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Nota di contenuto	PART I: Air, Sea and Precipitation -- Introduction -- 1. Past and Current Climate Changes in the Mediterranean Region -- 2. Future Climate Projections -- 3. Mechanisms of Climate Variability, Air Quality and Impacts of Atmospheric Constituents in the Mediterranean Region -- 4. Detection and Attribution -- Summary and Major Findings -- PART II: Water -- Introduction -- 5. The Hydrological Cycle of the Mediterranean -- 6. Impacts of Climate Change on Freshwater Bodies: Quantitative Aspects -- 7. Impacts of Climate Change on Water Quality -- Summary and Major Findings -- Index.
Sommario/riassunto	This is volume 1 of a three-volume final report which thoroughly describes, synthesizes and analyzes the results of the four-year Integrated Research Project CIRCE – Climate Change and Impact

Research: Mediterranean Environment, funded by the EU 6th Framework Programme. Conducted under the auspices of the National Institute of Geophysics and Volcanology in Rome, Italy, CIRCE was designed to predict and to quantify the physical impacts of climate change in the Mediterranean, and to assess the most influential consequences for the region's population. This volume incorporates the first two parts of the report, reviewing current knowledge of observed climate variability and trends in the Mediterranean, and including descriptions of available temperature and precipitation station and gridded data sets. Part 1 deals with analyses of the physical aspects of climate change in the Mediterranean, assessing possible changes under greenhouse concentration scenarios, estimating uncertainties, detecting and attributing past and present changes, understanding mechanisms and evaluating their relevance in the problem of climate change. Part 2 offers an overview of water resources, and reviews the impacts of climate change on the hydrological cycle of the region. Volume 2, subtitled Agriculture, Forests and Ecosystem Services and People comprises Parts 3 and 4 of the report. These focus respectively on ecosystem services and socio-economic impacts of climate change in the Mediterranean region. Volume 3 presents case studies performed in CIRCE, representing urban, rural and coastal environments and drawn from the north and the south of the Mediterranean shore. Regional Assessment of Climate Change in the Mediterranean represents a research initiative of unprecedented size and scope. Each volume is carefully constructed to stand alone, offering a wealth of information and insight. Beyond its own significant value, the report is expected to contribute to a rapidly expanding body of research and analysis on the topic.