

Status on Med-cordex FPS aerosol (F. Solmon, ICTP / CNRS -LA)

- A document has been produced for the implementation and timeline of activities within the FPS. Cf <https://docs.google.com/document/d/12GOR2cgEgKdHAMAZA9QRA2NSE9hG7psLmng1jz04Cw8/edit>

- A talk has been given at EGU 2017 , regional climate modelling session.

- A special session is planned at the med-cordex workshop in Barcelona, July 2017.

In the the above mentionned document, we have identified two protocols :

-Protocol 1 , external aerosol forcing :

We are still in the process of gathering groups to particpate to this exercice. So far we have 3 confirmed RCM willing to participate (Aladin, RegCM, WRF) . Technical decision regarding the prescription of aerosol climatology needs to be made. This will be a major topic at the next Barcelona meeting.

-Protocol 2, interactive aerosol :

- A first activity within protocol 2 is to evaluate aerosol simulations withing different RCM , on the documeted ADRIMED period (JJA 2013) . In this intercomparison, not only RCM but also meso-scale model and regional chemistry transport model are participating : Aladin (CNRM, Meteo France), Mocale (CNRM, Meteo France), RegCM4 (ICTP, LA/CNRS, U. Thessaloniki) , WRF-Chem (National Observatory of Athens), WRF (U. Thessaloniki), Chimere (IPSL/CNRS, France), MesoNH (LA/CNRS), COSMO (Leibniz-Institut für Troposphärenforschung), Geos-Chem (LA/ CNRS).

We are hoping to finalise the analysis of this ensemble of short terms simulations by the end of the year. We are also hoping to gather the participation of more RCM, but not all of them have prognostic aerosols.

- For ceratin groups and models , in particular CNRM/Aladin and ICTP/RegCM hindcast and climate change experiments (listed in the above mentionned shared document) involving interactive aerosol for RCP8.5 and CP2.6 and using different GCM for LBC, have already been carried out and are presently being analysed. These simulations constitutes a good starting basis for the ensemble to be produced, and help defining scientific questions and analysis to be produced. They shall be completed by other runs involving a more complete description of aerosol (notably for the nitrate and secondary organic aerosol components). Other groups (e.g . U. thessaloniki) confirmed their intention of running hindcast and scenario with interactive aerosol as well.

In conclusion.

Activities in the FPS have started, and first results are being produced. But the the effort should intensify within the next 6 months.

More RCM groups should be convinced to participate, perhaps by making the simulations constraints more flexiblee. We hope to achieve this at the next Med-CORDEX workshop