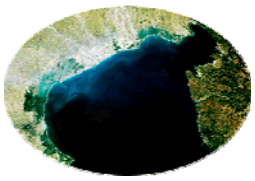

The climate in the Venetian and North Adriatic region: variability, trends and change

workshop

Venice, 27-29 October 2008

TOPIC T5. Regional Climate Change

A review of climate change scenarios for the Mediterranean and North Adriatic regions

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Short abstract:

This paper will present a review of climate change scenarios and associated uncertainties obtained from the latest generation global and regional climate models for the Mediterranean region in general and the North Adriatic area in particular. Some results from the drainage basin of the Venice Lagoon will be discussed as obtained from a high resolution (20 km) regional climate model simulation. It will be shown that the Mediterranean region is projected to be particularly sensitive to greenhouse gas induced global warming, both in terms of temperature and precipitation change. The change signal over the Mediterranean shows a north-south structure which migrates seasonally throughout the year. The Northern Adriatic, in particular, lies in a transition region where the precipitation change signal changes sign across seasons and therefore it is characterized by a relatively high uncertainty. Research needs and plans to improve fine scale projections for this area and reduce related uncertainties will be discussed.