



Global Terrestrial Observing System

**Report of the
First Meeting of the GTOS
Steering Committee**

2-5 December 1996, Rome, Italy

GTOS - 6

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First Meeting of the Steering Committee

2-5 December 1996, Rome, Italy

Meeting Report

The first meeting of the GTOS Steering Committee was held in Rome, on 2-5 December 1996. The meeting was hosted by FAO and chaired by Dr. Michael Glantz, chairman of the Steering Committee. A list of participants is attached, as well as a brief report on “What is GTOS” and a list of the Working Groups that were established during the meeting.

I. Opening of the Meeting

The meeting was opened by Dr Stein Bie, Director, Research, Extension, and Training Division, FAO. He welcomed the participants and thanked them for agreeing to serve on the SC. He was of the view that the Steering Committee, with its recognized technical expertise and diverse backgrounds, would lend a great deal of credibility of GTOS and explained what the Co-sponsors and the Secretariat expected from this meeting: clear guidance on scientific and technical aspects of GTOS; advice on pilot projects and on the development of an implementation strategy; and, suggestions on administrative matters.

Dr. Bie reviewed the situation of the Secretariat over the last six months and explained the reasons why it was not possible to advertise the international vacancy announcement of the P5 GTOS Executive Secretary post. He proposed to bridge the gap for the first half of 1997 by providing Jeff Tschirley as Executive Secretary a.i. part-time, assisted by Anne Aubert as Programme Assistant full-time, and Hal Kibby as Senior Scientific Officer part time. During this period, FAO and the co-sponsors will make every effort to obtain sufficient funds so that the Secretariat can function effectively and the Executive Secretary post can be advertised.

Each Co-sponsor then reaffirmed its support to, and involvement in, the GTOS Programme. They explained that GTOS was established by them in response to mandates from their respective governing bodies, in order to have more co-ordination at the international level and reduce costs to individual countries. The Co-sponsors reported briefly on their expectations of GTOS and recommended that the overall structure should be kept simple and pragmatic.

II. Functions of the Steering Committee, Secretariat and Roster of Experts

The SC reviewed its Terms of Reference and agreed in principle on their content subject to changing/deleting the sentence referring to the Chairman “To carry out specific duties as prescribed by decisions taken in agreement by the co-sponsoring organizations” and to change the term of appointment from 2 years to 3 years. The SC serves in an advisory capacity to the Co-sponsors and is responsible for matters relating to the technical content and quality of the programme, identifying opportunities for collaboration with other scientific institutions promoting efficiency in operations. The Secretariat is responsible on a day-to-day basis for programme implementation and working toward fulfilling the objectives set by the SC and the Co-sponsors.

The Roster of Experts was presented as a list of scientific and technical people interested in GTOS that have agreed to contribute their expertise as needed. The list was seen as a resource for identifying expertise who could assist the GTOS programme and SC members could supplement it with additional experts. The SC welcomed the concept and agreed to use the list as appropriate.

- Follow-up actions:

Secretariat to draft a letter for signature by the Chairman, SC to the cosponsoring organizations recommending changes to the Terms of Reference of the Steering Committee and the Executive Secretary;

Secretariat to invite members proposed by the SC to join the Roster of Experts.

III. Principles and Objectives of GTOS

The work carried out by the Scientific and Technical Planning Group (STPG) was reviewed by Dr. David Norse, with emphasis on the objectives, principles, and defining characteristics of GTOS. The central mission of GTOS, as stated by the STPG, is:

“to provide policy makers, resource managers and researchers with the data needed to detect, quantify, locate and give early warning of changes (especially reductions) in the capacity of terrestrial ecosystems to support sustainable development and improvements in human welfare, and to help advance our understanding of such changes.”

This should be accomplished through the development of an equitable partnership between generators and users that meets the short term needs of national governments and the longer term needs of the global change research community.

It was agreed that the Planning Group report is intended as a guide, and that the SC could modify and expand upon it as necessary. The SC discussed the objectives of GTOS and the main characteristics needed to convey a concise and clear message to potential and future partners (see Appendix 2, What is GTOS?).

IV. Update on GTOS Activities

a. Brochure and web-site

The Secretariat reported on the main GTOS activities during 1996, some of which were reviewed by the SC. The SC considered the brochure to be an excellent description of what GTOS will be, but was concerned that it may raise expectations that could not be met. It was agreed that it would be premature to distribute it widely at this time. The situation would be reviewed at the next SC meeting. The SC proposed to produce in the meantime a more concise brochure, based on what GTOS is implementing now, in order to create awareness of GTOS around the world. The question of languages was discussed but not resolved. It was considered important to develop the brochure in English, French and Spanish; other languages would then be considered on an as needed basis.

Regarding the Web site, the SC suggested to re-cast the statement “GTOS is doing it now” in more modest terms.

- Follow-up actions:

Secretariat to produce a short GTOS brochure for wide distribution in the next months;

Secretariat to review and update the GTOS home page as appropriate.

b. Telecommunication options and information server

The Secretariat has been exploring telecommunication and data options, with the International Telecommunication Union (ITU) and with the Joint Research Centre (JRC), respectively. Dr. Peter Dreyer, a GTOS consultant, reported on the progress made in both fields. A meeting was held between GTOS and ITU on 1 October 1996 in Geneva, which intended to explore the ways and means of a framework of cooperation with ITU. One result of this meeting was a request that the GTOS Secretariat outline what it would consider to be an ideal pilot project in so far as telecommunication requirements.

Dr. Dreyer reported then on a meeting held with JRC on 26 November 1996 in Ispra, to discuss the possibilities of developing a GCOS/GOOS/GTOS Information Server, using the Generic Information Server Toolkit (GIST) that is presently under development at JRC. GIST is intended as the next generation of the Centre for Earth Observation (CEO) information server software currently running as EWSE (European Wide Services exchange). GIST would be available during the spring 1997 and available free of charge to GTOS.

The SC felt the development of an Information Server could have major resource implications both in terms of cash and staffing, hence any option needs to be carefully considered. The SC recommended that any development of a GTOS data and information management system should be co-ordinated with GCOS and GOOS. The SC suggested to refer the proposal regarding the usefulness of GIST as well as the ITU demonstration project to the Data and Information Management Panel (DIMP) for consideration and request them to advise the SC as to the best way to proceed.

- Follow-up actions:

Secretariat to send letter to ITU and JRC thanking them for their help and interest but referring to the need of consultation with DIMP before taking a decision;

Chairman to ask DIMP to evaluate JRC and ITU's proposals.

V. Budget and Fund Raising

a. GTOS trust fund

The current budget situation was explained to the SC. GTOS operates from a special FAO Trust fund that receives annual contributions from Co-sponsors (US\$100,000) plus FAO's contribution in kind and/or in cash. The SC was concerned over the low level of available financing, in part because of the ambitious objectives of the Programme and because advertising for a permanent Executive Secretary could not begin until there are sufficient resources to pay a salary for two years. It was strongly expressed that, if the co-sponsors are serious about establishing GTOS, they must solve the problem of the Executive Secretary as

soon as possible. The SC felt it was critical to issue an advertisement and to advertise it outside the UN system.

- Follow-up actions:

Secretariat to prepare a detailed budget plan for 1997 and a budget estimate for the next two years;

Chairman to send a letter to the Co-sponsors regarding the financial situation of the Secretariat and the position of Executive Secretary.

b. Fund raising activities

The SC was informed on the status of funding proposals, in particular the one submitted to the government of Norway (see section VII/e. "Pilot Projects"). The Secretariat stated that an answer from the government of Norway should be forth coming toward the end of 1996. Further, the Secretariat agreed to revive a proposal that had been submitted to the government of The Netherlands and actively pursue it. The SC agreed to help the Co-sponsors and Secretariat to develop ideas for possible funding and suggested that this matter be handled by a sub-committee.

- Follow-up actions:

Secretariat to pursue contacts with the government of the Netherlands and prepare a proposal requesting support for the secretariat;

Chairman to form a working group to develop a fund raising strategy for GTOS.

VI. Relations with GCOS and GOOS

a. Sponsors group

The SC was informed that the Co-sponsors of GCOS, GOOS and GTOS have formed a Sponsors Group for the Global Observing Systems to ensure collaboration and information exchange among the GxOS's. They would develop a common strategy for programme implementation. GTOS is invited to have a representative present at those meetings. The first meeting of the Sponsors Group will be held in Geneva 13 to 14 January. It was suggested that the Chairman of the SC, or his designated representative, could represent GTOS.

- Follow-up action:

Chairman to nominate a person to attend the sponsors group on his behalf when needed.

b. The Global Ocean Observing System (GOOS)

A short report was given on the Global Ocean Observing System (GOOS) which was established in 1988. There are two guiding bodies for GOOS, the International Committee for GOOS (I-GOOS) which is an intergovernmental committee - designed to be sure national interests are represented - and the Joint Scientific and Steering Committee (J-GOOS). I-GOOS

has established a strategy sub-committee to develop a strategy to deal with countries. J-GOOS has identified 5 panels to plan and implement the scientific aspects of the programme: Ocean observations panel for climate (OOPC) (shared with GCOS), Health of the oceans (HOTO), Living marine resources, Marine services, and Coastal zones. Of these only the OOPC and HOTO have been active. The coastal zone panel will meet for the first time in February in Miami. J-GOOS has recommended that GTOS actively participate in this panel. A related, but separate request from Michael Bewers for GTOS to participate in a meeting in February 1997 to define the land-sea interface for GxOS planning purposes was received by the secretariat and needs a response.

The SC agreed it was important to participate in the coastal zone panel of GOOS, but that a working group should be established to define GTOS specific interests. Therefore, the SC suggested that GTOS does not participate in the upcoming GOOS coastal module meeting in February, in Miami. Regarding the land-sea interface meeting, the SC recognized the need to define boundaries between the coastal zone and the land surface, but felt that more important was the immediate need to develop a GTOS position. The SC suggested to postpone the meeting, if possible.

- Follow-up actions:

Chairman to send a letter to the Chair of J-GOOS (Dr. Brown) saying that GTOS is looking forward to work with GOOS but explaining that it will not be able to attend the coastal zone panel meeting in Miami and that a Working Group will identify GTOS coastal zone issues and inform GOOS on its findings;

Chairman to send a letter to the Vice-chair of J-GOOS (J. M. Bewers) saying that GTOS is interested in the definition of land-sea interface but is not yet ready to participate and therefore suggests to postpone the meeting later in 1997.

c. The Global Climate Observing System (GCOS)

A report was given on the Global Climate Observing System (GCOS). GCOS was established in 1992 and is guided by a Joint Scientific and Technical Committee (JSTC). GCOS has five panels and a working group that have been guiding the planning of GCOS: the Atmospheric observation panel (AOP), the Ocean observations panel for climate (OOPC) (shared with GOOS), the Terrestrial Observation Panel on Climate (TOPC) (shared with GTOS), the Data and information management panel (DIMP), the Space-based observation panel (SOP), and a Socio-economic benefits working group. Based on recommendations from the GxOS Sponsors group - as well as the JSTC, J-GOOS and the panels themselves - the Data and information management panel and the Space-based observation panel now serve as joint panels for all three observing systems. The SOP will therefore become the Global observing system space panel (GOSSP).

The SC was invited to: nominate members to represent GTOS at TOPC, DIMP and GOSSP; review the TOPC' Terms of Reference, the actions items for 1997, the Global Hierarchical Observational Strategy for Terrestrial Systems (GHOST), and the version 2.0 of the Plan for Terrestrial Climate-related Observations; and review the draft plan for Space-based observations. The SC proposed some changes in the Terms of Reference of the TOPC and agreed to send their comments on the other documents after the meeting.

- Follow-up actions:

Chairman to send a letter to the Chair of GOSSP (Dr. Morgan) nominating Antony Janetos and André Bassolé as members of the Panel;

Chairman to send a letter to the Chair of DIMP (Dr. Whithee) nominating Gwynneth Martin and Peter Jones as members of the Panel;

Chairman to send a letter to the Chair of TOPC (Josef Cihlar) nominating David Norse and an agricultural economist as members of the Panel, and suggesting changes to the TOPC Terms of Reference as agreed by the Steering Committee;

Steering Committee to send comments to GCOS Joint Planning Office (Hal Kibby) by 6 January 1997 on GHOST, on Version 2.0 of the TOPC Plan, on TOPC Actions Items for 1997 and on the draft plan for Space-based Observations.

The Secretariat noted that nominating 2 persons to each meeting would considerably reduced the resources available to carry out other activities. The Chairman agreed to consider this matter when making decisions on representation at meetings.

VII. GTOS Implementation Strategy

a. Implementation plan

The SC recognized that GTOS should operate with two levels of activities. First, it must meet the needs for short-term analysis, because decision-makers need to have better information on the environment for decisions they must take on a regular basis. Secondly, it must be able to provide long-term data sets to the scientific community.

The SC noted that the Planning group (STPG) had suggested a number of activities for GTOS. The SC affirmed the importance for GTOS to begin modestly and earn the respect of governments and the science community. Hence, it is critical that the SC set priorities for itself, both for the technical and administrative aspects of the programme. It was suggested that GTOS have a short-term as well as a long-term strategy. The SC agreed to take use existing panels, activities, and pilot projects where possible and to form working groups to deal with other priority issues.

- Follow-up actions:

Secretariat to prepare a work programme with priorities for 1997;

Steering Committee to form a working group to develop a draft implementation plan before the next SC meeting.

b. Information on sites

A first step was to identify existing organizations, programmes, and sites that could contribute to GTOS. It was reported that UNEP had begun such an exercise some years ago and that the STPG had expanded on it. The committee was informed about the Terrestrial Ecological

Monitoring Sites (TEMS) database, which was assembled primarily to serve the needs of the site selection process for the GTOS. This database is still under development has a listing of over 1000 sites that registered information related to terrestrial observations. It was pointed out there are still many gaps in the coverage both geographically and in terms of ecosystem coverage. Members of the SC expressed a willingness to provide additional information on sites that they know about as a way to begin to fill the gaps.

- Follow-up actions:

Secretariat to provide members of the SC with a listing of the sites that have already been contacted for the TEMS data base, as well as a copy of the questionnaire that was sent out;

Steering Committee members to provide the Secretariat with information on sites and/or networks in their respective geographical area;

Secretariat to transfer TEMS to FAO (GTOS Secretariat), “populate” the data base with additional information and identify gaps;

Secretariat to make initial contacts with potential partners of GTOS.

c. Relations with CEOS

The SC was informed that GTOS had been invited to associate itself with the Committee on Earth Observation Satellites (CEOS) which has three primary objectives: 1) To optimize the benefits of space-borne earth observations through co-operation of its members in mission planning and development of compatible data products, formats, services, application and policies; 2) To aid both members and the international user community by *inter alia* serving as the focal point for international co-ordination of space-related earth observation activities, including those related to global change; 3) To exchange policy and technical information and encourage complementarity and compatibility among space-borne earth observation systems currently in service or development, and the data received from them. The SC agreed that GTOS should be represented on the CEOS.

- Follow-up action:

Chairman to send a letter to the chairman of CEOS saying that GTOS accepts affiliation and nominating Michael Gwynne as the GTOS representative to CEOS.

d. Working groups

The SC identified some priority areas for the next six months and established six Working Groups accordingly. Each of these working groups, by the next meeting of the SC, should have develop a strategy for dealing with their specific issue. The working groups are: Societal Concerns, Coastal Zones, Biodiversity, Earth Sciences, Site Criteria, and Implementation Plan (See Appendix 3). These working groups are to correspond by e-mail and through a list server that FAO will provide .

- Follow-up actions:

Secretariat to set up a list server to facilitate communications for the working groups;

Secretariat to help Christopher Magadza and André Bassolé to have e-mail facilities.

e. Pilot projects

Three pilot projects that could provide GTOS with considerable help are in various stages of development.

As mentioned in section V.b., a proposal has been submitted to the Government of Norway which has the objective of “Defining and Demonstrating Operational Aspects of GTOS, GCOS, and GOOS” in close co-operation with the relevant institutions of six widely varying developing countries in Africa, Asia and Latin America and two developed countries in Europe.

A second project has been developed by the TOPC to demonstrate the tier concept and assist in developing a data and information management system for the South East Asia region. It was pointed out that this proposal had received extremely wide review and had become rather diffuse; it was in need of sharpening.

The third project was to develop a global soil carbon data base. This project is in the conceptual stage of development by the TOPC.

- Follow-up actions:

Secretariat to inform the SC on the results of the Norway proposal;

Steering Committee to send comments on the South-East Asia proposal to GTOS Secretariat by 30 January 1997. The Secretariat would then re-draft the proposal and review it with GCOS and GOOS;

Secretariat to inform members of developments in regard to the soil carbon project as more details become available. The individual SC members would then send comments to the Secretariat.

VIII. Closure of the Meeting

The Steering Committee agreed to meet again at the end of May, at a site to be determined. The meeting was then closed by the chairman, at 12:00 on 5 December.

- Follow-up actions:

Chairman to send a letter to the SC members not present at the meeting (W. Grabs and S. Murai) briefly stating what happened and informing them that their names have been suggested for specific Working Groups;

Secretariat to prepare a standard set of overheads and slides that can be used by the SC members for GTOS presentations in meetings;

Secretariat to organize next SC meeting.

Appendix 1: List of Participants

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Appendix 2: What is GTOS?

GTOS is:

A facilitator to encourage the open and free exchange of data and assure both developed and developing countries, equal access to the data;

A broker of data to facilitate data discovery and understand user needs;

A source of quality control of data sets to promote the development of translation protocols to harmonise measurement methodologies;

A source of coherence and reliability in data collected by partners, in part, by identifying gaps and evaluating metadata;

A provider of guidance in data analysis and interpretation to meet user requirements, including “quick” methods such as rapid rural appraisal and data aggregation and extrapolation;

A promoter of collaboration between existing observation sites and of new initiatives to fill key gaps in information and understanding of managed and natural ecosystems.

A programme that focuses on bio-physical data and socio-economic data;

A partnership of partnerships.

GTOS is NOT:

NOT a source of funding but does assist others in seeking funds for scientifically sound work that is consistent with its objectives;

NOT a source of primary data;

NOT responsible for any ongoing research programme.

Appendix 3: Working Groups

Each of the working groups will establish their own terms of reference.

Implementation Plan

Purpose: To develop an implementation plan for GTOS

Members

Mickey Glantz (leader)
Michael Gwynne
Tony Janetos
David Norse
Claudio Caponi
Gwynneth Martin
Chris Magadza
Shidong Zhao
Jelila Benzarti
Anatoly Shvidenko

Coastal Zones

Purpose: To develop a strategy for GTOS to deal with coastal zone issues.

Members

Vineeta Hoon (leader)
Antonio Cendrero
Chris Magadza
Mickey Glantz

Site Criteria

Purpose: To develop a draft set of criteria that would be required for sites to join the GTOS network.

Members

Peter Jones (leader)
David Norse
Vineeta Hoon
Jelila Benzarti
Shidong Zhao
Anatoly Shvidenko
Tony Janetos

Biodiversity

Purpose: To develop a strategy for how GTOS will develop the Biodiversity issue

Members

Tony Janetos (leader)
Vineeta Hoon
Anatoly Shvidenko
Chris Magadza
Michael Gwynne
John Busby
Shidong Zhao

Social Issues:

Purpose: To determine how to handle the societal issues within the context of GTOS

Members

Mickey Glantz (leader)
David Norse
Vineeta Hoon
Jelila Benzarti
Michael Gwynne

Earth Science:

Purpose: To develop a strategy for dealing with land degradation issues

Members

Antonio Cendrero (leader)
Claudio Caponi
Anatoly Shvidenko
David Norse
Wolfgang Grabs (Not at meeting)
Johannes Bouma