

C2 Emissions & Exchange at local, EU and global scales

Chair: Almut Arneth & David Simpson

14 Participants

Approach: discussion, progress and issues.

WP8: Assessing Local and Regional Variations:

8a) Synthesis of existing local models - Deliverable late, but non-essential. Albert will produce.

8b) Running high-resolution models

EMEP4UK: modelling of NL+UK at 1km scale, 2008, under control. No problems :-)

NitroScape: large problems, so contingency modelling of the 2 landscapes will be discussed for delivery to WP17.

8c) Development of sub-grid module for EMEP. Needs fresh start, will be discussed (Mark Theobald, Massimo, Dave,)

WP7 Modelling Air Pollution & Deposition

7a) CTM ensemble – runs done for 2009 comparison (8 CTMs, lead Roy) and EnsClim climate simulations (4 CTMs, lead Dave). AQ maps “delivered”. (Many details to be analysed.)

7b) 150 years of O₃ and N-dep delivered from EMEP to ecosystem modellers. MATCH model results can also be provided.

7c) Issues? M36 deliverable should be new EMEP SR using Eclairé improvements. Seems early, and probably not sensible. Delay?

WP6 Emissions on regional, European and global scale

6a) BVOC emission work seems under control, with effects of climate and CO₂ (LPJ-GUESS, ORCHIDEE).

6b) Some implementations of soil NO (ORCHIDEE), but needs updated fertilizer maps. Landscape-DNDC.

6c) Soil NH₃ emissions need more work in ORCHIDEE; simple approach needed.

6d) Forest-fires (to 2050...) in progress (LPJ-GUESS)

6d) Dynamical European-scale NH₃ emissions in progress, but some issues.

WP5 Past and future changes of atmospheric pollutants transported into Europe

5a) Initial deliverables delayed, but no impact of other WPs so far.

5b) Paper on impacts of external ozone-trends on European ozone (combines HTAP results with EMEP model) in advanced stage, should be submitted soon.

5c) LMDZ-INCA model has been run for 1960-2010, and will cover future climate. Model data will be available for European CTMs, with impacts of CO₂, temperature, etc. Seems under control (need to define data-exchange ideas with European scale very soon).

Other

More feedback appreciated, from C2 leaders and ECLAIRE (report distribution)

Summary

Some issues, but C2 generally under control.

Need to arrange experiments to demonstrate importance of soil-emissions, BVOC, forest-fires for O₃ and N-deposition.