions targeting the program's primary clients. Such interventions at the micro-level would constitute the foundation on which the program's support structures at the national and global levels of policy, development assistance and mainstreaming would be built.

26. **At the micro level**, the strategy is to pursue a step-by-step approach, focused in the initial phase on 5-10 pilot GIAHS systems, to gain a better understanding of the many inter-related and complex

processes and mechanisms: (a) heritage, cultural and ethical dimension which provides the glue which binds the communities; (b) the ecological resilience, biodiversity and environment and how natural assets and services are used and conserved; (c) the agricultural, food security and livelihood systems and their traditional knowledge underpinnings, and how these provide the economic sustenance to the communities and households; and (d) the public goods and services, social, institutional, decision-making and survival and adaptation frameworks. A clear understanding of their history and current trends, including through technological change with its positive and negative effects, is essential to identify pathways of evolution that will maintain their resilience and options for the future. In designing and undertaking these interventions, therefore, the following two strategic considerations need to be taken into account:

- The GIAHS communities should not be viewed merely as case study material for the researchers, but as participants and potential beneficiaries of the outcome of such action-research or case studies. The people constitute the *core* of these living and evolving heritage systems. A methodological framework in this context was provided in a paper by Prof. Miguel Altieri, University of California, Berkeley²⁷. Two other presentations on methodology were also presented/briefly discussed: (i) methodology- *UGI-GECOAGRI geographic method* - was presented by Grillotti Maria Gemma, Scientific Coordinator of the GECOAGRI Research Group; and (ii) PLEC methodology in the areas of biodiversity, agro-diversity and demonstration sites was also discussed²⁸).
- Besides getting a more comprehensive understanding of how the GIAHS systems *operate, subsist, survive and evolve*, the focus should also be on planning for activities and investments responsive to their needs which would lead to improving their living conditions and well-being. The GIAHS program is conceived as a joint effort with governments, national and international academic, technical and other partners as well as local communities and authorities to promote a broad view of agriculture as managed diverse ecosystems at different scales, providing a range of benefits in their diversity.

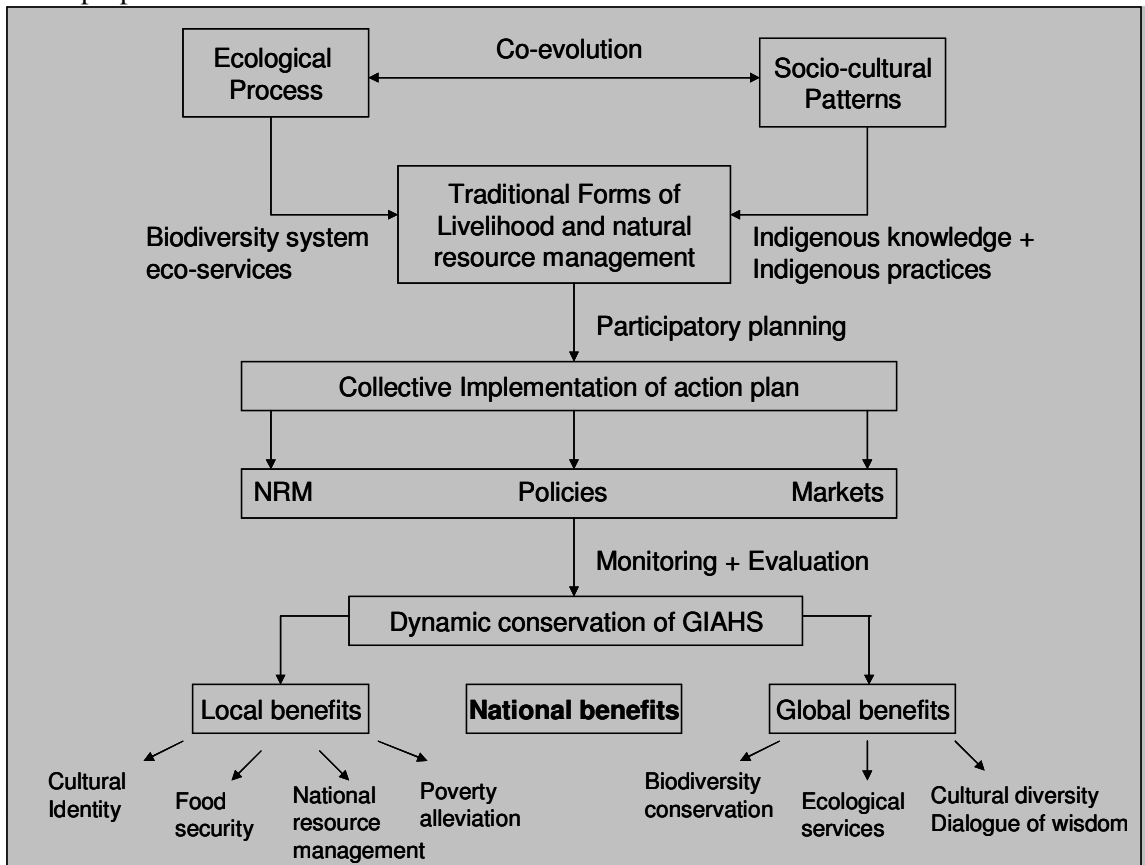
Box 1. Diversity of the GIAHS landscapes

- **Outstanding rice based systems.** This type includes remarkable terraced systems with integrated forest use, such as combined agro-forestry vanilla systems in Pays Betsileo, Betafo and Mananara in Madagascar, and diverse rice-fish systems and other integrated forest, land and water uses in East Asia and the Himalayas;
- Maize and root crop based agro-ecosystems developed by Aztecs (Chinampas in Mexico) and Incas in Andes (Waru-Waru) around Lake Titikaka in Peru and Bolivia.
- Taro based systems with unique and endemic genetic resources in Papua New Guinea, Vanuatu, Solomon islands and other Pacific Small islands developing countries;
- Remarkable pastoral systems based on adaptive use of pasture, water, salt and forest resources through mobility and herd-composition in harsh non-equilibrium environments with high animal genetic diversity and outstanding cultural landscapes – such as Yak based pastoral management in Ladakh, high Tibetan plateau, India, and parts of Mongolia; Cattle and mixed animal based pastoral systems, such as of the Maasai in East Africa; and Reindeer based management of tundra and temperate forest areas in Siberia such as Saami and Nenets; and **Korankadu Dryland Silviculture System** in Tamil Nadu, India
- Ingenious irrigation and soil and water management systems in drylands with a high diversity of adapted species (crops and animals) for such environments such as: ancient underground water distribution systems (Qanat) allowing specialized and diverse cropping systems in Iran, Afghanistan and other central Asian countries with associated home-gardens and endemic blind fish species living in underground waterways; and integrated oases in deserts of North Africa and Sahara, traditional valley bottom and wetland management e.g. in Lake Chad, Niger river Bamileke (Cameroon), Dogon (Mali) and Diola (Senegal);
- Complex multi-layered home gardens, with wild and domesticated trees, shrubs and plants for multiple foods, medicines, ornamental and other materials, possibly with integrated agro-forestry, swidden fields, hunting-gathering or livestock such as home garden systems in China, India, the Caribbean, the Amazon (Kayapo) and Indonesia (e.g. East Kalimantan and Butitingui);
- Hunting-gathering systems such as harvesting of wild rice in Chad; and honey gathering by forest dwelling peoples in Central and East Africa.

Building on Lessons and Experience. *Another strategic consideration is that while pilot systems will provide a solid base line and lessons for future programming, the program design should build in provisions for induction of other GIAHS systems which meet the key criteria.* The potential for scaling up or replication from the first cases is seen as one of the key aspects of the

GIAHS program. *FAO itself has many useful lessons from its extensive involvement in drylands management and rural developments, which should inform the operations and implementation of GIAHS.*

The program should be conceived as being inclusive and forward looking with such systems serving as models for agricultural development in similar environments, say in drylands management or pastures management based on the experience and lessons gained in the pilot GIAH Systems. The GIAHS program is not just a collection of local projects, but has a global focus within the framework of policies promoting local food security through sustainable systems. Thus, GIAHS, while starting initially on a pilot scale, should expand with a more inclusive international coverage and recognition of such living agri-cultural systems as an important global initiative to promote sustainable development and enhance human-well being. The figure below shows framework of dynamic conservation through sustainable use at the heart of the proposed socio-economic transformation of the GIAHS.



IV Focus on Poverty Reduction and Millennium Development Goals.

To balance the dynamics and push for modernization and growth with pulls of preserving traditional and cultural values is a global challenge faced by virtually every society. However, even though the trade offs implicit in this challenge involve difficult choices, maintaining the status quo is not one of them, considering the serious problems of world poverty and hunger. The UN Millennium Project released in January 2005 its comprehensive report “Investing in Development: Practical Plan to combat Poverty. It contains a set up cost effective plans and proposals to implements the MDGs. One of its recommendations relates to need for global research, which is relevant in the context of the inherent focus of GIAHS on poverty reduction and sustainable livelihoods for the poor GIAHS communities. The recommendation 9 states: “*International donors should mobilize support for scientific research and development to address*

special needs of the poor in areas of health, agriculture, natural resources and environment management, energy and climate. We estimate the total needs to rise to approximately \$7 billion a year by 2015.

Poverty is a global challenge, but its solutions through realization of MDG goals and targets lie to a considerable extent on local levels by tackling the problems of poverty and hunger in specific pockets of poverty and hunger. This is what the GIAHS program aims to do in the case of GIAHS communities living in agricultural heritage landscapes across the global. Success of GIAHS program's efforts to lift these communities out of the trap of poverty through interventions aimed at their sustainable development and human well-being would contribute in concrete result oriented ways to the achievement of MDG targets particularly in respect to goals 1 and 7 (see Box 2).

The World Bank estimates that 3 billion people, or half of all humanity, live on less than \$2 daily. In September 2002, the entire international community adopted the U.N. Millennium Development Goals, with associated quantifiable global targets and indicators, to achieve poverty reduction, ensure environmental sustainability, achieve universal primary education, improve basic health, promote gender equality and combat HIV-AIDs, malaria and other diseases.(see Box 2 for the 8 MDGs and some of the specific targets). The FAO estimates give an idea of the enormity of the associated challenge of food insecurity and malnutrition. . During the second half of the twentieth century, the population grew 2.4 times, and world agricultural production 2.6 times. Even so, in 2000 there were still two billion people with micronutrient and vitamin deficiencies (iron, iodine, vitamin A,) and about 0.8 billion people still hungry. Every drop counts in filling a tank – this is the relevance of initiatives, such as GIAHS, to meeting the MDG's global targets.

Box 2: Millennium Development Goals

- Goal 1:** Eradicate extreme poverty and hunger
- Goal 2:** Achieve universal primary education
- Goal 3:** Promote gender equality and empower women
- Goal 4:** Reduce child mortality
- Goal 5:** Improve maternal health
- Goal 6:** Combat HIV/AIDS, malaria, and other diseases
- Goal 7:** Ensure environmental sustainability
- Goal 8:** Develop a global partnership for development

TARGETS (Goals 1 & 7)

Goal 1: Eradicate extreme poverty and hunger

- Target 1:** Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day.
- Target 2:** Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

Goal 7: Ensure environmental sustainability

- Target 9:** Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.
- Target 10:** Halve by 2015 the proportion of people without sustainable access to safe drinking water.
- Target 11:** Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers.

The realization of the MDGs is a serious international commitment. **This however requires serious actions at the grassroots to make a real and substantive difference.** The action to implement the MDGs must take place on the ground in every country and at the level of every community and household. The GIAHS program to reduce the poverty of the GIAHS communities is an integral part of the global effort to achieve the MDGs. A working hypothesis in case of GIAHS communities is that they mostly operate at subsistence levels and the only way they can be lifted out of poverty is through adoption of strategies which will raise their production and yields and provide them with marketable surplus and access to markets for its disposal in order to provide them with increased disposable incomes. However, such strategies must be sensitive to the GIAHS communities' dedication to safeguarding their cultural values and conserving their ecology and biodiversity. This aspect is generally overlooked in the rural and

agricultural development strategies which focus mainly on the physical and technological factors to promote agricultural growth. Development of the GIAHS communities, however, requires that *we rethink our approach to agricultural development strategy and incorporate both cultural and environmental considerations in our approach to poverty reduction and agricultural growth in the context of GIAHS. This approach would be equally relevant for much of mainstream dryland agriculture.* For instance, research in the case of African drylands has shown the importance of sticking with traditional grains. “Traditional grain varieties have been selected over the centuries to fit the constellation of agronomic adaptability in diverse environments, and at the same time have optimum milling, food quality and storage properties. Most of the recent improved varieties from breeding programs in Africa yield grain that is poorly developed, headbug damaged, and chaffy when harvested from stressed environments. --- .That the farmers don’t adopt those varieties should not be a surprise”²⁹.

The GIAHS strategy seeks to unify under a common umbrella the diverse approaches to agricultural growth and development, each justifiable in its own particular context This change process, which requires a strong international network of support, could serve as a catalyst on a global scale for broader international initiatives towards realizing the millennium development goals to eradicate extreme poverty and hunger (MDG goal 1), and ensure environmental sustainability (goal 7). The GIAHS initiative, based on dynamic conservation, sustainable ecosystems management and enhanced productivity of such agricultural heritage systems, is conceived as a valuable addition to the different development strategies or pathways available for diverse ecosystems and communities. *The GIAHS path is to build on the knowledge and skills of farmers acting individually and collectively to optimize the use of nature’s goods and services. Typically a number of such systems belong to indigenous and tribal populations, small food producers, herders, coastal fishermen and the like across all the continents.* In this context, FAO’s Strategic Framework for 2000-2015 emphasizes the need for “adoption of appropriate technology to sustainably intensify production systems and to ensure sufficient supplies of food and agricultural, fisheries and forestry goods and services. --- The adoption of improved technology underpins not only better pre-and-post production enterprises, but also sustainable rural development in the larger context”³⁰.

Traditional knowledge has an important role in local and small scale production systems. Building on local knowledge in the design and implementation of projects helps to increase ownership; achieve measurable results on the ground; and increase the likelihood of sustainability. The promotion of any indigenous crop must be done within local constraints of labor availability, gender relations, cultural constructs, and environmental stress. If local constraints, practices, and beliefs are not realized, promotion of the crop will not succeed (Clare Madge³¹). *Local knowledge, however, is still largely in the form of received wisdom. It needs to be codified to facilitate its wider dissemination. Implicit in this process is the need for actual observation of how and under what conditions its various elements are used and whether it needs validation. There is also a case for closer interface between local products and knowledge and modern science* as has been successfully demonstrated in the arena of medicines and pharmaceuticals. 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 to identifying ways and means to increase the resilience, adaptability and innovative capacity of the agricultural systems³². There are also important proprietary and protection issues pertaining to traditional knowledge which were raised in the ongoing discussions on possible legal instruments for protection of intellectual property rights in relation to genetic resources, traditional knowledge and folklore. The Africa Group submitted a proposal on the subject in the WIPOIGC meeting held in Geneva on March 15-19, 2004³³.

V: Drivers for change and betterment

The GIAH Systems are inherently dynamic and used to adaptations mainly in response to changes in natural and ecological factors – weather, drought, floods, or changes in biological or physical environment. Their response to economic factors, such as markets, prices, is as yet largely untested in cases where agricultural production is mainly based on subsistence. Their economic betterment decisions would be influenced by agronomic possibilities, working capital and technical support services, marketing outlets and on how they respond to normative drivers of change which operate both on the supply side and demand side. GIAHS systems which already have an interface with market forces are better positioned to react to a positive incentive framework – e.g. coastal fishermen being provided with improved fishing gear, or apple growers with cold storage facilities. Thus, incentives may comprise a large and diverse package of support – seed, implements, knowledge, credit, rural infrastructure and external policy and institutional services and support. The response would depend on the local context and the nature and appropriateness of the *drivers for change*.

In the Ecosystems Assessment Framework (MA), a “driver” is defined as any factor that changes an aspect of an ecosystem. A direct driver unequivocally influences ecosystems processes. An indirect driver operates more diffusely, often by altering one or more drivers, and its influence is established by understanding its effect on a direct driver. A driver that can be influenced by a decision maker is regarded as an *endogenous* driver and one over which the decision maker does not have control is regarded as an *exogenous* driver. For example, the amount of fertilizer applied on a farm is an endogenous driver from the standpoint of the farmer, while the price of fertilizer is an exogenous driver, since the farmer’s decisions have little direct influence on its price. Local decision-makers can directly influence the choice of technology, changes in land use, and external inputs but have little control over prices and markets, property rights, technology development, or the local climate. National or regional decision-makers have more control over many indirect drivers, such as macroeconomic policy, technology development, property rights, trade barriers, prices, and markets.

Another concept used in the MA is useful in understanding the value system of the GIAHS communities, which underpin their production decisions. Traditional communities ascribe to ecosystems deeply held historical, natural, ethical, religious, and spiritual values which can be characterized as *intrinsic values*. The intrinsic values are important to understanding why, for instance, GIAHS communities safeguard forests, biodiversity, and ecology, by desisting from over use of ecosystem goods and services. Economic decisions on the other hand are guided by the utilitarian value system, which assumes that man is a rational human being and his decisions are guided by a profit maximization behavior, and preference functions. In the case of GIAHS, the emphasis would be on profit optimization rather than on profit maximization.

In practice, GIAHS communities can factor in their cultural values and sensitivities in making production decisions and opt for choice of crops and technologies which do not conflict with their intrinsic value system. Such decisions would lead to more rational choices from the stand point of sustainability in preference to environmentally damaging short term gains.

Drivers of change to promote economic betterment of the GIAHS communities must take into account the above perspective. Such drivers can take the form of direct support or indirect incentives to encourage up-gradation or transformation of economic activities to improve the incomes and welfare of the GIAHS communities.

Direct support can take the form of provision of public goods and services, or public development assistance which is essential to lay the ground work for agricultural development. Indirect incentives to encourage change would essentially aim at providing a supportive enabling policy environment. Policies can be in the form of indirect catalysts which exert a *tipping* effect to leverage change – e.g. improved access to micro finance or markets. In the case of GIAHS, both types of public sector support is needed. Appropriate policies would have externalities which *may* positively influence producer decisions on the choice of technology, changes in land use, and external inputs, needed to upgrade or transform their production systems.

Private sector can be a significant driver of change, since it will help connect the GIAHS production systems to the markets both on the supply side and the demand side by promoting trade and commerce. Contract farming can be one effective modality for private sector involvement.

NGOs can be important facilitators of change through capacity building and mobilization support and through promoting linkages between the GIAHS communities and the external actors in the public and private domain.

VI. Mainstreaming the GIAHS Program into National Policy Frameworks and International Development Agenda

The outreach of the GIAHS goes beyond the activities to assist individual agricultural heritage systems, since the cultural, ecological and socio-economic dimensions of the GIAHS initiative touch the major policy challenges posed by the international and national goals of poverty reduction, food security, economic growth and sustainable development. As briefly discussed in Part IV, the delivery of the MDGs is to a considerable extent contingent on effectiveness of the local actions and local processes. Assistance to GIAHS is one concrete way to help such local actions and local processes to contribute to the realization of such goals in a transparent and monitorable manner in the pilot GIAHS projects. A recent IIED publication³⁴ rightly observes that: “To meet the MDGs, international organizations need to determine what role they can have in supporting diverse local processes through which the needs and priorities of the poor are identified and addressed”. *The lessons learnt, and the monitoring methods used to assess MDGs’ realization, in the GIAHS pilots can be replicated on a wider scale. In the end, it is the aggregation of similar local actions and processes which would make a real difference in the achievement of the MDGs at the national and global levels.*

Lack of resources is another serious constraint to poverty –focused programs which is also a crucial concern for the success of GIAHS. According to WDR-2004, “while governments devote about a third of their budgets to health and education, they spend very little of it on poor people. Second, even when public spending can be reallocated toward poor people- say by shifting to primary schools and clinics – the money does not always reach the frontline service provider³⁵. In case of the GIAHS communities, the problem is further compounded by their remote and isolated locations. One of the options in their case, in particular, would be to for governments to contract service delivery to NGOS working directly with GIAHS communities.

GIAHS and Sustainable Development Agenda... As earlier discussed, the GIAH Systems can serve as bench marks for sustainable development of drylands. Sustainable development connotes meeting the needs of the present without compromising the ability of future generations to meet their needs -- benchmarks which can serve as markers for national and global programming and development frameworks.

Integrating GIAHS into national development priorities. There is a tendency to view “environmental sustainability” as a constraining factor for economic development. A key issue, which connects GIAHS to the global sustainable development agenda relates to the challenge of *balancing* economic growth and environmental concerns. The dilemma which most countries face was aptly captured by the forty-first U.S. President, Senior Bush, in this cited statement: that we are not “seeking limits to growth, which are contrary to human nature,” but striving for “environmental protection through more informed, more efficient, and cleaner growth”³⁶. This dilemma is not confined to governments alone. Decision makers at all levels, be it in the private or public sectors, or in communities or households, are grappling with the challenge of how to balance economic growth and social development with the need for environmental conservation³⁷. The GIAHS program seeks to confront these tradeoffs in its objectives to upgrade the socio-economic status of the GIAH Systems through an eco-friendly process of economic transformation. However, this strategy has little chance of success if it is pursued in an isolated manner, without being part of a national planning and budgetary framework. It also needs to be mainstreamed into sectoral policies for agricultural development. The policies that drive the transformation of agriculture and agricultural systems are many, and their interactions constitute a complex web in which the impacts of one or another policy are hard to individualize. *Mainstreaming GIAHS production systems into the national*

*policy framework would be beneficial for the country and globally due particularly to the positive externalities that they generate and which greatly benefit the environment and society at large*³⁸.

. **GIAHS participation in relevant international forums.** An important recommendation in the earlier cited IIED study is: “Within all low-and middle nations, local processes can benefit greatly from the economic changes that debt relief and more trade opportunities can bring. Indeed, these local processes have an important role in making sure that such economic changes are pro-poor”. This also involves need for necessary policy changes in high income nations towards fairer international trade regimes and debt relief³⁹. In this context, GIAHS program needs to keep a watching brief on the issues of Organic Agriculture and Trade, and with the work of international forums⁴⁰ dealing with issues of farmers rights, trade barriers, animal and plant genetic resources and traditional knowledge, standards and product labeling, carbon trading, and the negotiation within the framework of the CBD of an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources, since the outcomes on these tricky issues under negotiation are quite relevant to the well-being of the GIAHS communities in the medium term when they are enabled to trade in organic and higher end exotic products.

VII Institutional and Organizational Support Structures for GIAHS

Partnerships. The GIAHS currently is a partnership of FAO, GEF, UNDP, UNESCO, CGIAR, ICCROM (International Center for the Study of the Preservation and Restoration of Cultural Property), IUCN (World Conservation Union), IITC (International Indian Treaty Council), UNU-PLEC (People, Land Management and Ecosystem Conservation), governments, non-government organizations and indigenous peoples’ organizations. As the GIAHS project transits from PDF-B phase to a full project phase, concerted efforts are needed to expand and broaden the range of partners from the following major categories:

- Multilateral and bilateral agencies, International Financial Institutions, UN System Agencies, regional development banks, and other regional fora. Cooperation with such partners is crucial for mainstreaming GIAHS as part of the international sustainable development and poverty reduction agenda, by world wide recognition of the contemporary relevance of the protection of the agricultural heritage systems.
- Secretariats of UN Environmental Conventions (the CBD, UNFCCC, and CCD), Agenda 21/WSSD, WHC on the UNESCO Convention for the Protection of the World Cultural and Natural Heritage, and other International Treaties/Agreements/Forums concerned with issues of relevance to GIAHS, such as conservation of, and rights over genetic resources. The strategic focus should be on leveraging such conventions and agreements to support GIAHS related activities, based on areas of mutual synergy and shared objectives. The GEF operational programs (e.g. OP12, 13 & 15) offer opportunities for programmatic collaboration.
- Interested Governments with GIAHS systems/communities in their countries. The programs in such countries, based on due screening of GIAHS proposals, should be country and community driven, with the GIAHS acting as a catalyst for their global and national recognition, assistance with forging of participatory multi-stakeholder processes and mechanisms, and interventions to improve their socio-economic conditions through leveraging appropriate drivers for change and betterment, provision of a common platform for exchange of lessons, experiences and information, and creation of a national institutional and knowledge base.
- International and National NGOs and Civil Society institutions. Because of its neutrality, FAO is ideally positioned to work closely with NGOs and civil societies in balancing conflicting demands on resources and fostering the participation of local communities in conservation and development⁴¹.
- Renowned scientific, research and Academic bodies, universities, policy institutions (Think Tanks), and Endowment Funds/Foundations. The focus should on tapping expertise and ideas and support in the area of scientific

- Private Sector, particularly corporate sector, interested in supporting GIAHS initiatives with social investments/other practical forms of collaborations. FAO's expanding dialogue with the private sector focuses on three broad groupings: (a) at the national level, with farmers, small and medium enterprises; (b) at national level, with business associations and multinational enterprises; and (c) supporting independent organizations (EMPRETEC, AMSCO, POWBLF), and private sector department of multilateral and bilateral agencies⁴².

Resource Mobilization. Every partner is expected to contribute voluntarily in the form of funds, expertise or other in-kind support to advance the goals of GIAHS on the basis of bilateral understandings reached with the GIAHS Interim Secretariat hosted by FAO in Rome. This would assist in forging of specific and purposeful networks, collaboration arrangements and other forms of collaboration modalities. Such collaboration can take the form of *operational linkages with ongoing international and national programs to extend their coverage or outreach to support GIAHS related activities*, such as with GEF/UNDP's Small Grants Program (SGP), the Equator Initiative, and the Capacity 2015 partnership⁴³. A number of ongoing development programs, both those financed by national governments and those funded by donor agencies could be tapped as a source of (co)financing certain aspects of GIAHS activities. However, additional funds from donors would be critical to the success of the GIAHS initiative. Such funds could be placed in some form of a GIAHS trust fund arrangement administered by the host institution (FAO) responsible for implementing the GIAHS Program. *Contributions to GIAHS should be considered by donor agencies in the context of the 2002 MDGs and the "Monterrey Consensus" that urged rich countries to contribute 07 percent of their national income. Annex 2 table sets out the current level of development assistance by OECD countries. The US gives the most development assistance in total dollars, but is quite far from the global target as are a number of other DAC countries.*

The Organizational Support Structure for GIAHS Program. The PDF B. project document envisages that the full project "is intended to be a preliminary catalytic step (5-7 years), that will lift key barriers at global, national and local levels (related to knowledge and policy base), to eventual replication of the GIAHS approach. Replication on a wider scale ("longer term program"), after the completion of the Full Project, is intended to be through continued sustainable baseline actions, sustainable financing, and global recognition efforts".

This vision of the long term goal of continued sustainable development of GIAHS, beyond the GEF full project phase, underscores the need for a forward looking and flexible organizational structure nested within an existing FAO framework. As earlier discussed in the introductory section, there is need to have in place a stable organizational structure, in the form of an appropriately staffed secretariat, hosted in FAO, building upon the current interim secretariat in the preparatory phase of the GIAHS project. As the project enters the next phase of the full GEF project, it is necessary that its multi-pronged clientele of global, national and local stakeholders is effectively services by a standing and appropriately staffed secretariat, which will be accountable to a steering mechanism of its major donors as well as broad based governing body of all its main stakeholders- partner governments, funding agencies and other collaborating partner institutions. Besides, a committee of experts will assist with technical review and advisory functions. The organizational structure also would provide for systemic monitoring and evaluation function. Such a structure is needed in view of the global and multi-dimensional character of the GIAHS, and the size and scale of the tasks involved which translate into a multi-pronged strategic functions- GIAHS governance, implementation and oversight; institutions and instruments for change management; partnerships and coordination; communications and awareness building; and operations and resources.

An attempt has been made to translate the above ideas into a tentative organizational structure given in Annex 1 to facilitate consultations with the main partners, within the framework of preparatory activities for the full project.

VIII Conclusions

The globally important agricultural heritage systems (GIAHS) represent unique and evolving agricultural landscapes and production systems of great aesthetic, cultural, historic and ecological value, which should be recognized and protected as a distinct category of “world cultural and natural heritage” and emblems of “outstanding universal value”.

GIAHS as living and dynamic agricultural production systems are also home to numerous traditional communities, such as small farmers, fishermen, pastoralists and native tribal or indigenous populations, who over the generations have, (i) adapted and preserved traditions of local knowledge, wisdom and practice; (ii) conserved biodiversity, agro-diversity, and immense species of animal and plant genetic resources; and (iii) acted as stewards of ecosystems and environment. Unfortunately these agricultural heritage systems have largely been bypassed by national and international development strategies and programs. As a consequence, the rural communities dependent on these systems for livelihood and survival constitute marginalized segments of world’s 3 billion poor living below \$2 a day.

From the perspective of sustainable development, however, the GIAHS constitute assets of great economic and environmental value of global relevance: (a) as important benchmarks for effective sustainable development of drylands; (b) as markers for *in-situ* conservation and maintenance of globally significant biodiversity; (c) as stewards of resilient and productive ecosystems; and (d) as repositories of traditional knowledge about environment friendly conservation and cultivation practices; which mitigates land and water degradation. Therefore, investment in the socio-economic development of GIAHS would strategically contribute to MDGs and the global concern for sustainable development and enhanced human well-being.

In the above context the issues and options discussed in the strategic framework underscore that: (i) the socio-economic up-gradation and transformation over time of the production systems is in no way incompatible with preservation of cultural values and ecological ethics of the communities; (ii) from this stand point, the change and adaptation process should be participatory and community driven; and (iii) the external drivers for change should be sensitive to, and supportive of local priorities and preferences, while providing indirect incentives or direct support. In particular, the scope of interface of science and technology with local knowledge and resource endowments should be carefully evaluated.

The GIAHS program should be mainstreamed into national policy and planning frameworks in order to ensure a conducive and positive enabling policy environment. The success of the program, however, is contingent on a number of diligently calibrated measures and support structures. These would include: (a) country ownership; (b) proactive participation of NGOs and CBOs; (c) synergies and collaboration with environmental conventions and other related international treaties; (d) awareness raising and capacity building of change agents and communities; (e) diverse networks of interested stakeholders at local, national and international levels; (f) partnerships and collaboration with interested governments, GEF and other partner agencies who are sponsors of the GIAHS program and other key prospective partners -- including multilateral and bilateral agencies, private sector, international foundations, international and national NGOs and civil society actors, academic and research institutions; and (g) resource mobilization within the framework of the "Monterrey Consensus" that urged rich countries to contribute 0.7 percent of their national income for poverty reduction and development⁴⁴.

The complex and multiple dimensions of the GIAHS program require the establishment of a stable organizational structure, hosted by FAO, to ensure effective implementation and management of the program, its systematic monitoring and evaluation, and its longer-term sustainability. In this connection, tentative organizational structure is intended to facilitate consultations between the FAO/GIAHS interim secretariat, donors and partners.

There are three main challenges requiring immediate attention for survival and sustainable development of the globally important and ingenious agricultural heritage systems, associated landscapes and poor communities dispersed all over the globe, particularly in the remote drylands and the coastal backwaters:

- Recognition by the international community of the importance of the GIAHS to sustainable development, poverty reduction and balanced and broad-based economic growth.
- Commitment of adequate resources for the development of the GIAHS.

- Setting up a standing international organizational support structure, *nested within an existing FAO framework*, for the implementation and oversight of the GIAHS program over a long-term time horizon.

Revised Draft
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11/03/05

ENDNOTES

¹ See GEF/PDF-B GIAHS Programme document- Full Project Summary.

² Based on comments on the earlier draft of this paper from Prof. Patricia Howard, Gender and Development Studies, Dept. of Social Sciences, Wageningen University, Netherlands.

³ Jules Pretty, *Agri-Culture: Reconnecting People, Land and Nature*, Earthcan Publications, Reprinted 2003, p. 115.

⁴ GEF/PDF-B GIAHS Programme document, Annex 5, para 17.

⁵ Patricia Howard, cited in her comments based on her introduction to the book, *Women and Plants*.

⁶ World Development Report 2003

⁷ See *Dr Mechtild Rössler*, UNESCO World Heritage Centre, “Background document on UNESCO WORLD HERITAGE CULTURAL LANDSCAPES” prepared for the FAO Workshop and Steering Committee Meeting of the GIAHS project. Annex 4 of the Report of the FAO 2nd Steering Committee meeting.

⁸ *Dr Mechtild Rössler, ibid.*

⁹ *Kwanzaa: A Celebration of Family, Community and Culture-* by Maulana Karenga, University of Sankore Press, Los Angeles, 1998. The main values of Kwanzaa discussed in this Commemorative Edition are: 1. *Umoja* (Unity); 2. *Kujichagulia* (Self-Determination); 3. *Ujima* (Collective Work and Responsibility); 4. *Ujamaa* (Cooperative Economics); 5. *Nia* (Purpose); 6. *Kuumba* (creativity); and 7. (*Imani*) Faith.

¹⁰ *Rastafari* Movement is briefly described in a Dec. 20, 2004 emailed article to Mr. Parviz Koohafkan on the Subject: What Role for culture in sustainable development of SIDS? The central message by the writer ((Michele Misiewicz): “The role of culture in sustainable island development is really not much different from that of mainland countries because we all need to develop our culture, as well as promote cultural and eco-tourism for our economic development. The one difference, however, would be in the domain of the preservation of our cultural heritage which can be seen as a way of preserving our identity as Seychellois Kreols”. For more information on “WISE COASTAL PRACTICES FOR SUSTAINABLE HUMAN DEVELOPMENT (WiCoP)”, see (<http://www.csiwisepactices.org>).

¹¹ Cited by David Throsby in his book “*Economics and Culture*”. Cambridge University Press. 2001, p.3. He says that since the early 19th century, the term culture has been used in a broader sense to describe the intellectual and spiritual development of civilization as a whole.

¹² Leopold, Aldo, A collection of essays, *A Sand County Almanac*, Oxford University Press. 1948. Cited in Kidd, J.S. and Kidd, Renee A. Kidd, *Shades of Green: The Clash of Agricultural Science and Environmental Science*. Facts on File, Inc. 1998.

¹³ Jules Pretty, *ibid*, p.34-35.

¹⁴ Patricia Howard, cited in her comments based on her introduction to the book, *Women and Plants*.

¹⁵ Land degradation is defined by GEF as “...any form of deterioration of the natural potential of land that affects ecosystem integrity either in terms of reducing its sustainable ecological productivity or in terms

of its native biological richness and maintenance of resilience.” Cited in GEF. 2003. Operational Program on Sustainable Land Management (OP 15).

¹⁶ Ecosystems and Human Well-being: A Framework for Assessment, A Report of the Conceptual Framework Working Group of the Millennium Ecosystem Assessment, Summary and Introduction, p.30, which cites as its source WRI, 2000.

¹⁷ Such GIAHS communities typically conform to the definition of *functional units* as set out in the conceptual framework for the Millennium Ecosystem Assessment (MA). An ecosystem is defined in the conceptual framework for the MA¹⁷ as *a dynamic complex of plant, animal, and microorganism communities and the nonliving environment interacting as a functional unit. Humans are an integral part of ecosystems. Ecosystems provide a variety of benefits to people, including provisioning, regulating, cultural, and supporting services”.*

¹⁸ To cite some of these Conventions and International Agreements: (1) The 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage, established an international instrument recognizing and protecting both the cultural and natural heritage of outstanding universal value, and the associated 1992 Operational Guidelines for the Implementation of the World Heritage Convention, extended this international legal instrument to protect cultural landscapes. (2) A number of U.N. Conventions in pursuance of Agenda 21, such as the Convention On Biological Diversity (CBD), the Convention to Combat Desertification (CCD), and the Ramsar Convention. (3) The International Treaty on Plant Genetic Resources for Food and Agriculture, which was spearheaded by FAO.

¹⁹ It is estimated that there are 300 to 500 million indigenous people in more than 70 countries around the world, representing over 5,000 languages and cultures on every continent, U.N. Permanent Forum on Indigenous Issues – Flyer “*Indigenous Peoples, Indigenous Voices*. The Forum, among other tasks, provides expert advice and recommendations to the ECOSOC and to programmes, funds and agencies of the United Nations. The indigenous leaders have campaigned, so far without success, for a UN declaration on the rights of indigenous people The idea indigenous groups have collective rights as distinct peoples has been a main sticking point on the draft declaration.

²⁰ The closing address by the Prince of Wales to the *Terra Madre* conference, organized by the Slow Food Movement in Turin on 23 October, 2004:

²¹ Slow Food is an international association that works in the field of food and agriculture. It came into being in Italy in 1986 and has operated internationally since 1989.

²² The Slow Food supports a product, if the following conditions are met: the product is locally recognized as a high quality one; the product is linked to the culture of the area in question; its production may be considered in danger of disappearing, thus causing a loss of biodiversity in terms of species, breeds, know-how, social dynamics and so on; and at least one producer wants to maintain or re-start this productive activity.

²³ Steven Stoll. *Larding the Lean Earth – Soil and Society in Nineteenth-Century America*. Hill and Wang 2002. Epilogue: Frederickburg, p.219-220.

²⁴ Some expert voices: (i) “It is important to recognize the realities,” says the UN human rights coordinator for indigenous affairs, Julian Burger. “Indigenous peoples are the third-class citizens or the second-class citizens in virtually every country they live in”. (ii) “People need to realize that there are different ways of living and these people shouldn’t be seen as backwards,” says Stephen Corry, director of Survival International, a charity that campaigns for tribal people. (iii) “Since 2000, we have seen an enormous, continual uprising of indigenous people, with a strong element of Indian nationalism,” a university professor in Bolivia, Alvaro Garcia Linera, told the Los Angeles Times. “In many places, the institutions of the Republic of Bolivia have begun to fade away.” Source: Sarah Shenker and Elinor Shields, Article: Mixed Views on UN Indigenous Decade on BBC News on line.

²⁵ Paola Agostini, Senior Environmental and Natural Resources Economist, AFTS4 World Bank, Washington DC, TCIW FAO, Rome.

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- ²⁶ Carlos Lopes and Thomas Theisohn, “Ownership, Leadership and Transformation”, Earth Scan/UNDP, 2003.
- ²⁷ Miguel A Altieri’s Paper “Towards a methodological framework for implementing the GIAHS process in target sites: suggested guidelines and tips” see Annex 6 –Report of the 2nd Steering Committee Meeting, 7-9 June 2004, FAO, Rome.
- ²⁸ See (i) the geographic method presented during the second meeting on the GIAHS project at <<http://www.gecoagri.it/>> www.gecoagri.it. And (ii) PLEC (The United Nations University Project on People, Land Management and Environment Change). See PLEC Special Issue on Methodology, No.13, April 1999.
- ²⁹ J.F. Scheuring and M. Haidara, cited in “Lost Crops of Africa, Volume 1: Grains”, Board of Science and Technology for International Development, National Research Council, National Academy Press, Washington D.C. 1996, p. 326.
- ³⁰ FAO, “The Strategic Framework for FAO 2000-2015, FAO, Rome, 1999. p.23
- ³¹ Clare Madge in “Lost Crops of Africa, Volume 1: Grains”, *ibid*, National Academy Press, Washington D.C. 1996, p. 319.
- ³² Workshop discussions in the 1st GIAHS Steering Committee meeting, 5-7 August 2002.
- ³³ See Appendix to the BTOR of Mr Stannard of FAO. The Africa Group proposal suggests developing a *sui generis* system of protection: (i) Establish scope of protected subject matter; (ii) Establish nature of rights; (iii) Address ownership of rights, moral and economic rights, acquisition, exercise, expiry and enforcement of rights; and (iv) Establish registration mechanisms. (see also endnote 35).
- ³⁴ IIED (International Institute for Environment and Development), “The Millennium Development Goals and Local Processes”: Hitting the target or missing the point?, Edited by David Satterthwaite. P. viii. The publication was produced for IIED’s conference of the same title, held in London in November, 2003. The key message is: “Meeting these ambitious goals requires more local action, local capacity, and good governance”.
- ³⁵ The World Bank, World Development Report (WDR) 2004, Overview. Public spending on health and education is typically enjoyed by the non poor. In Nepal 46% of education spending accrues to the richest fifth, only 11% to the poorest. In India the richest fifth receives three times the curative health cover subsidy of the poorest fifth. In Morocco only 11% of the poorest fifth of the population has access to safe water. p.3-4.
- ³⁶ The statement of President George Herbert Walker Bush (US President -1989-1993) is cited by James R. Moseley, Assistant Secretary, Natural Resources and Environment, in his Introduction to Part I, Land, in “Agriculture and the Environment: The 1991 Yearbook of Agriculture”, US Government Printing Office, 1991.
- ³⁷ A Report of the Conceptual Framework Working Group of the Millennium Ecosystem Assessment, Summary and Introduction, p.2.
- ³⁸ Notes (informal) prepared by F. Dévé FAO, AGLW: “GIAHS: Towards analyzing the drivers of changes in farming systems”. 5 September, 2004.
- ³⁹ IIED (International Institute for Environment and Development), “The Millennium Development Goals and Local Processes”: Hitting the target or missing the point?, Edited by David Satterthwaite. P. 139.
- ⁴⁰ The World Trade Organization (WTO)’s Council on Trade-related Aspects of Intellectual Property Rights (TRIPS Council); the World Intellectual Property Organization (WIPO) and its Inter-governmental Committee on Genetic Resources, Traditional Knowledge and Folklore (IGC); the FAO Commission on Plant Genetic Resources for Food and Agriculture (CGFRA), and FAO/WHO Codex Alimentarius Commission (CAC), World Bank, Prototype Carbon Fund. (see also footnote 24).
- ⁴¹ FAO, “The Strategic Framework for FAO 2000-2015, FAO, Rome, 1999. p.29
- ⁴² FAO, Principles and guidelines for FAO cooperation with the Private sector, p.4.

⁴³ (i) UNDP administers the GEF Small Grants Program (SGP) aimed at grassroots support to GEF priority areas of biodiversity, climate change, and land management. Small grants are approved at the country level by UNDP directly to NGOs and CBOs according to detailed guidelines. GIAHS stakeholder NGOs based in SGP priority countries and working with GIAHS communities could submit proposals to the SGP coordinator to access such grants. Better still GIAHS Program could discuss with GEF and UNDP to earmark an agreed portion of the global SGP allocation for eligible recipients working on capacity building in GIAHS projects, subject to satisfaction of prescribed modalities.

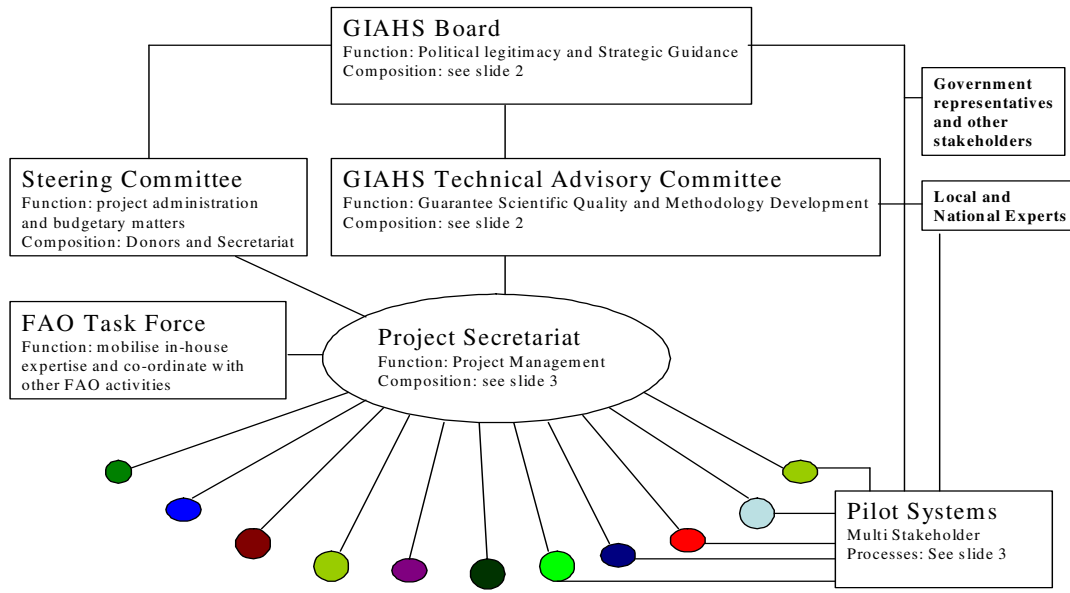
(ii) The Equator Initiative, a multi-partnership initiative, is administered by UNDP, and awards prizes every year for outstanding local efforts to reduce poverty and conserve biodiversity in the equatorial belt. Hopefully some GIAHS communities could be encouraged to compete for an award for the FY-2006 cycle or in a later year. The initiative can be an excellent motivator to energize local communities.

(iii) UNDP, Capacity 2015 – a broad-based partnership operating at the local, national, regional and global levels, aims to “provide access to the capacity development tools, information, knowledge and expertise needed by communities, decision-makers and development practitioners to promote sustainable and inclusive development, as one of its objectives.

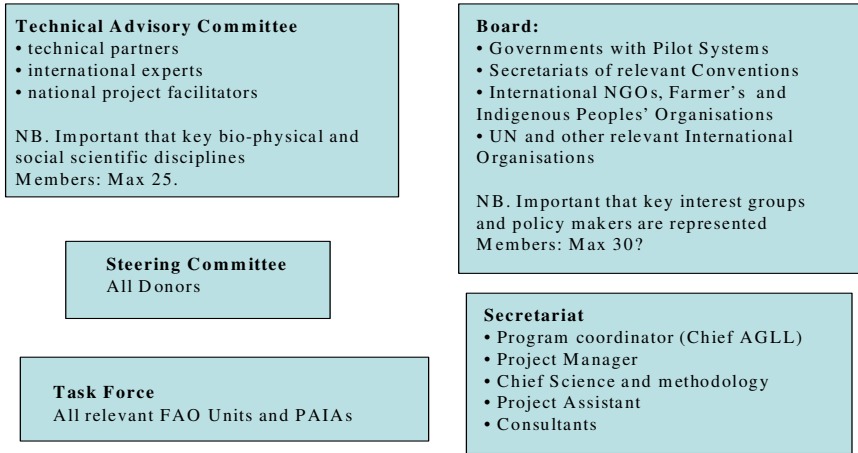
(iv) Another small grants program is the World Bank, Global Fund for Indigenous People. It supports innovative projects which build on indigenous culture, identity, knowledge, natural resources, intellectual property and human rights.

⁴⁴ See *Washington Post, Analysis: “Aid to Poorest Nations Trails Global Goal. U.S. Is a Top Donor After Disasters but Lags on Development Assistance.”* By Robin Wright, *Washington Post Staff Writer, Saturday, January 15, 2005; Page A18. Quote from the article:* “While the United States contributes about 15 cents for every \$100 in gross national income, Norway gives 92 cents, Denmark 84 cents, tiny Luxembourg 81 cents and the Netherlands 80 cents, according to the Organization for Economic Cooperation and Development. We get humanitarian assistance right. The U.S. government is a wonderful responder. What we have a problem doing -- and it's gotten worse -- is the middle- to long-term nation-building activities, or getting someone from misery to poverty and then from poverty to middle class," said Johanna Mendelson Forman, a former U.S. Agency for International Development (USAID) official now at the U.N. Foundation. One of the most telling examples was \$550 million in U.S. emergency relief in 2003 to ease one of Ethiopia's recurrent famines -- but only \$4 million in aid to help Ethiopia develop agriculture. "Crops fail because investment in agriculture is basically nonexistent. We could make a modest investment and prevent that kind of disaster long term. We provide less than 10 cents per farmer and then we're surprised that famines keep coming. This is really penny wise but pound foolish," said Jeffrey Sachs, an economist and director of Columbia University's Earth Institute. Disasters ate up 40 percent of U.S. foreign development aid -- \$6.4 billion of the entire \$16 billion budget in 2003, the last recorded year. Meanwhile, the world's 49 poorest nations got only \$4.2 billion from the United States, USAID officials say.”

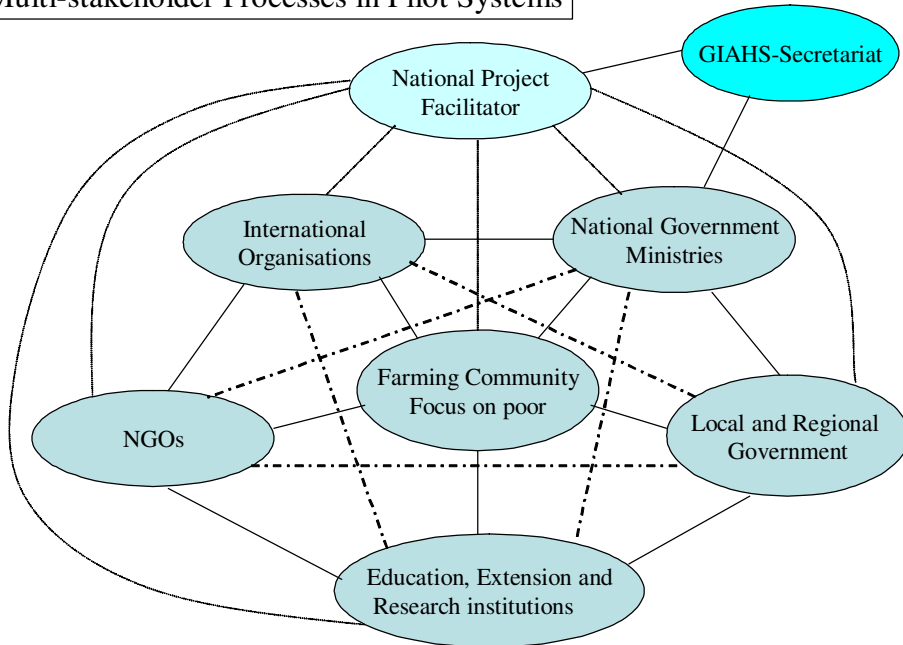
GIAHS ORGANISATIONAL STRUCTURE



Composition GIAHS Bodies



Multi-stakeholder Processes in Pilot Systems



Annex-2

Development Assistance

Although the U.S. government gives the most development aid in total dollars among OECD countries, it gives the least as a proportion of national income.

Countries in the OECD Development Assistance Committee	GOVERNMENT DEVELOPMENT AID, 2003		Non-Government Development Aid (2002-03 Average)
	In cents per \$100 of national income	Total amount in millions of US. Dollars (\$ million)	In cents per \$100 of national income
Norway	92	2,042	11
Denmark	84	1,748	NA
Luxembourg	81	194	2
Netherlands	80	3,981	6
Sweden	79	2,400	1
Belgium	60	1,853	4
France	41	7,253	NA
Ireland	39	504	16
Switzerland	39	1,299	8
Finland	35	558	1
United Kingdom	34	6,282	2
Germany	28	6,784	4
Australia	25	1,219	7
Canada	24	2,031	5
New Zealand	23	165	3
Spain	23	1,961	NA
Portugal	22	320	<1
Greece	21	362	<1
Austria	20	505	3
Japan	20	8,880	1
Italy	17	2,433	<1
United States	15	16,254	6

Source: OECD. Washington Post, Analysis: *Robin Wright*, Staff Writer. Saturday, January 15, 2005; Page A18