FINANCIAL DECISION MAKERS NEED WEATHER AND CLIMATE INFORMATION TO MANAGE RISKS

WASHINGTON — Nov. 20, 2013 — Maximizing returns on financial investments depends on accurately understanding and effectively accounting for weather and climate risks, according to a new study by the American Meteorological Society (AMS) Policy Program.

The study also found that weather events create and exacerbate risks to financial investments by causing 1) direct physical impacts on the investments themselves, 2) degradation of critical supporting infrastructure, 3) changes in the availability of key resources, 4) changes to workforce availability or capacity, 5) changes in the customer base, 6) supply chain disruptions, 7) legal liability, 8) shifts in the regulatory environment, 9) reductions in credit ratings, and 10) additional impacts that alter competitiveness (e.g., shifts in consumer preferences).

The study is based on a recent AMS Policy Program workshop, Climate Information Needs for Financial Decision Making, held in Washington, DC earlier this year and conducted in partnership with the University Corporation for Atmospheric Research (UCAR). Financial analysts, investors, academicians, and key leaders from the business, financial, and climate research communities convened to examine the role of climate science in financial analysis.

The purpose of the study was to assist with societal decision-making by examining the implications of climate variability and change on near-term financial investments.
To overcome communication barriers that stem from technical terms often used in scientific assessments, the AMS report proposes three pre-defined levels of certainty for communicating with user communities about future climate impacts: 1) possible, 2) probable, and 3) effectively certain. For example, the study reports that it is effectively certain that a change in climate will alter weather patterns. It is probable that climate warming will cause increases in the intensity of some extreme events. It is possible that climate change will cause major and widespread disruptions to key planetary life-support services.

The report concludes that financial investments face a range of risks due to existing weather patterns and climate variability and climate change. Even small changes in weather can impact operations in critical economic sectors. At the same time, climate variability and change can either exacerbate existing risks or cause new sources of risk to emerge.

“Near-term financial decisions have long-term implications for the United States’ social and economic well-being that depend, in part, on climate variability and change,” said Paul Higgins, director of the AMS Policy Program. “In an increasingly competitive global environment, nations that invest most effectively with respect to weather and climate risks will have an important competitive advantage.”

“It’s smart business to incorporate the latest weather and climate knowledge into financial decisions,” said Thomas Bogdan, president of the University Corporation for Atmospheric Research. “This is an important example of the business and research communities working together to strengthen financial investments and the larger U.S. economy.”

Gary Geernaert, director of DOE’s Climate and Environmental Sciences Division, states that “it is critical that federal investments to advance climate science for use by both public and private stakeholders must place significant priority on incorporating uncertainty quantification methodologies into modeling frameworks. In this way, projections would contain sufficient
information for risk analysts to provide more informed recommendations to financial decision makers. The workshop was an excellent step in the right direction.”

The American Meteorological Society’s Policy Program intends to conduct a series of follow-on activities to continue the collaboration between the financial decision-making and scientific communities established by the study and to help put the report’s recommendations into practice.

The full report is available at the American Meteorological Society Policy Program Web site at www.ametsoc.org/cin.

About the AMS Policy Program

The American Meteorological Society’s Policy Program promotes understanding and use of science and services relating to weather, water, and climate. Our goal is to help the nation, and the world, avoid risks and realize opportunities associated with the earth system. We focus on three primary approaches to accomplish this goal: 1) we develop capacity within the scientific community for effective and constructive engagement with the broader society, 2) we inform the broader society directly about established scientific understanding and the latest high-impact research results, and 3) We expand the knowledge base needed to use scientific understanding for societal advancement, particularly through our studies, research, and analysis. To learn more, visit www.ametsoc.org/atmospolicy.

About the American Meteorological Society

The AMS promotes the advancement of the atmospheric and related sciences, technologies, applications, and services. Founded in 1919, AMS has a membership of more than 14,000 professionals, students, and weather enthusiasts. AMS publishes 11 atmospheric and related oceanic and hydrologic journals—in print and online, sponsors more than 12 conferences annually, and offers numerous programs and services.

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