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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention

Fourth workshop

Vienna, 27–31 August 2007

Dialogue working paper 14 (2007)

Submission from AOSIS*

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**AOSIS SUBMISSION
TO THE
FOURTH WORKSHOP UNDER THE DIALOGUE ON LONG TERM COOPERATIVE
ACTION TO ADDRESS CLIMATE CHANGE BY ENHANCING IMPLEMENTATION OF
THE CONVENTION**

The Alliance of Small Island States (AOSIS) welcomes this opportunity to present views on the issues under discussion in the Dialogue.

Background

The fourth workshop of the Dialogue on long term cooperative action to address climate change by enhancing implementation of the convention (the Dialogue), which will take place in Vienna, Austria between 27-31 August 2007, is intended to “bring together all the ideas and proposals put forward during the Dialogue, to explore how they fit together in a coherent way and into an appropriate international response to climate change, and to address overarching and cross cutting issues including financing.” The fourth workshop is also intended to consider proposals for further actions, activities and approaches.

In preparation for the fourth workshop in Vienna, Parties were invited to:

1. submit working papers considering how each of the 4 themes could be considered in an integrated manner;
2. provide guidance to the co-facilitators as to what should be in the final report of the four workshops in the Dialogue; and
3. provide specific proposals for scenarios to be included in the scenario note for the fourth workshop.

This submission addresses the first two elements.

1. Integrated consideration of the four workshop themes

The three Dialogue workshops to date have addressed the following topics:

- (a) advancing development goals in a sustainable way
- (b) addressing action on adaptation
- (c) realising the full potential of technology
- (d) realising the full potential of market-based opportunities.

The Dialogue workshops have provided an opportunity for Parties, intergovernmental agencies, non-governmental organisations, research institutions and the business community to share their knowledge and experiences.

To move forward at the fourth workshop, it will be necessary to identify the **practical steps** that will need to be taken to enhance implementation of the Convention, to assist and enable **all Parties** to contribute meaningfully to achievement of the ultimate objective of the Convention, and to address the adaptation needs of developing countries already being impacted by human-induced climate change.

It will be critical to ensure that this integrated package of practical steps moves the Parties along an ambitious pathway toward stabilization of greenhouse gas concentrations that will ensure that long-term temperature increases are stabilized at **well below 2°C above pre-industrial levels**.

2. Guiding Principles for Integration

AOSIS is of the view that guiding principles for any package of integrated future actions must be as follows:

1. 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.
2. In keeping with Article 3 of the Convention, precautionary measures must be taken to anticipate, prevent and minimize the causes of climate change and mitigate its adverse effects, and the climate system must be protected for present and future generations.
3. 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.
4. Actions taken under the Convention must be urgent, practical and ambitious.
5. 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.
6. Any new framework must be developed within the United Nations framework and must build upon and extend the Kyoto Protocol, rather than replace it.

3. Long-term goal

The avoidance of climate change impacts on small island developing States must be one of the key benchmarks for assessing the appropriateness of any long-term goal.

Any package of mitigation-related activities must be sufficient to ensure that long-term temperature increases are stabilized **well below 2 degrees Celsius**. Even a 2°C increase compared to pre-industrial levels would have devastating consequences on SIDS due to resulting sea level rise, coral bleaching, coastal erosion, changing precipitation patterns and the impacts of increasingly frequent and severe weather events. Based on the best scientific evidence available, a 1°C increase in temperature above 1980-99 levels implies significant coral bleaching, increased losses from flooding, and substantial species extinction (See Annex 1 to this document, sourced from the AR4 IPCC Working Group II SPM). Estimates have already been made of the number of people likely to be displaced by sea level rise and natural resource constraints, the amount of coastal area that will be lost, and the percentage of species lost or threatened from temperature increases at these levels.

A long-term goal of stabilising greenhouse gas concentrations at 450 ppm CO₂-e has been discussed, as well as a limitation of global average surface temperature increase to 2 degrees Celsius. However, these goals are **insufficiently ambitious**, as they will not protect the most vulnerable Parties to the UNFCCC.

In order to achieve long-term stabilisation levels **well below 450ppm**, global GHG emissions must peak within the next 10-15 years, and be followed by reductions of at least 50-80% of 2000 levels by 2050 (See Annex 2). The effort needed to stabilise either at 450 ppm or below 450 ppm by 2050 will be the same during the initial peaking phase. There is therefore no reason not to adopt a more ambitious stabilisation level than 450ppm in the short to medium term. Short-term actions taken under the Convention must be urgent, ambitious, and measurable in their effect in order to ensure that long-term goals are met, in keeping with the precautionary principle.

The cost of achieving stabilization at 450ppm has been estimated at less than 3% of GDP by 2030 or less than 0.12% of GDP per year (See Annex 3). This is a small figure, compared to the potential costs of the impacts of climate change if stabilization at that cannot be achieved. However, AOSIS is of the view that **a substantially larger investment in mitigation measures, well beyond 0.12% of GDP per year, is needed, justified and must be ensured under the Convention** to achieve a lower stabilization level and thereby ensure protection of Convention Parties that are particularly vulnerable to the impacts of climate change, including SIDS. The value of preserving island sovereignty and cultures cannot be compared with the monetary costs of mitigation.¹ A modest lifestyle change in some Convention Parties is a small price to pay to protect SIDS from the loss of finite land area, to avoid the loss to the global community of unique island cultures and ecosystems, and to avoid the loss of lives from the impacts of extreme events in SIDS and other vulnerable countries. To allow the actions or inaction of some Convention Parties to cause the disappearance of other Convention Parties cannot be an acceptable outcome of this multilateral Convention process.

Any particular level of mitigation ambition agreed by the international community will imply a consequent degree of direct climate impacts on vulnerable Convention Parties and communities. AOSIS is of the view that it is essential to look at the relationship between global investments in mitigation activities and impacts in this light, in considering the adequacy of future actions to address climate change.

To this end, there is a need for continuing work by the global scientific community and the IPCC in two areas.

- (1) the implications for SIDS of increases in temperature of 2°C or greater;
- (2) research on the means and costs of achieving low stabilization concentrations that will prevent significant negative impacts on SIDS and other vulnerable Convention Parties.

The future climate package must be informed by this information. An **IPCC Special Report on Vulnerable Groups**, including SIDS, might facilitate the linking of various mitigation scenarios and levels of ambition with the consequent impacts on vulnerable groups that each proposed scenario implies. This linkage should be further examined through a continuing Dialogue or other process.

4. Responsibility for long-term emission reductions

In ratifying the Convention, all Parties committed to implementing programmes containing measures to mitigate climate change by addressing emissions by sources and removals by sinks. All Parties also agreed to promote and cooperate in the development, application and diffusion of technologies, practices, processes and processes that control greenhouse gas emissions. Annex I Parties agreed to take the lead in reducing emissions. Annex II Parties agreed to provide financing for technology transfer to support developing country emission reduction efforts.

Despite these Convention commitments, best available scientific evidence shows that greenhouse gas emissions are increasing at an unprecedented rate, including in many Annex I Parties. Developing country emissions, in particular those of the larger rapidly industrialising countries, will account for a significant proportion of global emissions in the future.

Consistent with the polluter pays principle and the principle of common but differentiated responsibilities and respective capabilities, the largest historical emitters must now take aggressive action under the Convention to facilitate the reduction of global emissions. All Annex I Parties

¹ Barnett J, The Issue of 'Adverse Effects and the Impacts of Response Measures' in the UNFCCC, Tyndall Centre for Climate Change Research Working Paper 5, University of East Anglia, Norwich

should take on hard quantified emission limitation or reduction targets in the Post-2012 period and through 2030.

Major emitting developing countries will also need to take action to reduce their emissions trajectories, with assistance from developed country Parties. These countries should be prepared to pursue a clean development path in the Post-2012 period, measured through decreasing carbon intensity, an increasing reliance on renewable energy technologies, and/or through quantified emission limitation commitments.

In the Post-2012 period, all major emitting countries must, therefore, be engaged in global efforts to mitigate emissions, according to their common but differentiated responsibilities and respective capabilities. Some Parties might be best able to contribute by protecting or expanding their sinks. Some Parties might be best able to contribute by reducing or limiting emissions from their industrial sources. Some Parties might be best able to contribute by facilitating mitigation measures in other less able or more vulnerable Parties, by transferring technology, increasing the production of more energy efficient technologies, by offering targeted financial assistance to other countries for the uptake of renewable energy or energy efficient technologies, or by offering financial assistance to other countries for the protection or expansion of sinks.

Each of these efforts must contribute to the overall reduction of GHG emissions in a measurable way, so that overall progress in achieving a global reduction in emissions can be assessed and effort can be compared.

Differentiation within the group of developing countries is needed as part of the Post 2012 package. Criteria for differentiation might include a combination of responsibility (measured in cumulative CO₂ emissions since 1990), capability (measured in GDP/GNI or other economic indicator per capita), potential to mitigate (based on energy efficiency and related metrics) and population size. Developing countries should be expected to take on hard targets when they achieve a certain level of socio-economic development, measured by objective indicators (e.g., per capita GDP).

A discussion of appropriate differentiation, and objective indicators to enable differentiation, should be taken up in the Dialogue process, or in any Post-Bali process that merges the AWG and Dialogue tracks.

5. Mitigation strategies for achieving long-term goals

Renewable energy and energy efficiency policies and measures should form the central pillars of the Convention's future climate mitigation strategy. Expanding access to renewable energy and energy efficient technologies should be the key strategy for engaging developing countries in mitigation efforts.

A global carbon market can assist the global community in achieving cost-effective emission reductions. However, developed countries must take the lead in reducing GHG emissions, consistent with Article 3 of the Convention. Consequently, any expansion of opportunities for carbon trading should not enable an increase of absolute emissions in Annex I Parties through use of the flexible mechanisms. Inclusion of emissions from international aviation and marine transport in the carbon market provides an opportunity to allow increasingly ambitious Annex I Party targets to drive CDM projects in developing countries. It will be essential to address international transport emissions now unregulated by the Kyoto Protocol, as well as domestic transport emissions if long-term emission reduction goals are to be achieved.

To facilitate a broader carbon market, developing countries should progress toward economy-wide emission limitation or reduction commitments over time. In the short term, the opportunity to take sectoral targets in carbon-intensive sectors may assist in broadening the carbon market and extending

this market more fully to developing countries. The Dialogue process might clarify how such opportunities might be made available, and what incentives and/or support might be needed.

Any expansion of opportunities for carbon trading must ensure that the emission reductions achieved are measurable and permanent, do not negatively impact local communities and do not undermine the environmental integrity of the Kyoto Protocol.

Economic instruments to address demand side management will be essential in achieving substantial emission reductions. These include taxes on carbon-intensive activities, eco-labelling, appliance standards, fuel efficiency standards, the removal of subsidies for fossil fuels, and the creation of incentives for the uptake of renewable energy and for the implementation of energy efficiency measures.

6. Mitigation technologies for achieving long-term goal

The rapid diffusion of energy efficient technologies and renewable energy technologies is essential for reducing emissions while achieving sustainable development.

Technologies that lead to impermanent solutions (e.g., carbon capture and storage - CCS), generate additional or new forms of pollution challenges for the international community (nuclear, CCS), or increase dependency on carbon-intensive fuel sources ('clean' coal, CCS) are not acceptable for prioritisation over energy efficient technologies or renewable energy technologies through this Convention process, or appropriate for inclusion in the Clean Development Mechanism.

Positive incentives, in the form of direct investments by Annex I Parties in mitigation activities in developing countries, are more appropriate for mitigation activities that result in critical, but impermanent, emission reductions.

Energy efficiency targets and renewable energy targets can form a useful mechanism for assessing progress. National renewable energy targets, accompanied by concessionary financing from the international community to assist in achieving these targets, can be helpful in addressing both climate change and sustainable development. Many small island States have already established renewable energy targets, and require international support to translate these pledges into reality.

7. Addressing Action on Adaptation

Climate change has already had a significant negative impact on the economic, social and environmental security of many small island States, and will affect the future growth and development of key sectors of island economies, including tourism, fisheries and agriculture. This threatens to reverse years of development efforts, and undermine the objectives addressed in the Mauritius Strategy on the Sustainable Development of Small Island States.

SIDS have contributed little to concentrations of greenhouse gases in the atmosphere, yet are directly and negatively affected by the impacts of climate change. There is an urgent need for the international community to enhance implementation of Convention Articles 4.1, 4.3 and 4.4 with respect to adaptation measures in small island States.

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 but are nevertheless warranted given the equities at issue, as small island countries have played an insignificant role in causing anthropogenic climate change. These include the climate-proofing of infrastructure, the relocation of vulnerable coastal communities, and the relocation of key infrastructure within SIDS.

As temperatures increase, there will be critical thresholds for adaptation. Coral reefs are known to undergo coral bleaching when sea surface temperature goes beyond the maximum monthly mean (the climatological mean temperature during the warmest month of the year) by 1°C or more for 1 month or more. Mangroves, another key coastal zone buffer in many small island States, have an equally precarious relationship with sea level rise. If these windows to adapt are missed, different adaptation strategies may be required for some countries—again, at far greater economic, social, environmental, cultural, human and political cost.

Atoll States, such as Kiribati, the Marshall Islands, Tuvalu and the Maldives, and many atolls within other island nations, are uniquely vulnerable to the impacts of climate change. The height of these atolls rarely exceeds two meters above sea level. Their fresh water reserves are limited to a shallow subsurface lens, which is susceptible to depletion during times of drought and contamination from salt water intrusion from sea level rise, storm surge and seepage. The extreme vulnerability of these atoll States raises the possibility of the first extinction of a sovereign State due to environmental change.² However, before that time, as a result of coastal erosion and a reduction in resilience of corals, impacts on these societies are likely to include increases in flooding events, increasing contamination of freshwater aquifers, and decreased productivity from agriculture and artisanal fishing³.

Delays in implementing adaptive strategies will only cause the ultimate cost of adaptation to increase, both locally and globally. These costs include not only economic costs, but also social, environmental, cultural, human and political costs. These broad categories of cost need to be considered against the relatively small economic cost, in global GDP terms, of the mitigation actions needed to avoid further climate change impacts.

Where adaptation cannot fully address the impacts of climate change on countries and their communities, impacted countries are justified in seeking compensation from those countries most responsible for the greenhouse gas emissions that have led to these impacts.

Financing for Adaptation

Targeted financial support from Annex I Parties on concrete adaptation measures is now overdue under Convention Articles 4.3 and 4.4.

Under Article 4.3, developed country Parties agreed to provide such financial resources needed by developing country Parties to meet the agreed full incremental costs of implementing measures under Article 4.1 of the Convention. Article 4.1 measures include the formulation and **implementation** of national programmes containing measures to facilitate adequate adaptation to climate change. Under Article 4.4, developed country Parties further agreed to assist developing countries that are particularly vulnerable to the impacts of climate change in meeting the costs of adaptation to those adverse effects.

Nevertheless, well over a decade after the Convention's entry into force, adaptation funding for project implementation has not been forthcoming in a predictable or adequate manner under the Convention. Funding for adaptation through the Convention's financial mechanism remains extremely limited, and procedures for accessing these limited funds are excessively complicated.

² Barnett, J "Adapting To Climate Change In Pacific Island Countries: The Problem Of Uncertainty" in *World Development*, 2001, 29(6): 977-993

³ Barnett J and Adger WN, "Climate Dangers and Atoll Countries" *Climatic Change* 61: 321–337, 2003.

Articles 4.3 and 4.4 require enhanced implementation through the expansion of existing funding for adaptation under the financial mechanism's climate change focal area, as well the identification of new sources of funding for adaptation at the international level.

Expansion of existing funds might come from increased contributions to the Global Environment Facility, Special Climate Change Fund (SCCF) and Least Developed Countries Fund (LDCF), and from international financial institutions and multilateral organizations.

New funds for adaptation should come from the establishment of a Convention Adaptation Fund, linked to greenhouse gas emissions, as set out below.

The burden of climate-related impacts will far exceed what small island States can bear or should be expected to bear as a matter of equity. An indication of the economic threat climate change poses to the sustainable development of SIDS can be seen in the costs of past climatic events, recognizing that the frequency and intensity of future events is predicted to increase. In the 1990s, the direct cost of extreme events in Pacific islands is estimated to have exceeded US\$1 billion,⁴ 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% of Grenada's housing stock and left 50% homeless.⁵

Substantial and adequate resources for adaptation must be identified under the Convention, and these resources must be made more readily available to small island developing States. The full cost of adaptation measures must be provided or SIDS and other vulnerable countries will in effect be left to bear the costs of carbon-intensive lifestyles in other Convention Parties.

Convention Adaptation Fund

In order to enhance implementation of the Convention, and guarantee a regular and adequate source of funding for adaptation, a link must be made between greenhouse gas emissions and Convention obligations on adaptation funding. The Kyoto Protocol links adaptation funds to developing country mitigation efforts; the Convention should now link adaptation funding directly to ongoing greenhouse gas emissions.

Using 1990 as a base year, Parties should be required to contribute to a Convention Adaptation Fund using a formula that is comprised of two components: (1) the level of a country's greenhouse gas emissions, reflecting responsibility; and (2) a GDP index, reflecting ability to pay.

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

A levy could also be applied to insurance transactions, on the rationale that uncertainty caused by climate change will lead to greater premiums and greater profit. At the same time, funding for adaptation will benefit the insurance sector through risk reduction.

Risk Management/Insurance

⁴ Bettencourt and Warrick, 2000.

⁵ Relief Web, United Nations Office for the Coordination of Humanitarian Affairs (OCHA), October 1, 2004.

Article 4.8 of the Convention requires all Parties to give full consideration to what actions are necessary under the Convention, including actions related to **insurance**, to meet the specific needs and concerns of developing countries arising from the adverse effects of climate change. Insurance mechanisms link a number of the Dialogue themes.

Small island states have, since 1991, identified insurance-related actions as essential for the addressing the impacts of climate change and increasingly frequent and severe extreme weather events in small island countries. In 1991, AOSIS sought the creation of an International Insurance Pool to address the direct impacts of climate change on small island States and low-lying countries. This ongoing need was highlighted again at the Expert Meeting for SIDS on Adaptation, held in Jamaica and the Cook Islands in February 2007, and remains critical.

An international insurance mechanism is needed to help SIDS manage climate risk and build risk-resilient economies. An internationally-sourced pool of funds is needed, as the most vulnerable countries will not be able to afford insurance themselves. Collective loss sharing mechanisms and international solidarity funds are needed to address high impact extreme events, where even subsidized insurance mechanisms are not feasible to address impacts. Pay outs from an international insurance mechanism can use internationally-agreed triggers for payouts to countries and communities, based on wind speed, flood levels, a drought index, sea level rise.

The establishment of the Caribbean Catastrophe Risk Insurance Facility (CCRIF) is 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 a facility that assists countries in pooling their risk and reducing insurance costs. The CCRIF provides parametric cover, with payouts linked to triggers, such as windspeed. Insurance premiums are tied to individual country risk profiles. However, as risk profiles increase, due to the impacts of climate change, premiums will also rise – requiring small island States to bear the additional risks associated with climate change.

The proposed Convention Adaptation Fund could be used to establish and fund an international insurance fund to address both the impacts of climate change and the increasing economic risks associated with the increasing exposure to climate change impacts.

A portion of the international insurance fund can be used to assist governments in taking measures to protect at-risk communities; payouts can be contingent upon reasonable measures having been taken by governments and/or communities to mitigate risks, based on their national capacities. In this way, the fund can both support risk management and offer compensation for unavoidable impacts.

Representatives of the insurance industry were unable to present at the third Dialogue workshop, which was unfortunate. AOSIS would be interested to hear from industry representatives and from Parties with experience with innovative insurance schemes during the fourth workshop. This would facilitate the design of practical actions to enhance the implementation of the Convention in this area.

7. Links to Sustainable Development

Environmental security and energy security are fundamental if developing countries are to achieve development goals. Renewable energy and energy efficient technologies need to be more broadly deployed, in order to reduce emissions while facilitating energy independence and sustainable development.

Climate change mitigation activities that facilitate sustainable development pathways will have multiple co-benefits, including air pollution abatement, balance of trade improvement, provisions of modern energy services to rural areas, avoidance of environmental threats caused by fossil fuel pollution, and greater employment. Moreover, in many countries that are dependent on expensive imported fossil fuels, including SIDS, savings accrued from renewable energy and energy efficiency measures may allow scarce resources to be channelled to adaptation activities.

Existing technologies can assist in reducing energy consumption, and reducing energy losses in energy production and transmission. These technologies need to be more broadly deployed in SIDS. The international community can assist by facilitating access to and financing for renewable energy and energy efficient technologies, with priority for Parties with limited technological capacity at the national level.

8. Convention Processes

At the third Dialogue workshop, a number of Parties made proposals on how to move the Dialogue from a sharing of views to a more formal strategy to enhance the implementation of the Convention, in part through a reformulation of the agendas of the Conferences of the Parties.

AOSIS shares the view that there is an urgent need translate ideas into concrete actions, in particular actions to address the urgent adaptation needs of SIDS and other particularly vulnerable countries, as well as for accelerating the progress on deeper and meaningful emissions reductions. This might be assisted through a reformulation of the Conference of the Parties' ways of working.

SIDS are now experiencing the impacts of human-induced climate change. Assistance to SIDS needs to be fast-tracked through the Convention process. SIDS' needs and processes cannot continue to be aggregated with the needs of the broader global community. Greater attention must be paid to the needs of SIDS, either through a new agenda item to address the special needs of SIDS, or through special consideration of SIDS in each of the Convention's agenda items.

Continuation of the Dialogue may be helpful until a package of activities is agreed by all Convention Parties for the Post-2012 period that is able to protect the most vulnerable Parties and communities from the impacts of climate change. A continued Dialogue could be used to:

- connect various mitigation pathways and supporting activities that have been proposed, with the impacts each proposed pathway is likely to have on particularly vulnerable Parties, fragile ecosystems, food security and vulnerable communities around the globe. This process could facilitate and enable agreement on an appropriately ambitious Post-2012 package of activities.
- enable the sharing of information on the trade-offs across countries that are implicit in choices among future mitigation pathway under consideration.
- enable consideration of appropriate reparation and compensation mechanisms for vulnerable countries impacted by climate change
- enable a discussion of differentiation among developing countries that might be used to develop a staged approach to mitigation efforts, with appropriate incentives for progress through appropriate stages.

II. What should be in the final report of the Dialogue?

AOSIS welcomes the opportunity to provide suggestions as to what elements might be contained in the final report on the Dialogue, based upon the preceding Dialogue workshops. These workshops have provided a wealth of material in the form of submissions, presentations and the exchanges of views of parties and other participants.

Based on presentations made by small island States and the scientific community, and interventions made by participants, AOSIS would expect to see the following points reflected in the Dialogue's final report:

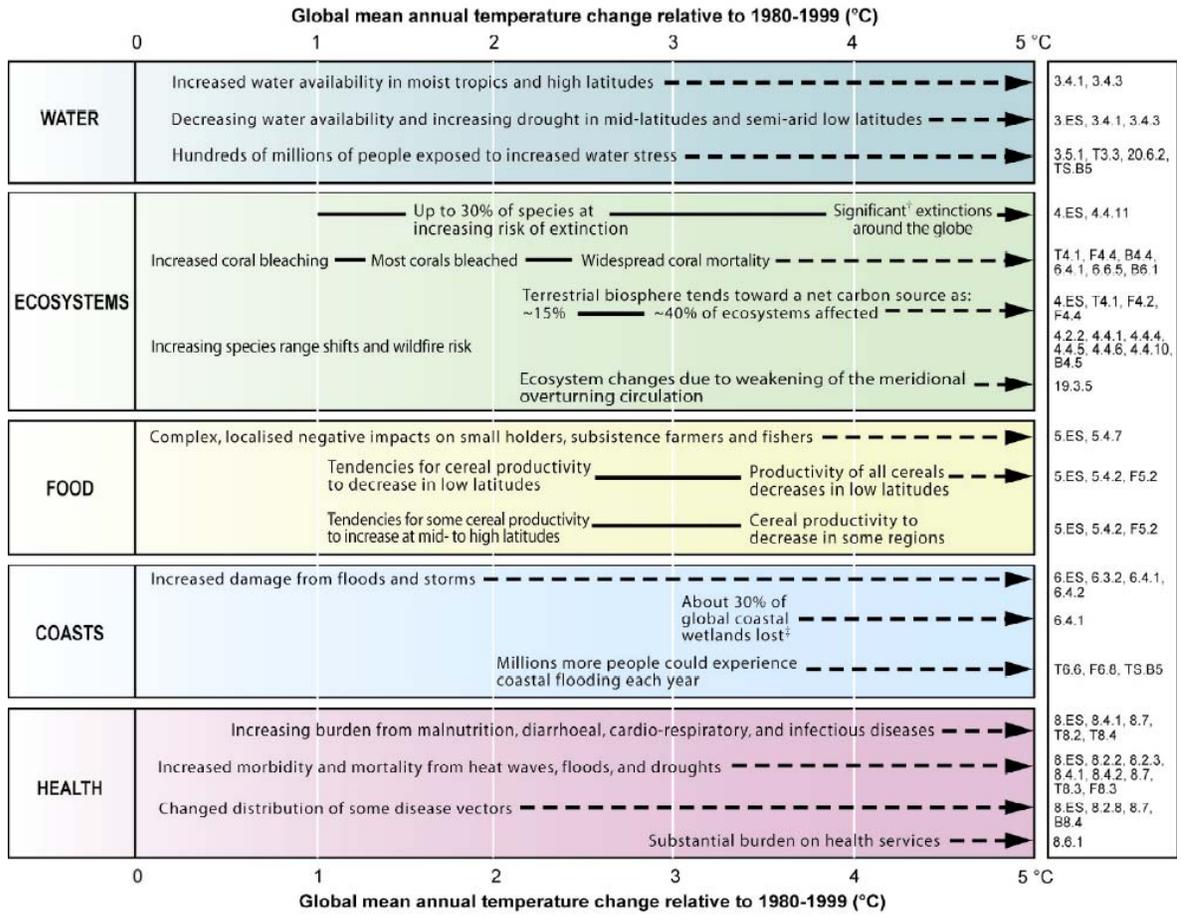
1. The level of ambition for future actions must be designed to protect the most vulnerable Parties to the UNFCCC. The level of ambition for future emission reductions must use impacts on SIDS as one of its benchmarks for its effectiveness.
2. Now is the time for concrete action, which must take two forms:
 - Deep and rapid reduction of greenhouse gas emissions by major emitters within the next 10 – 15 years in keeping with the principle of common but differentiated responsibilities and respective capacities, with appropriate financial and technical support to developing countries that take on reduction targets; and
 - Provision of assistance and support to vulnerable countries to adapt to the impacts of climate change.
3. Long term temperature increases have to be stabilized well below 2⁰C above pre-industrial levels, as 2⁰C is too high for small island states and coastal communities. This will result in bleaching and death of coral reefs, declines in crop yields, stronger tropical storms and cyclones, decreased water availability, and increased melting of the Greenland ice sheets, with long term implications for significant sea level rise. (IPCC Working Group II).
4. There is a small window of opportunity for preventing runaway climate change. It has been said that to stabilize the temperature increases even in the 2C to 2.4C range will require cuts in global emissions by at least 50% - 80% by 2030 – See Annex 2 (IPCC Working Group III, Summary for Policy Makers). Yet the cost of such action is readily manageable – 0.12% of global GDP per year in the context of average growth of 3% (See Annex 3). The Stern review of the economics of climate change has put the cost of inaction as high as 20% of global GDP.
5. Nevertheless, a still greater investment is needed by the international community to protect SIDS, as a 2⁰C increase will trigger devastating consequences (Annex 1), including:
 - Bleaching and death of coral reefs
 - Declines in crop yields
 - Stronger tropical storms and cyclones
 - Decreased water availability
 - Increased melting of the Greenland ice sheets, with long-term implications for significant sea level rise. (IPCC Working Group II).
6. Mitigation pathways for stabilisation of greenhouse gas concentrations at levels lower than 450 ppm have not yet been analyzed by the international community and should be carried out as an urgent matter.
7. The ambition and architecture of the future climate change regime is critical to the survival and sustainable development of SIDS. Hence studies should be commissioned as expeditiously as possible to analyse the impact of a 2⁰C global average surface temperature

increase on small islands and the economic costs and mitigation pathways for stabilizing below 2°C. See Annex 2.

8. IPCC Scientists have indicated that the level of effort required to go below 2C is the same as that required to stabilize at 2°C in the period up to 2020. What will be required is more significant action in the period between 2020 and 2050.
9. A set of actions that are insufficiently ambitious will have the effect of jeopardizing the continuing existence of certain particularly vulnerable small island States.
10. Critical physical, environmental, social and economic thresholds exist for many SIDS and other particularly vulnerable countries and groups. Actions under the Convention must aim to ensure that these thresholds are not breached by the impacts of climate change.
11. The costs of achieving various stabilisation levels are small, in the context of the impacts that may result from a failure to sufficiently mitigate emissions.
12. States have under international law 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.
13. The polluter pays principle is a fundamental principle of international environmental law. In the context of climate change, this suggests that funding for adaptation measures should be linked to greenhouse gas emissions.
14. Consideration needs to be given to how vulnerable countries will be compensated for loss and damage associated with climate change impacts that is not avoided by adaptation funding under the Convention.

The charts on the following pages would be useful for inclusion in the Report of the Dialogue to COP 13.

ANNEX 1



[†] Significant is defined here as more than 40%.

[‡] Based on average rate of sea level rise of 4.2 mm/year from 2000 to 2080.

Source: IPCC AR4 Working Group II – Summary for Policy Makers

ANNEX 2

Cat.	Concentration	Global mean temperature increase	Peaking year	CO2 emission change
	ppm CO2-eq	°C	Year	Percent
A1	445 – 490	2.0 – 2.4	2000 - 2015	-85 to -50
A2	490 – 535	2.4 – 2.8	2000 - 2020	-60 to -30
B	535 – 590	2.8 – 3.2	2010 - 2030	-30 to +5
C	590 – 710	3.2 – 4.0	2020 - 2060	+10 to +60
D	710 – 855	4.0 – 4.9	2050 - 2080	+25 to +85
E	855 – 1130	4.9 – 6.1	2060 - 2090	+90 to +140

Source: IPCC AR4 Working Group III – Summary for Policy Makers

ANNEX 3

What are the Costs in 2030?

Stabilization levels (ppm CO₂-eq)	Median GDP reduction[1] (%)	Range of GDP reduction [1][2](%)	Reduction of average annual GDP growth rates (percentage points) [1][3]
590-710	0.2	-0.6 – 1.2	< 0.06
535-590	0.6	0.2 – 2.5	<0.1
445-535[4]	Not available	< 3	< 0.12

Source: IPCC AR4 Working Group III – Summary for Policy Makers
