Side event summary

Title: ***Global and Regional Impacts of Global Warming (DG RTD)***

COP-18, Doha, Qatar (EU Pavilion): 29 November 2012, 15:30-17:30

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Climate change is highly evident in the Polar Regions. Year-by-year, changes are being observed in polar environments, where the ice, the vegetation, and the fauna are changing in distribution, abundance and behaviour. These changes will in turn, have **far-reaching consequences** that will be felt across the globe, both in terms of **sea-level rise** and in **changing atmospheric and oceanic circulation patterns**. In summer 2012, Arctic sea-ice coverage reached a record low. Almost ice-free conditions could become the norm in the Arctic Ocean sooner than predicted by most models. This would amplify greenhouse warming by strongly reduced reflection of solar radiation.

This side event promoted by the DG RTD of the European Commission provided an overview of EU financial instruments for research (FP7, Horizon 2020) and showcased selected EU-funded research projects focusing on the Polar regions. International leading scientists presented latest scientific findings on the observed and projected impacts of climate change in the Polar regions from the EU-funded projects **Ice2Sea**, **ACCESS**, **Artic Tipping Points**, **THOR**, **DAMOCLES** and highlighted the implications for medium and long-term policy making.

Prof Jean-Claude Gascard, French National Research Council (CNRS) and University Pierre and Marie Curie, offered an overview of recent research results on major observed changes and trends in Arctic ice properties and behaviour, the related impacts on Arctic marine ecosystems, changes in ocean circulation and the overall impacts on economies and societies, focusing on sectors such as transport, mining and tourism.
Prof David Vaughan, British Antarctic Survey, focused its presentation on latest observed changes and projections of sea-level rise, focusing in particular on the contribution of continental ice mass from both Arctic and Antarctic regions to uncertainty in current projections. He highlighted in particular that sea-level rise will increase the risk of extreme events (storms, floods) in coastal areas, including major cities and unique ecosystems. The projected increase in frequency and intensity of such extreme events will have severe implications for investment decisions and the design effective adaptation strategies.

The discussions focused on the wider implications of changes in the Arctic for other world regions, and particularly on how policy-makers can deal with the current uncertainties in climate and sea-level projections. It was highlighted that as part of the policy-making process uncertainty needs to be explicitly recognized and that different actors (public/private) and levels of decision-making (national/local) require different type of information.