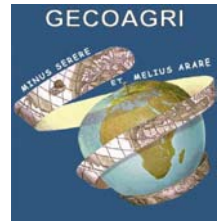




**Second Steering Committee Meeting
GIAHS Project
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**Human communities and natural environment in the agricultural areas .
The International Geographical Union research experience and methodology.**

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1. The International Geographical Union

The *International Geographical Union* (IGU) associates geographers of universities worldwide. IGU is organized into 89 **National Committees** producing a very active network of international scientific collaborations. The operational office, *Home of Geography-Villa Celimontana*- is in Rome .

The scientific organization comprises 32 research **Commissions** concerned with physical and human geography, particularly with integrated investigations.

IGU promotes:

- International Geographical **Congresses** every four years.
- Annual **Conferences** organized by each Commission

The Commission *Sustainability of Rural Systems* will hold the 2005 Conference in Italy on the theme: *Quality Agriculture: Historical Heritage and Environmental Resources for an Integrated Development of Territories*. The Conference will be organised by the research group GECOAGRI (*Geografia Comparata delle Aree Agricole Europee ed Extraeuropee* – Comparative Geography of the European and Extra-European Agricultural Areas).

2. Methodology and research experience on the agricultural systems

The strong point of the geographic research on agricultural spaces is the empiric approach. Geography studies men and their action freedom, the differences characterizing world regions, the various interests and values in which societies believe. The geographical research ranges over morphological, climatic and cultural characters (*integrated approach*). It spans through different historical times (*diachronic approach*) and from local to global scale (*trans-scalar approach*).

Our investigation on agricultural systems consists of three steps: *description*, *interpretation* and *evaluation*.

First step: Description

Who organises the territory? How to identify an *Agricultural System* ? We analyze the *structural characters* pertaining to the farms. It has been researched the dominant type of farm for a determinate system (micro, small, medium, large farms) and the percentage of cultured surface over the total available surface for each farm .

We realized that this first step is important to involve farm managers and trade organizations; we also noticed that some countries have large agricultural system. In within Europe two opposite systems have been revealed (the *North Atlantic* and the *Mediterranean*).

Agricultural systems graphs are useful instruments to identify the agricultural systems and to understand which organizations are involved in a territory and how many people operates in it.

Second step : Interpretation

How does the *Agricultural System* work? We interpret its organization by *economical and social characters* analysis.

- *Economical Characters* : Cultivation and/or production organization (integration culture-livestock farming), production techniques (crop rotation, intercropping and culture-livestock farming associations), multifunctional integration levels of the primary sector (agriculture, typical produces, 'agritourism'). It is useful differentiating the cultural density (SAC/SAT) and the cultural intensity (PLV/Ha SAC). The cultural density is the ratio between the cultivated surface and the total surface; the cultural intensity is the marketable gross production obtainable per hectare of cultivated surface.
- *Social Characters* : How many and which are the farmers (owners, labourers, leaseholders) presently living and working in an agricultural system, farmers' demographic structure, land ownership, part-time and unattended agriculture. How many farmers will still be able to live in that system? For example, we overlapped the farmers' age classes (population pyramids) with the most productive farm's owners/managers.

Third step : Evaluation

We identify the agricultural system value and evaluate the ingenious efforts applied by human communities in the individual areas to obtain the best results without degrading its environment. The sustainable agricultural system is represented by 'beautiful' landscape. Several Latin authors wrote about this matter:

- Research of present advantage together with certainty for the future (*Plinius*, 23-79 A.D. from *Naturalis Historia*: "...In primis autem cavendum, ne ex remediis vitia fiant, quod evenit nimia aut intempestiva medicina .." Watch for the remedies -ploughing, fertilizing-, they might lead to worst illnesses, this happens when you exaggerate with the cure).
- Produce the useful together with the beautiful (*Marcus Terentius Varro*, 116-27 B.C. from *De Rerum Natura* "...agricolae ad duas metas dirigere debent, ad utilitatem et voluptatem" -Farmers must have two goals: the profit and the pleasure, because by making the fields pleasant to look at, their value will also be increased-)
- Respect for places and time cycles (*Publius Vergilius Maro*, 70-19 B.C. from *Georgiche* "...sed tamen alternis facilis labor, arida tantum ne saturare fimo pingui pudeat sola, neve effetos cinerem immundum iactare per agros. Sic quoque mutatis requiescunt fetibus arva nec nulla interea est inaratae gratia terrae"- Working the fields becomes light if alternate; you should not dislike to fatten the dried land with fertilizer nor to spread plain ash on the weary fields. So that , by alternating the cultivations, the fields will rest and at the same time the land will not be unused-).

- Each agricultural work and each field should be on a human scale (*Plinius*, from *The Rerum Natura* : “.....*minus serere et melius arare*” -sow less and plough better.-).

The third step is decisive to evaluate the *Cultural Characters* and to identify the *Typical Agricultural Systems*. Which value (cultural, landscape, economical) the agricultural system represents for its local community? Is it also valuable for the international community and for future generations?

The geographic research already considers some of these parameters as essentials: field shape (*openfield, bocage*), cultivation and working techniques (terraces, reclamations, typical arrangements of sloping land), rural settlement types (centralized, nucleate, scattered) and habitation models.

Other parameters have only been considered on a limited scale: the ‘agricultural’ year and the local produces working cycles (monthly agricultural operations and activities of the farmer), quality of biodiversity and typical productions, connection of production stages and popular traditions/events, typical alimentary productions varying along the seasons in connection with the local community life, toponymy used for the naming of typical produces and commercial associations, folkloristic songs and poems/rhymes connected with the fieldwork, historical and contemporary itineraries enhancing landscapes and local produces, local associations and organizations operating to enhance tourism commerce and culture.

It is useful collecting information on cultural characters with a questionnaire, so that local communities are involved, even by filing, in revaluating their agricultural systems.

3. The geographic methodology, the ideas and GIAHS

The geographic methodology and ideas are applicable to GIAHS.

We could ask ourselves which way we choose to go:

- To study emblematic and ‘urgent’ examples? Many communities are losing their memory of landscapes and agricultural systems (in Italy: ‘towers’; ‘castles’; terracing in the *Cinque Terre, Amalfi* and many other areas).
- To identify *Typical Agricultural Systems* worldwide with a standard methodology?

How high to aspire? It could be useful to build:

- An international classification code for Agricultural Systems that would identify parameters to classify the *types* of Agricultural System.
- An international code allowing to protect dying out Agricultural Systems
- An international code to identify and certify Typical Productions worldwide
- A Thematic Atlas of World Agriculture
- An International School of Experts in GIAHS?

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