

prepared to implement an integrated global ocean observing system for climate and that the new Argo\* floats initiative of GOOS is an essential element to provide insitu ocean observations, especially in data sparse regions. (\* Argo is the Array for R/T Geostrophic Oceanography.)

- The terrestrial climate component has initiated 2 networks, jointly with the Global Terrestrial Observing System. The Global Terrestrial Network (GTN) for Glaciers and GTN for Permafrost should provide sensitive indicators of climate change. A third network of terrestrial carbon flux measurements will be central to efforts on the terrestrial carbon cycle.
- In addition, the Global Observing Systems are working closely with the Committee on Earth Observation Satellites (CEOS) to assess the capabilities of integrated satellite and ground based measurements to improve climate measurements, as a part of the Integrated Global Observing Strategy (IGOS).

Mr. Chairman, I would like to briefly describe the progress since the 4<sup>th</sup> session of the Conference of Parties. We have interacted with the governing bodies of WMO, IOC and the International Council for Science (ICSU) on these issues and worked closely with the UNFCCC Secretariat to provide input to two documents.

#### **Guidance for Reporting on Global Climate Observing Systems (FCCC/SBSTA/1999/13/Add.2)**

On behalf of the global observing systems for climate, GCOS has prepared draft guidance for the preparation of national communications on systematic observations by Annex I Parties and where appropriate for non-Annex I Parties. To date, Party reports on systematic observations have used different formats, provided diverse inputs, and been of limited value. This guidance, if adopted, should provide for more uniform and comprehensive information and enable a more useful analysis of the global observing systems for climate, being implemented by the Parties. Moreover use of the guidance by non Annex I Parties could provide a basis for ascertaining both their technical and financial needs.

#### **GCOS Issues related to the Global Climate Observing Systems (FCCC/SBSTA/1999/10)**

We have begun the process to respond to the other issues contained in Decision 14, including identification of deficiencies, implementation of regional workshops, and consideration of an Intergovernmental process to address priorities and funding.

1. Mr. Chairman, while I earlier discussed recent positive developments in global observing systems; there are significant deficiencies in the current observing systems. Analyses from WMO, ECMWF and Meteo France respectively indicate shortcomings in the GCOS Surface Network (GSN) and GCOS Upper Air Network and in the coverage of the present surface ocean systems. The problem areas for all systems are regional in nature. The GSN and GUAN include "silent stations" (those that do not report any data) and those that report less than 50% of the time. These problems result from inadequate equipment, need for training of personnel and a shortage of operating funds for personnel, supplies and maintenance.
2. Decision 14 invited agencies participating in the Climate Agenda to initiate an Intergovernmental Process to address priorities for action on global observing systems. This was explored at the third session of the Inter-Agency Committee for the Climate Agenda, at the 13<sup>th</sup> session of the WMO Congress and through informal consultations at other