Informative note on the Second WMO/MEDARE International Workshop:

Addressing climate data sources and key records for the Mediterranean Basin in support of an enhanced detection, prediction and adaptation to climate change and its impacts

This note is mainly addressed to the MEDARE WG1 members and aimed at providing information on the scope and previous requirements to be accomplished by the invited attendees (WG1 and SG members) for attending the second MEDARE workshop to be held on the 10-12 of May 2010.

In order to ensure a successful workshop, WG1 members will play a pivotal role before, during and after the activity. As expert staff of the climatological branch at your NMHS, you are in the best position to identify for your country those *long-term* climate records that are essential for defining climate reference networks, which can be confidently used in, for instance, climate change assessments at national, sub-regional and regional scales once developed. The records to be targeted should be the longest, potentially best and continuous time series, which cover reasonably well the different climate types and variants within a country. The exercise will be essential to identify the climate reference networks for the Mediterranean Basin and, therefore, to target and prioritize those records to be urgently rescued and developed.

Then, we are asking you for:

1. The identification and selection over your country of a set of the longest records to be developed (digitized, quality controlled and homogenized), which can be confidently used in climate variability and change assessments and climate applications at both national and regional/sub-regional scales.
2. The provision of a basic metadata on the selected network/stations and individual records.

The attendees, then, will have to identify, and present/discuss at the workshop, the key stations and long records available in their countries both in digital form and other formats (paper form, microfilms, scanned, photographs, etc).

Rationale for selecting the climate reference networks:

The rationale for selecting the network on a country-by-country basis is based on various criteria, including temporal and spatial coverage, climatic representativeness, long-term continuity of data and potential data quality at highly monitored sites (synoptic or first order stations), as follows:

1. Time resolution: daily
2. Length of records: The longest possible records, which will depend on the country meteorological history. Both official and pre-official observations might be considered, in order to extend back in time as far as possible the targeted records.
3. Spatial resolution. The density of the network will depend on the targeted variable (i.e. minimum density for air pressure and maximum for precipitation data). You might use your expert knowledge to define which would be the minimum network for being able to undertake robust assessments on climate variability and change over your country and over other spatial scales (sub-regional and Mediterranean basin).
4. Climatic representativeness of the records: records have to be at well-spaced locations and be representative of the different climatic variants and sub-types of the country (i.e. coastal areas, mountain sectors, inland stations, etc.)
5. Records have to belong to currently in use stations (first order and/or synoptic stations are prioritised) and the station might continue so for the foreseeable future.
6. Data completeness: the most continuous record, with less missing data/periods and more reliable data, has to be the focus of the selection exercise.

Basic metadata to be collected/provided (prior to the workshop) and discussed (in the workshop)

Previously to the workshop takes place, you will also have to provide a basic metadata inventory of the identified/selected records for your country and their sources, particularly for non-digitized data and pre-official network observations.

The targeted essential climate variables are listed in order of importance to be documented:

1. temperature (daily maximum and minimum values),
2. precipitation,
3. wind (speed and direction)
4. humidity
5. air pressure (mean station pressure)
6. sunshine duration
7. cloud cover

However, attendees should be first focused on documenting temperature, precipitation and air pressure data. The metadata inventory includes both entries of the observational history of the stations (stations metadata) and for the individual records (variables metadata). For your guidance a friendly on-line

metadata inventory portal has been implemented at the MEDARE website and will be available in a couple of days (it will be communicated by email).

The basic metadata inventory for your country will have to be uploaded in advance (not later than early-May 2010) through the MEDARE website (URL and user codes will be provided later).

The tentative workshop Agenda is also attached. Please, let Omar Baddour (OBaddour@wmo.int) and Elena Xoplaki (elena.xoplaki@giub.unibe.ch), Stelios Pashiardis (spashiardis@ms.moa.gov.cy) and me (manola.brunet@urv.cat) know as soon as you can if you are willing to take part in the meeting and are happy giving a talk on the metadata inventory for your country. Official invitation letters will be sent by WMO to Med NMHSs PRs for making possible your attendance. In your talk it is expected you discuss for each variable the optimum climate reference networks to be targeted for your country, giving details on the currently available digitized and non-digitized data, the current sources and holders and possible ways to address non-digitized data, etc. Please, also assess the stations/records to be first targeted over your country, as well as discuss the contents of the complete metadata base you would like to have for efficiently guiding the homogenization of the records.

The MEDARE Steering Group is persuaded your active participation before, during and after the workshop will be crucial for targeting the key station and records to be rescued and developed, as well as for defining a MEDARE data exchange policy to be agreed by MEDARE members and the best strategies to carry out MEDARE projects, which contribute to enhance the knowledge of the Mediterranean climate change.