

**JOINT MEETING OF ACTION TEAM ON GNSS AND GNSS EXPERTS OF
UN/USA REGIONAL WORKSHOPS AND INTERNATIONAL MEETING
2001-2002
(8-12 DECEMBER 2003, VIENNA, AUSTRIA)**

**WORKING GROUP ON
“AGRICULTURE AND MANAGEMENT OF NATURAL RESOURCES”**

PROJECT PROPOSAL

**GLOBAL INFORMATION EXCHANGE NETWORK
ON GNSS APPLICATIONS IN AGRICULTURE
AND MANAGEMENT OF NATURAL RESOURCES**

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DECEMBER 11, 2003

GLOBAL INFORMATION EXCHANGE NETWORK ON THE USE OF GNSS IN AGRICULTURE AND MANAGEMENT OF NATURAL RESOURCES

Introduction:

The decision making process, in Agriculture and Management of Natural Resources, can be much more improved with the help of the geospatial technologies, which enable timely decisions, either tactical or strategic, at various levels, with maps as the main, but not only, output.

Those technologies heavily rely on positioning and navigation, which, nowadays, are synonymous of Global Navigation Satellite Systems – GNSS.

Several areas of the Agricultural Sciences can benefit from the use of GNSS, from the basic rural cadastre, a surveying procedure, to the advanced precision agriculture, a modern and interdisciplinary approach.. Agro-climatic and ecologic-economical zonings, crop inventory, monitoring, and forecasting, are some other examples of agriculture-related activities where positioning is a paramount.

In the area of management of natural resources one can make the same considerations. Thematic mapping, biodiversity inventory, sustainable management of native forests, habitat restoration, management of water resources, etc. are good examples, to mention just a few, of GNSS applications.

For worldwide applications of GNSS technology in agriculture and management of natural resources, the increase of awareness (information) and capacity building are fundamental. The establishment of a global information exchange network on GNSS applications in agriculture and management of natural resources is essential to achieve this objective. This proposal evolved from the recommendations made at the four regional UN/USA workshops and the experts meeting (2001-2002).

Goal: To establish a global information exchange network on the use of GNSS in agriculture and management of natural resources

Recommendations:

1. UN/OOSA: to establish a specific board in the applications of GNSS in agriculture and natural resources.
2. Board: to prepare a series of regional workshops for establishing a framework of the information exchange network.
3. Board and host countries: to carry out four regional workshops to discuss and disseminate the network concept on GNSS applications in agriculture and natural resources among institutions and end users (30 sponsored participants).
4. Board: to carry out one final workshop “to put the pieces together”, involving the board and invited experts (25 sponsored participants).
5. Board: to implement the information exchange network.

Rationale:

1. The use of GNSS on topics related to agriculture and management of natural resources is and will be intensively required. At present, this field has weak representation within the GNSS groups established for the USA/UN workshops. Therefore, the establishment of a **board** specifically related to agriculture and natural resources is crucial for enforcing the implementation of the activities proposed on this document.
2. A **global information exchange network focusing on GNSS applications in agriculture and management of natural resources** will facilitate the popularization of its use on daily activities, to add quality and an innovative approach on agricultural production, taking into account local variability and consequent increase of food production and environmental protection. Similarly, in the field of management of natural resources the decision making process can be much more improved with the help of the geospatial technologies, which enable accurate and timely decisions, either tactical or strategic at various levels.

Actions:

1. To officially select the **board** members with invitation letter to be initiated by UN/OOSA.
2. To conduct a meeting of the board to define the conceptual framework of the **global information exchange network** and organize the regional workshops (Vienna, 5 days).
3. To conduct **four regional workshops** (Malaysia, Romania, Nigeria, and Brazil) to identify institutions and people with experience and data to share and interested in contributing to the network implementation, as well as users interested in information exchange.
4. To conduct a **meeting of the board and invited experts** for putting into coherence all identified data as input to the global information exchange network (Vienna, 5 days).
5. To set up **infrastructural support** for the global information exchange network.

Schedule:

Actions:

- 1: March 2004
- 2: April 2004
- 3: from August 2004 to June 2005
- 4: July 2005
- 5: from August 2005 to March 2006

Funding:

Actions:

- | | |
|--------|--|
| 1: | no funding needed |
| 2: | 10,000 EUROS |
| 3: | 60,000 * 4 EUROS = 240, 000 EUROS |
| 4: | 50,000 EUROS |
| 5: | no funding needed, provided that regional websites are maintained by each respective institution |
| TOTAL: | 300,000 EUROS |

Proposed names for the board:

REGION	NAME
Latin-America and the Caribbean	Carlos A. Vettorazzi and Jose P. Molin
Europe	Ruxandra Vintila and Isabel Osorio
Asia/Pacific	Chee-Wan Chan
Africa	Timasaniyu Ahmed-Rufai

Potential International Organizations as Partners:

1. International Rice Research Institutions, Manila, Philippines (IRRI)
2. Asian and African Rural Development Organization, based in India (AARDO)
3. Japan International Cooperation Agency (JICA)
4. Australian Centre for International Agricultural Research (ACIAR)
5. International Center for Scientific Research (ICSR)
6. International Center for Tropical Agriculture (CIAT)
7. Tropical Fruit Network (TFNet)
8. Food and Agricultural Organization of the United Nations (FAO)
9. United States Department of Agriculture (USDA)

Observation:

Due to the characteristics of the activities related to agriculture and management of natural resources, as a large community of GNSS users, the sponsorship of this board activities should be first offered to the suppliers of GNSS products and services. Exercises on a projected market to this area is really promising and the proposed activities are basically related to the increasing of awareness on GNSS use in agriculture and management of natural resources, with a direct effect on the business sector.

Vienna, December 11, 2003