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Small island states seek equitable post-2012 climate agreement

The ambition and architecture of the post-2012 climate change regime will be critical to the survival and sustainable development of many Commonwealth small island states. The impacts of climate change, long predicted, are now clearly being seen in small island nations across the Pacific, Caribbean and Indian oceans. Due to the inertia in the climate system, many of these impacts, including sea level rise, will continue to be seen long after greenhouse gas concentrations in the atmosphere have been stabilised.

At the climate talks in Vienna, in August 2007, the Alliance of Small Island States (AOSIS), a negotiating bloc of some 40 vulnerable small island countries, called upon the international community to use the avoidance of climate change impacts on small island developing states (SIDS) as one of the key benchmarks for effectiveness in designing the post-2012 climate regime.

This article sets out a series of elements highlighted by AOSIS in its submission to the fourth workshop of the UN Framework Convention on Climate Change Dialogue on long-term cooperative action (*Dialogue Working Paper 14*, 2007) and in its interventions in the fourth session of the Ad Hoc Working Group (AWG) on future commitments for developed country parties under the Kyoto Protocol, which took place in Vienna.

What does 2°C mean for small island states?

In connection with negotiations on emission reduction commitments for the post-2012 period, many developed countries have called for global efforts to limit the increase in global average surface temperature to no more than 2° above industrial levels. However it is increasingly clear that even this level of global warming will lead to devastating consequences for many for small island developing states.



Parotonga,
Conf Islands.
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Nukuoro Atoll,
Federated States
of Micronesia.
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SIDS are already experiencing the impacts of climate change. These include sea level rise from the thermal expansion of the world's oceans and the melting of land ice, coral bleaching from warming oceans, damage from increasingly severe hurricanes, cyclones and tropical storms, changes in precipitation patterns resulting in droughts and floods, coastal erosion, declines in crop yields, and decreased water availability.

According to the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Report, a further warming of about 0.6°C by the end of the century relative to 1980-1999 levels can be expected even if atmospheric greenhouse gas concentrations remain at 2000 levels; a 1°C increase in temperature above 1980-99 levels will imply significant coral bleaching, increased losses from flooding, and substantial species extinction (IPCC Working Group II, SPM).

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These impacts on natural systems are of enormous importance to SIDS. Coral reefs provide nursery habitat for near shore fisheries and a buffer against storm surge and coastal erosion, but they are themselves have low adaptive capacity to thermal stress. Mangrove ecosystems are another key coastal zone buffer, but they may be challenged to keep pace with accelerating sea level rise. A number of atoll countries, including Kiribati, Tuvalu and the Maldives, and many atolls in other Commonwealth small island states, have much of their land area only a few metres above sea level. Sea level rise is occurring at approximately two millimetres per year. This threatens shallow fresh water lenses that are already susceptible to depletion during times of drought and susceptible to contamination from salt water intrusion, storm surge and seepage. Some commentators have gone so far as to say that the vulnerability of certain atoll nations raises the possibility of the first extinction of a sovereign country

Guiding principles for a post-2012 regime

Small island developing states have done little to contribute to the increasing concentrations of greenhouse gases in the atmosphere that are now affecting them directly. Against this backdrop, in Vienna, AOSIS presented a list of guiding principles for any post-2012 package of integrated actions to address climate change:

- Under international law, states have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.
- In keeping with Article 3 of the Convention, precautionary measures must be taken to anticipate, prevent and minimise the causes of climate change and mitigate its adverse effects, and the climate system must be protected for present and future generations.
- Activities that enhance implementation of the Convention must be designed to protect the most vulnerable parties to the UNFCCC, both in the short and in the long term. Hence the level of ambition for future emission reductions under the Convention must use *the avoidance of climate change impacts on small island developing states* as one of its key benchmarks for effectiveness.
- Actions taken under the Convention must be urgent, practical and ambitious.
- The 'polluter pays' principle and the principle of common but differentiated responsibilities and respective capabilities must be used to determine the obligations of different parties and groups of parties.
- Any new framework must be developed within the United Nations framework and must build upon and extend the Kyoto Protocol, rather than replace it.

AOSIS Submission, Dialogue Working Paper No.14, 2007

due to environmental change. Whether or not this is hyperbole, it is clear that decisive action is needed, both to reduce global emissions and to secure the resources needed to assist vulnerable countries in meeting the costs and challenges of adaptation.

Long-term stabilisation goal

AOSIS has taken the position that any package of mitigation-related activities must be sufficient to ensure that greenhouse gas concentrations are stabilised in the atmosphere at well below 450 parts per million (ppm) by volume, and long-term temperature increases remain well below 2°C. AOSIS has called for global GHG emissions to peak within the next 10-15 years and for adoption of urgent, ambitious and measurable short-term actions to ensure that long-term goals are met.

According to IPCC Working Group III, to stabilise temperature increases in the 2°C to 2.4°C range will require cuts in global emissions by at least 50-80 per cent by 2030. The level of effort required to go below 2°C is the same as that required to stabilise at 2°C in the period up to 2020; what will be required is more significant action in the period between 2020 and 2050. This only emphasizes that there is no short-term reason not to adopt an ambitious long-term goal.

The IPCC estimates that the cost of achieving a stabilisation concentration of between 445-535 ppm would reduce the global GDP growth rate by only 3 per cent by 2030 relative to forecasted growth or less than 0.12 per cent per year. In Vienna, AOSIS noted that this figure is extremely manageable, in view of the costs of inaction, and called for a substantially larger investment in mitigation measures – well beyond 0.12 per cent of global GDP per year – to achieve a still lower stabilisation level. Small island states argued that greater investment is needed and warranted, as a matter of equity, to minimise the impacts of climate change on vulnerable countries; the value of preserving island sovereignty and cultures cannot be compared with the monetary costs of mitigation.

AOSIS highlighted that a modest lifestyle change in some Convention parties is a small price to pay to protect small island nations from the loss of their finite land area, avoid the loss to the global community of unique island cultures and ecosystems, and avoid the loss of lives from extreme weather events in vulnerable countries. Certainly to allow the actions or inaction of some Convention parties to cause the complete disappearance of other Convention parties cannot be an accepted outcome of the multilateral climate change process.

Scientific work needed to inform post-2012 actions

To date, the IPCC has not analysed stabilisation scenarios below 450 ppm CO₂ equivalent, or considered the means and costs for achieving stabilisation at levels below 450 ppm. At the Vienna climate talks, AOSIS emphasised that this information is essential for determining an appropriate level of ambition for the post-2012 framework. AOSIS called for urgent work by the global scientific community and the IPCC in two areas:

- The implications for small island states of an increase in global average surface temperature of 2°C or greater, and
- Research on the means and costs of achieving low stabilisation concentrations that will prevent significant negative impacts on SIDS and other vulnerable Convention parties.

The parties to the Kyoto Protocol, meeting in the Ad Hoc Working Group Group on Future Commitments, noted the concerns raised by small island developing states, and the possibility for further scientific work in this regard.



Starfish, Black Coral Island, Federated States of Micronesia.
Photo credit: M. J. Mace

AOSIS additionally suggested that an *IPCC Special Report on Vulnerable Groups* might facilitate the linking of various mitigation scenarios and levels of ambition to the impacts on vulnerable groups that each proposed scenario implies.

Responsibility for mitigation efforts

In ratifying the Convention, all parties committed to implementing programmes to address emissions by sources and removals by sinks. Despite this commitment, greenhouse gas emissions are increasing at an unprecedented rate, in both developed and developing countries.

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AOSIS has proposed that, consistent with the polluter pays principle and the Climate Convention's principle of common but differentiated responsibilities and respective capabilities, the largest historical emitters should now take aggressive action to facilitate the reduction of global emissions. All developed country parties should take on quantified emission limitation or reduction targets for the post-2012 commitment period. In addition, major emitting developing countries should be prepared to pursue a clean development path, with assistance from developed country parties, measured through decreasing carbon intensity, an increasing reliance on renewable energy technologies, and/or through specific emission limitation or reduction targets. The efforts of all major emitting countries must contribute to the overall reduction of GHG emissions in a measurable way, so that progress in achieving a global reduction in emissions can be assessed.

AOSIS has suggested that the key strategy for engaging developing countries in mitigation efforts should be through an expansion of access to renewable energy and energy efficient technologies. Many small island countries have already established renewable energy targets, and require international support to translate

Banana tree,
Ravotonga,
Cook Islands.
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these pledges into reality. For these countries, renewable energy and energy efficient technologies can contribute to the replacement of expensive imported fossil fuels, both reducing emissions and facilitating energy independence.

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Addressing adaptation needs

Climate change poses significant challenges to the growth of key economic sectors of island economies, including tourism, fisheries and agriculture. Sea-level rise will exacerbate inundation, erosion and other coastal hazards, and put at risk vital infrastructure, settlements and facilities, threatening to undermine the objectives addressed in the Mauritius Strategy on the Sustainable Development of Small Island States.

As the IPCC Working Group has noted, in its chapter on small islands, in the Caribbean and Pacific islands, more than 50 per cent of the population live within 1.5 kilometres of the shore. International airports, roads and capital cities in the small islands of the Indian and Pacific Oceans and the Caribbean are almost without exception sited along the coast, or on tiny coral islands.

Some of the adaptation measures that will be the most effective are relatively inexpensive, do not require advanced technologies and can be implemented immediately. These include:

- Measures to manage water resources during periods of extreme drought
- Measures to address pressures on food supply through drought-resistant and salt-resistant crops
- Buffering of coastal zones through mangrove swamp planting and reef restoration, and
- The development of agricultural policies, water management policies, land use policies and risk management policies that integrate the impacts of climate change.

Other measures may be more costly, including the climate-proofing of infrastructure, the relocation of vulnerable coastal communities, and the relocation of key infrastructure within SIDS.

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Delays in implementing adaptive strategies will only cause the costs of adaptation to increase. Yet, well over a decade after the Convention's entry into force, adaptation funding through the Convention's financial mechanism

is virtually non-existent, and procedures for accessing these limited funds are excessively complicated. Small island countries seek an expansion of existing funding for adaptation, the identification of new and innovative sources of funding at the international level, and easier access to these funds by vulnerable countries.

In Dialogue Working Paper 14, AOSIS proposes that more substantial funding might be achieved by linking adaptation funding to greenhouse gas emissions. Using 1990 as a base year, developed country parties could be required to contribute to a Convention Adaptation Fund using a formula comprising two components:

- The level of a country's greenhouse gas emissions, reflecting responsibility, and
- A GDP index, reflecting ability to pay.

The creation of a Convention Adaptation Fund on this basis could implement the polluter pays principle and the principle of common but differentiated responsibilities and respective capabilities – and complement the Kyoto Protocol's Adaptation Fund.

Risk management/insurance

Article 4.8 of the Convention requires all parties to consider what insurance-related actions might be necessary under the Convention, to meet the specific needs of developing countries arising from the adverse effects of climate change – and especially the needs of small island states. AOSIS has long identified insurance-related actions as essential for addressing the impacts of climate change and increasingly frequent and severe extreme weather events. The need for an international insurance mechanism to help small island developing states manage climate-related risk and build risk-resilient economies was highlighted at the Expert Meeting for SIDS on Adaptation, held in two parts in Jamaica and the Cook Islands in February 2007.

In the 1990s, the direct cost of extreme events in Pacific islands is estimated to have exceeded US\$1 billion, causing losses that exceeded the GDP of some individual countries. Cyclone Heta, in early 2004, caused damage to Niue that exceeded 200 years' worth of the country's annual export value. The cost of recovery exceeded 2.8 times the country's GDP. In the Caribbean, Hurricane Ivan in 2004 damaged 90 per cent of Grenada's housing stock and left 50 per cent homeless.

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In its submission to the Dialogue, AOSIS noted that collective loss sharing mechanisms and international solidarity funds can assist in addressing high impact

extreme events, where even subsidised insurance mechanisms are not feasible. Payouts could use agreed triggers based on wind speed, flood levels, a drought index, or sea level rise. The Caribbean Catastrophe Risk Insurance Facility (CCRIF) was highlighted as a promising initiative and one that could be expanded and extended to all SIDS regions. The CCRIF uses a portion of donor-funded capital reserves to assist in the establishment of an insurance facility that assists countries in pooling their risk and reducing insurance costs. Consideration could be given to means of subsidising the climate-related risk portion of this coverage, which will increase over time.

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A small window of opportunity

There is a small window of opportunity to prevent runaway climate change. In Bali, small island developing states will press for agreement on a process leading to ambitious global emission reduction targets, new incentives to bring all major-emitting countries on board in reducing their greenhouse gas emissions, and new tools and innovative financing for adaptation measures for countries vulnerable to the impacts of climate change.

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FIELD is a London-based charity comprised of public international lawyers committed to the promotion of environmental protection and sustainable development through law. FIELD has provided support to AOSIS in the international climate negotiations for many years.

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