

SE TH K G BRIEFING



CLIMATE VULNERABLE FORUM
DHAKA MINISTERIAL MEETING
13-14 NOVEMBER 2011



"Climate change poses an existential threat to our nations, our cultures and to our way of life."

Male' Declaration of the Climate Vulnerable Forum (November, 2009)

CLIMATE VULNERABLE FORUM

The Climate Vulnerable Forum is a global partnership of governments from Africa, the Americas, Asia and the Pacific seeking a firm and urgent resolution to the growing climate crisis as some of the countries most vulnerable to the harmful effects of climate change. The Forum was founded at the initiative of the Maldives when 11 vulnerable countries from across the world met in Male' in November 2009. Governments represented at Male' included the Maldives, Kiribati, Bangladesh, Barbados, Bhutan, Ghana, Kenya, Nepal, Rwanda, Tanzania and Vietnam. This Forum's first meeting adopted a declaration that expressed alarm at the effects of human-induced global warming, committed to leadership towards a low-carbon future, and sought international assistance to fight climate change.

Following formation, a number of additional governments, mostly Least Developed Countries and Small Island Developing States, have participated in the Forum's activities. Under Maldives leadership, the Forum published, together with DARA, the first *Climate Vulnerability Monitor*, a global report into the accelerating impact of climate change on human society. Kiribati took up chairmanship of the Forum from Maldives, hosting the Tarawa Climate Change Conference in November 2010 that adopted the Ambo Declaration. Bangladesh is incoming chair of the Forum for 2011-2012. The Forum's Dhaka Ministerial Meeting is co-hosted by the Bangladesh Ministry of Foreign Affairs and Ministry of the Environment and Forests.

Since its inception, the Forum has met with considerable success in presenting the concerns of vulnerable countries as well as in creating an awareness and appreciation in international climate talks. Agreements made at the UN climate meetings of Copenhagen and Cancún, in particular, all recognised the importance of prioritising most vulnerable countries in response to the significant losses and damages being incurred by this group as a result of global climate change.

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"Declare our determination, as low-emitting countries that are acutely vulnerable to climate change, to show moral leadership on climate change through actions as well as words, by acting now to commence greening our economies."

Male' Declaration of the Climate Vulnerable Forum (November, 2009)

MEETING PROGRAMME

13 NOVEMBER 2011 - SUNDAY (DAY 1)

HOTEL SONARGAON

8:45 - 9:15	Inauguration of the preparatory meeting Welcome statement by Director General (Eco. Affairs), Ministry of Foreign Affairs of Bangladesh, Mr. Md. Sufiur Rahman Statements by Asia Director, Climate Development Knowledge Network (CDKN), Mr. Ali T. Sheikh Resident Coordinator, United Nations System, Mr. Neal Walker Director General, DARA, Mr. Ross Mountain Secretary in Charge of the Ministry of Environment and Forests of Bangladesh, Mr. Mesbah ul Alam Foreign Secretary of Bangladesh, Ambassador Mohamed Mijarul Quayes	Ball Room-III
9:15 - 9:30	Tea Break	
9:45 - 12:15	Common Space for CVF member States, observer and non-state stakeholders 1. Evidence on climate change and vulnerability in particular the nexus between climate change and displacement, by Dr. Saleem Ul Huq, Senior Fellow, International Institute for Environment and Development, and Mr. Md. Shahidul Haque, Director, Department for International Cooperation and Partnerships, International Organisation of Migration, followed by discussion 2. Challenges and opportunities for climate-resilient green growth, presentations by DARA and UNDP, followed by discussion	Ball Room-II, III
12:30 - 13:15	Working Session- I (Closed) Plenary to be chaired by the Secretary in Charge of the Ministry of Environment and Forests of Bangladesh, Representative from the Ministry makes a short presentation on challenges in the climate change negotiations	Ball Room-III
13:30 - 14:30	Lunch hosted by The Secretary in Charge of the Ministry of Environment and Forests of Bangladesh	Ball Room-I, II
15:00 - 17:30	Working Session- II (Closed) Closing plenary to be chaired by the Secretary in Charge of the Ministry of Environment and Forests of Bangladesh Committee of the Whole to be chaired by Director General, Ministry of Foreign Affairs of Bangladesh	Ball Room-III
16:30 - 18:00	Parallel discussion session for observer countries and international organisations <i>External response to the needs of climatically most vulnerable countries and forging of effective and durable partnership</i>	Surma
19:30 - 21:30	Dinner hosted by Honorable Foreign Minister of Bangladesh, HE Dr. Dipu Moni, MP	(External) Hotel Ruposhi Bangla Ball Room

14 NOVEMBER 2011 - MONDAY (DAY 2)

HOTEL SONARGAON

10:00 - 11:00	<p>Inauguration of the Forum, chaired by the Honorable Foreign Minister of Bangladesh, HE Dr. Dipu Moni, MP</p> <p>Welcome by the Foreign Secretary of Bangladesh, Ambassador Mohamed Mijarul Quayes</p> <p>Statements by</p> <p>Honorable State Minister for Environment and Forests of Bangladesh, HE Dr. Hasan Mahmud MP</p> <p>Minister of Foreign Affairs of Maldives, HE Mr. Ahmed Naseem</p> <p>Leader of the delegation of Kiribati</p> <p>Honorable Foreign Minister of Bangladesh, HE Dr. Dipu Moni, MP</p> <p>Trustee and Representative of DARA, Member and Representative of the Club of Madrid and Former President of Costa Rica, HE Mr. José María Figueres</p> <p>Secretary-General of the United Nations, HE Mr. Ban Ki-moon</p> <p>Honorable Prime Minister of Bangladesh, HE Sheikh Hasina</p> <p>Thanks from the Secretary in Charge of the Ministry of Environment and Forests of Bangladesh, Mr. Mesbah ul Alam</p>	Ball Room-I,II
11:00 - 11:30	Tea break	
11:35 - 13:00	<p>Working Session- I (closed)</p> <p>Chaired by the Honorable Foreign Minister of Bangladesh</p>	Ball Room-III
13:15 - 14:15	<p>Lunch hosted by the Honorable State Minister for Environment and Forests of Bangladesh (for heads of delegation by invitation)</p>	Restaurant Jharna
14:40 - 16:00	<p>Working Session- II (closed)</p> <p>Deliberation as per agenda, chaired by State Minister for Environment and Forests</p>	Ball Room-III
16:00 - 16:30	<p>Concluding Session</p> <p>Chaired by State Minister for Environment and Forests</p> <p>Adoption of the Dhaka Declaration</p>	Ball Room-III
16:30 - 17:15	Press Briefing and release of the Declaration	

BRIEFING SUMMARY

The harmful effects of climate change are already leading to large-scale loss of life, livelihood and damage to ecosystems around the world. While these effects are ultimately suffered by all, in the immediate they are disproportionately damaging for developing countries and proportionally most severe in vulnerable countries. Despite large gaps in adaptation finance and policies – especially for health, displacement/migration and extreme weather response – adaptation actions remain cost-effective for now. But an escalation of warming and its consequences are rapidly eroding the effectiveness of adaptation. As the earth warms towards 1.5 degrees Celsius and beyond, an increasing share of harm and damage will not be able to be prevented.

Keeping global warming below 1.5 or even 2 degrees Celsius is outside the scope of current policies, with, in particular, nearly all commitments on emission reductions by the world's largest economies, above all developed countries, still falling short of fair per capita emission levels by 2020. It is, however, entirely possible to restrain warming below 1.5 degrees. To do so necessitates a range of actions, which are now urgent and imperative, but feasible. In particular, developed countries must at minimum implement the highest conditional emission commitments, agree and apply strict rules and accounting, particularly for land-use change and forestry, and ensure regulation of so-called bunker fuel airline and shipping emissions. Developed countries must also keep commitments on finance, including disbursement rates comparable to Official Development Assistance (ODA), and ensure a regular scaling-up towards the 100 billion dollars per year by 2020, since the additional emission reductions these will generate must play a role.

Vulnerable countries, for their part, require enhanced finance, technology and adaptation in order to pursue effective climate strategies, including mainstreaming climate change into core development planning, and to ensure enhanced participation in the Clean Development Mechanism (CDM), which will benefit the global carbon market. Support to developing countries for a more concerted parallel effort to reduce highly-hazardous poverty-linked non-CO2 gases, such as methane, black carbon and ozone, would further increase chances of meeting ambitious temperature objectives, all while producing important socio-economic and environmental dividends.

Ensuring a robust short-term continuation of the Kyoto Protocol that avoids a legal vacuum, with agreement on a more comprehensive and long-term climate change instrument by 2015 at the latest, will also be essential for meeting the basic regulation and international market structure needs of the available policies so that they can deliver on objectives and sustain vital market confidence in green growth.

ADAPTATION

- The harmful effects of climate change are already significant on a global scale, and are accelerating rapidly, with developing countries worst off and accounting for more than 99% of climate-linked mortality, while relative impacts are at the most extreme among vulnerable countries, particularly Least Developed Countries and Small Island Developing States.
- Adaptation is currently highly cost-effective, however, a growing intensification of warming and escalation of its harmful effects is rapidly eroding the effectiveness of key actions for adapting to climate change, implying that warming beyond 1.5 degrees Celsius by around mid-century would likely stretch the limits of many adaptation strategies and interventions, rendering them ineffective in preventing ever larger scales of human suffering and ecological damage.

FINANCE

- On the basis of the very limited information available at the end of 2011, less than half, or just 14.5 billion dollars, of Fast Start Finance for climate change actions in developing countries has been firmly committed/allocated – only 8% has been disbursed to date, and only 9% can be considered fully new/additional when viewed against earlier planned increases in ODA.
- Current climate finance disbursement is so slow that the 30 billion dollars of pledged so-called Fast Start Finance for 2010-2012 would still be under disbursement in 2029, with its 5% a-year disbursement rates a drastic 75% lower than for ODA.
- There is full clarity on a complete absence of any commitments whatsoever to provide climate finance to developing countries during the years 2013-2020 – only a commitment to “mobilise” 100 billion dollars per year by 2020, not prior.
- Each developed country is allocating resources differently, with adaptation at only 21% of allocated Fast Start Finance, or around 2 billion dollars per year – far short of the average estimation of adaptation costs for developing countries of 50 billion dollars per year – despite agreement on a balanced distribution of funds between mitigation and adaptation.
- Shortages of funding on adaptation are exacerbated by capacity and eligibility based difficulties most vulnerable countries face in accessing the approximately 20 different climate funds in existence, with each separate funding entity also having varying



Bangladesh
Manoocher Deghati/IRIN

thematic and geographic focus areas.

- Transparency and reporting on climate finance is chronically deficient and must be addressed through a centralised and homogenous reporting registry, when today several developed countries are not declaring basic information such as funding channels, and there is little or no comparability in reporting formats across countries.
- Mobilising large-scale additional climate finance is challenging but feasible, with a simple transfer of fossil fuel subsidies from developed countries and some form of financial transaction tax (as currently being considered in the EU context), capable of generating 10 to 90 billion dollars of additional finance per year including in the immediate short-term.

MITIGATION

- The global temperature objective of 2 degrees Celsius as agreed within the UNFCCC is outside of the scope of current climate policies and commitments.
- Government commitments now in effect have the world on track for 3-4 degrees Celsius of warming this century, just better than the catastrophic 4-5 degrees or more of warming implied by business-as-usual development pathways.
- Limiting warming to 2 or even 1.5 degrees Celsius is entirely possible and feasible, but will require developed countries to unlock and implement those conditional national/bloc commitments already made under strictest rules – it will also necessitate that the UNFCCC regulate bunker airline and marine emissions, that strict accounting is agreed and applied for land use, land-use change and forestry (LULUCF), and that a timely and effective disbursement of international climate finance for mitigation actions within developing countries is realised.
- In addition, a parallel strategy that also ensures support to developing countries to limit non-CO2 gases linked to poverty, such as methane, black carbon and lower-atmosphere ozone, could provide additional gigatons per year of emission reductions of these hazardous substances, with significant co-benefits for human health, the environment and short-term, particularly regional, climate change.
- Access to the CDM, the principal international carbon market tool, and a de facto technology transfer instrument, is severely deficient among vulnerable countries, which require targeted public and private sector capacity building in order to scale-up the development, registration and implementation of CDM programmes for enhanced contributions to global climate policy and local sustainable development.
- The expiry of the Kyoto Protocol at the end of 2012, failing any parallel agreement on a more comprehensive and long-term legal solution, would create an international legal vacuum on climate change, with predictable negative effects for meeting any meaningful temperature objectives, for business confidence and for the continuity of carbon markets that are essential for minimising the costs of transitioning to a low-carbon future.
- Ambitious climate policies will necessitate a robust short-term extension to the Kyoto Protocol, while a more comprehensive legally-binding instrument should be in effect by at least 2015, at which point the global temperature goal should be revised to 1.5 degrees Celsius in accordance with the agreed window, if the most dangerous levels of warming and catastrophic consequences for most vulnerable countries are to be avoided.

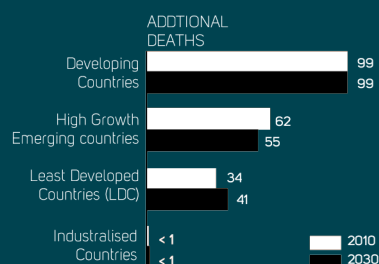
CLIMATE CHANGE IMPACTS, VULNERABILITY AND ADAPTATION

IMPACTS

CLIMATE VULNERABILITY MONITOR

In 2010, the Climate Vulnerable Forum co-published with DARA a major global study into the short-term effects of climate change on populations and economies resulting from increasingly extreme weather, heat and water stress, glacial melt, rising sea-levels and many other manifestations of global warming. That study, entitled, *Climate Vulnerability Monitor 2010: The State of the Climate Crisis*, encompassed 184 countries and drew on scientific and expert models, and estimations of climate change effects that were translated into local impacts using sets of socio-economic data knowingly affected by or sensitive to changes in the climate. The study estimated socio-economic impacts for 2010 and 2030 and covered a very broad range of effects from human health, through damages due to extreme weather events, such as flooding, storms and wildfires, to desertification, sea-level rise and impacts on agriculture, biodiversity and water resources. The report's analysis was peer reviewed and subject to advisory inputs from expert bodies of more than 30 leading specialists.

SHARE OF TOTAL CLIMATE IMPACT ON SOCIOECONOMIC REGIONS
% of total impact, Additional Deaths



Source: Climate Vulnerability Monitor 2010

KEY FINDINGS ON CURRENT IMPACTS

The Monitor study concluded that climate change already causes large-scale, widespread and growing harm. Key findings included:

- Nearly 350,000 deaths are already caused each year on

average, in particular due to an exacerbating effect of climate change on the major health concerns of malnutrition, diarrheal infections and malaria;

- Over 99% of climate change related mortality occurs in developing countries, and over 80% of climate mortality occurs among children;
- 2.5 million people around the world are currently threatened by climate-driven desertification;
- Stress to economic sectors, above all to land-based and marine agriculture, and as a result of sea-level rise, already cause close to 150 billion US dollars in economic losses each year – of which 65 billion dollars are incurred by developing countries;
- While total economic losses are higher in industrialised countries, effects are much more intense in the lowest-income countries, with the Pacific region, as an example, already registering the equivalent of over 3% losses to GDP as a result of sea-level rise impacts alone;
- Globally, the vast majority of damages are caused by slower-onset effects, such as drought, land-based and marine agricultural production impacts, desertification and sea-level rise, as opposed to fast-onset floods and storms;
- In isolated cases, however, the most extreme storms can cause substantial losses in GDP, such as the equivalent of a 2/3rd loss of the GDP of Antigua and Barbuda as a result of the 1995 Hurricane Lewis;
- Every different type of impact is accelerating rapidly over the next 20 years, when by 2030, if appropriate remedial actions are not taken, ten million people would be threatened by desertification, and nearly one million lives could be claimed each year as a result of warming already built into the climate system.

There is a degree of uncertainty in the estimation of the figures generated by the Monitor, particularly for 2030 estimations, bearing in mind also the global scale of the study. Uncertainties arise due to socio-economic data (i.e. mortality reporting across countries), modelling of the climate, data and scenarios of future emissions of CO₂, and separating out the interconnected relationships between



Senegal
Moustapha Diallo/IFRC

climate change and other factors, such as local degradation or natural climate variation. The real figures could be higher or lower, but are more likely to be higher than lower due, among others, to the difficulty in capturing the full spectrum of effects, and a tendency to conservatively estimate the role of climate change across the board. The Monitor estimates represent robust likely outcomes resulting from climate change.

DISPLACEMENT/MIGRATION

The Monitor did not estimate climate change-induced displacement or migration. Nevertheless, the Internal Displacement Monitoring Centre of the Norwegian Refugee Council estimated 35 million people were displaced in 2010 as a result of extreme hydro-meteorological events which climate change is exacerbating to a significant degree. Given the substantial volume of displacement, internal and cross-border flows likely to be generated as a result of climate change are also deemed to be significant globally.

While refugees fleeing conflict or in fear of persecution have protection and assistance enshrined under the 1951 UN refugee convention and through UNHCR, little or no international protection or internationally mandated assistance schemes are available for environmentally triggered flows of people. This is particularly the case for displaced people or migrants that cross international borders, where exposure to marginal, exploitative or dangerous conditions and treatment is likely to be very high. Therefore, as climate change adds to the volume of migration flows across borders, there is a growing need to strengthen international agreements to ensure legal protection is available.

Permanent local displacement/migration most often results in rural populations moving to urban slums, where the displaced/migrants become exposed to additional dangers and difficult living conditions, while adding pressure to over-stretched urban centres. Within countries however, populations displaced internally have some non-binding protection duties outlined under the international Guiding Principles on Internal Displacement. But substantial increases in flows can overwhelm individual governments, as well as the international community, and capacity and resources will be needed

to support efforts to assist migrant/displaced populations.

GLOBAL & "SPILL-OVER" EFFECTS

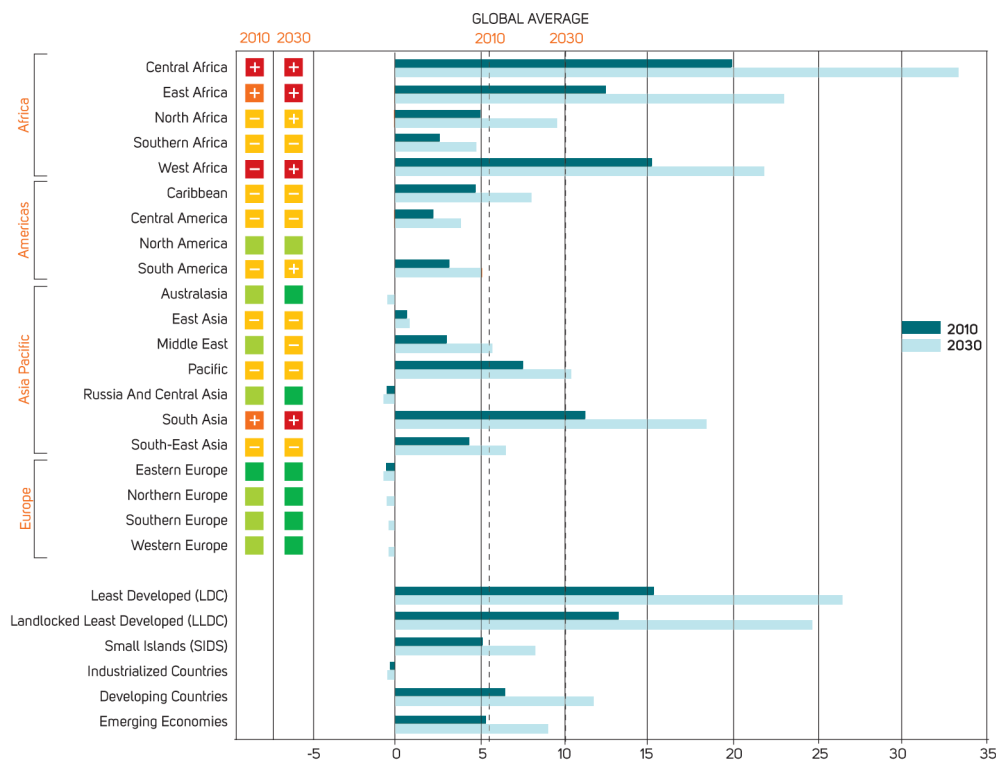
The Monitor firmly underscored the disproportionate effects of climate change on large groups of countries that nevertheless have contributed least to the causes of global warming. It also concluded that no single country, even today, is spared the harmful impact of climate change. In fact, 170 countries – or most of the world – registered a vulnerability factor of "High" to at least one key impact area of climate change under the Monitor's analysis. Furthermore, the United States, together with Spain, as major advanced economies, both registered an overall vulnerability of High, together with mainly emerging and developing countries. The US, vulnerable to tropical storms, floods, drought, wildfires, sea-level rise and desertification, is projected to incur around 40 billion dollars of annual economic losses due to climate change by 2030.

But the adverse effects of climate change to the global society are ultimately distributed among all, particularly in the context of the growth in interconnectedness. In this sense, the nearly 150 billion dollars in economic losses each year are a subtraction from shared global prosperity. Other effects, such as increased migratory pressures due to climate change, are felt more directly. As are the acute effects of climate change registered in a number of highly fragile and conflict-stricken countries, such as Afghanistan and Somalia, where security operations and/or aid programmes are compounded by highly significant climate effects compared on a global scale, which adds to the expense and/or subtracts further from the effectiveness of resource-intensive aid or security programmes. Indeed, much of the taxpayer derived resources spent on development aid over the previous decade or more are put at growing risk as climate change and its effects intensify. In particular, progress against the Millennium Development Goals (MDGs) is almost surgically aligned with key climate impact areas, particularly poverty and hunger (Goal 1) and child health (goal 4) – the two headline lag areas in achieving the MDGs by 2015 – as well as by region, with Sub-Saharan Africa, South Asia and Small Island States worst hit by a lack of progress on the MDGs, in addition to the effects of climate change.

IMPACTS AROUND THE WORLD

The regional and socio-economic distribution of climate-related mortality relative to population in 2010 and 2010

Deaths per 100,000 average per year



Source: Climate Vulnerability Monitor 2010

VULNERABILITY

The ultimate effects of climate change in socio-economic terms are determined by a combination of a community's environmental and socio-economic vulnerabilities. Socio-economic vulnerabilities, however, have a much more significant role in determining the scale of any harmful effects than environmental vulnerabilities do. Low socioeconomic development in particular is directly associated with higher levels of harm due to climate change. The wealthiest countries are by far the least vulnerable to climate change.

INCOME & DEVELOPMENT

Income levels are particularly important in determining vulnerabilities to the human health and extreme weather effects of climate change. Therefore, lower-income countries generally have more acute vulnerability to climate change. The main climate sensitive health disorders of malnutrition, diarrheal infections and malaria have long been eradicated in high-income countries. Damages from extreme weather, such as flooding and storms, are much greater where infrastructure planning and standards, building codes, and insurance coverage are at their lowest, which is the case for lower-income countries.

Indeed, in every situation, socio-economic factors play a major role, to the extent that climate change harms progress towards key development goals, just as lack of progress on development worsens vulnerability to climate change in a vicious feedback cycle. While tropical storms are a regular concern for only a relatively small number of countries, there are very large variations in the scales of impacts seen in exposed places like Japan, China and the United States, versus similarly exposed, but lower-capability, Haiti, Mozambique, Myanmar or Samoa for instance. Moreover, the effects of sea-level rise and desertification, which for example are very severe in the United States, are much less likely to lead to negative effects among communities with high capabilities for autonomous adaptation. Where capabilities are lower, sea-level rise and desertification are damaging to human health, and are driving forced migration and economic hardship. Furthermore, as

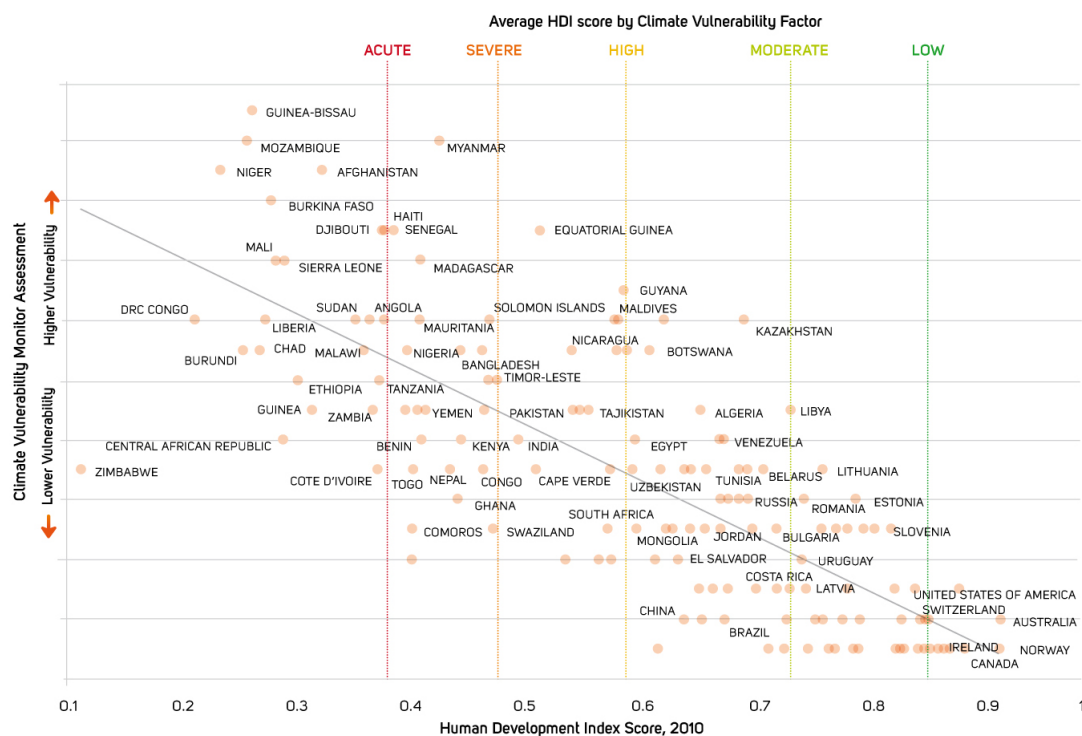
the economic impacts of climate change are mostly felt through effects in the agricultural sector, economies with low sectoral or workforce diversification, and a heavy reliance on agriculture, are particularly exposed to declining primary productivity caused by the effects of climate change. Spain, for instance, is warming and drying with serious negative implications for agriculture, but agriculture represents just 3% of Spain's GDP and 4% of its workforce; in Chad, agriculture is 52% of GDP and 80% of the workforce. Finally, the harmful effects of climate change are accentuated wherever local management and protection of environmental resources, such as forests, fisheries, grazing land, water and biodiversity, have been sub-optimally or unsustainably executed, since additional stresses exacerbate what in some cases are already major environmental concerns.

ENVIRONMENTAL VULNERABILITIES

Income or development levels, however, are not the only determinants of vulnerability to climate change. The effects of tropical storms, sea-level rise, desertification, and stresses on economic sectors, especially agriculture as well as natural resources, are determined to a greater degree than human health by the climatic and environmental conditions of a given community. Sea-level rise, for instance, is most debilitating for the lowest-lying coastal communities, such as island atolls and river delta areas, but of much less concern for higher elevation coastal zones. Desertification only occurs in a certain number of very specific arid regions of the world. The effects on marine agriculture (fisheries) are negative only in the tropics where water temperatures are becoming too extreme for aquatic life – outside the tropics, the warming of cold waters is expected to generate benefits through enhanced fish stocks. While temperatures and heat stress are rising everywhere, continental rather than coastal climate zones experience more warming, and therefore more stress effects, on land-based agriculture and natural resources. Both agriculture and water resources are also heavily affected by changes in rainfall patterns, such as weakening monsoons. Mountain and mountain-fed river

CLIMATE VULNERABILITY AND HUMAN DEVELOPMENT

Correlation between the Climate Vulnerability Monitor assessment and Human Development Index score



Source: Climate Vulnerability Monitor 2010

communities are experiencing more flooding in the spring, followed by increased water shortages in the summer, in particular as glaciers diminish. While overall, climate change is causing an increase in precipitation, certain zones are nevertheless becoming more arid, with correspondingly negative effects for agricultural productivity and water stocks in the affected places, which include parts of Australia, the United States, the Mediterranean, Southern Africa, the Horn of Africa and areas of Central and South Asia.

COMPOUNDED VULNERABILITIES

Climate vulnerabilities and impacts are at their most acute when communities are suffering from multiple stresses across the board and in places where income-related and environmental vulnerabilities are both at extremes.

ADAPTATION

OVERVIEW

Addressing the impacts of climate change benefits from access to an already wide array of measures and response options that can be taken in relation to every type of climate stress, impact and corresponding vulnerability. Adaptation must prioritise between dealing with stemming any immediate harm and ensuring systemic action is taken to address recurring socio-economic and environmental vulnerabilities. Project-based responses, such as privileged by National Adaptation Programmes of Action (NAPAs) of Least Developed Countries (only) to date, have limitations in terms of what they can achieve for reducing vulnerabilities to, and impacts of, climate change. Effective adaptation can bring multiple co-benefits for socio-economic development and disaster risk reduction, just as efforts in those areas can also help reduce climate vulnerabilities. The overarching constraints of financial resources, capacity, technology and economic realities, however, will largely determine the ability of most vulnerable countries to tackle climate vulnerability and its impacts on populations.

GAPS & DEFICITS IN ADAPTATION

The Climate Vulnerability Monitor estimates for climate change impacts of 2010 are representative of the scale of the current "adaptation gap" – the losses incurred that the response has not yet curtailed. These are nearly 350,000 deaths each year, close to 150 billion dollars in annual economic losses, and some 2.5 million people living under pressure due to desertification. Estimates of

annual costs of adaptation in developing countries between 2010-2015 have ranged from around 10 billion to over 100 billion dollars. However, the majority of estimates so far are at around 50 billion dollars per year. Disbursed climate finance spending on adaptation in developing countries during 2010-2011 stands in deficit at about 0.5 billion dollars.

TECHNOLOGY

Crucial technologies for adaptation to climate change also continue to not be available to most vulnerable countries, which could greatly benefit from technical solutions as components of the response to numerous concerns ranging from emergency warning systems to heat-stress resistant crops.

Generally, developed country governments have only limited leeway in sharing existing technologies, even in cases where those have been developed with publicly funded technologies. In the US, for instance, there is legislation from the 1980s that leads to government relinquishing of Intellectual Property rights to the research groups (mainly universities) benefiting from public funds in the development of such technologies. That legislation was a response to the fact that little publicly funded research was ending up in the private sector. Nevertheless, developed governments have not shown commitment to establish more forward-looking programmes targeted at generating technology tools specifically for climate vulnerable countries. And only limited resources have



Kenya
Ray Witlin/UN Photo

been made available for local or regionally-specific technology development, and research and development (R&D). As a result, public-private partnerships, joint implementation and the Clean Development Mechanism have been the main pathways for climate-related technology transfer to developing countries. However, these channels are overwhelmingly mitigation-focused and, in any case, vulnerable countries have chronically deficient access and involvement in them to-date.

COP16 at Cancún established a potentially important Technology Mechanism, including a Climate Technology Centre. If properly financed, and with a strong focus to also take into account the urgent adaptation technology needs of most vulnerable countries, these entities could enable an important new response on technology for tackling the impacts of climate change. Similar resourcing and focus concerns also apply to the COP16 decision for a Cancún Adaptation Framework and to establish regional adaptation centres and networks, including possibly an international centre to enhance adaptation research and coordination.

NO SUPPORT FOR EXTREME WEATHER RESPONSE

When surveying current adaptation policies and spending across countries, one of the two most prominent policy-level gaps evident concerns extreme weather response, the other relates to human health. Since the nineteenth century, the planet has already warmed by almost 1 degree Celsius (or about 1.8 degrees Fahrenheit), with much of that warming having occurred in the last 30-40 years. This warming has affected the entire weather system to different degrees and is particularly manifest as an exacerbating factor in the general extremity of weather. Climate change as a causal factor in extreme weather today has clear-cut scientific foundations, including as recognised by the Intergovernmental Panel of Climate Change (IPCC) in its fourth major assessment report of 2007. However, no climate change finance is currently available for emergency response to any key extreme weather events, such as drought, flooding or storms, despite an increasingly clear intensification of these phenomena today.

HUMAN HEALTH LARGELY ABSENT

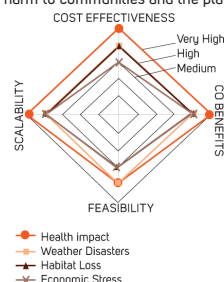
Human health meanwhile represents just 3% of NAPA priority projects despite health concerns accounting for well over 90% of the mortality associated with climate change. The generalised health gap on adaptation suggests that much of the national analysis conducted during the NAPA process did not comprehensively account for the full range of socio-economic as well as environmental risks, which merits closer examination for the benefit of future policy development initiatives.

COST-EFFECTIVENESS

The CVF and DARA's Monitor report also included a review of adaptive measures that can be taken to address each of the main negative effects of climate change, with cost-effective actions already available and being implemented in different regions of the world. Cost-effectiveness, however, varies significantly depending on the type of climate effect addressed and the way in which it is addressed. Particularly cost-effective are emergency responses or preparedness measures addressing human health and extreme weather, such as storms and flooding. Least cost-effective are measures addressing marine impacts to coral and fisheries, and infrastructure responses to sea-level rise. In particular, climate effects on marine agriculture, sea-level rise, desertification and the environmental depletion of natural resources, while technically manageable today, are becoming increasingly difficult to address as global warming intensifies.

ADAPTATION PERFORMANCE REVIEW FINDINGS

An assessment of over 50 key measures that can be taken to reduce dangers and harm to communities and the planet across four main impact areas



Source: Climate Vulnerability Monitor 2010

SYMPTOMATIC VS. SYSTEMIC RESPONSES

Many of the effects – or symptoms – of climate change can be addressed as they occur, such as by distributing bed nets targeting the spread of malaria, or early-warning systems or insurance products to warn and aid the recovery of communities affected by extreme weather. Symptomatic responses will limit impacts but do little for reducing actual vulnerabilities. Rather, systemic responses are needed in order to ensure that underlying socio-economic or environmental problems are adequately dealt with so that fundamental risks can be diffused. Systemic responses are more challenging and can include improving built infrastructure through better building standards, establishing better governance of water resources, or ensuring sustainable rural livelihoods to prevent situations of malnutrition from occurring in the first place. Systemic responses to climate effects relating to human health, extreme weather, agriculture, and natural resources are nevertheless quite feasible. Systemic responses to the challenges of sea-level rise, marine warming impacts and desertification present much greater difficulties due to the all-encompassing and large-scale nature of these effects.

BEYOND THE PROJECT-BASED RESPONSE: MAINSTREAMING AND POLICY RESPONSES

Adaptation to climate change today is primarily being addressed through project work via NAPAs, the work of international organisations and NGOs, and through project-focused entities like the Adaptation Fund. But project work can only go so far in terms of reducing a country's vulnerabilities to climate change. Project work can be complemented by regulatory, legislative, and fiscal responses, from adjustments to local building codes, to subsidies for climate-resilient growth industries. In particular though, climate risks can be built into (or out of) core development and sectoral planning. Government or development partner funding for agricultural projects that increase vulnerability to known local climate concerns, such as heat or water stress, or infrastructure development in flood prone zones, can and should be avoided through analysis and mainstreaming of climate risks. Likewise, medium and long-term economic planning to privilege growth on climate resilient economic sectors, away from dependencies on declining local marine fisheries for instance, can benefit from strategic development planning responses that project efforts can help complement. This will likely involve a reprioritisation of public spending, with recommendations for adjustments to spending plans needing to be grounded in robust sub-national analysis of country, or sometimes, region specific risks and vulnerabilities.

RECOMMENDATIONS FOR CONSIDERATION: ADAPTATION

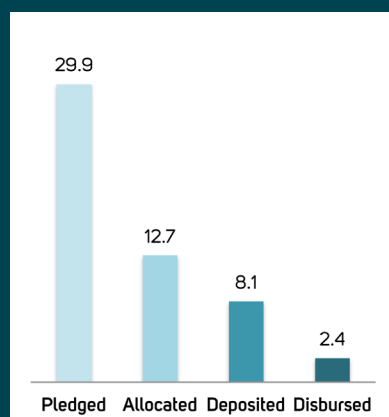
- Climate change strategies and adaptation planning must consider non-project approaches to reducing impacts and vulnerabilities, including the mainstreaming of climate risk into development planning, as well as fiscal/budgetary, regulatory and legislative responses.
- Adaptation strategies should aim to reduce recurring vulnerabilities through systemic responses, in addition to interventions aimed at imminent damages.
- Climate finance should provide for emergency relief to a growing extremity of weather-related events, such as severe drought, floods and storms.
- Responses to headline human health concerns, particularly malnutrition, diarrheal infections and malaria among children, should be immediately reinforced due to a general and chronic deficit in response to these challenges compared with analysis of the likely scale of impact.
- National risk mapping and policy responses should be analysed for accurate response to the full range of socio-economic and environmental damages incurred as a result of climate change.
- Timely and adequate provision of access to key technologies and support for country and region specific research and technology development in support of enhanced adaptation efforts in vulnerable countries, including, in particular, by ensuring full and needs-based resourcing and a prioritisation of most vulnerable countries with respect to the newly agreed UNFCCC Technology Mechanism, including a Climate Technology Centre, and the UNFCCC Cancún Adaptation Framework, including its possible international centre for enhancing adaptation research and coordination.
- Adequate extension of international protection and assistance to hydro-meteorological environmental migrants or displaced people, movements of which are on the increase due to climate change, including through the initiation of a process towards the establishment of an international instrument for the legal protection of environmentally displaced people who are forced to cross international borders.

CLIMATE CHANGE FINANCING: UPDATE ON STATUS

THE STATUS OF CLIMATE FINANCE

The promised 30 billion dollars worth of climate finance have been voiced in pledges by developed (UNFCCC Annex II) countries in accordance with agreements reached in Copenhagen and Cancún (COP15 & COP16). However, the amount of resources available for climate change adaptation or mitigation in developing countries is much less. On the basis of latest available information, by mid 2011, governments had actually taken legal or fiscal steps to set aside financial resources for less than half of the pledged amount, or 14.5 billion dollars ("allocated", or firmly committed). Only one quarter of the total resources in question, or 8.1 billion dollars, has been reported as deposited in climate finance funding mechanisms. Nearly two years into the three-year funding commitment, just 2.4 billion dollars worth of resources, or a mere 8% of the pledged amount, can actually be said to have been disbursed to country programmes or projects.

STATUS OF FAST START FINANCE
Billions of US Dollars (status at mid-2011)



Source: World Resources Institute and climatefundsupdate.org

SLOW DISBURSAL OF "FAST START" FINANCE

Disbursement rates for Climate Finance do not measure up to expenditure under Official Development Assistance (ODA). ODA disbursement rates are at an average of 80% for any given year. This means that 80% of allocated resources are actually disbursed to country programmes, projects or drawing accounts by the end of the year for which they have been earmarked. In comparison, Fast Start Climate Finance has an 8% disbursement rate for the first half of the three-year funding period, or approximately 5% per year – a drastic 75% lower than ordinary ODA. So-called Fast Start Finance for climate change is so slow, that with the current disbursement rates, the resources pledged for 2010-2012 would still be being disbursed in the year 2029- provided developed governments do move to firmly allocate the outstanding 15 billion dollars, which are currently pledges only. Had Fast Start Finance been spent as ordinary ODA, 80% of the resources would already have been disbursed, or by mid-2011, some 12 billion dollars, versus the approximately 2 billion dollars that have actually been spent to-date under the Fast Start regime.

ANNUAL DISBURSEMENT RATES: ODA VS. FAST START FINANCE

ODA	FAST START	FAST START FULL DELIVERY
2006-2009 Average	2010-2011 Total*	Year Projected on Current Trend
80%	8%	2029

*Total for 2010-2011 as of mid-2011

Source: DARA, OECD, World Resources Institute, Climate Funds Update



Sudan
Tim McKulka/UN Photo

ADDITIONALITY IN CLIMATE FINANCE

LACK OF NEW/ADDITIONAL FINANCE

Would Fast Start Finance have existed in the form of ordinary ODA if those resources had not been pledged to climate change? Firstly most, if not all, developed countries have classified Fast Start Finance as ODA, contrary to requests made by developing countries. An answer to this question can therefore be found in the analysis of advance ODA spending plans made prior to the agreement on the Bali Road Map (in December 2007), where provision of climate finance by developed countries was made firm as a key element for negotiation. Commitments made by governments in 2005 particularly in connection with the Gleneagles G8 summit included forecasts of ODA spending to the year 2010 for nearly all developed countries. Despite generalised increases in ODA as a percentage of GNI from 2005 through 2010, only five governments actually attained their forward planning targets by the end of 2010: Denmark, Luxembourg, The Netherlands, Norway and the United States.

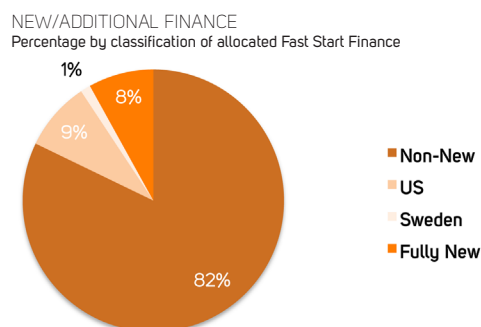
Additionally, while Sweden did not attain its forward planning provision of 1% of Gross National Income (GNI) by 2010, actual Swedish spending in 2010 was 0.97% of GNI, which is well in excess of the internationally established 0.7% target agreed at the UN in 1970. Therefore, Sweden's Fast Start contribution is considered new and additional, whereas the United States exceeded their 0.18% planning target for 2010 by 0.03% (achieving 0.21% of GNI). But overall US expenditure on ODA falls so far short of the 0.7% ODA target that considering its contributions to Fast Start Finance for climate change as new and additional is highly contentious. Japan, on the other hand, stands head and shoulders above other countries in terms of the volume (some 7 billion dollars out of the 15 billion dollars firmly allocated to Fast Start Finance) and share (0.13% of GDP) of its GNI allocated to climate finance. Its contribution, however, cannot be said to be additional to previously planned increases in ODA already foreseen for spending on development aid/poverty reduction efforts. It is of further note that, at a collective 0.03% of the GDP of developed countries, climate finance is currently at near inconsequential levels – numerous developed

**ADDITIONALITY AGAINST 2005 ODA PLEDGES FOR 2010
& ALLOCATED FAST START FINANCE**

COUNTRY	2005 ODA 2010 TARGET	ODA 2010 ACTUAL	2010 ODA TARGET MET	2010-2011 ALLOCATED CLIMATE FINANCE	
	% GNI	% GNI	√/X	millions USD	% GDP
Australia	0.37	0.32	X	641	0.05%
Austria	0.51	0.32	X	N/A	N/A
Belgium	0.70	0.64	X	60	0.01%
Canada	0.33	0.33	X	410	0.02%
Denmark	0.80	0.90	√	59	0.02%
Finland	0.70	0.55	X	143	0.06%
France	0.61	0.50	X	610	0.02%
Germany	0.51	0.38	X	510	0.01%
Greece	0.51	0.17	X	6	0.00%
Iceland	N/A	0.21	X	1	0.01%
Ireland	0.60	0.53	X	35	0.02%
Italy	0.51	0.15	X	426	0.02%
Japan	0.22	0.20	X	7,200	0.13%
South Korea	N/A	0.12	X	N/A	N/A
Luxembourg	1.00	1.09	√	4	0.01%
Netherlands	0.80	0.81	√	433	0.05%
New Zealand	0.35	0.26	X	38	0.03%
Norway	1.00	1.06	√	474	0.11%
Portugal	0.51	0.29	X	30	0.01%
Spain	0.59	0.43	X	192	0.01%
Sweden	1.00	0.97	X	165	0.03%
Switzerland	0.41	0.41	X	18	0.00%
UK	0.59	0.56	X	1,044	0.04%
US	0.18	0.21	√	1,704	0.01%
Overall	0.53	0.31	-	14,203	0.03%

Source: OECD, World Resources Institute, DARA

countries have earmarked just 0.01%, several even less than 0.00%, of GDP to support adaptation/mitigation in developing countries.



Source: DARA

The remaining countries' ODA expenditures are not in excess of the 0.7% target. Nor have they achieved their own forecasted ODA planning objectives for 2010. These countries make up 82% of allocated Fast Start Finance resources. Since these countries had already planned to increase ODA and are, in the far majority of cases, far short of the internationally agreed ODA target of 0.7%, it is impossible to say that any Fast Start Finance resources from these countries are new, or additional. Given current levels of information available on climate change financing and ODA, only 9% of allocated Fast Start Finance can be said to be new/additional. The remaining 91% would likely have been spent as ODA for poverty reduction and sustainable development purposes had it not been allocated to climate finance. Since all these figures are percentages of GNI (i.e. total sums fall when GNI falls), this analysis is already largely adjusted for the effect of the global economic downturn experienced over the course of the focus time period.

DEVELOPING COUNTRY POSITIONS ON ADDITIONALITY

Part of the difficulty in enforcing clarity on additionality of climate change finance relates to the degrees with which country positions on the matter have been expressed in official statements. World Resources Institute (WRI) analysis of country statements in the run-up to the Copenhagen Accord (see table) shows the degree to which developing countries varied in their specification of additionality in climate finance. The majority simply called for additionality to ODA tout-court. Others, called for additionality to existing aid flows, which likely means anything above 2009 levels of ODA resources (either by percentage of GNI or volume). AOSIS and Bangladesh specified that additionality meant resources in excess of the ODA target of 0.7%, which has only been met by five developed country governments. As a result, while both the Copenhagen Accord and the Cancún agreements explicitly mention "new" and "additional", lack of precision on this key point has helped generate a situation whereby virtually none of the Fast Start Finance can reasonably be considered either new or additional.

COUNTRY POSITIONS ON CLIMATE FINANCE ADDITIONALITY	
POSITION SPECIFIED	COUNTRIES/ GROUPS
Additional to ODA targets of 0.7% GNI	AOSIS, Bangladesh
Additional to existing aid flows	Africa Group, China, Singapore
Additional to ODA	G77 & China, Bolivia, Brazil, Colombia, Costa Rica, India, Suriname, Lebanon, Trinidad and Tobago
Blend of ODA and non-ODA	European Union, Mexico, UK, US

Source: World Resources Institute (2009)

FLAWS IN FINANCING

THE 2013-2020 CLIMATE FINANCE GAP

The Copenhagen/Cancún agreements include the commitment by developed countries to the mobilisation of 100 billion dollars per year of climate finance for the needs of developing countries by 2020. As of end 2011 there is full clarity on the total absence of an agreement of any kind on climate finance for developing countries between the years 2013-2019, nor, as a result, on any incremental increase in the volume from (theoretically) 10 billion dollars per year (under Fast Start Finance) to 100 billion dollars per year between the end of the Fast Start regime after 2012, and the year 2020. No provision whatsoever exists regarding volumes of climate change finance for the entire period beginning in January 2013 through to December 2019, a period of seven years. Nor has the question of financing for 2013-2020 otherwise been the subject of any substantive discussion within the new Transitional Committee for the establishment of the Green Climate Fund (GCF) – a body that has met over the past year to prepare for the implementation of the the GCF. In particular, the report of the GCF Transitional Committee to COP17 in Durban does not make reference in any respect to the 2013-2020 financing gap. Nor does the consolidated report prepared for Durban on the Standing Committee on UNFCCC financing, which is still pending establishment.

The extremely slow disbursement rates of Fast Start Finance give cause for concern that no new finance would be made available for the needs of developing countries for either mitigation or adaptation before 2020. And such is the case despite the expectation, and indeed, despite the basic needs of climate change adaptation and mitigation, that climate finance would be incrementally increased from current flow levels over this period, gradually reaching the 100 billion per year target by 2020.

Furthermore, 100 billion dollars inflation-adjusted at the annual rate of 3.5% as projected by the IMF, would equate to 70 billion in 2010 dollar terms by 2020, with additional value loss likely to be incurred

due to recent and long-term USD exchange rate decline.

TRANSPARENCY AND REPORTING

The level of transparency and coordination of reporting on climate finance is chronically deficient and severely restricts any meaningful analysis of funding flows and status, as well as destination countries for spending. Reporting is currently voluntary, decentralised and incomplete with some countries not even specifying channels. Formats used by developed countries are incoherent, incomparable, and vary widely in the resolution of information available.

CLIMATE FUND PROLIFERATION

There are approximately 20 international climate funding mechanisms where developed countries are depositing climate finance, in addition to bilateral channels. Coupled with transparency and reporting issues, it is also difficult to ascertain from such a wide range of funding channels what might be a likely allocation of financing to countries globally, such as the degree to which most vulnerable countries might benefit from these funds in accordance with the commitments made in that respect. Because of a differing geographic focus across the many funds, detailed analysis would need to be undertaken country-by-country to establish what proportion of available funds any one government might have access to.

INHIBITED ACCESS TO FUNDING

In general, the capacity for most vulnerable countries to engage with such a complex and wide-ranging financial architecture is extremely challenged to the extent that accessing even the limited resources available is severely inhibited. Either a rationalisation or streamlining of funding mechanisms, the creation of a facilitating portal, or country-by-country technical assistance would be required in order to fully facilitate the accessing of finance by the most vulnerable countries.

SHARED/DEVELOPING COUNTRY GOVERNANCE DEFICIT

Despite country-ownership being central to the 2005 Paris Declaration on Aid Effectiveness, climate finance is mainly donor owned, although a number of examples of partnership governance funding entities are in existence. Most of the bilateral climate funds are contributors/donors-only controlled, such as the International Climate Initiative (Germany), but also several multi-lateral mechanisms. Partnership model climate funds include the Global Environment Facility (GEF) sub-funds, the Least Developed Country Fund (LDCF) and the Special Climate Change Fund (SCCF), as well as the Adaptation Fund and the Clean Technology Fund, all of which have joint representation of developed and developing countries. The Indonesia Climate Change Trust Fund (ICCTF) is an example of a developing country-only climate fund governance model.

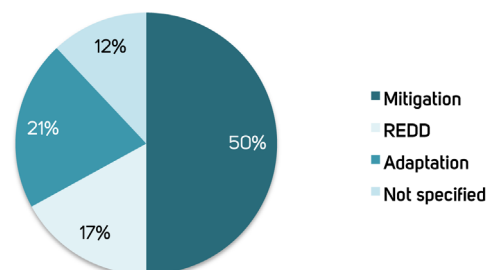
HAZARDOUS ADAPTATION DEFICIT

Copenhagen/Cancún firmly established the objective of achieving a balanced allocation between adaptation and mitigation for climate finance, understood as a 50:50 distribution. However, every single developed country has adopted different policies with respect to the allocation between mitigation and adaptation. The result is that only 21% of Fast Start Finance is for expenditure on adaptation. Mitigation is at 67% of specified expenditure, of which 17% will be through REDD. The remainder is not specified. That the purpose of 12% of climate finance is not even made public, further underscores concerns relating to deficiencies on transparency and reporting.

Adaptation responses are much more reliant on public/grant resources than mitigation, which has greater access to business/private sector finance. Furthermore, shortfalls in adaptation responses place human lives and livelihoods at great risk. A 50% allocation of theoretical Fast Start Finance amounting to 5 billion

dollars per year is ten times less than an average of estimates of the costs of adaptation in developing countries, and substantially less than the 65 billion dollars in annual economic losses that developing countries alone are already incurring due to climate change as estimated by the *Climate Vulnerability Monitor*. Hence, it is of great importance for the foreseeable future to achieve, at minimum, 50% of climate finance expenditure on adaptation.

DISTRIBUTION BETWEEN ADAPTATION AND MITIGATION
Proportional focus (percentage) of allocated Fast Start Finance



Source: World Resources Institute, DARA

DUAL-FOCUS ADAPTATION-MITIGATION PROJECTS

Beyond the imperative of ensuring adequate financing of adaptation, mitigation funds could also be effectively spent in areas that would yield additional payoffs for adaptation and also socio-economic development, food security, human health and gender development, as well as for the local environment. Examples of dual-focus adaptation-mitigation projects already being implemented in developing countries include: energy-efficient cooking stoves, soil-carbon sequestration, bio-energy with carbon capture and storage, and agro-forestry programmes.

MOBILISING NEW CLIMATE FINANCE

The prevailing climate finance deficit could itself be immediately made up from a variety of different channels already outlined in the report of the UN Secretary-General's High-level Advisory Group on Climate Change Financing, issued in November of 2010, such as through a "Tobin Tax" on financial transactions, and a transfer of inefficient fossil fuel subsidies in developed countries that could collectively yield 10 to 87 billion dollars per year of new/additional climate finance without delay. Financing from private sources will also provide an important component of any financing package.

ADVISORY GROUP ON CLIMATE CHANGE FINANCING

The report of the UN Secretary-General's High-level Advisory Group on Climate Change Financing issued in November of 2010 details a wide range of conventional and so-called innovative financing initiatives that could be undertaken to achieve what is seen as a viable goal of mobilising 100 billion dollars worth of climate change finance for developing countries per year from 2020 onwards. The report covers carbon market revenues, international transport levies, development bank instruments, and private capital, among others. Of particular interest are two relatively simple instruments that could quickly be implemented for the generation of large-scale new resources for climate finance.

FINANCIAL TRANSACTION – "TOBIN" – TAX

First is the so-called "Tobin Tax" (named after the American economist James Tobin) – a proposed tax to be levied on financial transactions. The Advisory Group estimated 2 to 27 billion dollars could be raised from this source. These figures imply a minute 0.001% to 0.01% levy on all financial transactions globally, which respectively would entail a 3-6% or 21-37% reduction in volume of financial transactions. The 2-27 billion dollar figures assume a 25-50% allocation of total tax proceeds allocated to climate change finance.

The Tobin tax has been gathering momentum, in particular since the onset of the global financial crisis beginning in 2008. Leading economists, including Nobel economics laureate Joseph Stiglitz, among many others, support the idea of a financial transaction tax for meeting social resource needs, including climate change, as have a number of major NGOs, such as Oxfam. Angela Merkel of Germany, Nicolas Sarkozy of France and Gordon Brown of the UK, also spoke out in support of the idea in 2010; in 2009, then US House of Representatives Speaker, Nancy Pelosi, did so too in the context of a G20 financial transactions tax. More recently, in 2011, the European Commission has put forward intentions to implement the tax in the EU aimed in particular at curbing growing financial speculation and increasing its revenues by an estimated 78 billion dollars a year from 2014, although with no specific mention of support to international climate finance. The EU plan continues to meet opposition from the UK, home to one of the world's largest financial centres. But the German Finance Minister, Wolfgang Schäuble, speaking in October 2011, has insisted that the EU-wide debate to introduce the tax must continue in spite of the UK's position. While it could be difficult to implement universally – failing which there are definite negative effects for its performance – even a limited arrangement could still generate several billion dollars in new resources.

TRANSFER OF DEVELOPED COUNTRY FOSSIL FUEL SUBSIDIES

The UN Advisory Group also estimated that between 8 and 60 billion dollars per year are spent on fossil fuel production subsidies in developed countries – in full misalignment with climate change responses – and could be removed, transferred or redirected toward international climate finance. Since transfer of subsidies would imply a mainly domestic response, implementation could be more rapid when compared with those financial sources requiring greater degrees of international coordination.



Haiti
Marc Dormino/UN Photo

PRIVATE SECTOR FINANCING

A proportion of the 100 billion dollars pledged for mobilisation by developed countries by 2020 is expected to be drawn from private sector resources in general. Although developing countries have consistently requested that funding should come mainly from public financial resources, with private and other alternative resources of funding only as supplementary. Whatever the exact final balance, responsibility to generate additional private sector resources from

a given amount of public funding cannot be reasonably shouldered by most vulnerable countries with severe capacity constraints and insufficient capability to upscale those resources. That said, an effective utilisation of resources will necessarily include the mobilisation of private investment as a core element of amplifying the impact of any resources, and for furthering the stimulation of a worldwide green and climate-resilient economy.

RECOMMENDATIONS FOR CONSIDERATION: FINANCE

- Immediately accelerate disbursement of so-called Fast Start Climate Finance, targeting a bare minimum of 50% disbursement of total funds (up from 8% to date) by December 2012, and in excess of 90% disbursement of total funds before the end of 2013.
- Take immediate steps to firmly commit to the allocation of all outstanding Fast Start Finance pledges (of 15.5 billion dollars).
- Agree on a common definition of the baseline for new or additional climate change finance.
- Reallocate and deposit any newly allocated/remaining funds through accelerated funding mechanisms to ensure compliance with minimum acceptable disbursement rates and rapid progress towards achieving comparability with ODA disbursement rates.
- Insist on the specification of exact financial commitments on climate finance for developing countries in particular for the year 2013, but also, as a priority, information relating to the incremental increases of climate finance, on an annual or biennial basis, for the period from January 2013 to December 2019, in steady increase towards the 2020 target of 100 billion dollars.
- Specify the 100 billion dollar target in exchange-weighted 2010 dollar terms, or otherwise, in order to firm up certainty on the scale of future financial flows.
- Ensure the operational establishment of the Green Climate Fund as of January 2013.
- Initiate a standardisation process of reporting on climate change finance with full transparency of flows/channels and a common registry based on comparable quantitative and qualitative indicators, and comprehensive information on Fast Start Finance to be provided in a comparable format to the UNFCCC Secretariat by May 2012.
- Increase the proportion of resources available for adaptation, ensuring a true 50:50 balance of pledged resources, without compromising on the potentially multiple co-benefits of dual-focus adaptation and mitigation programmes.
- Limit the number of funding mechanisms, whose proliferation complicates accounting, transparency and delivery, and stretches the capacity of vulnerable countries to interface with/fully access financing.
- Mandate a study to ascertain the implied country-based allocation of the current universe of climate change financing mechanisms, and take any necessary remedial actions to ensure priority for the most vulnerable developing countries, such as the Least Developed Countries, land-locked and Small Island Developing States and Africa.
- Ensure greatly enhanced developing country-owned governance of climate finance, by increasing representation of developing countries, particularly most vulnerable countries, within the governance structures of existing donor-dominated climate funding mechanisms, or by consolidating instruments towards enhanced developing country governance.
- Ensure timely and adequate resourcing of enhanced adaptation and mitigation within developing countries, including via the adoption of a financial transaction tax and the transfer of production subsidies for fossil fuels in developed countries towards support for climate finance.



THE GLOBAL RESPONSE TO MITIGATING CLIMATE CHANGE

THE CURRENT GLOBAL PATHWAY

GLOBAL CLIMATE PATHWAYS							
	ACTUAL 1990	ACTUAL 2005	1.5°C PATH 2020*	2.0°C PATH 2020*	UNFCCC BEST 2020	UNFCCC WORST 2020	BIZ AS USUAL 2020
GHG Emissions (Gt CO ₂ e/year)	37	44	39	44	49	53	56
Population (billions)	5.3	6.5	7.7				
Per Capita (t/CO ₂ e)	7	6.8	5.1	5.7	6.4	6.9	7.3
Likely C21st (Actual) Warming	(0.6°C)**	(0.8°C)**	1.5°C	2.0°C	2.5-3.0°C	3.0-4.0°C	4.0-5.0°C

*Pathway implies high likelihood of the need for industry to generate negative global emissions after 2050/2060. ** Actual temperature increase difference based on rounded 3-year average vs. 1880 temperatures.
Source: World Resources Institute, UNEP, World Bank/UN, NASA GISTEMP

Effective adaptation can help to limit damages linked to climate change in the short-term. But the effectiveness of adaptation diminishes rapidly as global warming intensifies. The window of opportunity for preventing a large-scale escalation in warming through mitigation efforts is also now fast narrowing. But while current pathways and policy commitments, particularly of developed countries, provide ample cause for concern, meeting ambitious climate targets is well within reach still, particularly through a more active engagement of vulnerable countries in the low-carbon sector.

The world is currently on track for 4 to 5 degrees Celsius of warming (during the 21st Century), under business as usual economic development. If the basic commitments of Copenhagen/Cancún are fulfilled, warming this century would be slightly lower, at around 3 to 4 degrees Celsius. If all countries and groups were to apply conditional commitments in the context of a global agreement, and strict "accounting rules", warming could be further limited to 2.5-3 degrees. Achieving either the present global goal of limiting temperature rise to 2 degrees, or the CVF goal of 1.5 degrees, is out of the scope of current policies.

In order to actually achieve a climate goal beyond business as usual, so-called emission "pathways" - snapshots of the global situation, in this case as seen in the year 2020 - imply compliance or not with a given climate objective. In general, 2020 emissions would need to be 5-17 gigatons of CO₂ lower than projected, so as to have meaningful chances of reaching either the 2.0 or 1.5 degree Celsius temperature goals. Total emissions are projected to be at 49-56 gigatons of CO₂ (per year), depending on the success of the various UNFCCC commitments. Lowering emissions by between 5 and 17 gigatons/CO₂ by 2020 is the policy challenge now facing the international community and the world.

EQUITY OF RESPONSES

By 2020, if the world is to have a likely chance of achieving the 2 or 1.5 degree warming limits, per capita emissions of Greenhouse Gases (GHG) would need to be between 5.1 and 5.7 tons, bearing in mind the world will have nearly one billion more inhabitants than in 2010. Currently, the basic Copenhagen/Cancún commitments have the world on track for 7 tons per capita. In 2020, developed countries like the US or Australia will be at 15 tons, and the EU (27 countries)



Maldives
Stacey Winston/IFRC

OVERVIEW OF GLOBAL CLIMATE ACTION AND RESPONSIBILITY

COUNTRY /GROUP	LIKELY 2020 COMMITMENTS - LOW/HIGH (1990 BASE)*	2005 EMISSIONS PER CAPITA (t/CO ₂)	2020 EMISSIONS PER CAPITA (COMMITTED)	2005 SHARE OF GLOBAL EMISSIONS**	SHARE OF RESPONSIBILITY	
					STRICT•	LIMITED†
China	+496%	4	10	16.4%	6.4%	12.0%
US	-3%	20	15	15.7%	25.6%	20.1%
EU-27	-20%/-30%	10	9	12.1%	\$19.1%	\$14.7%
Brazil	+168%	2	3	6.7%	5.2%	5.0%
India	+346%	1	2	4.3%	0.3%	1.0%
Japan	-25%	10	6	3.2%	2.8%	3.7%
Canada	+3%	18	14	1.8%	N/A	N/A
Australia	+13%/-11%	21	15	1.3%	N/A	N/A
LDC	N/A	2	2	4.1%	±4.1%	±4%
World	+90%	6	7	-	-	-

* Not including LULUCF or bunker fuel; ** Includes LULUCF and bunker fuel; • "Strict" responsibility as calculated by Meuller et al. (2007), based on cumulative global GHG emissions since 1890 above 7 tons CO₂/capita, deemed inoffensive to climate safety; † "Limited" responsibility (l/"epistemic constraints") also calculated by Meuller et al. measures responsibility based on emissions of GHG since 1990 only; § EU-25, not EU-27; ‡ Includes AOSIS together with LDCs (76 countries). Source: World Resources Institute, The Brookings Institution, UNEP, Benito Mueller et al./Oxford University

at 9 tons – all well in excess of a fair per capita distribution of action/responsibility. Among developing countries, the only major economy expected to exceed the mean global per capita target is China at 10 tons per head. India, LDCs and AOSIS are all at about 2 tons per head; Brazil is at 3 tons. Japan is one of the only advanced economies to be on track for mean per capita emissions at about 6 tons per person.

REVISING THE GLOBAL GOAL OF 2.0 DEGREES CENTIGRADE

Global warming of 1.5 degrees Celsius is roughly double the amount of warming the world has experienced since before the industrial revolution over 150 years ago. 1.5 degrees Celsius is likely to be experienced by mid-century depending on the level of GHG emitted. That means the same amount of warming occurring over 150 years,

repeated in the space of just 20-40 years. Such an acceleration of warming and the predictable escalation of harmful effects is a dangerous prospect. Warming of 2, 3, 4 or 5 degrees – 3 to 6 or more times the level of warming to-date – would be catastrophic. The recent UNFCCC agreements foresee a possible revision of the global ambition of collective climate action by 2015, whereby the 2 degrees Celsius target could be revised. Interestingly, by 2020, only 5 gigatons of CO₂e separate likely 1.5 degrees from 2 degrees pathways, just as barely 10 gigatons/CO₂ separates a 2 degrees outcome from 5 degrees of warming. Whether or not a revision to 1.5 degrees is achieved in 2015, a comprehensive, long-term and equitable agreement should be in effect from 2015 onwards in order to ensure the agreed temperature limit is managed in a fair and effective international legal context going forward.

UNFCCC TRACK: STATUS

The Kyoto Protocol is set to expire with the conclusion of its first agreed commitment period at the end of December 2012. While the US never ratified Kyoto, a number of countries that did – in particular, Japan, Russia and Canada – have categorically stated they will not be a part of a second commitment period to Kyoto, especially unless the architecture of the agreement is revised to also govern the economic activities of developing countries. The US continues to remain absent. Kyoto could however legally continue solely or primarily as an EU project, which should ensure at the minimum the continuity of the international carbon markets/transfer mechanisms, such as the Clean Development Mechanism (CDM), that are part of the Kyoto agreement.

A NEW GLOBAL AGREEMENT?

The parallel track of climate negotiations under the UNFCCC aimed at reaching a new and more comprehensive global agreement is likewise still making slow progress since its overshooting of the Bali Road Map target of the end of 2009 for completing these talks. A major impediment to a new global agreement is the inability of the US to commit to even its Copenhagen Accord emission reduction pledge of 3% (1990 equivalence), since that pledge was lodged as subject to legislative action – action since quashed in the US, with little promise on the horizon. In the absence of any consequential climate action on the part of the US, further bound action from China and the very few other large-scale emitters among developing countries has not been forthcoming.

The situation is not aided by widespread climate skepticism within industrialised nations, particularly in the US where only around 50% of the population believes in climate change, despite a 97% scientific consensus reaffirmed following highly publicised “climate gate” and other attacks. This deficit of public support is echoed in a chronic lack of political will and leadership in a number of key developed countries.

Taken together, these challenges render unlikely the short-term conclusion of a new global climate agreement meaningful enough to actually meet 2 or 1.5 degree climate targets, since other developed governments are neither furthering their commitments either to equitable per capita emission levels (bar Japan), nor willing to make up the gap left by inaction in the world’s largest economy.

CONSEQUENCES OF AN INTERNATIONAL CLIMATE VACUUM

If no second commitment period to the Kyoto Protocol is agreed, and no new global climate agreement succeeds the accord in January 2013, the world will enter an international legal vacuum with respect to climate change. A non-exhaustive list of some of the immediate and quite concrete consequences of such a vacuum would include:

- Ensuring near-term pursuit of non-conditional Copenhagen/Cancún pledges at best, setting the world on track for 49 gigatons of CO₂e by 2020, or on path for about 3°C of warming;
- Seriously heightened risks of lenient carbon accounting and rules with a predictable further worsening effect on the global carbon budget for 2020, and subsequent global warming;
- Destabilising and sapping of investor confidence in green business and development; and,
- Further exacerbating the effective functioning of the CDM, which is a vital pillar of sustainable development and technology transfer in developing countries and a principal replenishment channel for the Adaptation Fund.

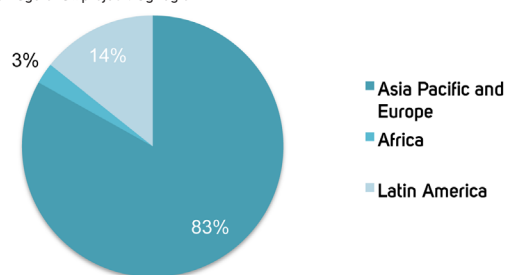
CLEAN DEVELOPMENT MECHANISM

The CDM generates additional value for a range of development projects in the form of saleable Certified Emission Reductions (or CERs) – a major form of carbon credits – when cuts in GHG emissions of developing countries are carried out and then

purchased/transferred to developed countries in support of more cost-efficient emissions reductions there. But the global economic downturn and insecurity over UNFCCC outcomes have affected the CDM’s volume and importance so negatively that volume has reduced by around 50% since 2008. Sustaining the Kyoto Protocol or transferring CDM governance to some other international climate regime is essential for the CDM’s ongoing operations into the future.

The instrument, while imperfect, is an essential tool for achieving global climate safety. It can also act as a powerful instrument for driving sustainable development, technology transfer and green investment in developing countries. It is also the principal avenue whereby developed countries can lower the costs of their transition to a low-carbon society, by maximising their ability to tap into globally-occurring comparative cost advantages in the low-carbon sector. The added income stream generated through CER sales can also be a major boon for countries where local political and financial risks are so high that commercial activity is severely inhibited. As such, successful CDM projects have been carried out in all contexts, however fragile. Crisis-afflicted Côte d’Ivoire, for instance, has three CDM projects on its horizon.

CLEAN DEVELOPMENT MECHANISM PIPELINE
Percentage of all projects by region



Source: UNEP Risoe

Most developing countries, however, have chronic deficiencies in terms of access to the CDM instrument. Despite recent moves to simplify the architecture of project registration, around 80% of all projects are carried out in China (over 45%), India (over 20%), Brazil and Mexico alone. Africa as a continent has less than 3% of all CDM projects in view globally. West Africa is at just 0.4%. The EU has stated it will focus CDM projects on Least Developed Countries after 2013, to the exclusion of Brazil, China, India and Mexico who dominate the international carbon market to date. It has also been suggested that China may need to halt CDM issuance at around 2015 – since China has to meet domestic emission reduction commitments, rather than selling those credits to other countries. At around half the current market volume of CERs, a Chinese withdrawal in supply could substantially raise the price of carbon credits, but also provide an opportunity for many vulnerable countries to enter carbon markets more forcefully.

The main hurdles for most developing countries to engage on CDM so far include a lack of capacity to register and implement often complex and large-scale emission reduction projects. But also local capacity to generate viable projects in the first place. Finally, even CDM-backed income streams cannot overcome the most elevated local financing costs and political risks. Targeted, sustained and comprehensive technical assistance and capacity building of private and public sector actors will be vital to ensuring fuller involvement of vulnerable countries in the CDM. Meanwhile, vulnerable countries are in general foregoing the opportunity to benefit from this new access avenue to potentially large-scale foreign direct investment flows often associated with CDM projects.

Ensuring CDM access to a wider group of developing countries is in the global interest and will support the low-carbon transition in industrialised countries. A majority of developing countries could

benefit from capacity building aimed at overcoming financial and expertise-related barriers to accessing the CDM. The increase in the supply of carbon credits resulting from a wider involvement of developing countries in the CDM would exert downward pressure on the price of emission offsets/transfers, rendering emission reductions cheaper on a global level. Such a move would also increase the transfer of low-carbon technologies to vulnerable countries (45% of CDM projects are deemed to have involved a transfer of technology of one kind or another), help drive economies of scale by ensuring higher volumes among existing technologies, and provide facilitated access to the lower marginal costs of mitigation in low-income

countries.

Finally, an expanded role for the CDM among wide groups of developing countries would also ensure a growing contribution to adaptation finance via a 2% levy on the proceeds of Certified Emission Reductions issued under the CDM. That levy is expected to generate around 350 million dollars for the first commitment period of the Kyoto Protocol by end 2012, which compares to around 500 million dollars estimated to have been dispensed on adaptation overall during 2010-2011. CDM adaptation resources are channelled through the UNFCCC Adaptation Fund. However, a more expanded role for the CDM could see a significant increase in such resources.

PARALLEL STRATEGY: NON-CO2 GASES

Efforts for dealing with climate change have largely focused on reductions of carbon dioxide (CO₂). Rightly so, since reductions of CO₂ are mandatory to any strategy able to stem global warming, owing to the long-term warming effect of CO₂ (which has a lifetime of 100 years or more). But a number of other GHG gases or substances, such as methane, black carbon/soot and low-lying ozone, are also present in large volume in the earth's atmosphere and contribute significantly to global warming. Certain of these substances, such as ozone or black carbon are not directly managed by any international agreements. Others, like methane, are governed by international agreements including Kyoto, but their relatively limited presence in wealthy industrialised countries, bound to reduce emissions under such instruments, has so far limited the role of methane in climate change mitigation.

In general, emissions of non-CO₂ gases are very closely linked to income levels, since wealthier countries can afford the technology and processes to regulate and contain their generation. Indeed, mitigation of non-CO₂ is chiefly a capacity issue. If international support – including appropriate technology, finance and capacity – could be provided to lower-income countries to enable them to tackle non-CO₂, a rapid and globally significant reduction of these substances would be entirely foreseeable. That could generate additional gigaton reductions of GHGs (in complement to CO₂ efforts), which would be in the firm interest of all. Ensuring a parallel focus on non-CO₂ gases could make up a large share of efforts to close the global emission reduction gap by 2020. UNEP has estimated that drastic but achievable reductions of key non-CO₂ gases could halve warming by mid-century.

WHAT ARE NON-CO2 GASES?

Contrary to CO₂, several key non-CO₂ gases are much shorter-lived, with certain substances, such as black carbon, only present in the atmosphere for a matter of a few weeks. Since these gases are being produced continuously through socio-economic activities, they nevertheless have an ongoing warming effect on the earth's climate. But their eradication would take effect nearly instantaneously or within around ten years (for methane), contrary to one hundred years or more for CO₂. The warming potential of these gases compared with CO₂ can be several hundred or even thousand times more significant, especially in the short-term. In fact, burning some of the gases at their source is considered an effective mitigation action, since the transformation of flared methane escaping land-fills or coal mines into CO₂ reduces the warming contribution by some 25 times (over 100 years).

Principal non-CO₂ gases include methane (CH₄), nitrous oxide (N₂O), sulphur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons, all of which are governed by the Kyoto Protocol. In addition, ozone (O₃) in the lower-atmosphere ("tropospheric ozone") is generated by the burning of other gases, such as methane, nitrous oxide or carbon monoxide. Black carbon meanwhile, is a particulate pollutant, which, like carbon monoxide, is caused by the incomplete combustion of other fuels/materials. Neither ozone, black carbon

or carbon monoxide are directly covered by the Kyoto Protocol or the CDM. Carbon monoxide does not contribute directly to warming, but promotes the generation of methane and ozone. HFCs, for their part, have become increasingly prevalent as a replacement for refrigeration purposes of even more potent CFCs, which themselves are being phased out under the successful Montreal Protocol on Substances That Deplete the Ozone Layer. HFCs are so potent that contention surrounds the fact that by 2006 they represented around one half of all Certified Emission Reduction credits supplied via the CDM. Concern is rooted in the fact that HFCs provide no tangible contribution to sustainable development, a key aim of the CDM, since HFCs are mostly a warming-only gas and their mitigation does not generate any significant socio-economic co-benefits.

NEGATIVE SIDE EFFECTS OF NON-CO2 EMISSIONS

The World Health Organization estimated that in the year 2000, approximately 2.4 million deaths were caused by the effects of indoor and urban air pollution, largely linked to non-CO₂ substances, mainly in developing countries. Since then, UNEP has estimated that effectively reducing only methane, black carbon and tropospheric ozone could save over 2.5 million lives each year. Health impacts of this scale carry significant repercussions for economic prosperity – one study estimated up to two billion work days are lost each year in India alone because of the effects of indoor air pollution only.

It is further estimated that tackling non-CO₂, particularly ozone and black carbon, could avoid in excess of 50 billion dollars worth of losses in agricultural yields resulting from the negative chemical interference of ozone, which is toxic for plants, and inhibits and damages plant growth and crop yields.

Black carbon and other non-CO₂ gases are also a major component of Atmospheric Brown Cloud, particularly prevalent in parts of Asia, above all South Asia, which can alter local temperatures (by absorbing/retaining heat), with regional effects also for wind, rainfall and other climate mechanisms. This combination of factors plays a likely role, for instance, in the weakening of the South Asian monsoon, and the disruption of other weather patterns, especially across the tropical zone.

Black carbon also accelerates snow, ice and glacier melt by absorbing/retaining more heat wherever black carbon particles land. This is a major contributor to Himalayan glacial melt, triggering earlier and stronger spring floods, and contributing to summer drought and water shortages across Asia. But the effects are also global, accelerating, for instance, Arctic region warming/melting, which substantially amplifies changes in weather patterns affecting much of the Northern hemisphere.

GLOBAL DISTRIBUTION OF NON-CO2

Much less accurate information is currently available concerning non-CO₂ gases as compared with CO₂. Nonetheless, reasonable information regarding methane, which generates about 7 gigatons of CO₂e, is available and provides clues to the distribution of non-CO₂



Ethiopia
Jacob Dall/Danish Red Cross

gases worldwide. Methane is produced at around 70% in developing countries, with just under a quarter of all methane occurring in the OECD. While 50 Least Developed Countries account for just 10% of methane emissions, non-CO₂ gases do represent a very large proportion of the types of emissions generated domestically in low-income and vulnerable countries.

Methane and other non-CO₂ gases occur abundantly in developing countries, as a direct consequence of a lack of technology, resources and capacity to implement and manage stringent emission control initiatives and legislation, and to provide efficient energy alternatives to billions of people living in poverty. Harmful non-CO₂ gases are much less abundant in developed countries, where their minimisation is congruent with, and indeed helps to sustain, the highest levels of human development.

The chief sources of non-CO₂ pollutants are derived from residential/commercial combustion, and the transport and agricultural sectors - these include:

- Unfiltered diesel combustion;
- Poorly refined petrol/fuels, adulterated fuels, or automobiles without catalytic converters;
- Burning of biomass, crop waste, dung and forests/wood for fuel or to clear land, in particular, deforestation including slash and burn;
- Gas leaks/coal mines;
- Agriculture, particularly livestock;
- Open landfills;
- Brick kilns and coke ovens;
- Refrigeration and airconditioning (HFCs only).

TACKLING NON-CO₂

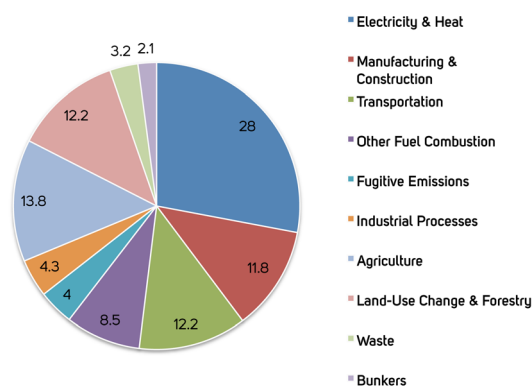
Existing technologies are capable of eliminating the vast majority of non-CO₂ gases without delay. Key measures could include:

- Effective banning of slash and burn deforestation and field burning of agricultural waste;
- Diesel particulate filters for vehicles;
- Afforestation or sustainable forest management programmes (including REDD);

- Methane capture/combustion in waste management;
- Dissemination of clean-burning or efficient stoves for residential cooking;
- Harnessing of methane from coal, oil and gas extraction and transports.

In general, developing countries require financial assistance and technical capacity building in order to ensure wide and accelerated implementation of the above measures. Much could also be accomplished by simply reinforcing existing international, regional or national clean air policies, potentially through expanded climate finance. As an example, an expansion of the successful Montreal Protocol to stimulate the transition from HFCs to less potent substitutes, already widely available, would make a globally significant contribution to reducing GHG emission going forward.

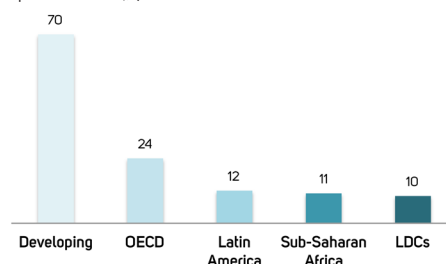
GLOBAL GHG EMISSIONS BY SOURCE
Percentage of total GHG emissions by source (including LULUCF and bunker fuels)



Source: World Resources Institute

With respect to methane, a global fund has been suggested, with an estimated 4.5 billion dollars of annual resources able to deliver an approximately 4 gigaton of annual CO₂e reduction in emissions by 2020. If the REDD plus programme is able to be fully scaled up operationally, there is promise for dealing with the in excess of 10% of global emissions linked to deforestation and altering land-uses. Tackling other poverty-related non-CO₂ gases, could deliver still further gigaton-scale results.

SOURCE OF GLOBAL METHANE EMISSIONS
Proportional share (%) of CH₄ Emissions



Source: World Resources Institute

OTHER RESPONSES

INTERNATIONAL REGULATORY STEPS

In its "Emission Gap Report" issued around COP16 at Cancún in December 2010, UNEP estimated that potential savings of up to 6-7 gigatons of CO₂e by 2020 could be realised if a number of specific regulatory or accounting steps are taken at the international level. Provided developed and major emerging economies also apply all conditional commitments and strict rules, this combined array of (together with non-CO₂) actions has greatly improved chances for ensuring (with reasonable certainty) climate safety at even 1.5 degrees.

BUNKER FUELS, LULUCF & FINANCE

According to UNEP, the main regulatory and emissions accounting measures that can be taken include addressing bunker fuels, agreeing strict rules for emissions arising from land use, land-use change and forestry (LULUCF), and ensuring effective international climate finance for mitigation.

So-called "bunker fuels" are emissions that are not governed by current international frameworks because they bunker away from control since they are incurred between countries – this above concerns international air travel and shipping. UNEP estimates that regulating bunker fuels could achieve an additional 2.5 gigatons of CO₂e savings. LULUCF are a major source of GHG emissions globally, but accounting rules in relation to emission targets are still being negotiated. Adhering to strict rules that limit lenient credits, could achieve another 1-2 gigatons of reduction in emissions. Studies have estimated that just 25% of Copenhagen agreed climate finance for developing countries could yield an additional 2.5 gigatons of emission reductions that are not yet foreseen to take place. A successful combination of all three measures could provide 6-7 gigatons of emission reductions per year by 2020.

RECOMMENDATIONS FOR CONSIDERATION: MITIGATION

- Take advantage of the 2015 window for the revision of the internationally agreed climate goal, currently at 2 degrees Celsius of warming, to adopt the global temperature goal at 1.5 degrees Celsius.
- Avoid a legal vacuum, in particular by ensuring a limited second commitment period to the Kyoto Protocol is agreed without delay, beginning from January 2013 and lasting through December 2015.
- Ensure rapid and sound completion of the Bali Road Map for a comprehensive and equitable international legally-binding agreement addressing long-term climate change to be in effect at the latest by January 2015, unlocking also all conditional emission reduction pledges of developed countries well prior to this date.
- Ensure the continuity of carbon market mechanisms, particularly the CDM, by providing a clear legal solution to the future of such instruments, either under a second commitment period to the Kyoto Protocol or otherwise.
- Adopt a parallel effort to tackle key non-CO₂ gases, particularly poverty-linked methane, ozone and black carbon, through enhanced support on technology, capacity and finance to developing countries, and including by supporting and ensuring full financing of a global window/funds for methane and other key non-CO₂ reductions in developing countries.
- Enlarge the scope of the Montreal Protocol through legal amendment of the instrument to include HFC gases under its regulatory provisions, and by promoting international, regional and domestic clean air schemes.
- Finalise UNFCCC accounting rules on LULUCF, including agreement on strict rules limiting lenient credits, particularly for Annex II developed countries.
- Include regulation of bunker fuels, particularly international air and marine emissions under operational and enforceable UNFCCC instruments.
- Ensure the prioritisation of technical assistance for public and private sector capacity building in vulnerable developing countries, to support the development, registration and implementation of CDM projects.

FOCUS ON: CLEAN ENERGY TRENDS

In 2009, China overtook the US as the world's largest investor in clean energy by volume of resources at around 35 billion dollars of national investment per year vs. an equivalent of just 18 billion dollars in the US, now at second place. Furthermore, China's investment now represents three times the amount of GDP committed in America, at 0.39% vs. the 0.13% in the US. Although the UK and Spain have the highest investment in clean energy as a proportion of GDP, 5-year growth in clean energy investment meanwhile is surging above all in developing countries. Turkey, Brazil and China top growth with 148% to 178% increases in investment over the period 2004-2009. Clean energy actually already represents 13% of the overall global energy supply. However, vulnerable developing countries are largely not benefiting or are locked out from this surge in investment activity.

CLEAN ENERGY INVESTMENT

TOTAL INVESTMENT		5-YEAR GROWTH		INVESTMENT INTENSITY	
China	\$34.6 b	Turkey	178%	Spain	0.74%
US	\$18.6 b	Brazil	148%	UK	0.51%
UK	\$11.2 b	China	148%	China	0.39%
Rest EU-27	\$10.8 b	UK	127%	Brazil	0.37%
Spain	\$10.4 b	Italy	111%	Rest EU-27	0.26%
Brazil	\$7.4 b	US	103%	Canada	0.25%
Germany	\$4.3 b	France	98%	Turkey	0.19%
Canada	\$3.3 b	Indonesia	95%	Germany	0.15%
Italy	\$2.6 b	Mexico	92%	Italy	0.14%

Source: Pew Charitable Trusts (2009)

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News Updates
<http://www.twinside.org.sg/climate.htm>

DRAFT DHAKA DECLARATION OF THE CLIMATE VULNERABLE FORUM

(as of 3 Nov 2011)
Dhaka, 14 November 2011

We, Ministers and representatives of Governments from Africa, Asia, Caribbean and the Pacific, members of the Climate Vulnerable Forum, representing a significant number of countries most vulnerable to climate change and meeting in Dhaka on 13 and 14 November 2011,

Recalling the 2009 Male' declaration as the founding document of the Climate Vulnerable Forum, created at the initiative of the Maldives, and the 2010 Ambo Declaration, agreed under the leadership of the second Forum chair, the Republic of Kiribati,

Mindful of the firmly robust and unequivocal scientific basis for accelerating global climate change, wherein human activities are indisputably the principal and growing cause, as well as of the imperative to act with urgency following the Precautionary Principle,

Standing indivisible as we are in our determination to act to bring about a resolution to the global menace of climate change - to its causes, consequences and collateral effects, which ultimately entail ever greater human suffering, inequity and irreversible damage to the Earth we all inhabit including, in cases, existential risks to nations among us,

Resolute thereby in our commitment to pursuing, autonomously as an independent strategic choice and to the extent possible, national green development pathways, in spite of our limited capacities and negligible, present and historical, contribution to greenhouse gas (GHG) emissions that are the principal cause of climate change,

Reaffirming herein the objectives and principles of the United Nations Framework Convention on Climate Change, as well as the commitments of its parties, to enable its full, effective and sustained implementation through immediate and long-term cooperative action,

Acknowledging by necessity also that the challenges of climate change are global in nature and call for the most extensive and inclusive cooperation by all countries, in accordance with common but differentiated responsibilities, historical responsibility, and respective capabilities and socio-economic conditions as laid down in the UNFCCC,

Deeply concerned by the findings of the *Climate Vulnerability Monitor 2010*, an independent study examining the current and near-term socio-economic impacts of climate change, and pointing to a large-scale and growing worldwide crisis,

Noting that climate change is rendering development projects costlier and compelling diversion of already inadequate funds for development programmes to undertake costly adaptation programmes,

Noting furthermore that many heavily affected countries are low-lying, small-islands, remotely located and least developed countries, and are faced with rapid on-set and/or slow on-set weather phenomena affecting productive capacities, and often reversing their developmental gains,

Appreciating that above all an inadequacy of resources, and limited local capacities and access to technology adversely impact the most

vulnerable countries' abilities to comprehensively address the large-scale adverse impact on their communities, livelihood, eco-systems, biodiversity and natural resources,

Mindful nonetheless of the possibility that highly effective adaptation responses to climate change could be capable of limiting, in a cost-effective manner, a significant range of adverse socio-economic and environmental consequences, particularly with respect to human health, although with high likelihood of very rapidly decreasing effectiveness in the short to medium term as global warming intensifies,

Aware that climate change induced displacement of people has additionally become a major concern and their relocation and rehabilitation are putting enormous pressure on infrastructures and service facilities, and causing tremendous social stresses,

Reaffirming also the continued relevance of the Rio Declaration on Environment and Development, Agenda 21, the Programme for the Further Implementation of Agenda 21, the Johannesburg Declaration on Sustainable Development and the Plan of Implementation of the World Summit on Sustainable Development,

Recognising also that external support is required to enhance coping capacities of vulnerable communities to effectively respond to challenges emanating from environmental disasters and climate change in order to reduce ever-increasing pressure for relocation,

Recognising further that migration is a viable adaptation strategy to manage risks during displacement and relocation, and to offer affected populations with enhanced options to dignified and diversified livelihood,

Emphasising that climate change related impacts have a range of implications, both direct and indirect, undermining our governments' ability to ensure the full and effective enjoyment of human rights and that resultant humanitarian crises, if not adequately addressed, may create multifaceted security challenges,

Seized in this light of the window of opportunity for preventing irreversible changes nationally and globally as fast narrowing and that a failure to arrest further anthropogenic factors to climate change indeed implies existential threats for a significant number of the most vulnerable countries, *Determined* moreover to seize this challenge of climate change as an opportunity for manifestation of our determination to attain truly sustainable development to help lead the world into a new era of prosperity in fullest harmony with the Earth and in the interests of the younger and future generations,

Adopt the following Declaration:

1. We are resolved, as vulnerable states, to demonstrate moral leadership by committing to a low-carbon development path on a voluntary basis within the limitations of our respective capabilities, which are to a large extent externally determined by the availability of appropriate financial and technological support and call on all other nations to follow the moral leadership.
2. We are determined to assume a principal role in securing an international partnership towards the immediate, full, sustained and long-term attainment of the objective of the UNFCCC, and demand adequate and predictable support to vulnerable countries that will enable us to make our own contribution to address the causes and consequences of climate change.
3. We are united in our demand for the avoidance of any vacuum in an international, legally-binding framework governing the GHG emission reductions of industrialized countries that, in light of the near-term expiration of the first commitment period of the Kyoto Protocol to the UNFCCC, could seriously endanger political and economic momentum.
4. We additionally renew calls for a comprehensive legally-binding global agreement capable of fully attaining the objective of the UNFCCC, in all urgency and into the long-term and voice the imperative for a well-calibrated balance in the global focus on adaptation and mitigation with greatest focus on easy transfer of clean and green technology in nationally determined priority areas.
5. Adaptation
 - We *underscore* the need of focusing on adaptation, in particular in the short-term, in our countries in order to minimize growing and widespread harm and seek support for initiatives and projects on adaptation with a view to developing and realizing urgent adaptation activities identified in our respective countries;
 - We *call* for support to build capacity and for international cooperation enabling a comprehensive, systemic response aimed at minimizing the wide variety of negative socio-economic or environmental effects caused or worsened by climate change;
 - We *urge* the UN System, International Financial Institutions and other global organizations and forums to focus on building greater convergence for recognizing the nexus among environment, climate change, migration and development, and to work towards an enhanced reflection of the vulnerability of affected countries in the prioritization of development projects and programmes under their mandated responsibilities.
6. Mitigation
 - We reiterate our firm resolve, consistent with science, to work collectively with the other Parties to the UNFCCC towards limiting foreseeable global warming to 1.5 degrees Celsius above pre-industrial levels, peaking global GHG emissions by 2015, and thereafter achieving progressively ambitious emission reduction targets every subsequent decade targeting a sharp decline to a global reduction of 85% by 2050 with respect to 1990 levels, and long-term atmospheric GHG concentrations to 350 ppm;
 - We reiterate the imperative for immediate conclusion of a broad-based and inclusive legally binding agreement on GHG emission cuts attaining a limiting of global warming to 1.5 degrees Celsius, enacted by all Parties on the basis of equity, common but differentiated

responsibilities, and respective capacities;

- We *urge* all and every industrialized country (Annex- I parties to the UNFCCC) to commit to deep and legally-binding cuts in greenhouse gas emissions consistent with limiting the increase in global warming to 1.5 degree Celsius.

7. Finance

- We *call* upon developed countries to support implementation in the developing countries, particularly in the most vulnerable countries, of their national adaptation plans and climate resilient development strategies and low carbon development plans;
- We *demand* that climate finance under the authority of the Conference of Parties to the UNFCCC must be new and additional to Official Development Assistance commitments of 0.7% of GNI, as well as adequate, predictable, easily accessible, and results-orientated, and may be supplemented through innovative sources of financing;
- We *demand* further that implementation of the decisions taken at Cancun on finance, greatly accelerate disbursement of the agreed Fast Start financing in prioritization of the most vulnerable countries, ensuring easy and direct access for nationally determined priority projects, preferably through public channels and early establishment of the Green Climate Fund, which itself should achieve operational implementation by 2013 at the latest;
- We request the developed countries to make firm commitments on progressive increase of funds with a specific and reasonable annual enhancement in the period leading to USD 100 billion per year under the Green Climate Fund by 2020;
- We underscore the need for establishing a balanced adaptation window within the Green Climate Fund to address the requirements of the most vulnerable countries in relation to the number of people affected and challenge of reducing vulnerability and any consequential adverse effects;
 - We further request that adaptation funds also be made available on an ongoing and predictable basis for the anticipated emergency response efforts to severe weather events, with particular priority for vulnerable countries.

8. Transfer of technology

- We declare that a critically important support needed by the most vulnerable countries from the international community is in the areas of transfer of technology for adaptation in particular, but also for mitigation actions and technical assistance for public and private sector capacity building targeted at the development, registration and scaling-up of Clean Development Mechanism (CDM) projects with particular focus on actions addressing hazardous non-CO2 gases and mitigation responses coupled to high payoffs for adaptation, as well as wider socio-economic/environmental co-benefits;
- We call for ensuring fuller and more pragmatic technology development, including appropriate models for generating hydro-logical scenarios at different scales in the affected regions to enhance water security through the adoption of climate resilient techniques, transfer, and research and development to support crucial adaptation and green growth in vulnerable countries;
- We call for immediate agreement to begin the progressive release and transfer of all technology of beneficial effect for the adaptation and green development actions of vulnerable countries, including patented knowledge, where these have resulted from the investment of public monies.

9. We *call* for immediate determination of a criteria/framework as guiding parameters for a common international understanding of climate change vulnerability, giving due consideration to respective capabilities and socio-economic conditions, the scale and extent of the present impact of any adverse effects, likely losses and risks in future, and the number of people exposed to the impact of climate change country by country.

10. We seek additional support for undertaking programmes to uphold mitigation by creating carbon sinks, enhanced dissemination of clean energy technologies, and the establishment of a balance in the energy mix by focusing on renewable energy.

11. We demand global recognition of migration also as an adaptation strategy and in particular seek global support for relocation and rehabilitation of climate induced displaced persons. We further demand early commencement of discussion on possible establishment of an international framework to manage climate-induced displacements within or outside UNFCCC to reduce vulnerability of affected populations and to offer them enhanced options for diversified and dignified livelihood.

12. We demand the UN Conference on Sustainable Development (Rio+20), 2012 to recognize the very limited progress in achieving the objective of the UNFCCC and endorse the fundamental need to redouble efforts to limit further harm due to climate change.

13. We agree to work together in order to ensure widest possible dissemination of this declaration among all relevant national and international actors.

14. We decide to develop operational modalities for the CVF for finalisation at its next meeting. Therein, we agree to appoint [or decide to initiate a process of appointment] ----- as the 4th Chair of the Climate Vulnerable Forum following the tenure of the Government of the People's Republic of Bangladesh,

15. We agree on the following as part of the agreed Forum activities for 2011-2012:

- a.
- b.

16. We decide that the next Forum will be held in ----- in 2012.



ADOPTED MALE' DECLARATION OF THE CLIMATE VULNERABLE FORUM

Male', Maldives 10 November 2009

We, Heads of State, Ministers and representatives of Government from Africa, Asia, Caribbean and the Pacific, representing some of the countries most vulnerable to the adverse impacts of climate change:

Alarmed at the pace of change to our Earth caused by human-induced climate change, including accelerating melting and loss of ice from Antarctica, Greenland, the Himalayas, Mount Kilimanjaro and Mount Kenya, acidification of the world's oceans due to rising CO₂ concentrations, increasingly intense tropical cyclones, more damaging and intense drought and floods, including Glacial Lakes Outburst Floods, in many regions and higher levels of sea-level rise than estimated just a few years ago, risks changing the face of the planet and threatening coastal cities, low lying areas, mountainous regions and vulnerable countries the world over;

Asserting that anthropogenic climate change poses an existential threat to our nations, our cultures and to our way of life, and thereby undermines the internationally-protected human rights of our people – including the right to sustainable development, right to life, the right to self-determination and the right of a people not to be deprived of its own means of subsistence, as well as principles of international law that oblige all states 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;

Conscious that while our nations lie at the climate front-line and will disproportionately feel the impacts of global warming, in the end climate change will threaten the sustainable development and, ultimately, the survival of all States and peoples – the fate of the most vulnerable will be the fate of the world; and convinced that our acute vulnerability not only allows us to perceive the threat of climate change more clearly than others, but also provides us with the clarity of vision to understand the steps that must be taken to protect the Earth's climate system and the determination to see the job done;

Recalling that the UNFCCC is the primary international, intergovernmental forum for negotiating the global response to climate change;

Desirous of building upon the commitment of leaders at the recent United Nations High-Level Summit on Climate Change in New York in addressing the needs of those countries most vulnerable to the impacts of climate change as well as other political commitments, including the AOSIS Declaration and the African Common Position;

Underlining the urgency of concluding an ambitious, fair and effective global legal agreement at COP15 in Copenhagen;
Gravely concerned at reports of a downgrading of expectations for COP15 and calling therefore for a redoubling of efforts – including through the attendance in Copenhagen, at Head of State- or Head of Government-level, of all States, and especially of major industrialised nations and all major emerging economies;

Emphasising that developed countries bear the overwhelming historic responsibility for causing anthropogenic climate change and must therefore take the lead in responding to the challenge across all four building blocks of an enhanced international climate change regime – namely mitigation, adaption, technology and finance – that builds-upon the UNFCCC and its Kyoto Protocol;

Taking account of their historic responsibility as well as the need to secure climate justice for the world's poorest and most vulnerable communities, developed countries must commit to legally-binding and ambitious emission reduction targets consistent with limiting global average surface warming to well below 1.5 degrees Celsius above pre-industrial levels and long-term stabilisation of atmospheric greenhouse gas concentrations at well below 350ppm, and that to achieve this the agreement at COP15 UNFCCC should include a goal of peaking global emissions by 2015 with a sharp decline thereafter towards a global reduction of 85% by 2050;

Emphasising that protecting the climate system is the common responsibility of all humankind, that the Earth's climate system has a limited capacity to absorb greenhouse gas emissions, and that action is required by all countries on the basis of common but differentiated responsibilities, respective capabilities, and the precautionary principle;

Underscoring that maintaining carbon-intensive modes of production established in 19th Century Europe will incur enormous social and economic cost in the medium- and long-term, whereas shifting to a carbon-neutral future based on green technology and low-carbon energy creates wealth, jobs, new economic opportunities, and local co-benefits in terms of health and reduced pollution;

Convinced that those countries which take the lead in embracing this future will be the winners of the 21st Century;

Expressing our determination, as vulnerable States, to demonstrate leadership on climate change by leading the world into the low-carbon and ultimately carbon-neutral economy, but recognising that we cannot achieve this goal on our own;

Now therefore,

Declare our determination, as low-emitting countries that are acutely vulnerable to climate change, to show moral leadership on climate change through actions as well as words, by acting now to commence greening our economies as our contribution towards achieving carbon neutrality,

Affirm that this will enhance the objectives of achieving sustainable development, reducing poverty and attaining the internationally agreed development goals including the Millennium Development Goals,

Call upon all other countries to follow the moral leadership shown by the Republic of Maldives by voluntarily committing to achieving carbon-neutrality,

Assert that the achievement of carbon neutrality by developing countries will be extremely difficult given their lack of resources and capacity and pressing adaptation challenges, without external financial, technological and capability-building support from developed countries, *Declare* that, irrespective of the effectiveness of mitigation actions, significant adverse changes in the global climate are now inevitable and are already taking place, and thus Parties to the UNFCCC must also include, in the COP15 outcome document, an ambitious agreement on adaptation finance which should prioritise the needs of the most vulnerable countries, especially in the near-term,

Call upon developed countries to provide public money amounting to at least 1.5% of their gross domestic product, in addition to innovative sources of finance, annually by 2015 to assist developing countries make their transition to a climate resilient low-carbon economy. This grant-based finance must be predictable, sustainable, transparent, new and additional – on top of developed country commitments to deliver 0.7% of their Gross National Income as Overseas Development Assistance,

Underline that financing for mitigation and adaptation, under the authority of the Conference of Parties to the UNFCCC, should be on the basis of direct access to implement country-led national Low-Carbon Development Plans and Climate Resilient Development Strategies, and the process to allocate and deliver the finance must be accessible, transparent, consensual, accountable, results-orientated and should prioritise the needs of the most vulnerable countries,

Further underline that fundamental principles and issues relating to the survival of peoples and preservation of sovereign rights are non-negotiable, and should be embedded in the Copenhagen legal agreement,

Call on Parties to the UNFCCC to also consider and address the health, human rights and security implications of climate change, including the need to prepare communities for relocation, to protect persons displaced across borders due to climate change-related impacts, and the need to create a legal framework to protect the human rights of those left stateless as a result of climate change, *Invite* other vulnerable countries to endorse this Declaration,

Decide to hold a second meeting of the Climate Vulnerable Forum in Kiribati in 2010 to take forward this initiative, to further raise awareness of the vulnerabilities and actions of vulnerable countries to combat climate change, and to amplify their voice in international negotiations. In this context, request support from the UN system to assist the most vulnerable developing countries take action in pursuit of this Declaration.

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FORUM TIMELINE



JUNE 2012

2nd Climate Vulnerability Monitor

RIO+20 UN Conference on Sustainable Development

Rio de Janeiro, Brazil

NOV/DEC 2011

COP17

Durban, South Africa

NOV 2011

Ministerial Meeting of the Climate Vulnerable Forum

Dhaka, Bangladesh

SEPT 2011

High Level Meeting of the Climate Vulnerable Forum - Parallel to the UN General Assembly

New York, US



President Nasheed of Maldives at the launch of the *Climate Vulnerability Monitor*
London, December 2010

DEC 2010

Climate Vulnerability Monitor 2010: The State of the Climate Crisis

London, UK & Cancún, Mexico

NOV/DEC 2010

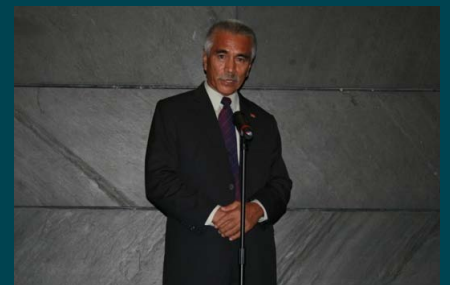
COP16

Cancún, Mexico

NOV 2010

Tarawa Climate Change Conference

Tarawa, Kiribati



President Tong of Kiribati at the High Level Meeting of the Forum
New York, September 2010

SEPT 2010

High Level Meeting of the Climate Vulnerable Forum - Parallel to the UN General Assembly

New York, US

DEC 2009

COP15

Copenhagen, Denmark



High-level delegates at the First Meeting of the Forum Male', November 2009

NOV 2009

First Meeting of the Climate Vulnerable Forum

Male', Maldives

Climate Vulnerable Forum

Ministerial Meeting

Dhaka 2011

The Climate Vulnerable Forum is a global partnership of governments from Africa, the Americas, Asia and the Pacific seeking a firm and urgent resolution to the growing climate crisis as some of the countries most vulnerable to the harmful effects of climate change. The Bangladesh Ministry of Foreign Affairs and Ministry of Environment and Forests are hosting the Dhaka 2011 Ministerial Meeting of the Climate Vulnerable Forum, with institutional assistance from DARA and other development partners.

“The fate of the most vulnerable will be the fate of the world.”

Declaration of the Climate Vulnerable Forum (Male', November 2009)



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This document has been compiled under the responsibility of DARA upon request of the Government of Bangladesh as an input for Climate Vulnerable Forum delegations.

DARA is an independent international organisation based in Madrid, Spain, committed to improving the quality and effectiveness of assistance for vulnerable populations suffering from conflict, disasters and climate change. DARA co-published the first *Climate Vulnerability Monitor* together with the Climate Vulnerable Forum, and is providing institutional assistance to the Government of Bangladesh and the Forum process.

