

Round-table PS2a

Long-term hydrometeorological observatories over land

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concept

- Long-term = LOP, at least
- A consortium of research labs and operational entities (meteorology, hydrology) operating on a given site/target area, preferably led by a scientist
- An observation strategy based on:
 - Optimal use of operational meteorological and hydrological data
 - Hydrometeorological process studies on so-called « super-sites » (e.g. small scale watershed of some 10 km²)
 - Integrative studies at the regional scale (water use *versus* land use; risk assessment and management; vulnerability...) on so-called « pilot-sites » (e.g. nested watersheds of some 1000 km²)
 - For extreme events, the ability to perform post-event surveys wherever they occur in the Med during HyMeX
- Free access to the HO datasets for the HyMeX community
- Possibility to host HyMeX instruments during EOP/SOP
- Not the good tool for accessing to standard operational meteorological data (ptu, RS...); focus on water cycle variables (rain, soil moisture, ET, river discharge...)

WG2 and WG3

- Main target regions for WG3:
 - Spain: region of Valencia + Isles Balears, region of Catalunya
 - France: Languedoc-Roussillon, Cévennes, Provence Côte d'Azur
 - Italy: Liguria, Friuli+Veneto
 - Croatia: Dinaric Alps
 - Creta
 - To be confirmed: Israël, Northern Africa?
- For WG2, flux measurements are critically needed. In addition to the WG3 target regions:
 - Crau-Camargue, a pilot-site
 - Duero basin (Remedeus), a super-site, University of Salamanca (Med?)
 - SMOSMANIA would integrate OHM-CV
 - Evapotranspiration time series to be networked in Southern France / the CarboEU network / Various ET sites in Italy
 - The SICMED sites in Tunisia and France?
 - Balkans: MEDHYCOS?

inventory

Identified HOs:

- OHM-CV, leader: G. Delrieu
- North-Eastern Italy HO, leader: M. Borga
- Creta HO, leader: M. Anagnostou, a EOP HO (like Corsica) rather than a LT HO

Potential HOs:

- Valencian HO, contact persons: ?
- Catalan HO, contact persons: MC LLasat, D Sempere-Torres
- PACA HO, contact persons: ?
- Ligurian HO, contact persons: Giorgio Roth, Giorgio Boni, Francesca Gianonni
- Croatian HO, contact person: ?
- Israël HO, contact person: Efrat Morin
- Other for WG2?
- ...

To be done:

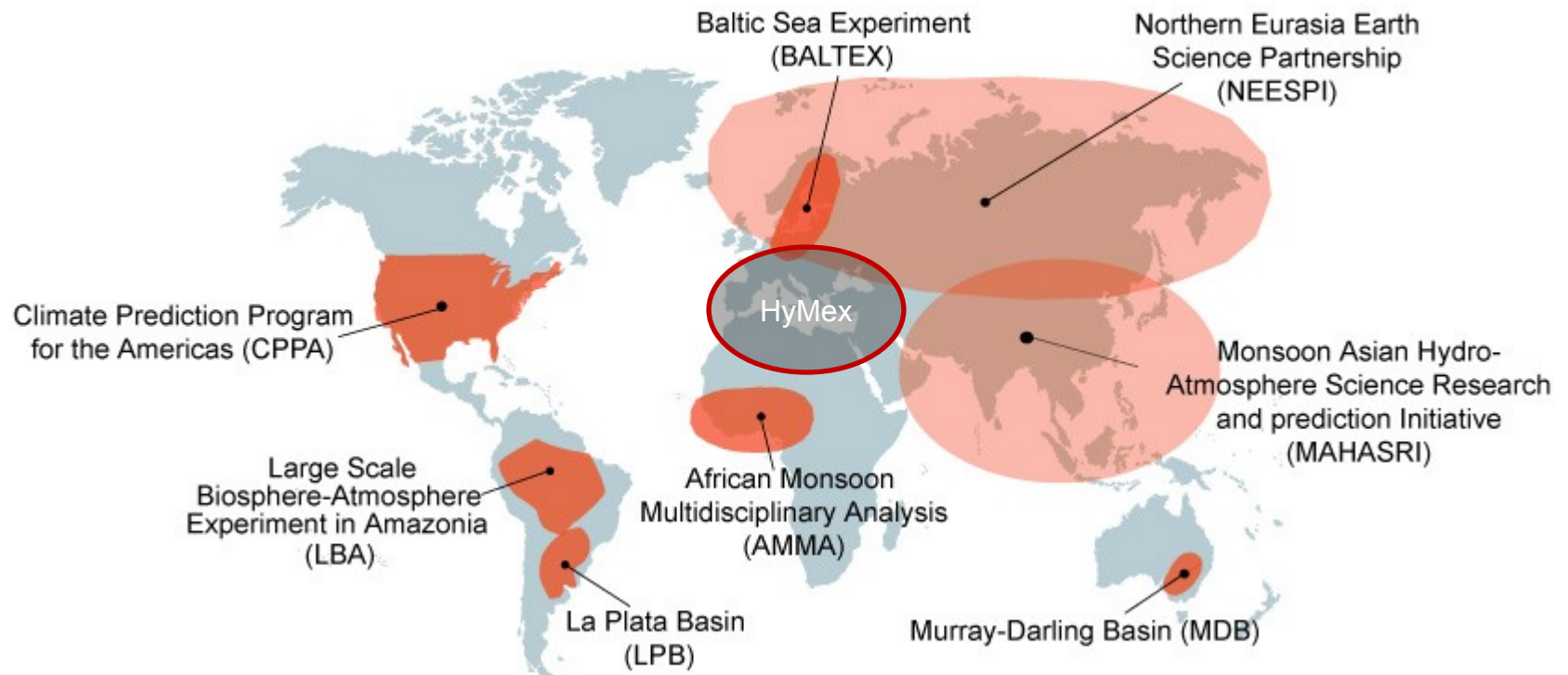
- Inventory of super-sites per HO (and orphan super-sites as well): leader and team, specific processes, instrumentation, needs (instrumentation, manpower)...
- Inventory of pilot-sites (thematics, instrumentation, manpower, needs...)
- Complementarity; sampling various Mediterranean landscapes and thematics

TTOs, (TTMs) and TS

- « TTO = HO »
 - definitely makes sense since an HO offers a team and an observation strategy on a given site or target area
 - can contribute also as a TS for logistics
 - critical need: HO coordination
- « TTO = instrument »
 - May make sense as well for:
 - Networked instrumentations (soil moisture, ET)
 - Mobile X-band radars and disdrometers: we will consider the possibility to involve several mobile X-band radars from Greece, Switzerland, USA to reinforce HO and fill in some gaps in southern and eastern Med.
 - River monitoring: LSPIV, ADCP, sediment transport
 - ET: flux towers and scintillometry
- TS
 - HO coordination (including super-sites coordination)
 - Databases, including landscape and hydromet variables

Becoming a GEWEX/CEOP regional hydroclimate project

GEWEX REGIONAL HYDROCLIMATE PROJECTS



GEWEX Requirements: CEOP REFERENCE SITE DATA CATEGORIES

In order to set up data release guidelines which balance the interests of both data users and providers in the light of the above mentioned constraints it was considered useful to divide CEOP reference site data into the following two categories:

Category 1: Standard data. (e.g. Rawinsonde, surface standard meteorology)
Low or common exploitation value, measurement technology common, generally well understood, little or no problems with data interpretation.

Category 2: Enhanced or Experimental data. (e.g. flux or tower data, soil profile data, wind profiler)
High exploitation value, measurement technology sophisticated and/or of experimental nature, contact to PIs recommended for correct interpretation of data, high efforts necessary to maintain continuous measurements and high quality of data. These data are often taken for specific research purposes and always maintained by a specific research group and/or the station or instrument PI.

See <http://www.eol.ucar.edu/projects/ceop/dm/>

GEWEX Requirements: Data Release Requirements

Ideally, data should be ready for general release after some specific period following its acquisition, during which the exchange process between the data provider and the CDA, including quality control and assurance, will have been completed. Six months is generally a suggested guideline as an appropriate length for this data turn-around period.

It is nevertheless recognized that there may be instances when this turn-around time shall deviate from six months. This may be the case in particular for protecting the data provider's own interest for the data of a specific instrument (or several instruments) at his/her site. In order to avoid a too complex data availability system, it is suggested that all reference site data taken for CEOP shall be categorized into standard (category 1) and enhanced or experimental(category 2) data. See section 3 for definition of these categories. Standard data shall be freely open to the science community after the basic turn-around period of six months. Enhanced or Experimental data shall be freely open to the science community after a prolonged turn-around period of 15 months at maximum.

GEWEX Requirements: PI responsibilities for high quality instrumentation

CEOP reference sites are equipped with sophisticated, state-of-the-art instrumentation and shall comply with strict requirements of station maintenance, exposure of instruments, calibration, quality assurance procedures and the like, in order to achieve the highest attainable standards of measurement, accuracy, representativeness, stability and repeatability. To ensure that this goal is reached, PIs who are leading experts for the instruments used at respective CEOP sites are often taking responsibility for individual instruments operated at the respective CEOP reference site..

Sites identified for GEWEX

- Western Crete (Manos Anagnostoy)
- Northern Italy (Marco Borga)
- France (OHM-CV, potential multiple sites)
(André Chanzy, Guy Delrieu)
- Croatia (Branka Ivancan-Picek)
- Maybe Spain and Israel.. (Francesc Gallart, Efrat Morin) - to be confirmed shortly

What exactly is a Cat 1 and Cat 2 site...?

How much data?, the formal procedure....

Concerns about the data quality on GEWEX..

Confirmation of sites and the 'current plan' to engage with GEWEX

- Steve Williams (sfw@ucar.edu) has been contacted by e-mail – (reference sites and river basins)
- Forms and information will be sent to site contacts
- Confirmation of initial sites for 16th June meeting will need to have rapid communication returns
- Additional sites can then be added later.....