

CLIMAGRI – Climate Change and Agriculture

FAO/UCEA CLIMAGRI^{med} PROTOCOL FOR COLLABORATION

Development of a network in the Mediterranean region on climate change and agriculture

Technical component (iii)

Quality and homogeneity of meteorological data for construction of climate change scenarios

Report of the First Mission from Cyprus and Morocco

Scope: To attend a training session on the application of homogenising methods to long-term climatic time series.

Duration: 17 – 18 May 2005

Place: Bologna (Italy). Istituto di Scienze dell'Atmosfera e del Clima (ISAC, Institute for Atmospheric and Climate Sciences) of the Consiglio Nazionale delle Ricerche (CNR, National Council for Research).

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Description of the training session: In the last decade the scientific community has become increasingly aware of the fact that the real climate signal in original series of meteorological data generally lies hidden behind non-climatic noise caused by station relocation, changes in instruments and instrument screens, changes in observation times, observers, and observing

routines, algorithms for the calculation of means, and so on. So at present time the statement that time series of meteorological data cannot be used for climate research without a clear knowledge about the state of the data in terms of homogeneity has a very large consent. There are different ways for solving homogeneity problems, and the choice of the most suitable one not only depends on the data-set characteristics (metadata availability, station density, and so on), but is also influenced by the homogenisation "philosophy" adopted by the research group that performs homogenisation.

Within this context, ISAC-CNR has organised a training session aiming to explain its approach toward the use of homogenisation methods for the analysis of time series of meteorological data. Homogeneity tests, methods, limits and benefits of homogenizing meteorological records have been discussed, and a demonstration of the homogenisation of real time series was given.

Institute of Atmospheric Sciences and Climate, Historical Climatology Group:
http://www.isac.cnr.it/~climstor/hom_training.html