

Local empowerment and poverty alleviation in ‘Globally Important Agricultural Heritage Systems’

Arend-Jan van Bodegom and Frank van Schoubroeck



1. The impossible task of GIAHS projects

1.1 The assignment of the global GIAHS initiative

FAO over the last few years has been actively developing the concept of Globally Important Agriculture Heritage Systems (GIAHS). FAO prepared a project proposal for GEF and possible other donors to support “dynamic conservation” of GIAHSs – to begin with for seven pilot countries (Algeria, Chile, China, Morocco, Peru, Philippines and Tunisia). Individual countries are consulting with GIAHS communities and are preparing project proposals for GEF-funding. FAO GIAHS project management in Rome stresses that the project is in an explicit piloting phase (Koochafkan, pers. comm.). Implementation of the GIAHS projects has not been elaborated, and the present pilots are to reveal how a foreseen 100-150 of GIAHSs worldwide can be dynamically conserved. During missions to China and

The Philippines in July 2006 (Liang and Schoubroeck, 2006 Delacruz and Schoubroeck, 2006) it was found that practitioners (civil servants, NGOs, local politicians, etc.) of GIAHS dynamic conservation needed substantial practical guidance. They understood the concept of GIAHS, but asked clarification on tasks of a GIAHS *project*. This paper discusses the conceptual issues emerging when setting up GIAHS conservation support projects. It suggests that supporting GIAHS community self-determination combined with an international set of GIAHS criteria for site designation is a practical way forward in supporting GIAHS dynamic conservation.

In the field we found also an urgent need for clarification of the management set-up of GIAHS projects. This issue is discussed in a separate paper (Schoubroeck *et al.* in prep.).

1.2 Conceptual issues on GIAHS Project intervention

1.2.1 Issue 1: What kind of interventions will the project support?

So far, the GIAHS project went to lengths to define what GIAHSs actually are. The GIAHS concept (system, people, components, culture, etc.) has been elaborated reasonably well (e.g., Altieri, 2004, Bedel, 2004) and the need of conservation has been justified (FAO, 2002-2006, FAO, 2006). Yet, project formulators ran into problems. Available documentation provides but few hints for project *interventions*. Project *outcome* would be the sustenance of the GIAHSs through “dynamic conservation.” Examples of activities include

the development of ecotourism and linkages to niche markets. However, there is no clear linkage between foreseen project *interventions* and the desired *outcomes* (see also Howard and Puri, in prep.).

One reason may be the nature of GIAHSs as agricultural scientists perceive them (e.g., Altieri, 2004, FAO, 2006), following a wider tradition in studying Traditional Knowledge. Such literature stresses the complexity of GIAHSs: only after thorough study outsiders may be able to identify proper interventions in their support. At the same time, much of the GIAHS communities’ knowledge – like in all traditional knowledge – is ‘tacit knowledge’. This means that for both outsiders and insiders, GIAHS knowledge is like a ‘black box’. If nobody is explicit on the contents of the knowledge system, how can a project ever purposeful intervene in support of system conservation? Box 1 illustrates this conceptual difficulty as it emerged in the Ifugao Rice Terraces system in The Philippines.

This example shows that causal link between project support and terrace system conservation is not straightforward and availability of (project) funds does not automatically lead to purposeful support of ‘dynamic conservation.’ The relation between ‘project support’ and ‘GIAHS dynamic conservation’ is apparently problematic. In such circumstances, stakeholders need another “development paradigm” than classical project support.

1.2.2 Issue: What development and what conservation will the project promote?

Yet, even if we understand the system and know how to support its development, how do we balance “dynamism” and “conservation”? The goal of GIAHS projects is to achieve *dynamic conservation* of GIAHSs to preserve its functionalities. Harrop, 2005 (p.30) notes:

“There is a fundamental right expressed in the ILO Convention 169, as has been noted, that permits traditional peoples to determine how they wish to live and how they wish to accommodate the possibilities that development might bring to them. However, the concept of GIAHS imputes some preservation of tradition. Balancing the drastic metamorphoses that development might bring with this need to preserve and maintain knowledge can produce conflicting mandates. Consequently there is an urgent need to clarify the extent to which GIAHS as a concept is able to support different levels of change. Whereas all traditional knowledge is dynamic, and change itself has been the prime creator of the ingenious aspects of the practices, there is a point at which change is no longer an evolu-

The Ifugao Rice Terraces (IRT) systems are declining, because of various factors. Natural threats include a new pest, the Golden Snail that feeds on all rice varieties, as well as Giant Worms that make the terraces leak. Socio-economic factors include the increased migration of farmer population to urban areas in and outside The Philippines.

Options to dynamically conserve the IRT system include the development of payment-for-services (through ecotourism, water services to downstream areas, in-situ biodiversity conservation) for a variety of clients. Project designers envisioned the development of payment-for-services, but detected one missing link. Suppose the project would succeed the sustainable generation of funds to a local trust-fund, *how would the project utilize funds to sustain the IRT-system?* What activities would such “trust fund” support? Different options were discussed:

(a) Capacity building and awareness raising to the local population. This strategy supposes that lack of information and know-how is the cause of the breakdown of the system. This is clearly not the case, and this activity would not address the root problem of the system breakdown.

(b) Subsidizing terrace maintenance or growing local rice. This strategy is based on the (justified) notion that the system is not economically viable anymore. However, the moment you subsidize, farmers will become dependent and pessimists could argue that farmers will need an ever increasing support. Moreover, you will need a strict M&E and reprimand system to see if the funds are utilized for its purpose.

(c) Development of economic opportunities (local rice niche market, ecotourism). Howard and Puri (in prep.) show that “economizing GIAHSs” in some cases actively undermines the system, as market demands are different in nature than local subsistence demands.

Box 1. Supporting “dynamic conservation” of Ifugao Rice Terraces is not a straightforward job

tionary dynamic but has become a force with a volition of its own capable of eroding the practices completely. GIAHS must address the dilemmas that come with development before embarking on the construction of detailed regulatory engineering.”

In other words: to what extent should the GIAHS project support, and to what extent should the project discourage changes in the GIAHS? GIAHS documentation suggests that the *functionality* of the system, including biodiversity and cultural values, should remain in place – so, for operationalisation, identification and monitoring project performance, system functionality becomes essential. In practice, project designers and farmers were confused whether a variety of techniques were “allowed” for local development. Green revolution techniques, modern (road, terrace) construction methods were all widely applied and how do they relate to GIAHS dynamic conservation?

1.2.3 Issue: geographic boundaries of GIAHS projects

GIAHS project practitioners are not clear on how to assess the boundaries of a future GIAHS site. Sites must be geographically limited; at the same time, site selection criteria include its representation of a widespread system. Designation of one area as “GIAHS” holds the risk that its preservation will justify the neglect of similar systems elsewhere.

1.2.4 Issue: Programmatic boundaries of GIAHS projects

The pilot project in China (as well as in The Philippines) shows that the GIAHS initiative cannot be isolated from other development in the areas. Such developments include the replacement of traditional houses and temples with modern, a-historic (concrete) building. Even if buildings are not directly part of the GIAHS, part of its quality (beauty, link to historical past) is getting lost – with implications for tourism and the system’s demonstration value.

The GIAHS initiative may be synergistic to other national programmes and developments – e.g., ecological movements, rural development initiatives, certification schemes, etc. Moreover, GIAHS is expected to effectuate national policy making for agricultural landscapes. Possibly, national NIAHS programmes (Nationally Important Agriculture Heritage Systems) can take care of a much wider area / system recognition than the international GIAHS label.

1.3 Justification for the development of a GIAHS intervention strategy

The above described issues emerged from early piloting experiences of GIAHS practitioners. They make clear where further conceptual elaboration is needed so that the project can provide cutting edge support to GIAHS communities. In the following Sections we will propose a project methodology, which provides clues on how to logically approach the above mentioned issues. This approach needs thorough discussion and amendment by practitioners of the GIAHS

project, in order to come to an agreed methodological framework that provides clarity needed for on-the-ground project implementation.

2. A possible strategy for development and conservation of GIAHSs

2.1 Self-determination of the GIAHS community at the heart of dynamic conservation

In concrete cases, the GIAHS community must be the ultimate “owner” (“proprietors”) of the GIAHS. After all, it is this community that holds the know-how to manage the biological and physical resources the GIAHS is carved into. It is generally the (socio-economic cultural) changes in the community (not in the physical or natural world) that threaten the functionality of the system, and poverty reduction of the commu-

nity is key to GIAHS conservation (Howard and Puri, in prep.). Thus, it is the community who should determine what is to be developed, and what is to be conserved. This means that the GIAHS initiative is in essence (and cannot be other than) a *community poverty reduction programme*, rather than a technical or cultural programme. The first task of the project is to support development of the institutional framework in which the community can develop a reasonable level of self-determination, to enable them to reduce their poverty and possibly dynamically conserve their system.

That means that the project should adhere to a methodological framework putting the communities at the centre of project interventions. Altieri (2004) proposes for that the DFID Livelihood Framework. This framework however puts the local “capitals” at the centre of its analysis, while causes of poverty often lay in higher level institutional structures. The OECD (2001)

Table 1. Comparison of the DFID Livelihood capitals and the OECD’s poverty dimensions. The column in the centre is meant to indicate that the comparison of different forms of capital and different dimensions is not a 100% coverage.

DFID Sustainable livelihoods framework: different forms of capital (DFID, xxxx)	OECD Dimensions of poverty (OECD, 2001)
Human capital	Human (health, education, nutrition)
Natural capital	Economic dimension (consumption, income, assets)
Physical capital	
Financial capital	
Social capital	Socio-cultural (status, dignity)
	Political (rights, influence, freedom)
	Protective (security, vulnerability)

proposes to measure and monitor poverty through the analysis of poverty dimensions. Compared to the DFID livelihood model, the OECD stresses the institutional dimensions of poverty – self-determination, dignity, rights, security.

Taking the OECD DAC criteria as a basic concept has several advantages:

1. If the GIAHS project will support the GIAHS communities to increase their self-determination capacity, it seems that the OECD's DAC-criteria provide better analytical tools to monitor the success of the project than the earlier DFID "social capitals".

2. Another interesting feature of the DAC criteria is the recognition of a dimension of poverty that is often neglected, but that is very relevant for ecosystem management and for GIAHS dynamic conservation (Howard and Puri (in prep.)). The protective dimension is the capacity of people to withstand internal and external economic and ecological shocks (Van Bodegom et al, 2006).

3. The DAC dimensions of poverty are broadly accepted by the donor community. It will be easier to provide evidence to the outside world that the GIAHS initiative offers a contribution to poverty alleviation. As we have seen in section 2.2, the mere recognition as a GIAHS site already increases self esteem (socio-cultural dimension) and economic opportunities for e.g. tourism (economic dimension)..

4. The DAC dimensions also offer a framework to review together with the local communities which dimensions need reinforcement and what strategies are necessary in order to achieve this for each dimension separately. For example:

- Improvement of the enabling environment, transparency and participation in decision making enhance the political dimension.
- Capacity building activities could reinforce the socio-cultural dimension.
- Activities to restore elements of the agricultural system in decay, could enhance the protective dimensions
- Restoring the role of herbal medicines could reinforce the human dimension.
- Support to tourism and marketing of local products could reinforce the economic dimension.

There are also examples of activities and strategies that could address more than one dimension. When a fair of local agricultural products is organised reinforces the economic dimension, but it also emphasises the local cultural identity. For examples of the connection of DAC-dimensions and strategies used in programmes which combine conservation of biodiversity with poverty alleviation, see Van Bodegom et al.

(2006). We thus propose that the DAC-criteria will be placed central in the GIAHS project approach – for planning of interventions, as well as to monitor the impact of the project. Critical will be the political dimension that will provide the institutional space for self-determination: does the GIAHS community legally own its natural resources? Does it own its land? Can it determine what kind of agricultural extension it will receive? Can it determine that school curricula include the local history, the local tradition? Such political space must be created by local and national policy frameworks. This justifies that the GIAHS initiative concentrates not only on communities, but also on local and national arenas – where institutional and policy development are determined. A situational analysis at the beginning of the project determines where bottlenecks for GIAHS community self-determination lay – and where thus the GIAHS project should support, to effectuate necessary changes. Through such institutions, the GIAHS community will address the other aspects of poverty.

2.2 Recognition and designation of GIAHS systems

Self-determination of the GIAHS community may be essential to GIAHS dynamic conservation – yet, communities might choose to do away with their system and embrace other, alien opportunities (as Harrop, 2005 noted). First, we must note that the community does have a fundamental right of choice in this, within the national (and international) legal framework (e.g., land use regulations and human rights.) Even the most benign well-wisher has no right to impose the direction of development on GIAHS communities (ILO convention 169 on the rights of indigenous people). One more objective of the GIAHS initiative is international recognition for GIAHSs, by operationalising a GIAHS site designation listing mechanism. GIAHS site listing criteria provide a mechanism in which the project can support GIAHS communities to develop "dynamic conservation" of their sites. Piloting experiences show the practical power of such a designation. In Tunisia, Morocco, the Philippines and China we have observed the promise of a GIAHS designation appeals to policy makers, local population, potential product buyers, and tourists alike. People are proud that they receive international recognition for an agricultural system that is their own and home-made. GIAHS recognition thus reinforces their cultural identity.

It also increases the potential for economic activities. Tourists like to visit GIAHS sites and this creates opportunities for income generation for the local population. These are two direct effects of the recogni-

tion as a GIAHS site, which we have seen happening without any further outside support. Both have a positive effect on poverty alleviation as defined by the above mentioned DAC-criteria. Thus, a clear and workable set of GIAHS criteria is the essential second (and possibly most powerful) force that can support dynamic conservation of GIAHSs (besides self-determination of the community.) In these dynamics, it is not the GIAHS community who determines what is a GIAHS, and what not. There is a role for an international body representing the world community – like the FAO, or another international institution. The GIAHS initiative faces a major task to develop an operational site listing system, which is (insofar the GIAHS documentation testifies) not yet conceptualised. Study of UNESCO's World Heritage System may yield interesting ideas.

2.3 Two interfering forces: GIAHS designation and the community

Previous sections argue that the GIAHS “dynamic conservation” strategy is based on two principles: development and conservation. GIAHS communities develop their own path of development; yet the consequence of radical change of a GIAHS system is that the changed system may lose the opportunity to be designated as a “GIAHS,” as laid down in internationally defined criteria. The interference of these two “forces” is depicted in Figure 1.



Figure 1. Two forces that determine the development and conservation of GIAHSs: the will of the GIAHS community, and an international body that sets GIAHS designation criteria.

The figure shows that in the ideal future situation, the GIAHS community can develop its own direction of development. The International Community provides the GIAHS community with a framework within which they can develop to become or remain listed as a des-

ignated GIAHS.

3. A strategic look at the conceptual issues

Now that we have selected some methodological hints, we will put it to the test by looking at the earlier raised issues.

3.1 Issue: What kind of interventions will the project support?

With the local self-determination in mind, the project will not directly focus on the many (biodiversity, environmental services, cultural services) aspects of the local system. Instead, it will concentrate supporting the local population to determine the future of its GIAHS. For example, the GIAHS project will figure out the opportunities within local legislation with regard to local self-governance, and support the GIAHS population to utilise legal provisions – or to promote the development of necessary new ones. We can imagine that local political structures – local governments, special GIAHS management sub-committees, etc. – will be established as permanent structures with legislative backing. The GIAHS project thus supports the development of legal structures with good resonance with the GIAHS community – thus, traditional GIAHS decision making structures need to be integrated with legal governance structures.

When the GIAHS community is in a position to govern its own system, situation analyses regarding the five DAC dimensions of poverty will bring out major threats to the GIAHS. The GIAHS community then will – with critical support – determine if and how these threats can be contended. The community – or its critical well-wishers – may bring on the discussion agenda particular issues to be sorted out – the extent to which local varieties are still in use, the control options of newly introduced pests, the support options of certain physical structures (e.g., terraces) of the GIAHS, the development of niche markets that respect local carrying capacity, etc. The project may provide budgets to the governance structures to be developed, where the GIAHS community decides how to prioritise such project activities in support of dynamic conservation of their system. It will be up to the local government to also support infrastructure improvement (marketing system, road and other public facilities) as appropriate to enable the GIAHS community to develop new opportunities for development.

3.2 Issue: What change and what conservation will the project promote?

The global GIAHS project will develop and provide GIAHS site listing criteria. In the designated governance structures, representatives of the GIAHS community discuss and develop different options they have for development of their system. The project supports the community by challenging mainstream development paths with new scientific information and alternative options. For example, the “green revolution” development path is not very sensible in many GIAHS sites. Open discussion together with trial-and-error will enable the GIAHS population to define development for their own specific situation. As a result of such thorough discussions, it is up to the community to make informed decisions whether it wants to comply with the global GIAHS site listing criteria or not.



3.3 Geographic boundaries

The focus on local self-determination implies that local identity-boundaries that determine the size of the GIAHS system. This is not easy, as there may be a wide variety of reasons to include or exclude communities as being “one of us.” At the same time, one should be pragmatic: administrative boundaries, if they are not undermining the GIAHS system, may be adopted as they will provide the easiest opportunity to link community and government institutions.

3.4 Programmatic boundaries

The possible acceptance of the DAC-criteria will provide new opportunities to the GIAHS initiative. First, the new focus is on (a variety of dimensions on) poverty. This opens up the possibility that GIAHS gets

supported by a wide range of donors with poverty alleviation high in their objectives. GIAHS then gets easily mainstreamed in Poverty Reduction Strategy Papers and other national policies, which command wide political support. Second, project interventions will be tailored to the capabilities and needs of the local GIAHS community. This is in itself a strong focusing mechanism, which brings conceptual clarity to the wide possible interventions that are proposed by a wide array of stakeholders – not in the least scientists of a variety of background.

Box 2 provides a preliminary (dreamt up) example on the approach of the various issues mentioned above after having adopted the DAC-criteria in combination with foreseen GIAHS site designation criteria. The example needs further elaboration.

4. Conclusion

This paper hopes to contribute to the move from GIAHSs *concept* and *identification* to *active support* of their dynamic conservation. It argues that the GIAHS communities should be at the centre of GIAHS project intervention. The communities’ self-determination is the first aspect to tackle. The second aspect to tackle is the other dimensions of poverty within GIAHS communities. GIAHS site designation a potentially powerful weapon in the struggle against poverty. Solely designating a certain area as GIAHS-site reinforces some dimensions of poverty alleviation, like socio-cultural and the economic dimensions.

If the GIAHS initiative adopts the DAC-dimensions of poverty as its concept for project intervention, it can better define the project’s objectives than is presently the case. The application of DAC-poverty dimensions offers the following advantages:

Self determination of communities, pursued within the GIAHS concept, is within the DAC system an important aspect of the political dimension of poverty.

The DAC system recognises the protective dimension of poverty, which is the ability to withstand internal and external shock. It is an aspect important for GIAHS management but often neglected in development assistance.

The DAC system is broadly accepted within the donor community. If an appropriate Monitoring and Evaluation scheme is constructed around this system, the initiative can show that GIAHS interventions actually contribute to poverty alleviation. It could make GIAHS more attractive for donor support.

The DAC-system also offers a framework to define strategies and a plan of action which offers a balanced support to various aspects of poverty.

During some workshops in Ifugao, National and Local Government Officials, NGO representatives, politicians and academicians - all with extensive working experience in the area – discussed a possible GIAHS project. It appeared that local governance structures in the area (from community to provincial level) were functioning, albeit somewhat politicized, with little resources. The Rice Terrace system appeared to provide a wide variety of environmental services, like stable and clean water provision to downstream areas (for rice irrigation), and tourist attractiveness. Ifugao rice farmers were in fact subsidizing these “clients.”

When discussing the possible role of a GIAHS project, different issues were discussed:

Issue: What kind of interventions will the project support? With the “local self-determination” in mind, local (elected) councils can run the project to conserve the Ifugao rice terraces. It will look at institutional bottlenecks to be addressed at national and provincial level. Ifugao province already had prepared a Master Plan that was not implemented in absence of funding. The project could support elements of that plan with a bearing on DAC-criteria of the GIAHS population (such as subsidizing terrace maintenance), to be evaluated by local councils. For example, the Rice Terraces are nationally classified as “forest / non-agricultural lands”, ruling out legal private ownership of terraces and associated forest and traditional protection. Micro land use planning, as already implemented by NGOs, can be supported by the project. The project could also support the setting up of a local GIAHS trust fund, with links to payment-for-environmental services and tourism fee levying, to finance local governance initiatives in the long run.

Issue: what will be protected, and what will be conserved? The local structures will determine the development of their areas. At the same time, the international GIAHS criteria provide a possible direction of development to local structures – in support of dynamic conservation.

Issue: Geographic boundaries of the GIAHS initiative. Institutions developed though local governance councils in GIAHS pilot sites are naturally best adapted to the local institutional landscape. The GIAHS initiative thus is best initiated in municipalities that are most fit to develop a system within the national legislative framework. Once such system is established, it is tailored to the local situation – and can be replicated as per national policies.

Issue: Programmatic boundaries of the GIAHS initiative. The above mentioned reasoning shows that GIAHS projects elaborate on existing national programmes. In the case of The Philippines, the on-going decentralization policy provides opportunities for local people to build further on their heritage. Other relevant programmes are land use planning initiatives of government offices and local NGOs, as well as the development of Ifugao local rice niche markets and ecotourism. There are plenty of programmes, which can be locally combined into a coherent GIAHS dynamic conservation programme.

Box 2. Supporting “dynamic conservation” of Ifugao Rice Terraces with DAC-criteria as guiding principles

Although all dimensions of poverty are important, we believe that GIAHS support should be focused on reinforcing the political/institutional dimension which would result in a situation where

- there is an optimal enabling environment (institutions, laws, regulations, designation procedure for recognition as GIAHS) for dynamic conservation of the GIAHS system

- communities are able to determine their future for themselves, inside or outside a GIAHS system. If they wish to work within the GIAHS rules then they could be supported to define and prioritise actions which reinforce the various dimensions of poverty. With limited support the GIAHS organisation can initiate and catalyse prioritised activities.

References

Altieri, Migueal A., 2004. Towards a methodological framework for implementing the GIAHS process in target sites: suggested guidelines and tips. Draft no. 2, June 2004.

Bedel, Jean Gabriel, 2004. The GIAHS programme in 20 questions. Internal FAO document, accessible at the GIAHS website, 16 pp.

Bodegom, Arend Jan, Timothee Fomete, Mine Pabari, Nico Rozemeijer, Lotje de Vries, Winfried Zettelmeyer,

2006. Evaluation of the Theme-Based Co-Financing (TMF) – Lot 3: Biodiversity Conservation and poverty Alleviation. Wageningen International, Holland. 178 pp. <http://www.tmf-evaluatie.nl/> downloads no 3.

Checkland, Peter, and Jim Scholes, 1999. Soft Systems Methodology in Action. John Wiley and Sons, Ltd., 329 pp.

Delacruz, Mary-Jane, and Frank van Schoubroeck, 2006. Mission Report of FAO-Rome and Wageningen International to Philippines / Manila and GIAHS pilot site in Ifugao.

Ericksen, Polly, and Ellen Woodley, 2006? Using Multiple Knowledge Systems: Benefits and Challenges. In: Ecosystems and Human Well-being: sub-global, of the Millennium Assessment.

FAO, 2002-2006. GIAHS website: <http://www.fao.org/AG/agL/agll/giahs/default.stm> accessed in February to September 2006.

FAO, 2006. Conservation and adaptive management of globally important agricultural heritage systems (GIAHS). UNDP Project Document, 50 pp.

Harrop, Stuart R., 2005. Globally Important Ingenious Agricultural Heritage Systems – an examination of their

context in existing multilateral instruments. Internal FAO document, accessible at the GIAHS website, 16 pp.

Howard, Patricia, and Rajindra Puri, in prep. A Conceptual Framework For Approaching Globally Important, Ingenious Agricultural Heritage Systems (GIAHS). Internal working paper.

Koohafkhan, Parviz, pers comm. Mission debriefing meeting in FAO-Rome, August 16, 2006 attended by Luohui Liang, Mary Jane dela Cruz, Frank van Schoubroeck and chaired by the Project Manager Parviz Koohafkhan.

Liang, Luohi, and Frank van Schoubroeck, 2006. Mission report Longxian GIAHS pilot site, China.

OECD, 2001. The DAC guidelines. Poverty reduction. <http://www.oecd.org>

Ostrom, 2005. Understanding Institutional Diversity. Princeton University Press, 355 pp.

Schoubroeck, Frank van, and A.L. Karna, 2003. Initiating co-ordination platforms for Forest Management in the Terai. Banko Jankari, Vol. 13 number 1, Department of Forest Research and Survey, Babar Mahal, Kathmandu.

Schoubroeck, Frank van, Mary Jane de la Cruz and Luohui Liang, in prep. Institutional mechanisms to support dynamic GIAHS conservation in participating countries. Discussion paper for the GIAHS conference 24-26 October 2006, Rome, Italy.

Woodhill, Jim, 2005. Facilitating Complex Multi-Stakeholder Processes. A Social Learning Perspective. Working Document of Wageningen International, available at <http://portals.wi.wur.nl/msp>

