

## **Research and Systematic Observation – Research Dialogue**

### **Submission by the Republic of Nauru on behalf of the Alliance of Small Island States**

5 March 2012

*Research and systematic observation (SBSTA), Views from Parties on specific themes to be addressed at the research dialogue meeting to be held in conjunction with the 36th session of the SBSTA.*

#### **Introduction**

The Alliance of Small Island States (AOSIS) welcomes the conclusions on Research and Systematic Observation at the 35<sup>th</sup> session of SBSTA (FCCC/SBSTA/2011/L.27/Add.1), which highlight the importance of the research dialogue and the integral role that the IPCC plays in providing scientific information to Parties. Furthermore, AOSIS welcomes the invitation to submit views on the specific themes to be addressed at the research dialogue meeting to be held during the 36<sup>th</sup> session of the SBSTA.

AOSIS considers that the research dialogue is an important forum to facilitate discussions on scientific issues related to meeting the needs of the Convention.

AOSIS notes that the conclusions on this agenda item call for the research dialogue to be utilized “as a forum to discuss needs for climate change research and research-related capacity building, particularly those of developing countries; and to convey research findings and lessons learned from activities by research programmes and organizations, which are of relevance to the Convention.” Additionally, the SBSTA “invited relevant regional and international research programmes and organizations active in climate change research to provide, in the context of the research dialogue, submissions with information on developments in their research activities relevant to the Convention, including with respect to the long-term global goal referred to in decision 1/CP.16, paragraph 4, as appropriate.” In this context, the long-term global goal is a key research area that should be considered during the SBSTA dialogue on research. Furthermore, the focus on the long-term global goal should be on those particularly vulnerable developing countries such as SIDS and LDCs who will be most affected by the impacts of climate change and the ambition level of the long-term global goal.

#### **Key research areas for discussion**

The research dialogue has an important role to play, not only in facilitating an exchange between climate change research communities but to discuss those research findings which have policy relevance for the Convention. AOSIS considers that the IPCC’s Fifth Assessment Report (AR5) to be released during 2013 and 2014 and the 2013-2015 review agreed in Cancún are important processes where the research dialogue can contribute to and link with, as they will be essential to the discussion on the long-term global goal. Furthermore, both the long-term goal and

these processes should continue to be discussed annually as part of the research dialogue.

AOSIS proposes that the following issues related to the long-term global goal are discussed during the research dialogue.

- An assessment relating to emission scenarios, climate systems risks, impacts, vulnerability, adaptation and mitigation for different warming levels is needed. This should include the differences between different levels of warming and CO<sub>2</sub> concentration including in relation to 1.5°C and lower and higher levels of warming.
- Implications of a range of global warming levels, CO<sub>2</sub> concentrations and time horizons including:
  - Costs of mitigation to achieve these levels;
  - Feasibility of technological options;
  - Climate system and societal impacts;
  - Costs of adaptation;
  - Costs and non-monetary levels of “residual damages” using multiple metrics.

(This means an overview of all aspects surrounding different global warming levels above pre-industrial of 1.5°C, 2°C, 3°C, 4°C, 5°C relative to pre-industrial, as well as different CO<sub>2</sub> concentration levels such as 350 and lower, 450, 550, 650, 750 for the short (2020), medium (2050) and long (2100 and beyond) term.)

- Sea level rise risk assessments based on multiple lines of evidence including the paleo-record, contemporary ice sheet responses, process model based projections, and semi-empirical approaches.
- Assessments of ocean acidification and the interplay of acidification, ocean-surface warming, sea-level rise and local environmental issues that determine resilience and long-term survival of coastal and continental-shelf ecosystems and livelihoods.
- The relationship between different levels of warming and CO<sub>2</sub> concentration.
- Regionalized risk assessments for specific regions and sectors, including those identified as especially vulnerable such as SIDS and LDCs, for different levels of warming, sea level rise and CO<sub>2</sub> concentration related to different classes of emission paths and with assessment of impacts, costs, damages and adaptation needs.
- An assessment of the emission reductions needed to limit warming to 1.5°C and identification of the gaps in the literature for low mitigation scenarios to reach lower warming levels such as 1.5°C.

- Assessment of recent global and regional emission trends and how they relate to emission pathways consistent with different levels of warming at different timeframes, including estimating, *inter alia*, emission gaps in 2020.

For each of these issues, if appropriate, an assessment is required of the implications of global and regional research findings for smaller countries in light of local geographical, climatological, ecological and socio-economic circumstances and vulnerabilities, including the uncertainties in such findings, especially when large-scale data needs to be interpreted for policy development at a smaller spatial scale.

Experts from a range of scientific backgrounds, including IPCC authors will be needed to inform the discussions identified above and a list of such experts needs to be developed at the 36<sup>th</sup> session of the SBSTA.

### **Work programme**

AOSIS proposes that the SBSTA should develop a work programme for 2012-2014 for the research dialogue with additional, regular and systematic opportunities for in-depth discussion of the issues above with the research community.