

US EPA ARCHIVE DOCUMENT

# *Global Terrestrial Observing System*



*Update on GEO Work Plan Task CL-06-03:  
Key Terrestrial Observations for Climate*

User Interface Committee Meeting  
1-3 August 2007, Washington

# Key Terrestrial Observations for Climate

Develop intergovernmental mechanisms for coordinating terrestrial observations needed for climate studies and forecasting. Develop a framework for the preparation of guidance materials, standards, and reporting guidelines for terrestrial (including land-coast interface) observing systems for climate and associated data, metadata, and products to expand the comprehensiveness of current networks and facilitate exchange of data.



# Outputs and Progress

1. **A Framework for Terrestrial Climate-Related Observations: Implementation Options** (Progress Report to the 26th Meeting of the Subsidiary Body for Scientific and Technological Advice, May 2007)
2. **Assessing the Status of the Development of Standards for the Essential Climate Variables in the Terrestrial Domain** (Progress Report to the 26th Meeting of the Subsidiary Body for Scientific and Technological Advice, May 2007)



# Framework Report

- Focuses on:
  - the required mechanisms to establish such a framework
  - costs of establishing and running
  - mechanisms for the endorsement of standards and guidelines and requirements that would be needed for national endorsement and implementation
  - an analysis of the advantages and disadvantages of different approaches provided to allow the adequate appraisal by the stakeholders
- Report describes three options for establishing a TCF, and compares these from a number of perspectives. It then discusses the implementation issues associated with each option.



# Three TCF options

- Option A (intergovernmental): Terrestrial Joint Commission
- Option B (ISO): Terrestrial Committee
- Option C (international): Terrestrial Observations Mechanism



# Standards Report - Individual ECV

- T1 River Discharge
- T2 Water Use
- T3 Ground Water
- T4 Lake level
- T5 Snow Cover
- T6 Glaciers and Ice Caps
- T7 Permafrost and Seasonally-Frozen Ground
- T8 Albedo
- T9 Land Cover
- T10 Fraction of absorbed photosynthetically active radiation
- T11 Leaf Area Index
- T12 Biomass
- T13 Fire disturbance



# Land Cover Standard

- Definitions and units
- Existing in situ measurement methods and standards
- Existing satellite measurement methods and standards
- Conclusions
- Recommendations
- References



## Results of SBSTA 26

- At its 26 Session, the SBSTA agreed to consider the reports, as well as any updates received by the GTOS secretariat, at its 27<sup>th</sup> session (December 2007) when it considers issues relating to systematic observation.
- SBSTA 26, session 6, Draft conclusions 488kb, v01, May 2007



## Next steps

- GTOS will further proceed in the development of the preferred framework mechanism and submit updates to SBSTA 27.

