December 2010

ISSN 2070-4593

EARTH CONSCIOUS

The future is theirs.

COP16 High Level Segment Future Generations

UNFCCC COP16 CMP6 Climate Change Conference Cancún Mexico High Level Segment

Photo courtesy the Mexican Government

Decisions are made at the Cancún Conference in Mexico

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EARTH CONSCIOUS

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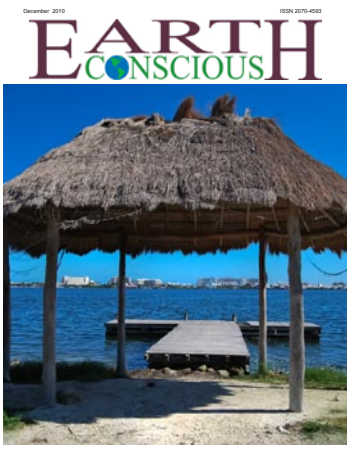


On our Cover

Mexico's coastal tourist town of Cancún was the venue of the recent COP 16 Climate Change Conference.

CANCÚN DELIVERS

Renewed hope and greater optimism seemed to have emerged from the UN Climate Change talks which took place over two weeks, culminating in the early hours of December 11 with the Cancún Agreements.

Although far from perfect, the Agreements provide a life-line for the next major climate change talks in Durban, South Africa in December 2011 particularly on the stubborn issue of the Kyoto Protocol which sets greenhouse gas emissions targets for 37 industrialized countries and the European Union.

Patricia Espinosa, the Mexico's foreign minister and President of COP-16 as the conference is called, said the result was "the best we could achieve at this point in a long process."

Some of the major decisions at the conference held in Mexico's coastal town of Cancún include a Green Climate Fund intended to raise US$100 billion annually by 2020 - a promise made last year by rich countries –to help poor countries defend themselves against climate change.

For forest campaigners, Cancún also produced a victory for them as developing countries will receive aid for not burning or logging forests. Deforestation produces about 15% of the world's carbon emissions.

There was also agreement on the issues of technology transfer – transferring knowledge of clean technology between countries and on Inspections where countries agree to have their emission cuts inspected.

The Cancún conference also saw the active participation of Caribbean delegations particularly at the high-level segment which took place in the final week.

Special mention must be made of the indefatigable negotiator, Grenada's Dessima Williams, the Chairperson of the Alliance for Small Island States (AOSIS) who ensured that the issues affecting these vulnerable countries were kept alive inside and outside the conference.

The success of the Cancún Conference is certainly a good end to a year that has been one of rebuilding friendship and ties after Copenhagen.

Best wishes for 2011.

Linda Hutchinson-Jafar

Editor

Cancún SPECIAL Report

THE CANCÚN AGREEMENT

"Cancún has done its job. The beacon of hope has been reignited and faith in the multilateral climate change process to deliver results has been restored,"

UNFCCC Executive Secretary, Christiana Figueres.

Elements of the Cancún Agreements include:

- Industrialised country targets are officially recognised under the multilateral process and these countries are to develop low-carbon development plans and strategies and assess how best to meet them, including through market mechanisms, and to report their inventories annually.

- Developing country actions to reduce emissions are officially recognised under the multilateral process. A registry is to be set up to record and match developing country mitigation actions to finance and technology support from by industrialised countries. Developing countries are to publish progress reports every two years.

- Parties meeting under the Kyoto Protocol agree to continue negotiations with the aim of completing their work and ensuring there is no gap between the first and second commitment periods of the treaty.

- The Kyoto Protocol's Clean Development Mechanisms has been strengthened to drive more major investments and technology into environmentally sound and sustainable emission reduction projects in the developing world.

- Parties launched a set of initiatives and institutions to protect the vulnerable from climate change and to deploy the money and technology that developing countries need to plan and build their own sustainable futures.

- A total of US $30 billion in fast start finance from industrialised countries to support climate action in the developing world up to 2012 and the intention to raise US$100 billion in long-term funds by 2020 is included in the decisions.

- In the field of climate finance, a process to design a Green Climate Fund under the Conference of the Parties, with a board with equal representation from developed and developing countries, is established.

- A new "Cancun Adaptation Framework" has also been established to allow better planning and implementation of adaptation projects in developing countries through increased financial and technical support, including a clear process for continuing work on loss and damage.

- Governments agree to boost action to curb emissions from deforestation and forest degradation in developing countries with technological and financial support.

- Parties have established a technology mechanism with a Technology Executive Committee and Climate Technology Centre and Network to increase technology cooperation to support action on adaptation and mitigation.

Earth Conscious in Cancún

Journalists from all over the world participated in the COP 16 Conference in Cancún, Mexico. Among them our very own Editor of Earth Conscious magazine, Linda Hutchinson-Jafar (front row, second from left).

Caribbean at the High-level Segment

Editor's note: Several Caribbean countries and one organisation spoke at the high level segment in the final week of the UN Climate Change Conference. We present excerpts from some of their statements.

Tillman J. Thomas, Prime Minister of Grenada and Chairman of Alliance of Small Island States (AOSIS)

Grenada has the honour to speak on behalf of the Alliance of Small Island States, a group of 43 members that are most vulnerable to the impacts of climate change.

Madame President, the clock is ticking, emissions are rising and the deadlines are fast approaching us!

It is said that time and tide wait for no man - unless we act now, and act fast, the rising tide of climate change will overwhelm us.

The countdown has started to the 2015 deadline set by the IPCC for the peaking of global greenhouse emissions.

After that it could become too late to reach the emissions reduction target required to guarantee the survival of our economies and our peoples.

A similar countdown has also started for the millions of people living in the Small Island Developing States, the LDCs and the countries in Africa affected by flood, droughts and desertification.

These countries are already experiencing damaging impacts of climate related events. We cannot ignore this deadline. We cannot ignore the science.

Cancún presents a great opportunity to respond in a decisive manner to this call for urgent action on climate change.

Madame President, when we get such an opportunity, we should grab it with both hands.

In Cancún, we should not settle for token decisions that will provide a beautiful façade, but result in no real action and no significant impact on the problem of climate change.

We are discussing a number of issues here, which will assist in getting initial action started on climate change.

But, Madame President, while recognizing that we have made a start, what many of us wish to focus on in Cancún, is not enough!

It is not enough, because the provisions

Cancún on Camera

Heads of State dialogue

Women speaking out at the Conference

under discussion on adaptation, for example, do not provide us with the necessary support needed to implement the immediate adaptation actions to respond to the problems that are already being experienced.

What we need Madame President, is not just an adaptation framework that lists priorities for action. What we need, is to elevate adaptation to the level of importance that it deserves.

Dr. Roodal Moonilal, Housing and Environment Minister, Trinidad and Tobago

It is important for every single one of us that Cancún achieves a commitment to strive for emission cuts that would lead to global warming of no more than 1.5 degrees Celsius.

The main challenge in Cancún will be to agree on a set of decisions that can initiate concrete action, while paving the way for the conclusion of negotiations on a comprehensive legally binding agreement as soon as possible thereafter. The Cancún outcome will therefore need to achieve the following:

a) Immediate action on adaptation, reducing emissions from deforestation in developing countries (REDD), technology transfer, and the provision of financial resources;
b) Agreement on meaningful mitigation actions by all countries, keeping in mind that developed countries bear the historical responsibility for greenhouse gas emissions and therefore need to provide the proactive leadership required;
c) Establish a process or processes for completing the unfinished work of the current negotiations, including the achievement of a full legally binding agreement to be negotiated after Cancún. We need to ensure that our business gets completed.
d) Positive consideration of Carbon Capture and Storage as a mitigation technology.

The Government of Trinidad and Tobago recognizes that in spite of this urgency, there is no quick fix to this global problem. However at the same time we must all also realize and accept that the current imperative is absolutely clear.

We have the incontrovertible responsibility as the guardians of this generation to ensure that we protect the future generations. We must fully commit now and pledge to leave our precious planet in a better state than that which we inherited. My dear friends, the emphasis is on acting 'now'.

Cancún on Camera

Mexican President, Felipe Calderón

Patricia Espinosa Cantellano, Mexico's Foreign Affairs Secretary, at the plenary review.

Bharrat Jagdeo, President, Guyana

Ultimately, the question at Cancún is a question of 'Sincerity'. And I think that there are 3 ways in which that sincerity is being tested today.

One, even if we accept we cannot secure a legally binding agreement here, are we sincere in our commitment to securing one as soon as possible? Can we find a way through our differences on the form of that agreement, and can we leave here having set out a specific path to achieve a legally binding agreement?

Two, is the developed world sincere in its commitment to provide immediate action on financing for the developing world? In many ways, this is the defining test of international sincerity. I recognise that not every country here supports the Copenhagen Accord, and that many associated themselves with the accord reluctantly.

But even those that chose for their own legitimate reasons not to support the Accord can welcome some of its elements, especially those that relate to financing.

Therefore, it would be a mistake of profound historical consequence if this test of sincerity was failed by those who pledged to provide the financing. If individual members of the developed world cheat even on the financing commitments of the Copenhagen Accord, they will send a disastrous signal that they are not up to the challenge of defeating climate change.

The potential for progress will rapidly dwindle, and those of us who have expended extensive political capital in trying to mobilise public support for action on climate change will see that support retreat.

Specifically, and most immediately, we must see a stop to the repackaging of existing aid commitments as part of the US$30 billion that was promised for the period 2010-2012.

The glossy brochures and propaganda, implying progress where there is none, are corrosive to progress.

We have not even collectively defined the eligibility criteria that are consistent with the Copenhagen Accord for how this money will be invested – if we do not know something as basic as that, how can we pretend that the money is being disbursed?

This is very, very serious. If the US$30 billion promised at Copenhagen for the period 2010 to 2012 starts to resemble the kind of dubious accounting that created the financial crisis, then it will worsen, not help solve, the climate crisis.

The third test of international sincerity is whether we reassert our commitment to

Cancún on Camera

Christiana Figueres and Ban Ki Moon

Participants at the High-level Segment

being driven by science – and specifically by the analysis contained in the IPCC reports.

As things stand, we are a long way off delivering against a set of commitments that are aligned with any meaningful reading of the scientific facts.

The recent gap report by the United Nations Environment Programme showed that even with the upper end of the commitments in the Copenhagen Accord, annual emissions by 2020 will still be between 5Gt and 9Gt short of the Accord's goal of getting onto a 2 degree trajectory.

Let us think about this – and think about how history looks at previous generations who ignored science.

Will history judge us as the stupid generation that ignored the unassailable facts about climate change, because we caved in to ignorance and political expedience? Distinguished ladies and gentlemen, we do not need to be the stupid generation. We do not need to destroy the wonderful vision of international action that we can deliver together.

Instead, through the political resolve of the world's leaders, we can turn climate change from being a catastrophic threat to our way of life into the biggest opportunity for collective human advancement in history.

Cancún on Camera

100% electric cars

Dr. Kenrick Leslie, Executive Director, Caribbean Community Climate Change Centre

Madam President, the people of Cancún and the entire Yucatan Peninsula besides enjoying the bounty of the Caribbean also share the same vulnerabilities as our people in the Caribbean to the adverse impacts of climate change. The effects of some of these impacts are already being felt, and are imposing many challenges for the sustainable development of the region.

Consequently, CARICOM is seeking the highest level of ambition from these negotiations. An agreement, which will result in the peaking of global concentrations of greenhouse gases by 2015 and a decline to 350 parts per million to give the atmosphere an even chance to limit global warming to 1.5 degrees Celsius above pre industrial levels.

Our research in the Caribbean shows that with a further rise of one metre in the sea level accompanied with a storm surge, 60% of our coastal infrastructure will be inundated. Combined with a 1.5 degree Celsius rise in temperature, our region will experience an 85% reduction in our gross domestic product.

Madam President, the science tells us what we have to do, let us act accordingly.

We know that the emission reduction targets under the Kyoto Protocol are woefully inadequate. Much more must be done and we all have to do our share. This challenge is not easy. It will require concerted global action to achieve the objectives required. This will require leadership, responsibility, and accountability. The measure of leadership is the magnitude of the challenge they confront. This produces heroes and heroines. Are they in Cancún?

Madam President, from the beginning of the year you have been working to have some tangible results in Cancún. There are only a few hours remaining. We urge the parties to acknowledge the problem, avoid the blame game and work towards a solution that will provide our people a fighting chance for survival.

Editor's note: *We present viewpoints from Trinidad and Tobago's Prime Minister Kamla Persad-Bissessar and Housing and Environment Minister Dr. Roodal Monilal on their expectations of the recently concluded COP 16 Climate Change Conference.*

Cancún can deliver positive outcomes

Kamla Persad-Bissessar
Prime Minister,
Trinidad & Tobago

The expectations of the Sixteenth Conference of the Parties (COP-16) to the United Nations Framework Convention on Climate Change (UNFCCC) to be held in Cancún, Mexico in December 2010 need to be evaluated in context of the Copenhagen Accord emerging from COP-15 and the realities of the current world situation.

The 21st Century is poised to achieve significant economic growth in major emerging economies but with an increasing need for more sustainable consumption and production, cleaner technologies to drive that growth, and cleaner, renewable and more efficient energy sources.

The business-as-usual scenario is clearly no longer an option and the imperative of world governments to create an economically and environmentally healthy world are clear and forceful.

The recent scientific evidence continues to support that the climate is changing at an accelerated rate, and the impact on vulnerable states such as small island developing States (SIDs) can severely undermine their sustained development, even their very existence.

The need to arrive at practical solutions to this seemingly global enigma is not only necessary, but urgent, and COP-16 at Cancun provides the world with another opportunity.

The Copenhagen Accord established the basis for a successful outcome at Cancún. The diverse opinions on the value and relevance of multilaterism after Copenhagen have fostered initiatives to suggest different approaches to address the issue of climate change.

While there are a number of related discussions addressing the issues, and involving the most influential countries of the world, we are satisfied the UNFCCC must remain the primary multilateral medium for any international climate change regime which will have meaningful participation and implementation.

This will afford all sovereign states, including the poorest and most vulnerable, to have an equal voice.

The theme of the recent 65th United Nations General Assembly in September 2010 which I had the opportunity to address, underscored the centrality of the UN on internationally embracing issues.

The Cancún Conference will attempt to again utilize this multilateral agency to arrive at global consensus.

There is concern that the inertia of the past year does not provide optimism for an outcome in Cancún that would set the world on a path to finding medium to long term solutions.

The realities provide a real challenge to meaningful success.

Developing countries, and in particular the emerging economies, argue that their right to develop should not be hampered by any curb on their energy usage and hence greenhouse gas emissions.

On the other hand, developed countries are of the view that the growing emissions of the emerging economies need to be addressed if there is to be any long term stabilization of greenhouse gas concentrations in the atmosphere and hence stabilization of any temperature increases below dangerous levels.

It is also generally accepted that any future agreement, given their level of greenhouse gas emission, critically needs the full participation of the United States in arriving at global solutions.

The reconciliation of fundamental sovereign issues is not a simple task and therein lies the challenge facing humanity in the 21st Century.

Notwithstanding all of this, we trust that the Cancún Conference will produce decisions that provide real and tangible support to developing countries.

This will not obviate the need for a long term binding agreement but Cancún can prove to be meaningful conference by agreeing on decisions to afford favourable financing for developing countries, support for adaptation, technology transfer, capacity building and support for reducing emissions from deforestation.

Indeed, consensus to negotiate a legally binding agreement on long term cooperative action on climate change and a framework within which a new global regime on climate change can be designed and implemented will be an important objective of the Cancún Conference

Mitigation remains a major source of concern given the significant divergent views and underscores the necessity to provide an unambiguous mandate to negotiate a legally binding agreement within a reasonable time frame.

The solutions to a complex problem like climate change that impacts on all sectors including socio-economic, energy and food security, cannot be arrived at in a simplistic manner given the diversity of the world economies.

However, world governments have a responsibility to address these issues with a determined sense of ambition, optimism and the requisite political will. Trinidad and Tobago remains fully committed to this effort.

Cancún - a major stepping stone towards agreement

Dr. Roodal Moonilal, Minister of Housing and the Environment, Trinidad & Tobago

In the multilateral quest for arriving at solutions to global climate change and in particular the upcoming Sixteenth Conference of the Parties (COP-16) to the United Nations Framework Convention on Climate Change (UNFCCC), it is useful to reflect on the outcome of the Fifteenth Conference of the Parties (COP-15) held last December in Copenhagen.

This conference was expected to conclude negotiations for reduction targets for new greenhouse gas emissions for developed countries under the Kyoto Protocol for the period beyond 2012, as well as agreement on long term cooperative action by all Parties to the UNFCCC.

The talks were premised on the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties (developed countries) under the Kyoto Protocol (AWG-KP) and the Ad Hoc Working group on Long Term Cooperative Action (AWG-LCA) respectively.

Negotiations were conducted under five main pillars: mitigation, adaptation, finance, technology and shared vision. The meeting was considered critical in providing a global regime and action on climate change.

At the conclusion of the negotiations in Copenhagen, consensus agreement was not achieved on key issues such as the shared vision, mitigation, finance, and new commitments for developed countries. Significant progress had been made under the AWGs, particularly under the AWG-LCA on issues related to adaptation and technology, but there were major divergent views on shared vision, mitigation and finance – issues that were regarded as requiring concrete political guidance in order to arrive at consensus.

In an attempt to try and provide a political solution to the divergent positions, the President of the Conference convened informal consultations with a selected twenty-five Heads of State and this resulted in a draft Copenhagen Accord, which was presented to the Conference for adoption.

However, some countries objected to the process by which the Accord was developed and the Conference, and after much debate, "took note" of rather than formally adopting the Accord.

It is to be realised though, that it is not unusual in multilateral conferences for a group of Parties to engage in negotiations and present their outcomes to the larger plenary. One hundred and ninety (192) parties arriving at consensus on the major divergent issues is a daunting task for any conference President.

The Conference therefore decided to extend the mandates of the two working groups to complete negotiations at the next Conference of the Parties in Cancún, Mexico this December.

This highlights the intention of the earlier Bali Action Plan and the need for long term cooperative global action on climate change, bearing in mind the realities of the current world situation and the challenges faced by world Governments.

The seeming disappointment of the Copenhagen Conference requires analysis of the nature and implications of the Accord, and its context for advancing agreement.

The critical hurdles that slowed down progress in the negotiations over the past two years included the North-South divide on issues related to emission reductions.

Allied to this is the fact that the United States is not a ratified party to the Kyoto Protocol. Financing for developing countries to tackle climate change also remained an outstanding issue.

Though it may not be legally binding, the Copenhagen Accord is politically binding and political consequences can result from breaches of the provisions. More importantly it represents a strong commitment by the adhering countries.

One viewpoint is that the Accord is outside of the UNFCCC process and cannot be brought into the UNFCCC process in which negotiations under the AWGs take place.

But there is the argument that since it was negotiated within the UNFCCC process, and by virtue of UNFCCC article 7.2 9 (c) which allows at least two parties to introduce measures for consideration, it is by nature, legitimately a creation of the UNFCCC.

Legal status aside, the Accord achieved to a significant extent, what was not reached under the Bali Action Plan up to the point of the Copenhagen Conference.

Major developing countries have now indicated a willingness to voluntarily reduce emissions in the future, the United States is fully engaged in the discussions and has also indicated reduction targets for the future, and there are pledges for funding for developing countries to address climate change.

In other words, the Accord provides the high-level political guidance for an agreement in Cancún, as it has significantly resolved some of the major stumbling blocks.

The Accord has advanced the negotiations in many ways, but particularly in bringing the main players to a common understanding on the way forward.

Delegates during pre-COP Ministerial

Delegates at pre-COP Ministerial

On closer examination of the document, it can be argued that it was developed from, and up to the point of general agreement on, the negotiations under the AWG-LCA, and therefore contains the interests of all Parties in this regard.

The Accord explicitly recognizes and endorses the decisions for the AWG-LCA and AWG-KP to continue their work, and therefore implies that it is not the end product in addressing the climate change challenge, but provides the political leveraging to reach agreement and be complementary to future negotiations.

We in Trinidad and Tobago regard the Copenhagen Accord as a major milestone that can pave the way for an international climate change regime and a significant shift away from the old world paradigm.

Of significance is that it contains important elements such as the establishment of a Copenhagen Climate Change Fund for quick start financing, a technology transfer mechanism, a process for developed and major emitting developing countries to commit to verifiable reduction in greenhouse gas emissions, and consideration of a future long term goal of stabilizing temperature rise of 1.5 degrees above pre-industrial time.

This remains of deep concern to developing countries and small island developing states in particular. It also addresses deforestation in developing countries, a major source of greenhouse gases, albeit that the pledges of emission reduction by developed country Parties do not add up to the quantum required for keeping temperature increases below 1.5 degrees Celsius.

Given the slow progress of negotiations further to the Copenhagen summit, concerns remains about prospects for Cancún.

Extremely strong political will is required to achieve consensus on a legally binding agreement. But Cancún can be another major stepping stone towards final agreement.

For us there must be tangible outcomes for those countries that are particularly vulnerable to climate change such as Small Island developing states, on issues such as finance, adaptation, technology transfer - as well as a decision on reducing deforestation and forest degradation. Agreement on new commitments for reducing emissions from developed countries under the Kyoto Protocol should also be concluded.

Trinidad and Tobago as a responsible member of the UN family looks forward to its continuing contribution and will meaningfully engage in constructive negotiations to arrive at agreement in Cancún 2010.

Photo: OFXAM

Scenes from the Conference

Photos courtesy The Mexican Government

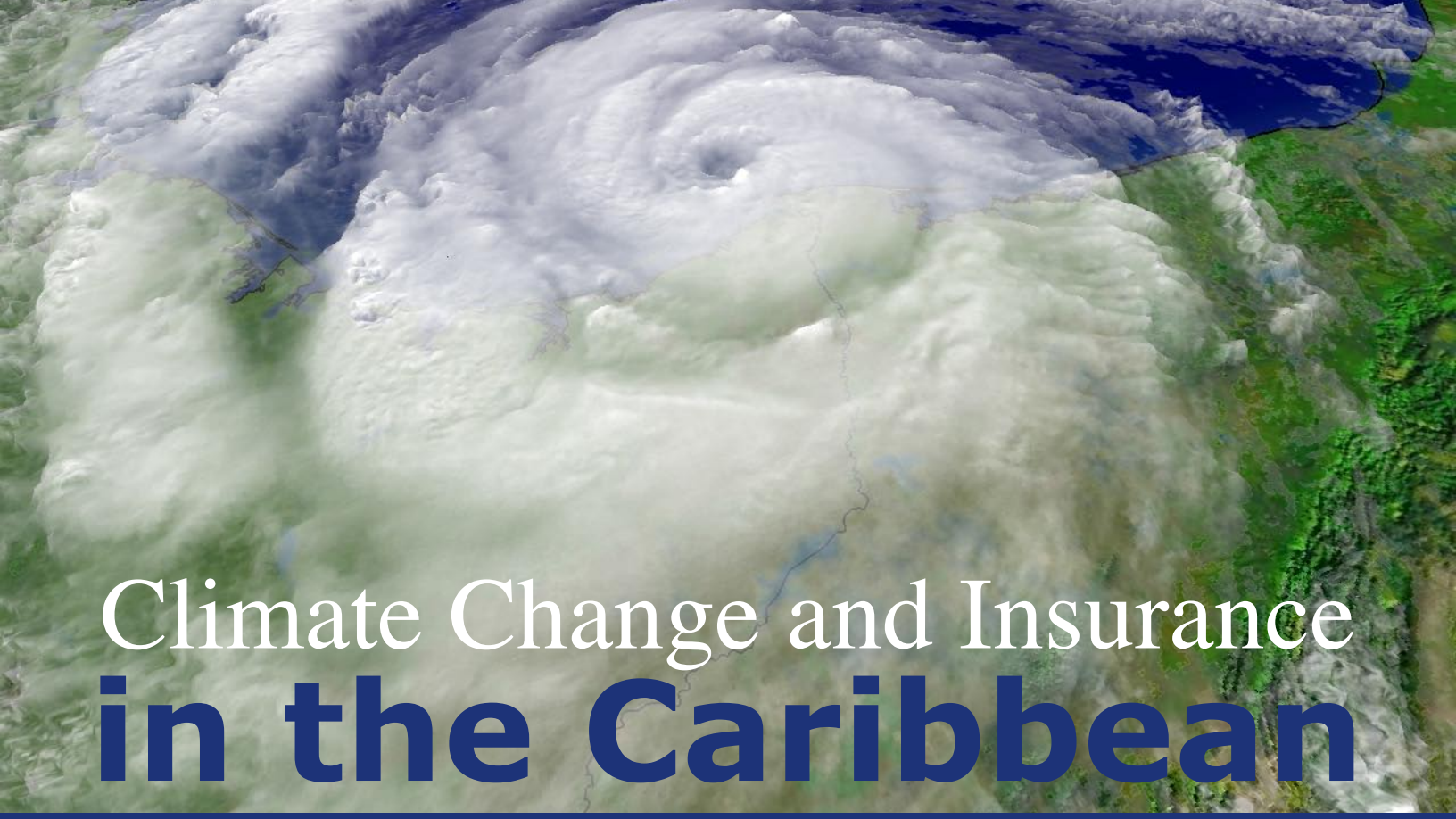
COP 16 decisions

Simona Lopez, Representative of the Indigenous Peoples of Mexico

Participants

Bloggers loft

Plant a tree for the planet



Climate Change and Insurance in the Caribbean

By Simon Young, BSc, PhD
CEO, Caribbean Risk Managers Ltd
Facility Supervisor, Caribbean Catastrophe Risk Insurance Facility (CCRIF)

Simon Young

Insurance is a business which has the assessment and management of risk at its core. In all parts of the insurance industry, there is a need to price risk; insurance and reinsurance underwriters must set a price for taking on risk, and the insurance buyer (often represented by an intermediary or broker) must be able to judge whether that price is reasonable.

In the Caribbean, the general insurance business model (as opposed to the life insurance industry, which will not be further discussed here) is such that natural catastrophe hazards play a dominant part in risk assessment and management.

Catastrophe hazards require particular attention because they do not follow the usual 'laws' of insurance; in particular, single events can cause losses to a large proportion of clients covered by an insurance company simultaneously, especially if that company only underwrites risk in one or a few geographically neighbouring islands (as is common in the Caribbean).

The need to be able to pay lots of claims all at once requires insurers either to purchase their own insurance, called reinsurance, which is expensive, or to hold a large amount of cash reserves, which is also expensive. Thus the cost of underwriting catastrophe risks, particularly in the Caribbean, requires particular attention to be paid to assessing that risk, both now and in the future.

Major road damage after the passage of Hurricane Tomas in Saint Lucia

Another feature of the Caribbean is the key role played by hydro-meteorological (water and weather) hazards in the cost of risk, hurricanes being the most obvious example.

At all scales, from national governments to individuals, hurricanes are an immense source of both social and economic risk. However, coastal waves and storm surge, flooding and landslides triggered by heavy rainfall, and droughts caused by lack of rain, are also the source of considerable risk.

Any changes to the frequency or intensity of these risky events is of great interest to insurance companies and their reinsurers, particularly on a year-to-year basis but also over longer time periods.

Even if insurers themselves do not think the assessment of changing risks in the face of climate change is important to their business, the regulators of the insurance industry are increasingly moving to risk-based metrics to judge the long-term sustainability of insurance companies.

Although most advanced in Europe, such risk-based regulation will undoubtedly be implemented in the Caribbean before too long, and the assessment of climate change risks will become a necessary part of insurance industry operations.

In addition to the direct impacts of climate change on the Caribbean insurance industry, the tools on which the industry already relies are the same tools that are critical to successfully managing climate change risk.

In the language of climate change, managing the new conditions resulting from global warming is termed 'adaptation', and putting a price on current and future risk is critical to successful and cost-efficient adaptation.

Adaptation must involve a reduction in climate risk – if not now then going forward in terms of development planning. Climate risk is already very high in the Caribbean, and two of the major economic engines, tourism and agriculture, are both highly climate-exposed.

Development needs to become more 'climate-smart' throughout the region, but with climate change bringing additional future climate risk, sustained growth without adaption to the future hazard landscape will not be achieved.

While reducing current and future risk must be a priority, there is a threshold at which investment in risk transfer (paying someone else to take the risk rather than bearing the cost oneself) is more cost-efficient than risk reduction. Insurance is the most common form of risk transfer,

although a new suite of instruments, largely available in the capital markets and known collectively as 'alternative risk transfer', have been developed to complement traditional insurance. Broadening access to risk transfer is thus a necessary part of climate change adaptation.

In this context, the Caribbean has been at the forefront of developing new risk transfer tools to address climate change risk. The Caribbean Catastrophe Risk Insurance Facility (CCRIF) is a first-of-its-kind government risk-sharing platform, aimed at assisting member countries to manage part of their catastrophe risk exposure.

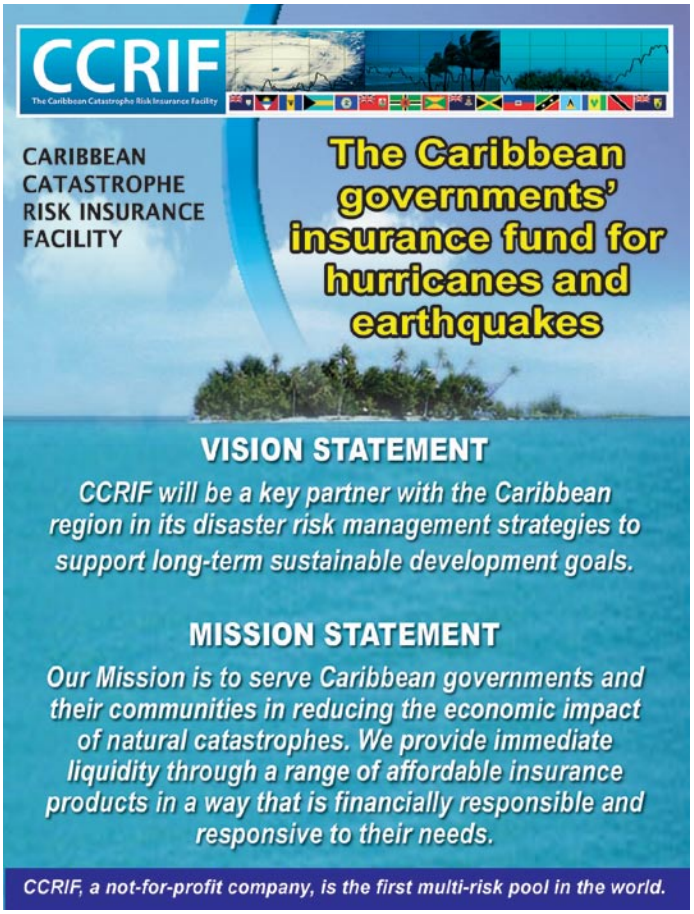
As highlighted earlier, catastrophe risks are those which generate many losses simultaneously. For almost all governments in the Caribbean, a direct hit by a major hurricane is the largest single risk its economy, and thus its society, faces.

While great strides have been made across the region in reducing the societal impacts of hurricanes and other natural hazard events in the past several decades, the economic aspects of such catastrophes had gone largely un-managed.

Reliance on post-disaster assistance from donors was the plan. With CCRIF, the governments have developed a mechanism which enables them to share their risk, with payouts available when most needed.

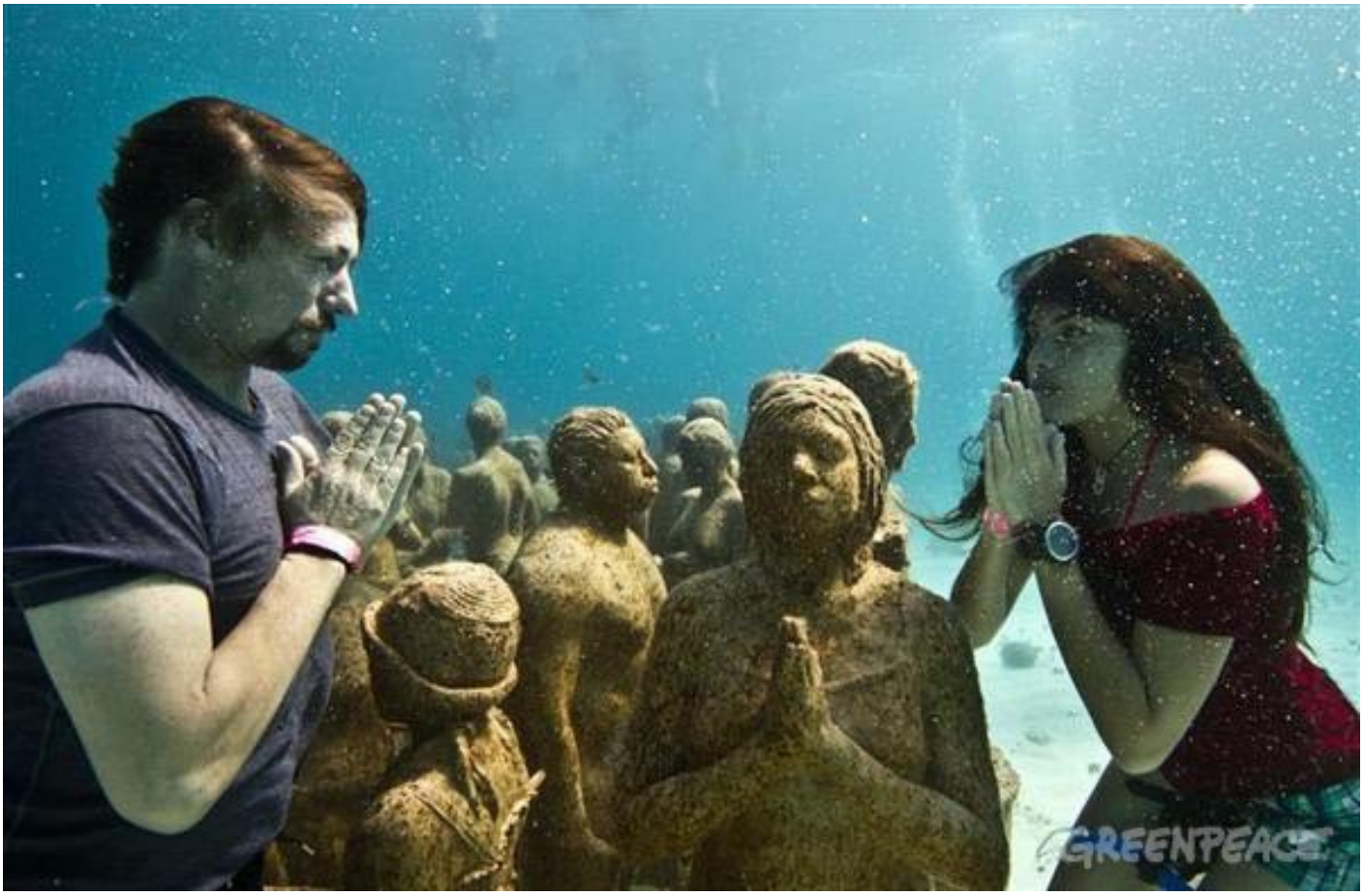
The success of CCRIF (which recently paid out almost US$13 million to 3 countries in the eastern Caribbean within 2 weeks of the passage of Hurricane Tomas) has catalysed other initiatives to bring innovative risk transfer solutions to other sectors of industry and the population at particular risk, for example in the agricultural sector and to support micro-finance lending.

In conclusion, the insurance industry is already playing and will continue to play a critical role in climate change adaptation across the Caribbean, bringing both the tools and expertise to assess and price climate risk and the innovative products required to assist countries, businesses and individuals to more cost-effectively manage that risk.



If the world temperature rises by more that 1.5 degree Celsius the Caribbean's low-lying counties and small island states will be at serious risk of economic hardship, poor health, and environmental degradation from rising sea levels, severe weather, coastal erosion and coral and sea life deterioration.

Caribbean Community Climate Change Centre



Activists make a demand for action from politicians and ministers gathered in Cancún in the second week of the UN climate negotiations.

Global warming and climate change

This year the special project for children in my school is about Global Warming or Climate Change.

The students have to write about what global warming or climate change is and how this is impacting on weather patterns, ice-sheets and glaciers, sea levels, plants and animals and human health.

I am learning much more about this issue while doing research on it with the help of my mother and father.

The more I read about the effects of climate change, the more I want children such as us to do our part to reduce the impact on planet earth.

For instance, changing weather patterns may bring more heat to the atmosphere and contribute to the melting of the glaciers. Changing weather pattern can also bring more powerful storms with high-intensity winds.

Water levels will increase in the oceans and we may also get more flooding. Flooding also destroys plants and if animals don't eat plants, they can face death.

I've also learnt that because of changing weather patterns, there can be more diseases around such as malaria caused by mosquitoes.

I'm glad that my school is doing this project as students will gain a better understanding of climate change and how it will affect their surroundings and also their life.

SEA TURTLES

Sea turtles are one of the Earth's most ancient creatures. The seven species that can be found today have been around for 120 million years, that's longer than the dinosaurs. The sea turtle's shell, or "carapace" is streamlined for swimming through the water. Unlike other turtles, sea turtles cannot retract their legs and head into their shells. Their color varies between yellow, greenish and black depending on the species.

defenders.org

SEA TURTLE RANGE MAP

Sea turtles are found in all warm and temperate waters throughout the world and migrate hundreds of miles between nesting and feeding grounds. Most sea turtles undergo long migrations, some as far as 1400 miles, between their feeding grounds and the beaches where they nest.

defenders.org

AN OVERLOADED ARK, PLEASE

Text and photos by Mark Meredith

We don't want to wait until 2020 to save the natural world from oblivion. Japan, the host of October's Convention on Biological Diversity (COP-10), could show a symbolic lead by abandoning its whaling programme without delay. Other nations need to make their own contributions, right now. There's plenty they could do – if they really care.

I suppose it would have been in about 1968, when I was an 11-year-old boarding school inmate in England, that I first discovered just how amazing and interesting the marvels of the natural world we inhabit really are.

I wouldn't call it an epiphany, exactly, but it was a revelation nonetheless: an appreciation of nature that has morphed into love and lasted a lifetime. And I largely have Gerald Durrell and Mr Williams to thank for it. Once a week, on Wednesday nights, we would lie tucked up in rows in the dormitory, eagerly waiting for Mr. Williams to begin reading the next few chapters of Gerald Durrell's first novel, The Overloaded Ark.

It told of the famous conservationist's first expedition to West Africa in 1947, to what was then British Cameroon, to collect animals and birds for British zoos. Mr. Williams, the school's portly music teacher, brought Durrell's tales of bagging and trapping exotic creatures, with the help of pidgin-English-speaking African guides, vividly to life. His mastery of Durrell's often-hilarious native dialogue, and colourful descriptions of an African rainforest teeming with life, transported me oceans away from my cold English dormitory to the humidity of the tropics.

I would dream of collecting animals in Africa, too; of perhaps going to work for Mr Durrell in his famous zoo in Jersey; or of being a game warden in the Serengeti, shooting tranquillizing darts at charging rhinoceroses. Mr. Williams, encouraged by the reception of his recitations, followed this book with the funny The Bafut Beagles. It chronicled Durrell's second independent collecting expedition to Cameroon in 1949 and how he survived gin-drinking sessions with the local chief, The Fon of Bafut.

Gerald Durrell's animal expeditions took a different course in the years that followed – and these stories were told in many books (all of which I would read myself), the royalties from which financed further collecting trips. Durrell had become disillusioned with the way zoos of the time were run (as attractions), believing their function should, instead, be as reserves and as centres for the regeneration of endangered species. He shied away from collecting "show animals", and concentrated on threatened species, eventually founding his own zoo in Jersey in which to breed them and reintroduce them to the wild.

Jersey Zoological Park became a world leader in this endeavour and remains so today; a time when such expertise can never have been more important. Gerald Durrell died in 1995. I sometimes wonder if he were still alive and collecting now, how full his "Ark" would be, and whether he'd

struggle to fill it in comparison to 1947. But, if it were only endangered species he was after, overloaded it would most certainly be.

I'm sure if he returned to the disappearing jungles of Africa, or Asia, or South America today he would also struggle to bring his familiar, light-hearted tone to any book he'd write. What humour could you possibly extract from the catastrophe of extinction underway right now? Only black comedy, methinks. Like some of the statements coming out of the Conference of the Parties to the Convention on Biological Diversity (COP-10) that concluded on October 29 in Nagoya in Japan.

You will remember that this conference was called to set a goal of cutting the current extinction rate by half or more by 2020. The earth is losing species at 100 to 1,000 times the natural and historical rate, according to scientists who call the current period of extinctions the worst since the dinosaurs were wiped out 65 million years ago.

With headlines like "Biodiversity conference gives cause for rejoicing", and "Countries join forces to save life on Earth", you'd think we'd discovered a panacea for curing our greed and shortsightedness, the rape of our natural world. In truth, our Ark of biodiversity is in danger of being washed away on a sea of platitudes and hypocrisy.

"History will recall that it was here in Nagoya that a new era of living in harmony was born and a new global alliance to protect life on earth was established. History will also recall that this would not have been possible without the outstanding leadership and commitment of the government and people of Japan," said Ahmed Djoghlaf, Executive Secretary of the Convention.

Really? This would be the same Japan that lives in harmony with the great whales in the Antarctic, I suppose? The same Japan that on one hand now supports the creation of 10 per cent of the world's oceans as protected areas (up from about 1 per cent currently), yet refuses to acknowledge the 50-million-square-mile Southern Ocean Whale Sanctuary as being off-limits to whaling and has just dispatched its killing fleet down there.

"The outcome of this meeting is the result of hard work, the willingness to compromise, and a concern for the future of our planet. With this strong outcome, we can begin the process of building a relationship of harmony with our world, into the future," COP-10 President Ryu Matsumoto, the Environment Minister of Japan, explained.

Really? Well, Mr Matsumoto, I'd say that if you really want to lend credibility to the outcome of COP-10 and Japan's leadership of it, you will take the most concrete and symbolic step your country possibly could to attain "a relationship of harmony with our world". Show your "willingness to compromise": announce the immediate cessation of your discredited "scientific research" programme in the Antarctic and recall your fleet. Announce Japan will abandon its whaling programmes in

foreign and international waters.

I mean, it's not as though you need the whale meat, is it? The Japan Times reports that stocks of frozen whale meat in Japan have reached 4,000 tons — that's 4 million kg. Or, put another way: "40 million portions of whale meat expensively stored under refrigeration ready for eating. But not enough people eat kujira (whale), and far from dwindling, Japan's whale mountain is growing. It's just not popular enough as a food," says the paper.

We are told by this Japan-hosted conference that fish and other aquatic life should be provided with greater refuge, under the Aichi Targets – named after the region around Nagoya – which include increasing marine-protected zones to 10 per cent of the world's seas.

It sounds marvellous, this intention to protect fish and aquatic life. So, go on; do it. Take the lead, Japan: halt your take of Pacific tuna until stocks recover; ban for good the use of Fish Aggregating Devices, a wasteful fishing technology that results in by-catch of endangered sharks, turtles and juvenile tuna; stop the annual slaughter of dolphins at Taiji and elsewhere (estimates of dolphins and porpoises killed in Japanese waters range between 13,000 and 23,000 annually); and leave the whales in peace.

Can it be so hard? If the host nation of an event called to save our natural world will not do these things, why should we believe that other proposals coming out of COP-10 are anything more than hot air: fanciful, unenforceable pipe dreams cobbled together by bureaucrats at the last minute?

It's great idea to expand nature reserves to 17 per cent of the world's land area by 2020. But how realistic is it really, and which countries will take the lead? Volunteers, please?

COP-10 declares that signatories to the UN Convention on Biodiversity are supposed to draw up national biodiversity plans. Together, their voluntary actions are supposed to halt over-fishing, control invasive species, reduce pollution, minimise the pressure on coral reefs, and halt the loss of genetic diversity in agricultural ecosystems. Will any of it happen without any binding obligations, do you suppose?

In 2002, the signatories to the Convention agreed a declaration that imposed no legal commitments, like this one. They announced they would "achieve by 2010 a significant reduction of the current rate of biodiversity loss". In 2010 the situation is much worse and they are now merely moving that goalpost forward to 2020.

A conservationist in Trinidad once told me that to save the world you needed to save your own backyard first. To do something concrete, now. Not wait till 2020.

I am sure every signatory country to the Convention could do something to make a difference, today. In fact, the

UK Guardian newspaper has a list of hundreds of actions governments can take now, ranging from India and Indonesia banning shark-finning, to safeguarding and restoring the population of the UK's humble bumble bee. (http://www.guardian.co.uk/environment/2010/oct/04/back-biodiversity-100-save-wildlife).

I have a couple of actions of my own. In the case of Trinidad and Tobago, they could start right now by deleting a simple paragraph of their Fisheries Act. Out of the seven globally endangered species of sea turtles that roam the oceans, five nest on the shores of this Caribbean nation, especially leatherbacks, the most threatened of all.

"No person shall, between 1st March and 30th September, kill, harpoon, catch or otherwise take possession of or purchase, sell, offer or expose for sale or cause to be sold or offered or exposed for sale any turtle or turtle meat," says the Trinidad and Tobago Fisheries Act, Section 4, Protection of Turtle and Turtle Eggs Regulations, Paragraph 3.

But what you do between October 1st and February 28th or 29th is entirely up to you. If you like, you can set a net on the foraging grounds of the green turtle and haul in as many of this protected species as your little boat

can hold. Then you can set up shop, or a little stall, and sell the meat or shell to whomever you choose. And no one can touch you.

Trinidad and Tobago is a signatory to the Convention on International Trade in Endangered Species of Wild Flora and Fauna; the Specially Protected Areas and Wildlife Protocol of the Cartagena Convention; and the 1993 Convention on Biological Diversity. These specifically prohibit the hunting and trade of endangered species such as sea turtles. Yet untold hundreds of these creatures are slaughtered each year with the sanction of the state. This could change tomorrow.

My own country, New Zealand, supposedly green and clean, could make a statement of

intent, too. Its biggest, most important company and the world's largest dairy producer, Fonterra, is under attack from Greenpeace for contributing to the devastating deforestation and biodiversity loss taking place in Indonesia, driven by the palm oil industry.

Key products made from oil palm are crude palm oil and palm kernel oil (used mainly in foods, cosmetics and now biofuels), and palm kernel expeller (PKE) used for animal feed, which is an important economic product of the palm oil industry. Based on Statistics NZ figures, it is expected that more than a million tonnes of PKE will be imported into New Zealand this year. Fonterra's farmers are expected to spend NZ$230 million on the feed this year, almost a quarter of the global supply of PKE.

Greenpeace say much of that outlay will wind up in the pockets of those ordering the bulldozers into the forest habitats of species like the orangutan. They add that only 6 per cent of the palm products industry's global output is grown according to the industry's weak sustainability standards. Fonterra has been forced to close its Facebook page because of awkward questions directed by the public about their use of PKE.

One of the most interesting topics to inform debate at the Japanese summit was the economic

value of the natural world. The Economics of Ecosystems and Biodiversity (TEEB) attempts to price the ecosystems we are destroying. It shows that the economic benefit of protecting habitats and species often greatly outweighs the money to be made by obliterating them.

Coral reefs, for instance, offer humans welfare benefits to the tune of between $30bn and $172bn annually. On the other hand, damage to natural capital, including forests, wetlands and grasslands, is valued at between $2trn and $4.5trn annually.

TEEB offers some hope, I suppose, because in the end what interests governments most is money. Some may feel compelled to protect an area for economic reasons. But on the other hand, some may feel that some areas have no value and we can do without them, even if in biological terms they are valuable.

However, I'm sure there are many, like me, who are uncomfortable with the idea of putting the vitality of nature under the control of accountants and the markets. It's a slippery slope I'm sure Gerald Durrell would not have liked at all.

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A former environmental journalist for the Trinidad Express, he also produced a Caribbean natural history and environmental magazine called Samaan.

See (http://issuu.com/meredith/docs/samaan2)

Natural disaster risks remain high in Latin American and the Caribbean, IDB says

New indicators show some progress in disaster risk management, but region needs to do more.

Latin America and the Caribbean face potentially crippling economic and social costs from natural disasters and needs to do more to reduce risks and prepare government finances to respond to eventual catastrophes, according to a new set of indicators by the Inter-American Development Bank (IDB).

The new edition of Indicators of Disaster Risk and Risk Management details the potential economic losses a group of 17 countries in this region could suffer in the event of a natural disaster and evaluates how effective their governments are in managing these risks. The indicators show that the region's systems and policies to manage disaster risk are still unsatisfactory.

The system of indicators, developed in 2005 with financial support from the IDB's Multidonor Disaster Prevention Trust Fund and the Japan Special Fund, allows countries to better assess their risks, serving as a useful guide for policymaking and government actions to reduce human, infrastructure, financial, and economic losses caused by earthquakes, floods and other natural events. The IDB is currently working with 15 countries in Latin America and the Caribbean in projects related to disaster risk management.

Human and economic losses stemming from natural disasters have increased over the past century in this region as a consequence of population growth, unplanned urbanization, over-exploitation of natural resources and probably the effects of climate change. Earthquakes, floods and storms caused $34 billion in economic losses in 2000–2009, compared with losses of $729 million in the in the 1940s.

For example, the indicators show that if Peru were hit today by an earthquake similar to the one that hit Chile earlier this year, it could suffer economic losses of as much as $15.8 billion. A similar event could cause losses of as much as $5.2 billion in Mexico, $3.8 billion in Colombia and $3.5 billion in Ecuador.

"The region faces significant levels of risk that have apparently not being fully gauged by policymakers and society in general. Latin America and the Caribbean have shown unsatisfactory levels of risk management," said Héctor Malarín, head of the IDB's Rural Development, Environment and Disaster Risk Management Division."

In order to improve their risk management, countries need to upgrade their policies, enhance integration among agencies at the central and subnational levels of government as well as invest to reduce, retain and transfer these risks."

Tillman Thomas

CHINA PLEDGES CONTINUED SUPPORT TO AOSIS AND GRENADA

The Government of China is prepared to support the position put forward by the Alliance of Small Island States (AOSIS) on climate change.

The commitment was given to AOSIS Chairman, Prime Minister Tillman Thomas when he held bilateral discussions with China's Minister of National Development and Reform Commission, Xie Zhenhua during a recent AOSIS' Ministerial Meeting in Grenada.

"We understand your problems and we have a clear picture of what China can do to assist Grenada and other SIDS", the Chinese Minister told Prime Minister Thomas.

The two delegations held candid discussions on ways of deepening ties between China and Grenada, as well as China's commitment to support the concerns of the member states of AOSIS.

Prime Minister Tillman Thomas used the opportunity to thank the Government of China for their continued support of the Grenadian people; to affirm the value of building solid friendly relations; and to outline the concerns of developing small island states like Grenada.

"China has done a lot in the area of renewable energy, and I hope that we can find ways to benefit from the transfer of that technology, since Grenada is now seriously exploring ways to develop its capacity in that area", said Prime Minister Thomas.

Minister Zhenhua affirmed China's shared concern about the negative impact of climate change, despite his country's status as a developed nation.

EIB FUNDS CLEAN ENERGY IN THE DOMINICAN REPUBLIC

The European Investment Bank (EIB) will provide US$37 million to finance high-voltage electricity transmission networks in the Dominican Republic, to enable power generated by new wind and hydroelectric power plants to be distributed across the country.

The project is expected to grant electricity access to over 100,000 people. The challenges of increased climate risk have been incorporated into the project with transmission lines able to withstand hurricane winds up to 230 km/h.

Comprehensive environmental assessments for the project have also been completed to ensure minimal environmental and social impact. The EIB, the long-term lending institution of the EU, supports the EU's cooperation and development policies in the African, Caribbean and Pacific (ACP) regions under the Cotonou Partnership Agreement.

CANADA TO HELP CARIBBEAN REDUCE IMPACT OF NATURAL DISASTERS

Canada's Minister of International Cooperation, Beverley J. Oda announced support for reducing the impact of natural disasters in the Caribbean.

The Canadian government through the Canadian International Development Agency (CIDA) will support the Canadian Red Cross's efforts to assist Caribbean countries and local communities to better prepare for natural disasters.

"Canada's support for this project is a component of Canada's Caribbean Disaster Risk Management Programme," said Minister Oda. "It is only by strengthening the region's resiliency to natural disasters that Caribbean states will reduce the number of lives lost and the severe impacts on their populations."

Conrad Sauvé, Secretary General of the Canadian Red Cross said investments in prevention and preparedness activities are investments in the future. "This support will allow the Red Cross to work alongside communities in the Caribbean to help them become stronger, healthier and more resilient in the face of disaster."

Canada's $3.5 million contribution to the Canadian Red Cross project will help deliver training that will enable people living in vulnerable communities in the Caribbean region to better understand the hazards in their environment, adopt practices that will make their homes safer and help them prepare for disasters.

Other projects delivered as part of Canada's $20 m Caribbean Disaster Management Programme are helping to improve the safety of hospitals, develop health disaster plans, strengthen the coordination of disaster response activities, and build better emergency telecommunications systems. development assistance.

UN DESA RELEASES REPORT ON SUSTAINABLE DEVELOPMENT IN SIDS

The UN Department of Economic and Social Affairs (DESA) has released a report titled "Trends in Sustainable Development in Small Island Developing States, 2010."

The report was released on the occasion of the High-level Review Meeting on the Implementation of the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States (SIDS) (MSI+5).

It highlights progress in SIDS in a number of areas, but acknowledges significant further efforts are required to advance implementation of the goals of the Mauritius Strategy.

It includes sections on: demographic trends; climate change; natural disaster management; trade and finance; tourism; energy; natural resources; social development; and progress on achieving the Millennium Development Goals (MDGs).

The climate change section focuses on the inherent vulnerabilities of SIDS due to their small size, narrow resource base, high susceptibility to natural hazards, low economic resilience, and limited human and technological capacity for mitigating and adapting to the effects of climate change.

IDB'S US$50M FACILITY TO BOOST CARBON MARKET ACCESS FOR LOW-INCOME COMMUNITIES & SMALL FIRMS

The Multilateral Investment Fund (MIF), the Inter-American Development Bank's private-sector arm that promotes opportunity for small and microenterprises, has launched the MicroCarbon Development² Fund (MCD² F), a fund that will invest in energy efficiency programs that help small firms and low-income households and municipalities throughout the region to enjoy the benefits of more efficient energy and access to carbon markets.

"Access to carbon markets and energy efficient technologies has been closed to all but the largest investors in Latin America and the Caribbean." said Julie T. Katzman, General Manager of the Multilateral Investment Fund.

"The MicroCarbon Development Fund is a truly innovative way to spread the benefits of energy efficiency and carbon finance to lower income households, microenterprises, small companies and forest communities, while combating climate change," she said.

The MCDF is expected to reach a total capitalization of US$50 million and extend financing and grants to 6-10 projects, each ranging from US$2 to US$8 million, capable of earning carbon credits under the Clean Development Mechanism (CDM) of the United Nations' Kyoto Protocol as well as under other protocols and carbon standards.

Fund investments will consist of residential, commercial and municipal appliance and equipment replacement programs such as compact fluorescent lamps, LED-powered street lighting, air conditioners, refrigerators, solar water heaters, and other systems that promote greater energy efficiency and reduce greenhouse gas emissions.

It may also invest up to 20% of its total committed capital in forest preservation and reforestation as well as in other land-use based carbon projects. Land-use investments may utilize emerging carbon protocols such as the Voluntary Carbon Standard and the Climate Action Reserve, boosting their marketability chances in the crucial U.S. market.

The first projects are expected to be mainly in Colombia and Mexico, with others also being considered in Brazil, Ecuador, Central America and other regional countries.

"Real people can't live under water"

Global warming will likely result in sea level rise, increased sea surface tempertures and changes in atmospheric temperatures.

Photo at right: Activists make a demand for action from politicians and ministers gathered in Cancun in the second week of the UN climate negotiations. Greenpeace worked with tcktcktck partners 350.org to bring the message that "real people can't live under water" and climate change requires the building blocks to a global climate deal in Cancun.

Small islands get funds for renewable energy

Some of the smallest and most vulnerable island nations in the Caribbean and other parts of the world will benefit from a new initiative aimed at increasing these countries' access to renewable sources of energy.

This follows the signing of a memorandum of understanding between the Alliance of Small Island States (AOSIS), the Government of Denmark, the World Bank, and the United Nations Development Programme (UNDP).

The agreement recognizes the disproportionate harm of climate change for small island developing states and aims to support island countries to scale up their renewable energy efforts and shift to greater energy efficiency.

A $US14.5 million pledge of support from the Government of Denmark has kicked off the initiative, which is expected to help island states from the Africa, Caribbean, and Pacific Islands regions transition to low-emission, climate-resilient development paths.

Grenada's Prime Minister Tillman Thomas, signing on behalf of AOSIS, said the latest scientific evidence of a significant gap between where global emissions need to be and where the current pledges and levels of emissions would take countries was a major concern for island states.

He said the global community needs to urgently transform the energy sector to reduce greenhouse gases (GHG) emission. "Failure to bring about a transformation of the energy sector to GHG emission below 1990 levels within the next decade will see the end of many small island states as viable countries and many will disappear into the oceans, while others will be significantly reduced in size losing their major economic assets," said Prime Minister Thomas, Chairman of AOSIS.

World Bank Group President Robert B. Zoellick who jointly signed the agreement with Thomas, Lykke Friis, Denmark's Minister for Climate and Energy and Helen Clark, UNDP Administrator said the initiative supports a group of nations that have been among the most active and most vocal at climate negotiations for many years.

"Small island developing states have been sounding the alarm about climate change for years now and have earned the title of 'the conscience of the climate convention'," Mr. Zoellick said. "They are leaders in taking actions on adaptation, and the World Bank Group has increased support to them for this purpose. This new initiative extends this support to clean energy, which will contribute to mitigation and also help reduce the islands states' very high import bills for fuel."

Because of their size and remoteness, most small island developing states are heavily dependent on imported petroleum for their energy needs. Some countries spend an estimated 25 – 50 percent of their GDP on imported oil, which leads to very high domestic electricity costs.

Ms. Clark, a former New Zealand prime minister said reducing fossil fuel consumption is a 'win-win' for small island developing states. "It reduces the greenhouse gas emissions responsible for the rise in global temperatures, while at the same time improving energy security and freeing up national spending for investment in climate-resilient development," she said.

Barbados to boost renewable energy use, reduce fossil fuel dependence

Barbados will boost its use of renewable energy sources and reduce its reliance on fossil fuels with assistance from a US$45 million loan from the Inter-American Development Bank.

The programme will help Barbados to introduce renewable energies in its energy mix, improve its energy efficiency, cut down on greenhouse gas emissions, promote climate change adaptation measures and energy conservation initiatives, and also reduce its exposure to oil price volatility.

Additionally, the loan will support institutional strengthening as well as public education and awareness building campaigns to promote sustainable energy and energy conservation initiatives among the population.

"The energy sector is one of the priorities of the IDB strategy with Barbados and this new project is part of a series of sustainable energy initiatives that the Bank is financing to help lower oil imports, increase use of renewable energy in energy mix and promote more efficient energy use," said Christiaan Gischler, the project team leader. "The IDB has provided over US$3.5 million in grant financing for energy projects in Barbados over the last two years."

The new IDB-financed programme is expected to generate a net benefit of US$284 million in fuel and electricity cost savings over the next 20 years and reduce oil imports' cumulative cost from US$2.65 billion to US$1.98 billion over the same period. It is also anticipated that the programme will reduce more than 4.5 million tons of carbon dioxide equivalent emissions.

Barbados's electricity installed capacity of 239 Megawatts is produced by mostly imported fossil fuel. But the government and the IDB estimate that at least 29 percent could come from economically and commercially viable renewable sources, including biomass cogeneration (20 MW), waste-to-energy systems (13.5 MW), and wind farms (10 MW or more).

"Solar photovoltaic (PV) panels that do not use batteries and which are connected to the distribution grid will play a major role," said Mr. Gischler. "We will see at least 1MW of installed PV panels in the next two years. The Government of Barbados and the project team believe that PVs can follow the trend of solar water heaters, so popular in Barbados that one in every three residences on the island has a unit installed."

As regards energy efficiency, the government estimates that the wide use of compact fluorescents lamps (CFLs), power monitors, premium efficiency motors, efficient air conditioning systems, variable frequency drives and efficient chillers could help save 19.4 percent of the island's total electricity consumption.

As part of the programme, the government also plans to promote the efficient use of fossil fuels, including greater use of natural gas and improved efficiency and sustainability of hydrocarbons consumption.

In addition, credits from the resulting greenhouse gas emissions cuts will be traded in the global carbon markets in order to generate extra funds for energy efficiency and energy reduction projects.

The loan is for a 20-year term, with a five-year grace period, and carries a variable interest rate based on Libor. It is expected to be followed by a second loan of similar characteristics.

Food Stability and Climate Change

The Caribbean Community (CARICOM) Secretariat has posted the final draft of the Regional Food and Nutrition Security Policy which includes a section on food stability focusing on improving the food and nutrition security resilience of the region to natural and socioeconomic shocks and climate change.

The draft seeks to provide a holistic policy framework for the period 2011-2025, translating the major orientations and elements of the overarching and underexploited regional development agreements and initiatives into concrete policy priorities.

These will guide the design, implementation and monitoring of specific future periodic strategic action programmes to address the major food and nutrition security challenges in the CARICOM region.

Among its principles, the draft recognizes that forests constitute a substantive resource for food and nutrition security to be protected through adaptation to climate change.

The draft also links CARICOM's food security vision for the Caribbean food system development to the challenges of climate change mitigation and adaptation, and the need for policy coherence among agriculture, trade, fisheries, energy and environment.

On food stability, the draft document suggests pursuing climate-resilient development for the food and agriculture sector; focusing on coastal management and sustainable forest management, while improving livelihoods and ensuring their stability over time.

It also encourages member States to reduce tariffs on goods that could assist in the reduction of greenhouse gas (GHG) emissions by the agricultural and agro-processing industries.

It also calls for integrating climate management considerations into programmes to develop farm management and build industry and farming community capacities to increase resilience.

The draft urges promoting the inclusion of adaptation and mitigation strategies in the curricula of all training institutions and extension training mechanisms for farmers and other producers.

Projected Impact of Climate Change on Water Resources in the Republic of Trinidad and Tobago

By Senator Emmanuel George
Minister of Public Utilities, Trinidad and Tobago

The Republic of Trinidad and Tobago consists of two separate islands, Trinidad and Tobago, just off the north-eastern coast of the South American continent. As a sovereign state, this twin-island nation has to protect itself against both natural and man-made dangers that threaten its basic survival. One such risk that is receiving international attention is Climate Change. But exactly what is Climate Change, what causes it and why is it so hazardous to all nations, regardless of their size and/or financial strength?

Senator Emmanuel George

The Intergovernmental Panel on Climate Change (IPCC) defines it as a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period (IPCC 2001) while the Framework Convention on Climate Change (UNFCCC) defines it as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which, in addition to natural climate variability, is observed over comparable periods.

In layman's terms, Climate Change refers to the long-term alterations in global weather patterns, such as increases in surface air and subsurface ocean temperature, which may affect the frequency and intensity of storms, floods and droughts, melt mountain glaciers and raise sea levels. It is generally agreed that Climate Change is a result of negligent human activity, such as increased industrialization and deforestation – which results in increased CO_2 levels – as well as natural occurrences, such as volcanic eruptions, continental drift, changes in ocean currents and shifts of the earth's tilt.

These occurrences impact on the level of greenhouse gases – a natural component of the climate system that helps to maintain the Earth as a habitable planet – and lead to the 'Greenhouse Effect'. The higher the level of greenhouse gases, present in the atmosphere, the warmer the Earth's surface (Global Warming). The results of Climate Change can negatively impact water quality and quantity, food security, air pollution, the spread of infectious diseases and, ultimately, lead to social dislocation.

Whatever the definition and genesis, it is unanimously agreed that the threat posed by Climate Change is a reality. Climate Change has become a matter of strategic importance and a major political issue for all governments because it is closely linked to economic development and to achievement of the eight United Nations (UN) millennium development goals – agreed to by all of the world's countries and leading development institutions – which form a blueprint for sustainable development.

Although Climate Change is manifested by sustained alterations in one or several meteorological elements, man is generally concerned with those that directly or indirectly affect his general well-being and his day-to-day activities. Rainfall and temperature are at the top of the list of parameters that influence most, if not all, of these activities and therefore are most closely monitored. The availability of fresh water, either surplus or deficit, which is one of the first things to be affected by Climate Change, impacts on every level of society.

Under Goal No. 7, "Ensure Environmental Sustainability", the UN has expressed its intent to halve, by 2015, the proportion of the population without sustainable access to safe drinking water and further states that a decisive response to Climate Change is urgently needed. Since Climate Change can have a significant impact on the availability and economic costs of supplying water, Small Island Developing States (SIDS) like Trinidad and Tobago, based on their small land masses, have to consider its impact on sea level rise as well as changes in rainfall patterns.

Across the Caribbean region, Climate Change is expected to impact the sustainable development of the region and affect all sectors; especially tourism, water, agriculture, the living environment and economic infrastructure. Climate variability, that is, changing and unpredictable weather patterns, presents a major challenge for these sectors as it is expected that the availability of water will decline and there will be extended periods of drought. With respect to tourism, the majority of infrastructure is located within 10km of the coastline hence that industry is susceptible to the effects of tidal surges and exaggerated wave action.

The umbrella governing body for the Caribbean, CARICOM, realized the importance of addressing Climate Change as a high priority and established the Caribbean Community Climate Change Centre (CCCCC) in 2002. This Centre is based in Belize and undertakes activities in research, impact assessment, response strategies and systematic observation of Climate Change in the region.

At present, the CCCCC is implementing a GEF-funded project – Special Programme for Adaptation to Climate Change (SPACC) – which became effective in 2007 and will be completed in 2011. This initiative is aimed at implementing adaptation and mitigation plans and programmes in Coastal Zones. Supporting pilot projects are currently being undertaken in Dominica, St. Lucia and St. Vincent and the Grenadines.

Trinidad coastline - Paria Bay

Unfortunately, water management in the region is not robust enough to cope with the impacts of Climate Change because of a lack of reliable data and information, a deficit in human and financial resources and the implementation of integrated water resources management. In fact, most Caribbean states have neither an Integrated Water Resources Management Policy, Legislation and Plans, nor a Climate Change Policy and Plan.

Like our regional neighbours, the Government of the Republic of Trinidad and Tobago (GoRTT) is cognizant of the fact that as SIDS our primary source of water is surface water captured from the sky, followed by groundwater and, to a lesser degree, desalinated sea water. However, because we are an industrialized nation currently pursuing an ambitious economic and social development thrust which requires sustainable water resources, GoRTT has taken a more aggressive approach to water resource management.

To date GoRTT has established a national committee on Climate Change at the Ministry of Planning, Housing and the Environment which prepared a report (2009) on the status of climate change for the 2nd National Communication under the United Nations Framework Convention

on Climate Change (UNFCC). However, while there exists an Integrated Water Resources Management (IWRM) Strategy Document (1999) and an approved IWRM Policy Document (2006), a shortage of appropriate human resource capacity and reliable data and information has delayed the drafting of related IWRM Legislation and the development of Plans and a Climate Change Policy.

In spite of these challenges, GoRTT remains committed to integrated water resources management even as strong evidence emerges that significant global warming is occurring. Scientists at the Meteorological Services Division of the Ministry of Public Utilities have observed in recent years that the distribution patterns of rainfall are changing in time and in intensity.

This is in spite of the annual accumulation values remaining relatively unaltered except for the variations caused by cyclically occurring natural events such as El Niño/La Niña, The Southern Oscillation and The North Atlantic Oscillation.

Although we are a twin-island state, and separate climate datasets are maintained for each island, the larger island of Trinidad, with an area of 4768 sq km, is the largest island in the Eastern Caribbean archipelago.

As such, to illustrate the impact of Climate Change on water resources in the Republic of Trinidad and Tobago I have drawn on information obtained by performing simple statistical procedures on data gathered at Piarco International Airport, Trinidad, during the 51 year period 1959-2009.

Fig. 1 and Fig. 2 show the rainfall and temperature, respectively, for the district of Piarco and should be considered both separately and relative to each other. All the graphs are of annual data, with 10-year moving averages superimposed in order to provide smoother curves thus making it easier to identify sustained trends.

Fig. 1: ANNUAL RAINFALL AND BRIGHT SUNSHINE

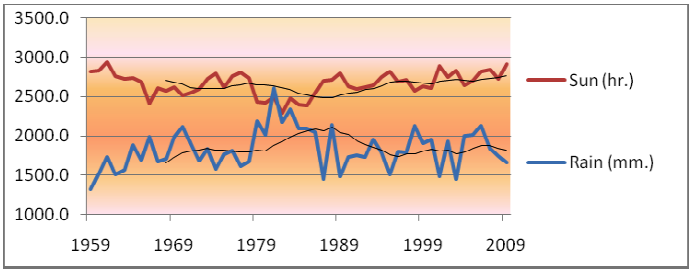
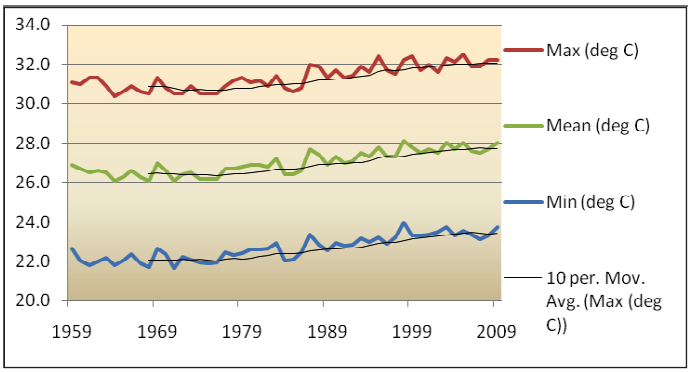


Fig. 2: ANNUAL TEMPERATURES (maximum, mean and minimum)



Consideration of the rainfall alone shows no evidence of a definite trend in the annual amounts, resulting from either natural events or anthropogenic activities. The temperature graph, on the other hand, indicate a definite and sustained upward trend over time, with the quantum of this change being approximately 1.2°C over the period under consideration.

An escalation in temperature would inflate evaporation rates, hasten water loss from reservoirs and cause water consumption for agriculture and per capita to increase. Warmer temperatures are also expected to raise sea level and increase salinity in coastal aquifers and streams. Saltwater intrusion into coastal aquifers will negatively impact fresh water supplies from these aquifers.

Consideration of the two sets together, steady rainfall amounts and increasing temperatures shows a change in the rainfall distribution patterns. Changes in rainfall directly impact surface water resources and indirectly impact groundwater resources through infiltration and percolation. Rainfall is predicted to decrease in the dry season

but rainfall intensity in the wet season is expected to increase.

The curves in Fig. 2 indicate more showery activity accompanied by the quick dissipation of the thick cloud cover associated with this activity, as opposed to rainy episodes, associated with long cloudy periods. Showery activity is more conducive to rapid overland flows, which could lead to more frequent flash flooding events.

Rapid overland flows on a small island also lead to more discharge into the ocean and less percolation for aquifer recharge. This could, in the long term, negatively impact on the economic supply of potable water. Flash flooding also damages agricultural produce, contributes to higher turbidity and sediment load in rivers and causes great distress to the working and school populations.

The predicted impacts of climate change in relation to water must be taken seriously and be addressed in water sector policies, plans and actions to assist in mitigating the negative impacts and facilitating adaptation. Based on the geographic location of Trinidad and Tobago and the fact that the islands are SIDS, the predicted impacts of Climate Change with respect to the water sector include reduced precipitation in the dry season, increase in extreme weather in the wet season, increased flooding, increased evaporation rates, higher daily temperatures, saltwater intrusion and reduced freshwater availability.

Since warmer temperatures, precipitation (rainfall) changes and the impacts of saltwater intrusion are key factors that affect water availability and sustainability, the availability of water in Trinidad and Tobago is expected to be highly vulnerable to future Climate Change. The most significant and immediate consequences will be related to changes in sea levels, rainfall regimes, soil moisture budgets, and short-term variations in the regional and local patterns of wave action.

Medium- and long-term consequences of Climate Change that will also impact on our nation's water resources include an increase in surface runoff, a deceleration of wetland renewal, the erosion of watersheds and a reduction in the volume of potable water and the size of the fresh water lens.

GoRTT acknowledges that the threat of climate change is clear and increasing and is prepared to take prompt action to mitigate the causes of Climate Change and devise and implement strategies to adapt to its impacts, for the sustainability of Trinidad and Tobago and our citizens. We are also ready to lend whatever scientific and technological assistance is required by our Caribbean neighbours to help the region make informed Climate Change decisions while continuing to meet their individual development goals.

Flashback: Effects of heavy rains in north Trinidad and Tobago in 2008

Hurricanes are a major threat to countries in the Caribbean including Trinidad and Tobago

New Environmental Alliance launched in the Caribbean

By Dawn Marie Roper

Panos Caribbean - "Karipanou" or "Our Caribbean" is the newest alliance formed to support environmental sustainability in the Caribbean. Karipanou was created to engage Caribbean people more in the governance and management of the natural resources in the region. The Karipanou alliance was launched in Montego Bay, Jamaica on October 8.

Three organisations comprise the new alliance: the Caribbean Natural Resources Institute (CANARI) from Trinidad & Tobago; Panos Caribbean, which is headquartered in Haiti and the Centre for Resource Management and Environmental Studies (CERMES) from the University of the West Indies in Cave Hill, Barbados.

The three organisations found that they have a shared vision and values about what they want to see happen in Caribbean natural resources management.

Spokespersons for the alliance expressed excitement about the prospects for Karipanou's impact in the region. Jan Voordouw, Executive Director of Panos Caribbean felt that the combined efforts of the three organisations would generate innovative activities and engage more people across the region.

"We are looking at poverty, natural resource management and climate change for instance. Karipanou will engage more people in policy and governance on environmental issues. The three different entities coming together with three different strengths will make our impact much stronger."

Panos Caribbean is an information broker on behalf of marginalised people around the region. Since 1986 Panos has been helping poor people and marginalised groups to communicate their own perspectives on development issues. Panos' themes cover children's rights, gender issues, health and the environment.

Fisherfolk at Marine Reserve, Dominica

Scott's Head Marine Reserve, Dominica

CORAL BLEACHING IN THE CARIBBEAN

Due to above-average water temperatures in the Caribbean Sea, the National Oceanic and Atmospheric Administration (NOAA) predicts that coral bleaching will be very likely in 2010.

It may even be as severe as 2005 when 80 percent of corals were bleached and 40 percent died. There have been reports from several sites already in the Caribbean as well as from other parts of the world.

Coral bleaching is the whitening of otherwise colorful corals due to stress-caused death or expulsion of the zooxanthellae, unicellular protozoa(algae) that live in a symbiotic relationship with the corals.

The zooxanthellae are photosynthetic organisms that live within the tissues and give the coral its distinct coloration.

When they go, so does the color, causing the coral to become white or "bleached." The stress is triggered by environmental changes such as a change in temperature, change in water chemistry, lack of zooplankton (what the coral eats), or increased sedimentation.

The most common stress is increasing temperature, which is what's happening in the Caribbean, particularly the southeast Caribbean.

"High temperatures cause corals to force out the symbiotic algae that provide them with food. This makes the corals appear white or 'bleached' and can increase outbreaks of infectious disease," said Mark Eakin, Ph.D., coordinator of NOAA's Coral Reef Watch.

Prolonged coral bleaching can often be fatal to the coral, and potentially devastating to the coral reef ecosystem, home to an abundance of marine biodiversity.

It can also have an economic impact on the communities in places like the Caribbean, United States, Australia, and wherever there are large coral habitats. According to NOAA, coral reefs provide benefits worth up to US$375 billion each year around the world.

Photo: NOAA

AGRICULTURE, FOOD SECURITY AND CLIMATE CHANGE CONFERENCE PRODUCES ROADMAP FOR ACTION

The Global Conference on Agriculture, Food Security and Climate Change took place from 31 October - 5 November 2010 at the World Forum in The Hague, the Netherlands, around the theme "It's Down 2 Earth."

The Conference and its Ministerial Roundtable-sessions initiated a roadmap for action linking agriculture-related investments, food security and climate change.

The "living roadmap" contains sections on: policies and strategies for climate-smart agriculture; tools and technologies for climate-smart agriculture; financing for transformational change; forging partnerships for climate-smart agriculture; and the way forward.

Participants convened in plenary and working group sessions throughout the week. The working groups focused on exploring issues, challenges and opportunities and stocktaking of innovations from case studies around the world.

The Conference included an investment fair, which had focused discussions on: opportunities and challenges for project investments in Africa; managing carbon emissions through supply chains; creative incentives to reduce the destruction of natural forests from major agricultural commodities; whether large-scale commodity production can be turned from a leading cause of deforestation to a driver of sustainability; and public private partnerships.

EU CONSIDERS NEW POLICY ON TOURISM

The Council of Competitiveness Ministers of the EU met in Luxembourg in October 2010 to consider a new EU policy on tourism, which includes climate change considerations.

The Council agreed that actions in support of tourism should be organized on the basis of the four axes outlined by the Commission: stimulating competitiveness in the European tourism sector; promoting the development of sustainable, responsible and high-quality tourism; consolidating the image and profile of Europe as a collection of sustainable and high-quality destinations; and maximising the potential of EU policies and existing financial instruments for developing tourism.

In its conclusions, the Council acknowledges the need to improve the tourism-related socio-economic knowledge base on climate change, among other issues, with a view to providing useful information to the industry's strategies and the policies of public authorities, while avoiding unnecessary administrative burdens.

APEC MINISTERS ADDRESS CLIMATE CHANGE IMPACTS ON OCEANS AND FISHERIES

Oceans-related Ministers of the members of the Asia-Pacific Economic Cooperation (APEC) discussed climate change impacts on oceans at a meeting titled "Healthy Oceans and Fisheries Management towards Food Security" in Paracas, Peru.

The meeting focused on four themes: sustainable development and protection of the marine environment; climate change impacts on the oceans; free and open trade and investment; and the role of oceans in food security.

At the conclusion of the meeting, Ministers adopted the Paracas Declaration, which contains a section devoted to the "Impacts of climate change on the oceans."

In the Declaration, Ministers express support for APEC economies to cooperate in gathering and sharing scientific knowledge on climate change and its impacts on coastal and marine ecosystems, fisheries and aquaculture.

They also encourage APEC economies to increase efforts to improve the capacity of coastal communities, fishing industries, and resource managers to respond and adapt to climate change.

OECD RELEASES REPORT ON ENVIRONMENTAL TAXES

The Organisation for Economic Co-operation and Development (OECD) has published a study, entitled "Taxation, Innovation and the Environment," that addresses the questions: Do green taxes prompt innovation? What types of innovation result, and what benefits do they bring? And does taxation design play a critical role?

The report's main premise is that innovation is critical to achieving environmental outcomes at a reasonable cost. It illustrates the various positive impacts environmentally-related taxation has on green innovation, noting that these taxes are already widely used in OECD countries.

It discusses the important role that tax design has on outcomes, with higher taxes creating higher incentives to alter practices and technologies, and predictable taxes helping encourage investment.

The report contains chapters on: current use of environmentally-related taxation; effectiveness of environmentally-related taxation on innovation; tax design considerations and other tax-based instruments; and green taxation for policy makers.

UNDP RELEASES 20TH EDITION OF HUMAN DEVELOPMENT REPORT

The UN Development Programme (UNDP) has released the 20th anniversary edition of its annual flagship publication, the Human Development Report. The report is titled, "The Real Wealth of Nations: Pathways to Human Development."

The report was launched by UN Secretary-General Ban Ki-moon with

UNDP Administrator Helen Clark and Nobel laureate Amartya Sen. It focuses on long-term development trends and indicates that, although inequalities within and between countries remain, people today are generally healthier, wealthier and better educated than they were in 1970.

It indicates that major challenges to development, including climate change, need to be addressed by a global governance system and not by individual States.

The HDR includes a development agenda post-2010 that focuses on the progress and threat of climate change, including an agenda for research and policy.

The report stresses that economic insecurity and climate change are major sources of vulnerability and unsustainability of development, particularly unsustainable production and consumption patterns that rely heavily on fossil fuels.

It emphasizes that climate change may be the single factor that makes the future very different, impeding continuing progress in human development. The report also recognizes the greater risks of climate change to island countries, in some cases threatening their existence.

The HDR recommends that development strategies incorporate low-carbon patterns of economic activity and increase resilience to climate-related shocks. It further underlines that challenges such as water scarcity, land degradation, and the widespread loss of biological diversity and ecological services can harm growth and broader progress in human development.

The 2010 HDR recalls that the report issued in 2007/2008 applied a human development lens to highlight the costs of climate change, including cross-generational poverty traps caused by climate shocks and the phenomenon of "adaptation apartheid."

It notes increased awareness of the impact of climate change on human well-being globally since the publication of that report.

FOREST CARBON PARTNERSHIP FACILITY RECEIVES NEW PLEDGES

The Forest Carbon Partnership Facility, part of the Climate Investment Funds (CIF) managed by the World Bank, recently held its Participants Assembly meeting, during which donor countries committed over US$100 million in new pledges.

The meeting, which took place in Washington DC, US, on 1 November 2010, gathered donors and stakeholders who announced new pledges to the two funds that make up the Partnership - the Readiness Fund and the Carbon Fund.

Germany announced an additional €4 million to its previous commitment of €50 million; Norway pledged US$50 million to the Carbon Fund over several years; and Finland pledged €4 million, both on the condition that it is approved by the parliaments of their respective countries.

These commitments come in addition to the Participation Agreement just completed with the US for US$10 million for the Carbon Fund and a recent pledge by Canada of CAN$40 million for the Readiness Fund.

EXPERTS DISCUSS LINK BETWEEN TRADE AND "GREEN" ECONOMY

The global push towards "green" economic growth can be a new engine for sustainable and inclusive economic progress, and trade can help spread the technology, efficiencies, and benefits involved, experts told the opening session of a meeting on "The green economy: trade and sustainable development implications."

The two-day ad-hoc expert meeting is framed as an input to the United Nations Conference on Sustainable Development scheduled for 2012, also referred to as Rio +20, in reference to the UN Conference on Environment and Development, or Earth Summit, held in 1992 in Rio de Janeiro. "A green economy in the context of sustainable development and poverty eradication" is one of two main themes of Rio +20.

"We just cannot avoid confronting the environmental issue," UNCTAD Secretary-General Supachai Panitchpakdi said in opening the session. He said efforts to develop the technology and economic efficiencies needed to enable economic growth that does not damage the environment will require providing further help to poor countries. Inequalities in resources and technology will otherwise mean sustainable development only for some, while the costs from environmental damage -- such as climate change -- affect all, he said.

Trade can be an important tool in the transition to a green economy but on its own will not automatically provide incentives to developing countries in their pursuit of sustainable development, Mr. Supachai said.

The urgency of addressing climate change means there should be a well-designed sharing of the burden, he said. The United Nations High-Level Advisory Group on Climate Change Financing, of which he is a member, is discussing a goal of US$100 billion per year to aid developing countries adapt to and mitigate climate change by 2020, he said.

Sha Zukang, United Nations Under-Secretary-General for Economic and Social Affairs, who is serving as Conference Secretary-General for Rio +20, said sustainable development is a "wonderful concept but what it means and how it happens is the issue.

"Much still has to be done," he said. "A green economy is seen as holding the key to faster implementation of sustainable development." He termed trade "a vital channel of green technology flows between countries" but added that the green economy, as it develops, must be shaped so that it serves the greater goal of sustainable development for all the world's countries.

Luis Manuel A. Piantini Munnigh (Dominican Republic), President of UNCTAD's Trade and Development Board, said "Development goes well beyond mere economic development."

It is time, he said, "for the construction of an environmentally friendly economy" that can have good long-term benefits and, as it takes hold, can create employment. Trade will play a major role in this shift, he said, and should spread technology and benefits fairly, especially during what will be a complex and difficult transition period.

And Sylvie Lemmet, Director of the Division of Technology, Industry, and Economics of the United Nations Environment Programme (UNEP), said a number of global ecosystems "are in fast decline. . . and these are the same resources that we all, and particularly the poorest among us, rely on for life and well-being. The current modes of production and consumption that we have are not sustainable for a world of 6 billion people."

Energy efficiency can power Latin America's growth and development

Energy efficiency, an idea as simple as changing a light bulb, can become Latin America's new growth engine as the region zips towards 5-6 percent expansion rates and cements a quick recovery from the global financial crisis.

Latin America's power generating capacity may need to double in the next twenty years to meet the growing demand for electricity – an endeavour that carries a price tag of US$20 billion in additional investments each year, said World Bank experts at a recent Energy Efficiency and Access Forum held in Mexico.

Since investments of such magnitude in new capacity are not easily affordable by any regional economy it makes better sense to use more efficiently the existing energy infrastructure, argued World Bank Managing Director Sri Mulyani Indrawati.

"Meeting the growth in energy demand by relying exclusively on simply building more infrastructure, in particular new thermal and other power plants, is both unwise and unsustainable," Indrawati told hundreds of experts, government leaders and policymakers attending the Energy Efficiency and Access Forum jointly organized by the Mexican government, the IADB and the World Bank, with funding from the Spanish Fund for Latin America and the Caribbean (SFLAC).

Significant Savings Achievable Energy efficiency is not only cost-effective but also forward-looking. The potential for total financial savings, or avoided energy cost, of global energy efficiency could rise to US$250-US$325 billion annually by 2030, experts note.

All in all, energy efficiency initiatives can have positive impacts both on government and household purses. They could ultimately reduce fiscal burdens through energy cost savings, allowing additional funds to be reinvested into other sectors, such as education and health. Additionally, families can see their utility bills shrink through more efficient cooling systems, efficient light bulbs and fuel-efficient vehicles.

Last but not least, all these efforts strengthen energy security by reducing the uncertainty from vulnerability to oil prices, which represents the main source of power generation in many Latin American countries.

The good news is there's a growing consensus among the region's government leaders and policy makers that energy efficiency is an important development tool.

Programmes to save energy are being adopted across the region at all levels, including loss reduction and light bulb exchange initiatives such as Brazil's Eletrobras Distribution Rehabilitation Project (US$495 million), Mexico's Lighting and Appliances Efficiency Project (US$350 million), and Uruguay's innovative Energy Efficiency Project (US$7 million) where school children encourage their parents to refrain from wasting energy.

Electricity loss through inefficient distribution is a major problem in the region. Latin America's registered losses in electricity distribution in 2005 equalled the total combined energy consumption of Argentina, Chile and Colombia. Currently, the average losses hover around 16 percent of the region's total output.

"If losses could be reduced in a 20-year period, energy savings could eliminate the need to generate up to 6 percent of the additional electricity needs for those years," said World Bank energy expert Philippe Benoit.

More Innovation Needed

Despite an increased awareness about the importance of smart energy policies, Benoit thinks there is need for a bigger emphasis on innovative tools and stronger institutional frameworks that would help implement quickly "low-hanging" energy efficiency options.

These include regulatory policies such as building energy efficiency codes, energy efficiency standards for appliances, labelling systems, and mandatory industry energy audits. It also includes financial incentive-based approaches such as utility demand side management programs, and market-based mechanisms including Energy Service Companies that provide energy assessment services.

Experts acknowledge that "energy efficiency" can sometimes be a hard sell to the general public who doesn't see its immediate benefits. It also confronts a series of technical, institutional, regulatory and financial barriers.

"Past experience shows that countries need to address several obstacles – including high initial costs of investments and institutional barriers to program implementation- in order to effectively undertake energy efficiency programs in swift fashion and greater scale," said World Bank vice president Pamela Cox. Ms. Cox noted that funders' lack of information

is also a reality. "For example, it is not a common practice for commercial banks to grant credits for investments that are repaid with energy savings," she said.

Energy Efficiency Promotes Green

But energy efficiency has so many dimensions that it's hard not to see the benefits of adopting it wholeheartedly. One such dimension is climate change. Green benefits for embracing and practicing efficiency are plentiful: from less reliance on greenhouse gas producing fuels to adoption of clean energy systems, the environment suffers less and countries become better at mitigating and adapting to climate change.
The cost for developing countries to address climate change is estimated at US$100 billion per year. Assistance in funding these efforts and setting greenhouse emissions caps will be at the center of discussions in the COP16 Cancun meeting.

"In recent years, since the Bali Roadmap to the Copenhagen Accord, and in the run up to the UN Conference of the Parties, COP16, climate change has been increasingly seen as integral to energy sector development and energy efficiency is slowly but surely emerging as an area of great

untapped potential for energy savings, both in financial terms and in terms of reducing greenhouse gas emissions," noted Managing Director Indrawati.

The forum also addresses access to energy in Latin America where 35 million people lack electricity services.

Improved access to modern electricity services that are reliable, affordable, and clean is critical to economic growth, poverty reduction, and improving access to better opportunities in life, according to the World Bank's Human Opportunity Index. Access in rural areas, in particular, brings large benefits, in terms of better delivery of health, education, and communications services, which in turns improves people's lives.

"Providing these typically poor families with access to electricity remains one of the important development challenges facing the region," said Indrawati. The World Bank is one of the leading donors in LAC for energy access and energy policy programs. The World Bank is currently undertaking investment projects that promote electricity access in numerous countries in the region, including Bolivia, Peru, and Honduras.

2010 COULD BE HOTTEST YEAR EVER

2010 is heading as one of the three top warmest years – and could top the hottest year ever since the beginning of instrumental climate records in 1850 depending on whether there's continued warming in December, said Secretary General of the World Meteorological Organization (WMO) Michel Jarraud.

The 2001-2010 decade has already been recorded as the warmest 10-year period in climate records history. "2010 is almost certain to be in the top warmest years on record, up to October and parts of November,"said Mr. Jarraud adding that soaring temperatures were very close to the record heat the world experienced in 1998 and 2005.

According to the WMO, global combined sea surface and land surface air temperature between January –October 2010 is estimated at 0.55°C ± 0.11°C1 (0.99°F ± 0.20°F) above the 1961–1990 annual average of 14.00°C/57.2°F.

"Preliminary operational data from 1-25 November indicate that global temperatures from November 2010 are similar to those observed in November 2005, indicating that global temperatures for 2010 are continuing to track near record levels," the WMO chief said.

Over the ten years from 2001 to 2010, global temperatures have averaged 0.46°C above the 1961-1990 average, 0.03°C above the 2000-09 average and the highest value ever recorded for a 10-year period.

Mr. Jarraud said recent warming has been especially strong in Africa, parts of Asia, and parts of the Arctic; the Saharan/Arabian, East African, Central Asian and Greenland/Arctic Canada sub-regions which all had 2001-10 temperatures 1.2 to 1.4°C above the long-term average, and 0.7°C to 0.9°C warmer than any previous decade.

Identifying some of the major regional climate events in 2010, he said Pakistan experienced the worst flooding in its history as a result of exceptionally heavy monsoon rains in late July which exceeded 300 millimetres over a large area of northern Pakistan centred on Peshawar.

In terms of the number of people affected, the United Nations rated the flood as the greatest humanitarian crisis in recent history. The total monsoon season rainfall for Pakistan was the fourth-highest on record and the highest since 1994.

Taking action for a sustainable future

At every level in the GHL organization, our people are taking the initiative to improve lives. This is who we are as a corporate entity–purposeful and caring.

This spirit is at the heart of our environmental stewardship where employees engage in a number of initiatives to reduce, reuse and recycle, aimed at minimizing our carbon footprint. It's all part of taking positive action on environmental matters, not because we have to but because we want to.

GHL - Transforming Reality and the winner of the 2009 Leadership Award for *Sustaining the Environment: Making the Most of Green Opportunities* from the Energy Chamber (formerly South Trinidad Chamber).

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T&T's National Disaster Management Office and its Role in managing Climate Change

By Office of Disaster Preparedness and Management, Trinidad and Tobago

The increase of near surface temperatures, is in fact a natural occurrence, but has become a global hot button issue due to the fact that the rate at which these temperatures are increasing may be due to anthropogenic activities that have increased the emissions of greenhouse gases into the atmosphere.

It is believed that increased industrialisation in conjunction with other anthropogenic activities have led to the phenomenon that we describe today as Climate Change. Among those that are most vulnerable to effects of climate change include Caribbean islands which have been categorised, together with islands found in the Pacific, Indian and Atlantic oceans as "Small Island Developing States" (SIDS).

In its Fourth Assessment Report of the Working Group II "Impacts, Adaptation and Vulnerability", the Intergovernmental Panel on Climate Change (IPCC) states that:"Small islands, whether located in the tropics or higher latitudes, have characteristics which make them especially vulnerable to the effects of climate change, sea-level rise, and extreme events (very high confidence)".

The characteristics that make these fifty one (51) small islands states particularly at risk to the negative implications of Climate Change include their: small populations, limited resources, susceptibility to natural disasters and vulnerability to global events. According to the IPCC, another worrisome feature of SIDS is that: "In the Caribbean and Pacific islands, more than 50% of the population live within 1.5 km of the shore".

The United Nations International Strategy for Disaster Reduction (UNISDR) has identified the following key sectors as being most susceptible to the repercussions of climate change in its Climate Change and Disaster Risk reduction Briefing Note 1:

1) Water: It is stated by the UNISDR that, "Drought-affected areas will likely become more widely distributed. Heavier precipitation events are very likely to increase in frequency leading to higher flood risks".

2) Food: It is expected that crop production in areas found in seasonally dry and tropical regions will be negatively affected due to the increase in temperature and frequency of drought. This only reiterates the importance of ensuring food security.

3) Industry, settlement and society: Settlements located in coastal areas and flood plains as well as areas undergoing rapid urbanisation have been identified as the most vulnerable. It is also believed that as "extreme weather events become more intense or more frequent, the economic and social costs of those events will increase".

4) Health: The UNISDR projects that there will also be, "Increased deaths, disease and injury due to heat, waves, floods, storms, fires and droughts". Moreover, it is estimated that diarrhoeal diseases and malaria will increase in prevalence.

Internationally, two (2) legal instruments dedicated to decreasing the levels of

greenhouse gases exist: the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, of which Trinidad and Tobago is a ratified signatory to both.

Regionally, the Caribbean Disaster Emergency Management Agency (CDEMA) has recognised that "Global Climate Change (GCC) is the most serious threat to sustainable development facing CARICOM States".

In light of this CDEMA has teamed up with other regional institutions such as the Caribbean Community Climate Change Centre (CCCCC), the Caribbean Institute of Meteorology and Hydrology (CIMH), the International Federation of Red Cross and Red Crescent Societies (IFRCS), the Caribbean Policy Development Centre (CPDC) and the Caribbean Natural Resources Institute (CANARI) to implement its "Climate Change into Disaster Risk Management for the Caribbean Region (CCDM) Project".

This CCDM project is supported and funded by the Austrian Development Agency (ADA).

Trinidad and Tobago was able to benefit directly from the CCDM project with the inception of a "Development of the Model Community-Based Climate Change and Disaster Risk Reduction Programme" in October, 2010.

A Pilot Programme was developed for the region of Mayaro (South East Trinidad) simply because of the very obvious changes that have occurred to the coastline within recent times. Coastal erosion as well as salt water intrusion are fast becoming more regular events in this area.

Consequently, CDEMA in collaboration with the Caribbean Natural Resources Institute (CANARI), the Office of Disaster Preparedness and Management (ODPM) in Trinidad and Tobago and the Trinidad and Tobago Environmental Management Authority (EMA) engaged the community of Mayaro directly through a variety of presentations, in an attempt to get the community more actively involved in the implementation of mitigation and

Flooding in Trinidad

adaptation methods to limit the effects of climate change on the coastal community.

This pilot projected aimed to get residents in these vulnerable areas to have a more hands on approach and opinions in the mitigation measures utilised to diminish climate change impacts. This pilot programme would be modified and exercised in other vulnerable communities in Trinidad and Tobago. Train-the Trainer sessions are being planned to train individuals to facilitate similar programmes in other vulnerable communities.

The Office of Disaster Preparedness and Management (ODPM) as the national body responsible for coordinating all aspects of comprehensive disaster management (mitigation, prevention, preparedness, response and recovery) has also joined in the fight against the effects of Climate Change.

In addition to collaborating with the regional disaster management agency, CDEMA, the ODPM has acknowledged that having a policy which treats with Climate Change is an imperative step in helping to reduce the implications of climate change and therefore, it applauds the Ministry of Housing and the Environment for its foresight in drafting the Draft National Climate Change Policy.

This Policy which was produced in 2010 by the aforementioned Ministry will: "provide

policy guidance for the development of an appropriate administrative and legislation framework, in harmony with other sectoral policies, for the pursuance of a low carbon development path for Trinidad and Tobago". The Draft Climate Change Policy aims to:

1) Reduce or avoid greenhouse gas emissions from all emitting sectors
2) Enhance carbon sinks
3) Conserve and build resilience of human and natural systems to adapt to the adverse impacts of climate change, including through capacity building and the application of cleaner technologies
4) Protect the natural environment and human health
5) Enhance agricultural productivity and food security

However the ODPM recognises that establishment of policy is simply not enough. Assessing risks and vulnerabilities is of great importance as well as this allows for the implementation of appropriate mitigation measures. The ODPM continues to assess risks and vulnerabilities through the:

1) Development of Flooding and Landslide Susceptibility Models and Maps for Trinidad
2) Development of Flooding and Landslide Risk Models and Maps for Trinidad
3) Country Disaster Risk Evaluation
4) Dissemination of susceptibility/risk information and integration into national policy and planning
5) Assessment of appropriate flood resistant construction in flood prone areas

Public awareness and education are proven effective tools to mitigate against the effects of climate change. By providing pertinent and up to date information to residents in vulnerable areas (such as what was done in CDEMA's "Development of the Model Community-Based Climate Change and Disaster Risk Reduction Programme") they will better understand how their daily activities can exacerbate the negative effects of climate change and would therefore aid in convincing them to take steps to reduce their carbon footprint.

The ODPM has developed a widespread public and community education campaign that aims to further enhance the public's knowledge on hazards to which our nation is prone and to inform them about what can be done to reduce the impacts of these hazards.

One of these priority hazards for Trinidad and Tobago is flooding. It is known that Climate Change can generate heavier rainfall events and thus increase the risk of flood events. In terms of better preparing for the predicted increase in flooding events, the ODPM has also undertaken the task of developing and boosting Early Warning Systems through the utilisation of:

1) Emergency SMS Texting, using B-Mobile and Digicel
2) Emergency television and radio broadcasts / Public Service Announcements
3) Community Based Early Flood Warning Systems - The San Juan River Basin Pilot Project
4) Strengthening the forecasting and information dissemination capacity of the Trinidad and Tobago Meteorological Services (TTMET)
5) Improving the flood monitoring capabilities of the Water Resource Agency (WRA)
6) Improving the communication/cooperation between the ODPM, TTMET and WRA
7) Improving the information dissemination system between ODPM, TTMET and WRA

While prevention and mitigation are key to effective comprehensive disaster management, we must acknowledge that in some instances the risks must be accepted and therefore effective mechanisms to respond to flood event or other hazard impacts must be established in order to protect life and property.

Remarks by The Bahamas Prime Minister, Hubert A. Ingraham at the *Caribbean Renewable Energy Forum* (CREF)

Hubert A. Ingraham

The Bahamas' energy challenges mirror those confronting the entire Caribbean Region. The importance of achieving a sustainable energy future is critical for all of us.

In earlier times we lived in a world in which the terms "climate change" and "sea level rise" were yet to be coined; and in a world where energy generated by fossil fuel was cheap. In that world we paid little attention to either conservation or alternative energy sources.

Nowadays we live in a different world; a world in which Climate change is real. We in the Caribbean already live the reality of more frequent and fierce summer storms and hurricanes. Our coastlines, including much of our economic development spaces, lie exposed and vulnerable to the ravages of storms.

Further, our coastal developments are threatened by the predicted sea level rise which science and experience tells us is already happening. Indeed, a temperature rise of two degrees Celsius is projected to result in sea level rise of two meters. Such an eventuality would submerge eighty per cent of my country's territory. We have a common cause in reducing greenhouse gas emissions.

We have all been cured of any expectation that cheap oil will be a companion to development in our region. Still, for the most part we remain dependent on imported fossil fuels for transport and electricity generation. As a result, a significant portion of our foreign exchange earnings is expended to pay for fuels. "Business as usual" will put us at even greater risk in the years ahead.

I believe that most, if not all, decision-makers around our region accept that efforts to conserve energy are the most promising methods of truly going "green". Hence, the call from regional governments for all to become more aware of what we use, how we use it, and using less of it. This call has been accompanied by initiatives to promote the development and use of alternative energy sources primarily through a series of incentives and waivers of duties and fees attached to alternative energy infrastructures.

And, we are beginning to make measured strides toward shaping a more efficient energy future with the interested involvement of our citizenry including our business communities. Cutting edge technologies are being introduced and used in lighting and cooling of buildings and in heating household water supplies; and a preference is developing for more fuel efficient vehicles.

Here in The Bahamas we are a chain of islands, some with very small populations in small communities separated one from the other by long distances - each with differing energy demands.

In short, we are a "microcosm" of the wider Caribbean with electricity grids on more than 25 islands and cays which are not interconnected.

The work of our National Energy Policy Committee (NEPC) revealed significant data gaps in our energy sector which we have sought to address through two IDB technical assistance grant programmes.

Notwithstanding progress being achieved we fully recognize that the road ahead is long. We accept that we in The Bahamas have vast, yet untapped renewable energy resources. Of course, the practical application of these technologies are not without limitations whether structural, geographical, financial, or economic.

We are committed though, to influencing a change in behaviours so as to reduce new and increased demands for energy.

From bamboo bikes to biomass briquettes:
UNEP unveils SEED Award Winners

A novel solar device that turns waste heat into electricity in rural China, a Ugandan business that manufactures stationery from agricultural waste, a bamboo bicycle project in Ghana and a female-run business in South Africa making a hand-held laundry device that saves water are among the 30 winners of the 2010 SEED Awards announced by the United Nations Environment Programme (UNEP).

The SEED Awards recognise inspiring social and environmental entrepreneurs whose businesses can help meet sustainable development challenges. By helping entrepreneurs to scale-up their activities, the SEED Initiative, which is hosted by UNEP, aims to boost local economies and tackle poverty, while promoting the sustainable use of resources and ecosystems.

This year, in addition to seeking innovative start-ups throughout the developing world, the SEED Awards had a special focus on Africa, placing particular emphasis on initiatives from South Africa, Burkina Faso, Kenya, Egypt, Ghana, Rwanda and Senegal. This focus was part of a larger project linked with UNEP's Green Economy Initiative and was funded largely by the European Union.

Achim Steiner, UN Under-Secretary-General and UNEP Executive Director, said:" The SEED Award winners exemplify the strong spirit of entrepreneurship in the developing world and its significance in creating a Green Economy. While the Awards recognize individual outstanding projects, governments must also show leadership in supporting grassroots efforts through diverse and dynamic standards, forward-looking policies and incentives to further catalyze corporate and community-led change."

All the SEED winners will be honoured at award ceremonies in their home countries. The prize they will receive from SEED is a package of individually-tailored support for their business. This includes access to relevant expertise and technical assistance, meeting new partners and building networks, developing business plans and identifying sources of finance. SEED will furthermore contribute towards meeting each winner's most immediate needs by contributing to a jointly developed support plan.

The 2010 call for proposals saw applications from just under 60 countries, representing the collaborative efforts of non-governmental organizations, women's and youth groups, labour organisations, public authorities, international agencies and academia. While most of the applications were in the agriculture and rural development sector, many entries addressed issues around climate change and energy, the conservation of biodiversity, and waste management. The selection of the winners was by an independent International Jury of experts.

Heavenly Himalayas part II

Bogusia Sipiora

There is not too much about Palampur in my guidebook and not much in the internet, too. That's why we wanted to see this so called tea capital of northwest India, which lies in Kangra Valley, Himachal Pradesh.

Although tea was introduced to the valley only in XIX century, its micro-climate made the place perfect for it to grow. Palampur has abundance of water and warm, not burning sun. Its name comes from 'pulum' which in the local language means 'lots of water '.

In the far past, Palampur was a part of the Sikh Kingdom Jalandar and a most stunning hill station. View of carpets of tea shrubs with a backdrop of the snow-capped Dauladhar mountain range really captivates attention and compels one to stop by. It is the most breathtaking view in which we also indulged ourselves!

We stopped at a small village among tea plantations called Bir. At twilight plump quails were waking us up cuckooing very loudly and announcing the daybreak. After getting up we were served tea from the owner's plantation along with fresh milk from the local farmers. Luxury for soul and body!

We also decided to visit small hamlet. Surprisingly, hardly any local recognized Andretta, the place we were asking for nor could they show us the way.

Thus, after moping around for quite some time we succeed in finding a very bumpy and muddy by-road to Andretta, a sleeping beautiful village spread below the thickly wooden hill.

Andretta, an Italian name, means inner stone and is known for its pottery workshop and art gallery. The pottery working studio is an open air theatre built in mud and stone, where piles of mother earth in various shapes and sizes are left out to dry.

On the pottery wheel, the Master's hands mould a body from these pieces and the bhatti (kiln) burns and stiffens its shape. The whole process of making pottery here is led in a traditional way and people from all over the world come to Andretta to take training form the master Singh, son of a very famous potter in India. It is very quiet in this clay theatre. Only the noise of turning wheels is announcing that the play is going on.

Billing is a little meadow well known and widely visited because of its natural shape, which becomes a launching pad for paragliders.

But is has something else which is again not mentioned in my guide. On the top of the hill there is a small, very old house. Every morning an elder pahari (a local mountaineer) opens the doors and starts boiling chai.

The entire day Uncle Ramesh boils milk and water in a huge steel pot, adds cardamom and sugar making hot chai to whoever comes by. He doesn't need too much encouragement to tell stories from far past as well as current local updates. He's evergreen. Boiling tea at his stall on Billing for numerous years, he has seen history passing by, the ones which are not recorded in books.

It is very windy on the hill and after a walk one feel like having a hot cup of tea. Nothing like Uncle Ramesh's chai will do while watching the massive Dhauladar mountain range and the Kangra Valley below with its panoramic views.

Knowing that Indian taste is very sweet I asked for no sugar in my tea. "I added a little sugar to make you feel warm" says Uncle smiling widely and showing me his snow-white teeth. "Thank you so much" I answered sipping the sweetest chai ever.

Poharis are known from their kind-heartedness and make one feel cosy even on the top of a high and windy hill. And in mountains everything is bigger and more intense so as to catch up with them: hills are high, wind is strong and freezing, sky is celeste, sun is dazzling golden and chai is sweetie sweet.

Bogusia is a Polish citizen living in Delhi, India

Fathers need SUPPORT

By Barbara King,
The Parent Support Centre, Arima, Trinidad

An article in the Trinidad Guardian of March 16th 2009 written by Pastor Clive Dottin stated: "The cold reality is that we have two generations of missing fathers. This has huge implications for the family and the society. Some men are either MIA—missing in action or DIC—dead in the cemetery."

These sentiments are frequently expressed in the media and in general conversation about fathers today. One study on Caribbean family structure, conducted on students from the University of the West Indies, suggested that Caribbean men (primarily those of African descent) have poor emotional relationships with their children.

Cases in the family and criminal courts in Trinidad and Tobago show that a significant number of Afro-Trinidadian fathers do not adequately support their children financially or emotionally. Other local studies show that a significant percentage of young male offenders committed to juvenile correctional institutions, do not have a father actively involved in their lives. This has an impact on their psychological, social and educational development.

International research has shown that the consequences of father absence can be profound. Children who grow up without an involved, committed, engaged father in their lives are said to be at least five times more likely to be poor; two to three times more likely to fail at school; two to three times more likely to have an emotional or behavioral problem; more likely, if they are boys, to get in trouble with the law as teenagers; more likely, if they are girls, to become pregnant as teenagers. On almost every measure, children who grow up without a father or significant male in their home are at greater risk of poor outcomes.

In the Caribbean, absent fathers are frequently condemned as "dead beat dads". Women generalize based on the non-performance of a few, clump all men together as ineffective fathers and expect very little from them in terms of hands-on involvement in fathering their children.

We are quick to condemn "delinquent fathers", but seem unwilling to try to understand them. These fathers are products of gender socialization that has

delineated specific roles for men and women. According to Caribbean researcher Roopnarine, the father's principal role has usually been economic provider and protector of the family.

They have traditionally been involved in the discipline of the children, especially the males. They often have a distant relationship with their daughters. In general, they are not actively involved in day-to-day childcare, especially for young infants. It is not that they don't care for their children; they tend to feel that women are better with children at this stage.

Customarily, our boys in the Caribbean have not been trained to be nurturing, communicative or affectionate – essential qualities in hands-on child-rearing, but not for being typically masculine. However, in recent years we have seen many young men becoming more involved in their children's lives, spending more time playing, talking, cooking, reading stories with them.

This was partly due to the effects of development and gender policies, which placed women in the workplace in large numbers. Today's men have had to attempt to fill the gap left in the home. While, in some cases, families have employed women to do the domestic tasks, some men have redefined what it means to be masculine and rewritten the role of men by taking on responsibilities and tasks formerly allocated to the wife or partner.

Meanwhile, Government and non-governmental agencies seek to address the results of absent fathers by creating mentoring projects, providing guidance, counselling and self-enhancement programmes for young people considered to be in difficult circumstances or at risk. These are usually short-term programmes that eventually leave the child in the same circumstances and still fatherless.

It is time efforts were directed towards understanding and addressing the phenomenon of the absent fathers as well as researching fathers who have chosen to remain present and active in the lives of their children, even though they may no longer be in a relationship with the mother.

Instead of directing funds and energies to establishing "faux fathers" in the form of mentoring and counseling services, that cannot ever truly replace the father-child relationship, efforts have to be made to see the situation through the eyes of fathers and to understand, from their own words and their experiences, what social and perhaps legal supports they need to be effective fathers throughout their children's lives.

Barbara King is a founder of T&T Innovative Parenting Support. She is a facilitator of Parent Education programmes and provides counselling and support group services through The Parent Support Centre, Arima, Trinidad.
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Climate demands change

and change is not easy

By Garfield King

Dr. Michael Taylor of the Climate Studies Group in the Department of Physics at the University of the West Indies, Mona, Jamaica believes:

- Climate Has Changed.
- Climate Will Change.
- Climate Demands Change.

The last point jumped out at me. Wherever we stand on the topic of climate change it does seem that in the years ahead, the adjustments required will likely affect us on many levels: social, political, economic, infrastructure, lifestyle, to name a few. All this requires a change of thinking, a change of attitude.

Dr. Taylor was often quoted during the 9th Annual Caribbean Week of Agriculture (CWA) held in St. George's, Grenada in October. I had the good fortune of attending several sessions. During the discussions on a wide range of agriculture and rural development issues, Climate Change was a recurring theme.

This column is being written before The United Nations Climate Change Conference in Cancún, Mexico and I'm trying not to be influenced by the increasing number of critics who are predicting a dismal outcome. Will it lead to bold, courageous steps into the future or retrace footprints of the past?

In the Caribbean, one can be excused for focusing on how climate change impacts tourism, but just as important, if not more so, is the impact on agriculture.

According to the International Food Policy Research Institute, "With no climate change, the number of malnourished children in Latin America and the Caribbean will decline from about 7.7 million to 5 million between 2000 and 2050. Climate change will eliminate much of this progress, resulting in 6.4 million malnourished children in 2050. That is 1.4 million more than in a no-climate change scenario."

Today the Caribbean imports most of its food at a cost of approximately US$4 billon every year. This has to be a cause for concern. Couple this with the weather conditions that can wipe out an island's major export crop in one wet and windy afternoon, then we have a very high risk situation.

Agriculture is intimately associated with climate change, food security and rural development. The point was made by Michael Hailu, Director of The Netherlands-based Technical Centre for Agriculture and Rural Cooperation-African, Pacific and the Caribbean (CTA), during a CWA session in October.

Climate change, said Mr. Hailu, impacts agriculture in many ways, from changes in rainfall distribution, to the possibility of changes in the frequency and severity of extreme climate events and increases in outbreaks of pests and diseases. What is sometimes forgotten is that agriculture is also a contributor to climate change.

Mr. Hailu noted that "emissions from agriculture and related practices account for 15 percent of global greenhouse gas emissions. That figure increases to about 30

percent if deforestation – largely due to land conversion for agriculture – is included."

The CTA boss believes how agriculture is conducted in the future will have a profound impact on whether it will be part of the solution for climate change or continue to be part of the problem. He called on ACP member states to meet climate change challenges through adaptation of relevant technology, sustainable agricultural practices linked to good land and water management among other strategies. In other words: a change of thinking, a change of attitude.

As part of a global effort to include agriculture in the final climate change agreement, CTA co-sponsored the Agriculture and Rural Development Day at the Cancun meetings. Dr. Arlington Chesney, executive director of the Caribbean Agricultural Research and Development Institute (CARDI), believes this is significant.

At the opening of the Caribbean Rural Development Briefings in Grenada, Dr. Chesney said this is an important development because agriculture has been in the wings of the climate change discussion. Agriculture contributes to climate, but it can also be part of the mitigation process. In other words: a change of thinking, a change of attitude.

Dr. Chesney explained that Caribbean governments have resolved that there should be a significant level of food security. The target is for 25 percent of the food in the region to be produced in the region. He noted there has been a switch from food security to food sovereignty.

Defining food security as the ability of countries to buy food, Dr. Chesney explained that food sovereignty is the ability of the Caribbean to produce its own food, at least the major food groups, in the region. Governments want to place more cultivation emphasis on tubers and root crops like ground provisions. He said there are lessons to be learned from the current wheat crisis in Russia that should result in a reduction in dependence on wheat flour imports. In other words: a change of thinking, a change of attitude.

The Food and Agriculture Organisation of the United Nations has been promoting Climate-Smart Agriculture. On its new web site (http://www.fao.org/climatechange/climatesmart/en/) the FAO offers examples of how farming can prepare for a warmer world and reduce emissions. On the site is stated…"Food security and climate change can be addressed together by transforming agriculture and adopting practices that are climate-smart." In other words: a change of thinking, a change of attitude.

In Cancún from 29 November to 10 December 2010 when the representatives from world governments meet, together with policy makers and stakeholder groups to discuss the many aspects of climate change, will we see a change of thinking, a change of attitude?

In the Caribbean, one can be excused for focusing on how climate change impacts tourism, but just as important, if not more so, is the impact on agriculture.

Garfield King is an independent radio producer, presenter and writer with almost 30 years broadcast experience.As a trainer, he conducts workshops on public speaking, presentation skills and communication dynamics. inkings@tstt.net.tt

UNDP Report: Latin America and Caribbean are "biodiversity superpower"

An extraordinary array of goods and services provided by the rich plant and wildlife of Latin America and the Caribbean hangs in the balance unless governments in the region take hold of their full potential as biodiversity superpowers, according to a new report from the United Nations Development Programme (UNDP).

The report, 'Latin America and the Caribbean: A Biodiversity Superpower'—launched during the Ibero-American Summits of Heads of State and Governments—urges policymakers to assess the economic contribution of the biodiversity and ecosystems services to areas such as food production, disease control, pharmaceuticals manufacturing, and tourism, among others, also making the case for sustainable business investments and contributions.

Consolidating two years of research on the region's long-term potential as a biodiversity superpower', the report highlights the importance of biodiversity and ecosystems services for the region's sustainable development and long- term competitiveness.

"Latin America and the Caribbean have one of the greatest endowments of natural capital in the world," said Heraldo Muñoz, UN Assistant Secretary-General and Director of UNDP's Bureau for Latin America and the Caribbean.

"The policies recommended in our report have the potential to transform traditional models of development—raising the quality of life of millions by preserving and restoring our biodiversity and eco-system services."

The report recommends that governments provide incentives, such as tax breaks, to direct public and private investments while stepping up efforts to conserve ecosystems.

It also recommends raising awareness among policymakers, consumers and the rural poor, and investing to be at the forefront of biodiversity and ecosystems services-based technologies, products and markets.

Countries can increase economic benefits by investing and restoring key biodiversity-related sectors such as agriculture, fisheries, forestry, water-related services, protected areas, and tourism, which are crucial for the region's economy, according to the report.

Biodiversity Superpower

The region is the site of six of the world's most biodiverse countries—Brazil, Colombia, Ecuador, Mexico, Peru and Venezuela—as well as the single most biologically diverse area in the world, the Amazon rainforest. South America alone has more than 40 percent of the Earth's biodiversity, and more than one-quarter of its forests.

This unsurpassed biological heritage makes a measurable contribution to national economies. For example, Protected Areas, such as national parks, in Mexico contribute at least US$3.5 billion a year to the national economy. Every Mexican peso (US$0.07) invested in protected areas generates 52 pesos (US$4.0) to the economy.

The report adds that biodiversity-related products and services are of crucial importance to the region and their sustainable and strategic use can help boost the region's long-term growth.

For example, the majority of the region's international tourists—between 66 and 75 percent—visited at least one protected area, and roughly 94 percent of Caribbean tourism and hospitality companies surveyed indicated a reliance on their surrounding environment for their livelihood.

Agriculture, another example of a strategic sector for the region's economy, is highly dependent on water availability, soil fertility and microclimate. Agriculture and related activities consume more than 60 percent of the region's total water supply.

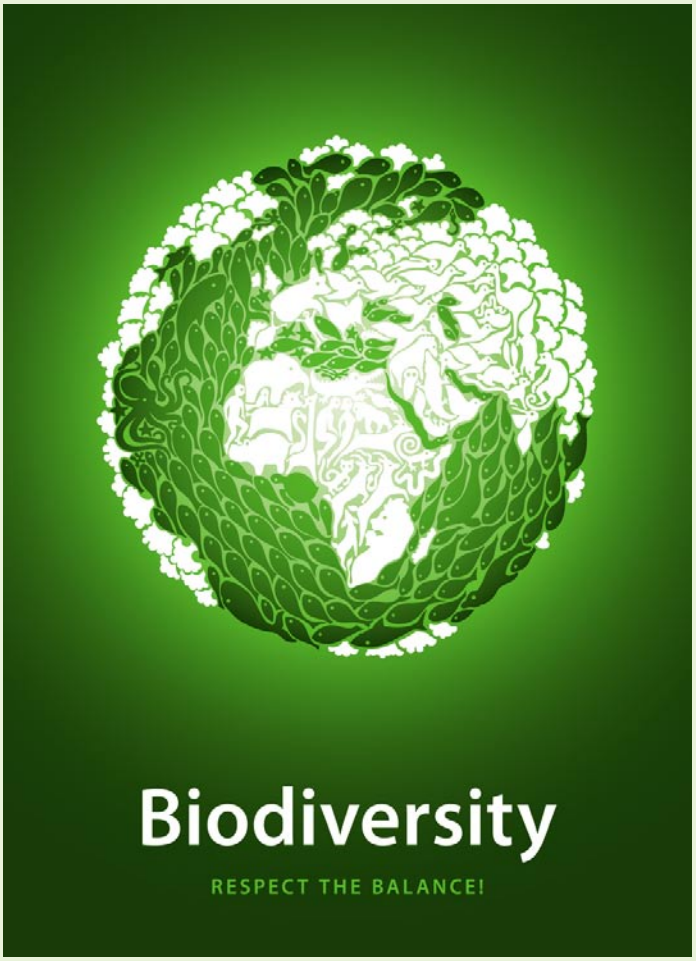
In addition, agricultural exports were 44 percent of total exports in 2007 and about nine percent of the region's population is employed in agriculture, the primary source of income for rural households.

The report argues that ecosystem services will build resilience to climate change in the agriculture sector by protecting genetic resources, soil fertility, and water quality.

"Due to its vast natural capital, the region could become a leadplayer in biodiversity and ecosystem services markets," said Enrique Iglesias, Secretary General of Ibero-American Secretariat and member of the report's Commission of Biodiversity, Ecosystems, Finance and Development. "Companies and business will need to better understand and quantify how they benefit and what impact they have on biodiversity and ecosystem services."

Businesses that use genetic materials may be required to follow new procedures to gain access to these resources under a new agreement reached in October 2010 by parties to the '1992 Convention on Biological Diversity'.

Biodiversity Design



Biodiversity: respect the balance!
Pedro Teixeira
Design Boom iida 2010

"The starting point for the conception of this project was biodiversity and its importance to the well-being and balance of the planet. I intended to create a clear and appealing design that could illustrate and promote this concept in any part of the world. Accordingly, I developed a design that reveals a world of biodiversity in which this is the fundamental matter of its existence and which, therefore, should be preserved, keeping its balance. From a visual perspective, this poster can be seen in two ways: on one hand, globally, in which we perceive the globe in its geography; on the other hand, from a perspective of detail in which we understand that it is constituted and constructed by a whole of great biodiversity."

Pedro Texeira

BOOKS

Three new ecbi publications on Climate Finance

CLIMATE FINANCE AFTER TIANJIN HOW TO REACH A DEAL AT CANCÚN?

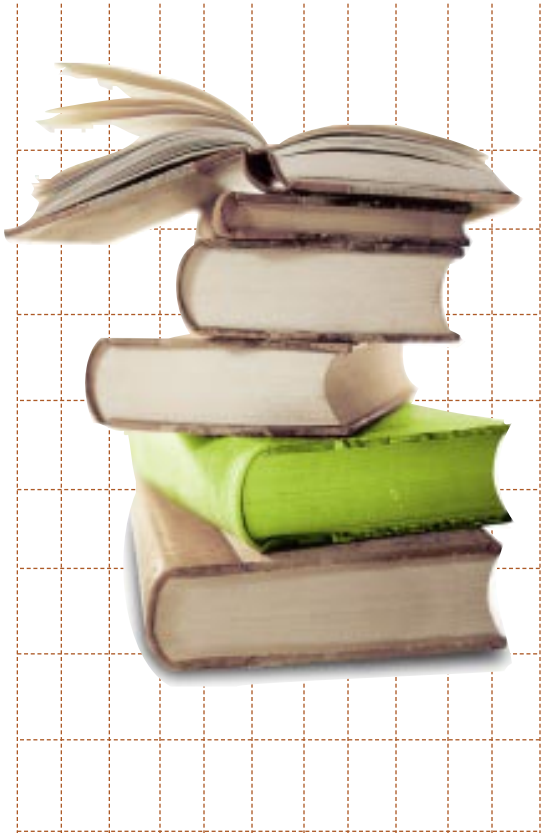
This European Capacity Building Initiative (ecbi) Policy Brief by Benito Müller looks at whether the progress and momentum of the LCA finance negotiations in Tianjin could be harnessed to bring about a successful outcome at Cancun, and what that would be. It envisages a decision to design an agreed voluntary reporting framework for fast start funding. A successful outcome for longer-term finance, it is suggested, would be a package of decisions to operationalise the new Global Climate Fund and the new Standing Committee on Finance, together with a decision to agree on a medium term revenue schedule for the new fund for 2012-2020.

How many people does it take…
...to administer long-term climate finance?

David Ciplet, Benito Müller, and J. Timmons Roberts address the question of whether it is possible to give some estimate of how many people it would need to manage the sorts of sums currently talked about with regards to longer-term climate finance. The paper does not aim to establish a universal correlation of staff per unit of funding but simply a lower-bound estimate. It concludes that given the current funding portfolios and management activities (in ODA), it takes at least 250 people to manage $1billion. This conservative estimate simply reflects the fact that managing funds properly requires people. The key message of the paper is that the only way to do so effectively, efficiently, and at scale is to delegate as much as possible to recipient countries.

National Funding Entities
Their role in the transition to a new paradigm of global cooperation on climate change

Luis Gomez-Echeverri presents a new report on National Funding Entities (NFEs) in the lead-up to Cancun this December. National Funding Entities have sprung up in twelve countries, with more currently in the pipeline, to push forward climate change action, capture and manage funding from international and national sources, and guarantee that all actions are mainstreamed into existing development strategies. These new institutions have been built in different forms with a diverse range of objectives, funding and governance strategies; but all provide experience and lessons for countries seeking to establish their own. This Policy Report provides background information on these NFEs to inform the negotiations. It is part of a series of ecbi and OIES publications on the Reformed Finance Mechanism, most specifically on the case for devolution of funding decisions to the national level.



"We do not inherit the earth from our ancestors,
we borrow it from our children. "

~Native American Proverb

Photograph by Mark Meredith

What a great idea for 2011!

Best wishes for 2011
from all of us at

EARTH CONSCIOUS