



Globalization Program

Thursday, 20 February 2014, 4.15 pm

Opening Remarks

Amb. Umberto Vattani, President

Prof. Agar Brugiavini, Dean

Honored Guest

Dr. Marta Dassù

Deputy Minister, Italian Ministry for Foreign Affairs

Lectio Magistralis

Earth's Climate: Past, Present ... and Future

Prof. Carlo Barbante

Institute for the Dynamics of Environmental Processes-CNR

The Venice Centre for Climate Studies, Ca' Foscari University of Venice

Today, the climate of our planet is changing at an unprecedented rate, when compared to the natural variations that accompanied it over the last four and a half billion years. If we want to put the present and future changes of the Earth's climate in the right perspective, we must carefully examine how the system works under natural conditions. It is for this reason that scientists retrieve information from natural archives, such as marine sediments and ice cores, which give us unique information about the composition and temperature of the atmosphere in ancient times. This procedure also helps us reconstruct complex climate dynamics and improve climate models.

Welcome reception

Prof. Carlo Barbante is Director of the Italian National Research Council's Institute for the Dynamics of Environmental Processes, and Full Professor at the University of Venice – Ca' Foscari. His principal research interest is the development of analytical methods based on inductively coupled plasma mass spectrometry for the ultra-trace determination and speciation of elements in environmental, biological matrices and advanced materials. His work focuses on archives of atmospheric trace element deposition and environmental and climatic changes. The investigation of various trace elements in Greenland, Antarctic and Alpine snow and ice has provided a wealth of fascinating information on recent and past changes in the atmospheric

cycles of several trace elements at different time scales. Prof. Barbante is the Italian National Delegate to the European Union for Climate Action, Resource Efficiency and Raw Materials (Horizon 2020 Advisory Board).