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MER/JLW

Information Note on Progress on Carbon and Biomass Accounting for the London Group Meeting 27-30 April Canberra

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During the London Group meeting in Brussels Sep 2008 EEA committed to organize a workshop focussing on carbon, biomass and soil accounting. It was planned to conduct the workshop in April 2009 in close cooperation with FAO and Statistics Finland but due to time constraints this was not possible within the given time frame.

Meanwhile EEA worked on establishing a network of experts from national and international organizations (FAO, UNFCCC, UNSD, OECD, JRC, European Commission, ESA, Eurostat, EFI, GEOSS, GOFC-GOLD etc) and scientific institutions (e.g. IIASA, VITO, MPI Jena, several universities) ready to discuss feasible approaches and restrictions for carbon, biomass and soil accounting. Current focus is on Europe as test case and due to EEA's mandate and global level.

A few entry points for global and European accounting:

- Modis/fAPAR, LAI and GPP/NPP data sets derived from remote sensing data as baseline
- European Space Agency DUE programme for remote sensing based seasonal composites for change detection (e.g. GlobCarbon project)
- Fluxnet data for seasonal vegetation – atmosphere exchange (sites only)
- FAO inventories (agriculture and forest – in particular FAO FRA 2010 remote sensing survey carried out with EC-JRC support) and national data
- GhG emission inventories, ocean sinks and inverse modelling for validation of stocks and flows in the context of consistency check of the global carbon cycle
- Modelling approaches especially global vegetation modelling for carbon and biomass stocks on biome level and interannual variability driven by weather and climate (baseline), HANPP (human appropriation of NPP) etc.
- Soil carbon data especially JRC (soil atlas of Europe), IIASA (global soil carbon model based) and ISRIC data (global inventories)



In parallel EEA is working on the accounting framework. This takes into account the 3 tiers implementation of ecosystem accounts which are National Full SEEA accounts, Global Simplified accounts (presented as the ‘cube approach’ - see presentation of Jean-Louis Weber) and Local and Business scale detailed targeted accounts. For the 3 tiers, the framework includes quantitative accounting balances (stock and flows) and “anomalies” recording. Accounting will be applied for Europe and on global in level in close connection with on going programmes ‘beyond GDP’, “Basket of 4 indicators” (of which ecological footprint and HANPP), ‘Green Economy’ etc.

Next steps in the framing of carbon and biomass accounts will be:

- A workshop organized by EEA for discussing needs and gaps in environmental monitoring (13-15 May 2009 in Copenhagen) with UN Conventions (UNFCCC, UNCD, UNCBD), global monitoring programmes (GTOS, GCOS, GOOS, GLC, IGBP), WMO, UNEP, GEOSS, regional agencies (EUMETSAT, WCMC, European Space Agency), European Commission, JRC, EUROSTAT, NOAA, USEPA etc...
- The envisaged FAO workshop currently planned for August 2009 in Rome
- Strengthening the operational capacity of carbon and biomass monitoring in the framework of the GCOS Essential Climate Variables (ECVs) implementation which is currently revised in GCOS and discussed in the GMES implementation process. ECVs may also be addressed on strategic level in the next World Climate Conference (WCC-3, 31 Aug - 03 Sep 2009, Geneva)
- Tests for including carbon, biomass and soil accounting together with land cover, biodiversity (regarding in particular REDD) in the EEA communication for UNFCCC COP15, Copenhagen Nov-Dec 2009.